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# Renewable Fuel Standards for 2014, 2015 and 2016, and the Biomass-Based Volume for 2017:

## Response to Comments

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# Renewable Fuel Standards for 2014, 2015 and 2016, and the Biomass-Based Volume for 2017:

## Response to Comments

Assessment and Standards Division  
Office of Transportation and Air Quality  
U.S. Environmental Protection Agency

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## List of Organizations Submitting Comments

| <b>Organization</b>  | <b>Organization Type</b>                      | <b>Commenter Name(s)</b>  | <b>Docket File(s)</b>  |
|--|---|---|--|
| 62nd Legislative District, Pennsylvania House of Representatives | State and Local Governments and Organizations | Dave Reed   | EPA-HQ-OAR-2015-0111-3462.html, EPA-HQ-OAR-2015-0111-3462-A1.pdf   |
| Abengoa Bioenergy  | Renewable Fuels Industry                      | Christopher Standlee  | EPA-HQ-OAR-2015-0111-2474.html, EPA-HQ-OAR-2015-0111-2474-A1.pdf   |
| Abengoa Bioenergy, DuPont, and Poet-DSM                          | Renewable Fuels Industry                      | Christopher Standlee, Jan Koninckx, and James Moe   | EPA-HQ-OAR-2015-0111-3272.html, EPA-HQ-OAR-2015-0111-3272-A3.pdf, EPA-HQ-OAR-2015-0111-3272-A2.pdf, EPA-HQ-OAR-2015-0111-3272-A1.pdf |
| ABO, ACORE and BIO   | Renewable Fuels Industry                      | Algae Biomass Organization (ABO), American Council On Renewable Energy (ACORE), and Biotechnology Industry Organization (BIO) | EPA-HQ-OAR-2015-0111-1950.html, EPA-HQ-OAR-2015-0111-1950-A1.pdf   |
| Ace Ethanol/Fox River Valley Ethanol                             | Renewable Fuels Industry                      | Neal Kemmet   | EPA-HQ-OAR-2015-0111-1200.html, EPA-HQ-OAR-2015-0111-1200-A2.pdf, EPA-HQ-OAR-2015-0111-1200-A1.pdf                                   |
| Advanced Biofuels Association (ABFA)                             | Renewable Fuels Industry                      | Michael McAdams   | EPA-HQ-OAR-2015-0111-2498.html, EPA-HQ-OAR-2015-0111-2498-A1.pdf   |
| Advanced Biofuels Business Council (ABBC)                        | Renewable Fuels Industry                      | R. Brooke Coleman   | EPA-HQ-OAR-2015-0111-3528.html, EPA-HQ-OAR-2015-0111-3528-A1.pdf   |
| Advanced Economic Solutions (AES)                                | Other Companies/Industries                    | William Lapp  | EPA-HQ-OAR-2015-0111-1193.html, EPA-HQ-OAR-2015-0111-1193-A1.docx  |
| Advanced Ethanol Council   | Renewable Fuels Industry                      | Brooke Coleman  | EPA-HQ-OAR-2015-0111-1044  |
| Ag Processing, Inc.  | Renewable Fuels Industry                      | Steve Nogel   | EPA-HQ-OAR-2015-0111-1044  |
| AgriVision Equipment Group                                       | Equipment Manufacturers & Suppliers           | Jeremy Ostrander  | EPA-HQ-OAR-2015-0111-1043  |
| AJW, Inc.  | Renewable Fuels Industry                      | Christopher Hessler   | EPA-HQ-OAR-2015-0111-2268.html, EPA-HQ-OAR-2015-0111-2268-A1.pdf   |
| AL-Corn Clean Fuel   | Renewable Fuels Industry                      | Randall J Doyal   | EPA-HQ-OAR-2015-0111-1214-A1.pdf, EPA-HQ-OAR-2015-0111-1214.html, EPA-HQ-OAR-2015-0111-1214-A2.pdf                                   |
| Algae Biomass Organization (ABO)                                 | Renewable Fuels Industry                      | Matt Carr   | EPA-HQ-OAR-2015-0111-1951.html, EPA-HQ-OAR-2015-0111-1951-A1.pdf   |
| American Automobile Association (AAA)                            | Vehicle Dealers and Organizations             | Avery Ash   | EPA-HQ-OAR-2015-0111-2037.html, EPA-HQ-OAR-2015-0111-2037-A1.pdf   |
| American Biogas Council  | Renewable Fuels Industry                      | Patrick Serfass   | EPA-HQ-OAR-2015-0111-2504.html, EPA-HQ-OAR-2015-0111-2504-A1.pdf   |
| American Cleaning Institute (ACI)                                | Other Companies/Industries                    | Jacob Cassady   | EPA-HQ-OAR-2015-0111-1934.html, EPA-HQ-OAR-2015-0111-1934-A1.pdf   |

| <b>Organization</b>  | <b>Organization Type</b>                         | <b>Commenter Name(s)</b>                      | <b>Docket File(s)</b>   |
|--|--|---|---|
| American Coalition for Ethanol (ACE)   | Renewable Fuels Industry                         | Brian Jennings                                | EPA-HQ-OAR-2015-0111-2543.html, EPA-HQ-OAR-2015-0111-2543-A2.pdf, EPA-HQ-OAR-2015-0111-2543-A1.pdf  |
| American Council on Renewable Energy (ACORE)                                 | Renewable Fuels Industry                         | Jeremy Shays                                  | EPA-HQ-OAR-2015-0111-1926.html, EPA-HQ-OAR-2015-0111-1926-A1.pdf  |
| American Farm Bureau Federation (Farm Bureau)                                | Farms  | Dale Moore                                    | EPA-HQ-OAR-2015-0111-2355.html, EPA-HQ-OAR-2015-0111-2355-A1.pdf  |
| American Fuel & Petrochemical Manufacturers and American Petroleum Institute | Petroleum Fuels Industry                         | Richard Moskowitz, Robert L. Greco, III       | EPA-HQ-OAR-2015-0111-3526-A2.pdf, EPA-HQ-OAR-2015-0111-3526-A1.pdf, EPA-HQ-OAR-2015-0111-1948.html, EPA-HQ-OAR-2015-0111-1948-A6.pdf, EPA-HQ-OAR-2015-0111-1948-A5.pdf, EPA-HQ-OAR-2015-0111-1948-A4.pptx, EPA-HQ-OAR-2015-0111-1948-A3.pdf, EPA-HQ-OAR-2015-0111-1948-A2.pdf, EPA-HQ-OAR-2015-0111-1948-A1.pdf, EPA-HQ-OAR-2015-0111-3526.html |
| American Motorcyclist Association  | Other Organizations, Institutes, and Foundations | Rick Podliska                                 | EPA-HQ-OAR-2015-0111-1043   |
| American Soybean Association (ASA)   | Agribusiness                                     | Wade Cowan and Bob Henry                      | EPA-HQ-OAR-2015-0111-1818.html, EPA-HQ-OAR-2015-0111-1818-A1.pdf  |
| American Sportfishing Association (ASA)                                      | Other Companies/Industries                       | Scott Gudes                                   | EPA-HQ-OAR-2015-0111-0424.html, EPA-HQ-OAR-2015-0111-0424-A1.pdf  |
| Americans for Prosperity   | Environmental Non-governmental Organizations     | Jeff Glendening                               | EPA-HQ-OAR-2015-0111-1043   |
| Anonymous Citizen 6  | Private Citizens                                 | N/A   | EPA-HQ-OAR-2015-0111-0113.html  |
| Archer Daniels Midland Company (ADM)   | Agribusiness                                     | Mark Bemis, Kent Engelbrecht and Craig Willis | EPA-HQ-OAR-2015-0111-2262.html, EPA-HQ-OAR-2015-0111-2262-A1.pdf  |
| Association of Nebraska Ethanol Producers (ANEPP)                            | Renewable Fuels Industry                         | Loran Schmit                                  | EPA-HQ-OAR-2015-0111-1809.html, EPA-HQ-OAR-2015-0111-1809-A1.pdf  |
| Association of Nebraska Ethanol Producers (ANEPP)/Schmit Industries, Inc.    | Renewable Fuels Industry                         | Loran Schmit                                  | EPA-HQ-OAR-2015-0111-1956.html, EPA-HQ-OAR-2015-0111-1956-A2.pdf, EPA-HQ-OAR-2015-0111-1956-A1.pdf  |
| Atlantic Drywall   | Other Companies/Industries                       | Marc Marois                                   | EPA-HQ-OAR-2015-0111-1658.html, EPA-HQ-OAR-2015-0111-1658-A1.pdf  |
| Aventine Renewable Energy  | Renewable Fuels Industry                         | Mark Beemer                                   | EPA-HQ-OAR-2015-0111-1044   |

| <b>Organization</b>                                  | <b>Organization Type</b>                      | <b>Commenter Name(s)</b>                 | <b>Docket File(s)</b>  |
|--|---|--|--|
| Badger State Ethanol                                 | Renewable Fuels Industry                      | Kurt Koller                              | EPA-HQ-OAR-2015-0111-2277.html, EPA-HQ-OAR-2015-0111-2277-A2.pdf, EPA-HQ-OAR-2015-0111-2277-A1.pdf, EPA-HQ-OAR-2015-0111-1201.html, EPA-HQ-OAR-2015-0111-1201-A2.pdf, EPA-HQ-OAR-2015-0111-1201-A1.pdf |
| Baker Commodities                                    | Other Companies/Industries                    | Patrick Faecke                           | EPA-HQ-OAR-2015-0111-1907.html, EPA-HQ-OAR-2015-0111-1907-A1.pdf   |
| Bates White  | Other Companies/Industries                    | David DeRamus                            | EPA-HQ-OAR-2015-0111-1043  |
| Big River Resources, LLC                             | Renewable Fuels Industry                      | Raymond E. Defenbaugh                    | EPA-HQ-OAR-2015-0111-3445.html, EPA-HQ-OAR-2015-0111-3445-A1.pdf, EPA-HQ-OAR-2015-0111-3419.html, EPA-HQ-OAR-2015-0111-3419-A1.pdf   |
| BioEnergy R&D  | Renewable Fuels Industry                      | Claus Crone Fuglsang                     | EPA-HQ-OAR-2015-0111-0124.html, EPA-HQ-OAR-2015-0111-0124-A1.docx  |
| Biogas Researchers Inc. (BR)                         | Renewable Fuels Industry                      | Jim Lemon                                | EPA-HQ-OAR-2015-0111-2494.html, EPA-HQ-OAR-2015-0111-2494-A1.pdf   |
| Biotechnology Industry Organization                  | Renewable Fuels Industry                      | Brent Erickson                           | EPA-HQ-OAR-2015-0111-2266.html, EPA-HQ-OAR-2015-0111-2266-A1.pdf, EPA-HQ-OAR-2015-0111-1958.html, EPA-HQ-OAR-2015-0111-1958-A2.pdf, EPA-HQ-OAR-2015-0111-1958-A1.pdf                                   |
| Board of Commissioners, Mercer County                | State and Local Governments and Organizations | John N. Lechner and Matthew B. McConnell | EPA-HQ-OAR-2015-0111-1223.html, EPA-HQ-OAR-2015-0111-1223-A1.pdf   |
| Board of County Commissioners of Putnam County, Ohio | State and Local Governments and Organizations |  | EPA-HQ-OAR-2015-0111-3289.html, EPA-HQ-OAR-2015-0111-3289-A1.pdf   |
| BP America (BP)                                      | Fuels Industry                                | Janice K. Raburn                         | EPA-HQ-OAR-2015-0111-1935.html, EPA-HQ-OAR-2015-0111-1935-A1.pdf   |
| Brazilian Sugarcane Industry Association (UNICA)     | Agribusiness                                  | Elizabeth Farina and Leticia Phillips    | EPA-HQ-OAR-2015-0111-2495.html, EPA-HQ-OAR-2015-0111-2495-A2.pdf, EPA-HQ-OAR-2015-0111-2495-A1.pdf   |
| Butamax Advanced Biofuels, LLC                       | Renewable Fuels Industry                      |  | EPA-HQ-OAR-2015-0111-1938.html, EPA-HQ-OAR-2015-0111-1938-A2.pdf, EPA-HQ-OAR-2015-0111-1938-A1.pdf   |
| Butrolix   | Renewable Fuels Industry                      | Don Mattsson                             | EPA-HQ-OAR-2015-0111-2819.html, EPA-HQ-OAR-2015-0111-2819-A2.pdf, EPA-HQ-OAR-2015-0111-2819-A1.pdf   |
| Calease, John  | Private Citizens                              | John Calease                             | EPA-HQ-OAR-2015-1044   |
| California Biodiesel Alliance (CBA)                  | Renewable Fuels Industry                      | Curtis Wright                            | EPA-HQ-OAR-2015-0111-1910.html, EPA-HQ-OAR-2015-0111-1910-A1.pdf   |

| <b>Organization</b>  | <b>Organization Type</b>                     | <b>Commenter Name(s)</b>            | <b>Docket File(s)</b>  |
|--|--|-------------------------------------|--|
| California Dairy Campaign  | Agribusiness                                 | Joe Augusto                         | EPA-HQ-OAR-2015-0111-1816.html, EPA-HQ-OAR-2015-0111-1816-A1.pdf   |
| Canola Council of Canada   | Agribusiness                                 | Brian Innes                         | EPA-HQ-OAR-2015-0111-2484.html, EPA-HQ-OAR-2015-0111-2484-A1.pdf   |
| Carbon Green BioEnergy, LLC                                      | Renewable Fuels Industry                     | Mitch Miller                        | EPA-HQ-OAR-2015-0111-1688.html, EPA-HQ-OAR-2015-0111-1688-A1.pdf   |
| Central Indiana Ethanol (CIE)                                    | Renewable Fuels Industry                     | Brad T. Tinkel                      | EPA-HQ-OAR-2015-0111-2823.html, EPA-HQ-OAR-2015-0111-2823-A2.pdf, EPA-HQ-OAR-2015-0111-2823-A1.pdf, EPA-HQ-OAR-2015-0111-2822.html, EPA-HQ-OAR-2015-0111-3444.html, EPA-HQ-OAR-2015-0111-2822-A2.pdf, EPA-HQ-OAR-2015-0111-3444-A2.pdf, EPA-HQ-OAR-2015-0111-2822-A1.pdf, EPA-HQ-OAR-2015-0111-3444-A1.pdf, EPA-HQ-OAR-2015-0111-2821.html, EPA-HQ-OAR-2015-0111-2821-A2.pdf, EPA-HQ-OAR-2015-0111-2821-A1.pdf, EPA-HQ-OAR-2015-0111-3443.html, EPA-HQ-OAR-2015-0111-3443-A2.pdf, EPA-HQ-OAR-2015-0111-3443-A1.pdf |
| Chevron  | Petroleum Fuels Industry                     | Maria Pica Karp and Robert Anderson | EPA-HQ-OAR-2015-0111-3527.html, EPA-HQ-OAR-2015-0111-3527-A3.pdf, EPA-HQ-OAR-2015-0111-3527-A2.pdf, EPA-HQ-OAR-2015-0111-3527-A1.pdf, EPA-HQ-OAR-2015-0111-1911.html, EPA-HQ-OAR-2015-0111-1911-A1.pdf   |
| CHS, Inc.  | Renewable Fuels Industry                     | Steve Markham                       | EPA-HQ-OAR-2015-1044   |
| Clean Air Task Force   | Environmental Non-governmental Organizations | Jonathan F. Lewis                   | EPA-HQ-OAR-2015-0111-1828.html, EPA-HQ-OAR-2015-0111-1828-A1.pdf   |
| Clean Energy Renewables  | Renewable Fuels Industry                     | Harrison Clay                       | EPA-HQ-OAR-2015-0111-1908.html, EPA-HQ-OAR-2015-0111-1908-A1.pdf   |
| Clean Fuels Development Coalition and the Nebraska Ethanol Board | Renewable Fuels Industry                     | Todd C. Sneller and Douglas Durante | EPA-HQ-OAR-2015-0111-2259.html, EPA-HQ-OAR-2015-0111-2259-A1.pdf   |
| Coalition for Renewable Natural Gas                              | Renewable Fuels Industry                     | David Cox                           | EPA-HQ-OAR-2015-0111-3278.html, EPA-HQ-OAR-2015-0111-3278-A1.pdf   |
| Colorado Corn Growers Association                                | Agribusiness                                 | M. Sponsler                         | EPA-HQ-OAR-2015-0111-2334.html, EPA-HQ-OAR-2015-0111-2334-A1.pdf   |
| Commonwealth Agri-Energy, LLC                                    | Renewable Fuels Industry                     | Mick Henderson                      | EPA-HQ-OAR-2015-0111-1215.html, EPA-HQ-OAR-2015-0111-1215-A2.pdf, EPA-HQ-OAR-2015-0111-1215-A1.pdf   |

| <b>Organization</b>                                      | <b>Organization Type</b>                      | <b>Commenter Name(s)</b>                      | <b>Docket File(s)</b>  |
|--|---|---|--|
| Commonwealth of Pennsylvania                             | State and Local Governments and Organizations | Dave Reed                                     | EPA-HQ-OAR-2015-0111-1933-A1.pdf, EPA-HQ-OAR-2015-0111-1933.html   |
| Conestoga Energy Partners Holding                        | Renewable Fuels Industry                      | Tom Willis                                    | EPA-HQ-OAR-2015-1044   |
| Conference of Professional Operators for Response Towing | Other Companies/Industries                    | Tina M. Cardone                               | EPA-HQ-OAR-2015-0111-1718.html, EPA-HQ-OAR-2015-0111-1718-A1.pdf   |
| Cool Planet Energy Systems                               | Renewable Fuels Industry                      |   | EPA-HQ-OAR-2015-0111-2572.html   |
| Corn Producers Association of Texas (CPAT)               | State and Local Governments and Organizations | David Gibson                                  | EPA-HQ-OAR-2015-0111-2276.html, EPA-HQ-OAR-2015-0111-2276-A2.pdf, EPA-HQ-OAR-2015-0111-2276-A1.pdf, EPA-HQ-OAR-2015-0111-1689.html, EPA-HQ-OAR-2015-0111-1689-A1.pdf |
| Cornelius Seed Corn Company                              | Agribusiness                                  | Chuck Cornelius                               | EPA-HQ-OAR-2015-0111-3247.html, EPA-HQ-OAR-2015-0111-3247-A1.pdf   |
| Cornhusker Energy Lexington                              | Renewable Fuels Industry                      | Todd Rohrbough                                | EPA-HQ-OAR-2015-0111-1198.html, EPA-HQ-OAR-2015-0111-1198-A1.pptx  |
| Countrymark Cooperative Holding Corporation              | Fuels Industry                                | Matthew L. Smorch                             | EPA-HQ-OAR-2015-0111-2264.html, EPA-HQ-OAR-2015-0111-2264-A1.pdf   |
| Crawford County  | State and Local Governments and Organizations | Gibson, David                                 | EPA-HQ-OAR-2015-0111-1666.html, EPA-HQ-OAR-2015-0111-1666-A1.pdf   |
| Crimson Renewable Energy LP                              | Renewable Fuels Industry                      | Harry Simpson                                 | EPA-HQ-OAR-2015-0111-1823.html, EPA-HQ-OAR-2015-0111-1823-A1.pdf   |
| CVR Refining, LP (CVRR)                                  | Fuels Industry                                | John J. Lipinski                              | EPA-HQ-OAR-2015-0111-2606.html, EPA-HQ-OAR-2015-0111-2606-A2.pdf, EPA-HQ-OAR-2015-0111-2606-A1.pdf, EPA-HQ-OAR-2015-0111-2500.html, EPA-HQ-OAR-2015-0111-2500-A1.pdf |
| Dakota Spirit AgEnergy                                   | Renewable Fuels Industry                      | Cathleen T. OHiggins                          | EPA-HQ-OAR-2015-0111-2057.html, EPA-HQ-OAR-2015-0111-2057-A1.pdf   |
| Darling Ingredients Inc.                                 | Renewable Fuels Industry                      | John Bullock                                  | EPA-HQ-OAR-2015-0111-1929.html, EPA-HQ-OAR-2015-0111-1929-A1.pdf   |
| DENCO II   | Renewable Fuels Industry                      | Mick Miller, Carson Berger, and Brandon Soine | EPA-HQ-OAR-2015-0111-1216.html, EPA-HQ-OAR-2015-0111-1216-A2.pdf, EPA-HQ-OAR-2015-0111-1216-A1.pdf   |
| DriveGreen LLC   | Renewable Fuels Industry                      | Gordon F. Grimes                              | EPA-HQ-OAR-2015-0111-1822.html, EPA-HQ-OAR-2015-0111-1822-A1.pdf   |
| DuPont   | Renewable Fuels Industry                      | Jan Koninckx                                  | EPA-HQ-OAR-2015-0111-1826.html, EPA-HQ-OAR-2015-0111-1826-A1.pdf   |

| <b>Organization</b>   | <b>Organization Type</b>   | <b>Commenter Name(s)</b>                                       | <b>Docket File(s)</b>   |
|---|--|--|---|
| East Kansas Agri-Energy, LLC (EKAE)                           | Renewable Fuels Industry   | Bill Pracht, Jeff Oestmann, and Tom Leitnaker and Kevin Mobley | EPA-HQ-OAR-2015-0111-2607.html, EPA-HQ-OAR-2015-0111-2607-A2.pdf, EPA-HQ-OAR-2015-0111-2607-A1.pdf, EPA-HQ-OAR-2015-0111-2783.html, EPA-HQ-OAR-2015-0111-2783-A1.pdf, EPA-HQ-OAR-2015-0111-1721.html, EPA-HQ-OAR-2015-0111-1721-A1.docx |
| Ecoengineers  | Other Companies/Industries   | Shashi Menon   | EPA-HQ-OAR-2015-0111-2269.html, EPA-HQ-OAR-2015-0111-2269-A1.pdf  |
| Energy Policy Research Foundation, Inc. (EPRINC)              | Non-governmental Institutes and Foundations (other than Environmental) | Lucian Pugliaresi  | EPA-HQ-OAR-2015-0111-1946.html, EPA-HQ-OAR-2015-0111-1946-A1.pdf  |
| Energy Resources Center at the University of Illinois-Chicago | Academic Institutions  | Iris Caldwell  | EPA-HQ-OAR-2015-0111-1043   |
| Enerkem   | Renewable Fuels Industry   | Vincent Chornet  | EPA-HQ-OAR-2015-0111-1940.html, EPA-HQ-OAR-2015-0111-1940-A1.pdf  |
| Environmental and Energy Study Institute (EESI)               | Environmental Non-governmental Organizations                           | Carol Werner   | EPA-HQ-OAR-2015-0111-1944.html, EPA-HQ-OAR-2015-0111-1944-A1.pdf  |
| Environmental Working Group (EWG)                             | Environmental Non-governmental Organizations                           | Mike Lavender  | EPA-HQ-OAR-2015-0111-2040.html, EPA-HQ-OAR-2015-0111-2040-A1.pdf  |
| ERI Solutions   | Other Companies/Industries   | Nathan Vander Griend   | EPA-HQ-OAR-2015-0111-1043   |
| ExxonMobil Refining & Supply Company                          | Fuels Industry   | Ian S. Carr  | EPA-HQ-OAR-2015-0111-2270.html, EPA-HQ-OAR-2015-0111-2270-A1.pdf  |
| Farm Credit Services of America                               | Farms  | Douglas R. Stark   | EPA-HQ-OAR-2015-0111-2491.html, EPA-HQ-OAR-2015-0111-2491-A1.pdf  |
| Farmers Cooperative Company                                   | Agribusiness   | Darin Schlapia   | EPA-HQ-OAR-2015-0111-1043   |
| Florida Chamber of Commerce                                   | Chambers of Commerce   | David A. Hart  | EPA-HQ-OAR-2015-0111-3425.html  |
| Freedom of Road Riders and Motorcycle Riders Foundation (MRF) | Other Organizations, Institutes, and Foundations                       | William Kempker  | EPA-HQ-OAR-2015-0111-1043   |
| Fremont Industries  | Equipment Manufacturers  | Kevin Ross and Rob Herbon                                      | EPA-HQ-OAR-2015-0111-1043   |
| Fuel Cell and Hydrogen Energy Association (FCHEA)             | Renewable Fuels Industry   | Bud DeFlaviis  | EPA-HQ-OAR-2015-0111-2483.html, EPA-HQ-OAR-2015-0111-2483-A1.pdf  |
| Funding Farm  | Farms  | David Kolsrud  | EPA-HQ-OAR-2015-0111-2812.html, EPA-HQ-OAR-2015-0111-2812-A1.pdf  |
| General Motors  | Vehicle Manufacturers and Organizations                                | Matthew Rudnick  | EPA-HQ-OAR-2015-0111-1931.html, EPA-HQ-OAR-2015-0111-1931-A1.pdf  |

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|--|---|--|--|
| George Washington University Regulatory Studies Center                                   | Academic Institutions                         | Sofie E. Miller                        | EPA-HQ-OAR-2015-0111-1815.html, EPA-HQ-OAR-2015-0111-1815-A1.pdf   |
| Governor of Iowa, et al.,  | State and Local Governments and Organizations | Terry E. Branstad                      | EPA-HQ-OAR-2015-0111-1915.html, EPA-HQ-OAR-2015-0111-1915-A2.pdf, EPA-HQ-OAR-2015-0111-1915-A1.pdf   |
| Governors'™ Biofuels Coalition   | State and Local Governments and Organizations | Larry Pearce                           | EPA-HQ-OAR-2015-0111-1722.html, EPA-HQ-OAR-2015-0111-1722-A1.doc, EPA-HQ-OAR-2015-0111-2489.html, EPA-HQ-OAR-2015-0111-2489-A1.pdf, EPA-HQ-OAR-2015-0111-1912.html, EPA-HQ-OAR-2015-0111-1912-A1.pdf |
| Greater Mankato Growth   | Chambers of Commerce                          | Jonathan G. Zierdt                     | EPA-HQ-OAR-2015-0111-1312.html, EPA-HQ-OAR-2015-0111-1312-A1.pdf   |
| Green Plains, Inc.   | Renewable Fuels Industry                      | Jeff Briggs and Brian Engel            | EPA-HQ-OAR-2015-1044   |
| Greenville-Reynolds Development Corporation  | State and Local Governments and Organizations | Bradley R. Gosser                      | EPA-HQ-OAR-2015-0111-3453.html, EPA-HQ-OAR-2015-0111-3453-A1.pdf   |
| Growth Energy  | Renewable Fuels Industry                      | Tom Buis                               | EPA-HQ-OAR-2015-0111-2604.html, EPA-HQ-OAR-2015-0111-2604-A2.pdf, EPA-HQ-OAR-2015-0111-2604-A1.pdf   |
| Harrods Creek Boat Owners Association  | Other Companies/Industries                    | Mark Windhorst                         | EPA-HQ-OAR-2015-0111-1841.html   |
| Hermes Consolidated, LLC dba Wymoing Refining Company                                    | Fuels Industry                                | Bob Neufeld                            | EPA-HQ-OAR-2015-0111-2487.html, EPA-HQ-OAR-2015-0111-2487-A1.pdf   |
| Highwater Ethanol, LLC   | Renewable Fuels Industry                      | Brian Kletscher                        | EPA-HQ-OAR-2015-0111-2506.html, EPA-HQ-OAR-2015-0111-2506-A2.pdf, EPA-HQ-OAR-2015-0111-2506-A1.pdf   |
| Hinman Trucking  | Other Companies/Industries                    | Rick Hinman                            | EPA-HQ-OAR-2015-0111-1659.html, EPA-HQ-OAR-2015-0111-1659-A1.pdf   |
| HollyFrontier Corporation  | Petroleum Fuels Industry                      | Michael C. Jennings and Brian Carron   | EPA-HQ-OAR-2015-0111-2257.html, EPA-HQ-OAR-2015-0111-2257-A1.pdf   |
| Husker Ag LLC  | Renewable Fuels Industry                      | Seth Harder                            | EPA-HQ-OAR-2015-0111-2044.html, EPA-HQ-OAR-2015-0111-2044-A2.pdf, EPA-HQ-OAR-2015-0111-2044-A1.pdf   |
| ICM  | Renewable Fuels Industry                      | Jeff Scharping                         | EPA-HQ-OAR-2015-1044   |
| Illinois Corn Growers Association (ICGA) and Illinois Renewable Fuels Association (IRFA) | State and Local Governments and Organizations | Kenneth Hartman and Raymond Defenbaugh | EPA-HQ-OAR-2015-0111-2542.html, EPA-HQ-OAR-2015-0111-2542-A2.pdf, EPA-HQ-OAR-2015-0111-2542-A1.pdf, EPA-HQ-OAR-2015-0111-1925.html, EPA-HQ-OAR-2015-0111-1925-A1.pdf                                 |
| Illinois Department of Agriculture   | State and Local Governments and Organizations | Philip Nelson                          | EPA-HQ-OAR-2015-0111-0260.html, EPA-HQ-OAR-2015-0111-0260-A1.doc   |

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|---|--|----------------------------------|--|
| Illinois Farm Bureau  | State and Local Governments and Organizations                          | Adam Nielsen                     | EPA-HQ-OAR-2015-0111-3290.html, EPA-HQ-OAR-2015-0111-3290-A2.pdf, EPA-HQ-OAR-2015-0111-3290-A1.pdf |
| Illinois Soybean Growers (ISG)                                | Agribusiness   | Bill Raben                       | EPA-HQ-OAR-2015-0111-3428.html   |
| Imperium Renewables and Renewable Biofuels                    | Renewable Fuels Industry   | John Plaza and Jonathan Phillips | EPA-HQ-OAR-2015-0111-2043.html, EPA-HQ-OAR-2015-0111-2043-A1.pdf                                   |
| Independent Fuel Terminal Operators Association (IFTOA)       | Petroleum Fuels Industry   | Andrea Grant                     | EPA-HQ-OAR-2015-0111-1947-A1.docx, EPA-HQ-OAR-2015-0111-1947.html                                  |
| Indiana Corn Growers Association (ICGA)                       | Agribusiness   | Herbert Ringel                   | EPA-HQ-OAR-2015-0111-2503.html, EPA-HQ-OAR-2015-0111-2503-A1.pdf                                   |
| Indiana Ethanol Producers Association                         | Renewable Fuels Industry   | Steve Pittman                    | EPA-HQ-OAR-2015-0111-3485.html, EPA-HQ-OAR-2015-0111-3485-A1.pdf                                   |
| Indiana Farm Bureau   | State and Local Governments and Organizations                          | Kyle Cline                       | EPA-HQ-OAR-2015-0111-2486.html, EPA-HQ-OAR-2015-0111-2486-A1.docx                                  |
| Indiana Soybean Alliance and American Soybean Association     | Agribusiness   | David Lowe                       | EPA-HQ-OAR-2015-0111-2502.html, EPA-HQ-OAR-2015-0111-2502-A1.pdf                                   |
| International Council on Clean Transportation (ICCT)          | Non-governmental Institutes and Foundations (other than Environmental) | Nic Lutsey                       | EPA-HQ-OAR-2015-0111-1923.html, EPA-HQ-OAR-2015-0111-1923-A1.pdf                                   |
| Iowa Biodiesel Board (IBB) and Iowa Soybean Association (ISA) | Renewable Fuels Industry   | Grant Kimberley                  | EPA-HQ-OAR-2015-0111-1942.html, EPA-HQ-OAR-2015-0111-1942-A1.pdf                                   |
| Iowa Corn Growers Association (ICGA)                          | Agribusiness   | Jerry Mohr                       | EPA-HQ-OAR-2015-0111-1820.html, EPA-HQ-OAR-2015-0111-1820-A1.pdf                                   |
| Iowa Farm Bureau Federation (IFBF)                            | State and Local Governments and Organizations                          | Craig Hill and Charles Norris    | EPA-HQ-OAR-2015-0111-1717.html, EPA-HQ-OAR-2015-0111-1717-A1.pdf                                   |
| Iowa Renewable Fuels Association                              | Renewable Fuels Industry   | Monte Shaw                       | EPA-HQ-OAR-2015-0111-1957.html, EPA-HQ-OAR-2015-0111-1957-A2.pdf, EPA-HQ-OAR-2015-0111-1957-A1.pdf |
| Iowa Soybean Association                                      | Agribusiness   | Tom Oswald                       | EPA-HQ-OAR-2015-0111-3424.html   |
| John Deere  | Agribusiness   | Charles A. Studer                | EPA-HQ-OAR-2015-0111-2042.html, EPA-HQ-OAR-2015-0111-2042-A1.pdf                                   |
| Johns Hopkins University                                      | Academic Institutions  | Adam Christensen                 | EPA-HQ-OAR-2015-0111-3273.html, EPA-HQ-OAR-2015-0111-3273-A1.pdf                                   |
| Kane Ranch, LLC   | Farms  | Gath Fiedler                     | EPA-HQ-OAR-2015-0111-1660.html, EPA-HQ-OAR-2015-0111-1660-A1.pdf                                   |
| Kansas Corn Growers Association                               | Agribusiness   |                                  | EPA-HQ-OAR-2015-0111-3172.html, EPA-HQ-OAR-2015-0111-3172-A1.pdf                                   |

| <b>Organization</b>   | <b>Organization Type</b>                      | <b>Commenter Name(s)</b>        | <b>Docket File(s)</b>  |
|---|---|---------------------------------|--|
| Kansas Department of Agriculture (KDA)  | State and Local Governments and Organizations | Jackie McClaskey                | EPA-HQ-OAR-2015-0111-1196.html, EPA-HQ-OAR-2015-0111-1196-A1.pdf   |
| Kansas Farm Bureau  | State and Local Governments and Organizations | Richard Felts                   | EPA-HQ-OAR-2015-0111-1195.html, EPA-HQ-OAR-2015-0111-1195-A1.pdf   |
| Kansas Soybean Association  | Agribusiness                                  | Raylen Phelon                   | EPA-HQ-OAR-2015-0111-2340.html   |
| Kentucky Beverage Association   | Other Companies/Industries                    | Les Fugate                      | EPA-HQ-OAR-2015-0111-2356.html   |
| Kentucky Corn Growers Association   | Agribusiness                                  | Russel Schwenke                 | EPA-HQ-OAR-2015-0111-2499.html, EPA-HQ-OAR-2015-0111-2499-A1.pdf   |
| Kentucky State Senate   | State and Local Governments and Organizations | Whitney Westerfield             | EPA-HQ-OAR-2015-1044   |
| LanzaTech, Inc.   | Renewable Fuels Industry                      | Jennifer Holmgren               | EPA-HQ-OAR-2015-0111-2038.html, EPA-HQ-OAR-2015-0111-2038-A1.pdf   |
| Ledgewood Auto Body and Repair LLC  | Other Companies/Industries                    | Robert Suker                    | EPA-HQ-OAR-2015-0111-1834.html   |
| Leifmark LLC  | Renewable Fuels Industry                      | Paul Kamp                       | EPA-HQ-OAR-2015-0111-1955.html, EPA-HQ-OAR-2015-0111-1955-A2.pdf, EPA-HQ-OAR-2015-0111-1955-A1.pdf, EPA-HQ-OAR-2015-0111-2479.html, EPA-HQ-OAR-2015-0111-2479-A1.pdf |
| Linn & Associates   | Other Companies/Industries                    | Jerrod Kitt                     | EPA-HQ-OAR-2015-0111-1043  |
| Little Sioux Corn Processors  | Agribusiness                                  | Steve Roe                       | EPA-HQ-OAR-2015-0111-1664.html, EPA-HQ-OAR-2015-0111-1664-A1.docx  |
| LMC International, Ltd.   | Other Companies/Industries                    | Andrea Kavaler                  | EPA-HQ-OAR-2015-0111-1043  |
| Marathon Petroleum Company  | Petroleum Fuels Industry                      | C. Michael Palmer               | EPA-HQ-OAR-2015-0111-1932.html, EPA-HQ-OAR-2015-0111-1932-A1.pdf   |
| MARC-IV Consulting  | Renewable Fuels Industry                      | Steve Howell & Alan Weber       | EPA-HQ-OAR-2015-0111-1043  |
| Marine Retailers Association of the Americas (MRAA)                           | Vehicle Dealers and Organizations             | William Higgins                 | EPA-HQ-OAR-2015-0111-1949.html, EPA-HQ-OAR-2015-0111-1949-A1.pdf   |
| Marquis Energy LLC  | Renewable Fuels Industry                      | Dana Gustafson and Mark Marquis | EPA-HQ-OAR-2015-0111-2800.html, EPA-HQ-OAR-2015-0111-2800-A1.pdf   |
| Maryland Grain Producers Association  | Agribusiness                                  | Lynne Hoot                      | EPA-HQ-OAR-2015-0111-1043  |
| Mascoma LLC, Lallemand Inc.   | Equipment Manufacturers & Suppliers           | Christopher Veit                | EPA-HQ-OAR-2015-0111-0263.html, EPA-HQ-OAR-2015-0111-0263-A1.pdf   |
| Mass Campaign Comment sponsored by America's Renewable Future (email) - (474) | Private Citizens                              | N/A                             | EPA-HQ-OAR-2015-0111-1962.html, EPA-HQ-OAR-2015-0111-1962-A2.xls, EPA-HQ-OAR-2015-0111-1962-A1.pdf   |

| <b>Organization</b>   | <b>Organization Type</b> | <b>Commenter Name(s)</b> | <b>Docket File(s)</b>   |
|---|--------------------------|--------------------------|---|
| Mass Comment Campaign sponsored by ActionAid USA (web) - (2629)                             | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2553.html, EPA-HQ-OAR-2015-0111-2553-A2.pdf, EPA-HQ-OAR-2015-0111-2553-A1.pdf  |
| Mass Comment Campaign sponsored by Adkins Energy LLC (paper) - (120)                        | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2956.html, EPA-HQ-OAR-2015-0111-2956-A1.pdf                                    |
| Mass Comment Campaign sponsored by American Ethanol-NASCAR (paper) - (65)                   | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2955.html, EPA-HQ-OAR-2015-0111-2955-A1.pdf                                    |
| Mass Comment Campaign sponsored by American Motorcyclist Association (AMA) (web) - (29,379) | Private Citizens         | Wayne Allard             | EPA-HQ-OAR-2015-0111-2049.html, EPA-HQ-OAR-2015-0111-2049-A2.pdf, EPA-HQ-OAR-2015-0111-2049-A1.pdf  |
| Mass Comment Campaign sponsored by America's Renewable Future (email) - (1313)              | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-1963.html, EPA-HQ-OAR-2015-0111-1963-A2.xlsx, EPA-HQ-OAR-2015-0111-1963-A1.pdf |
| Mass Comment Campaign sponsored by anonymous 1 (web) - (23)                                 | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0118.html  |
| Mass Comment Campaign sponsored by anonymous 10 (email) - (297)                             | Private Citizens         | John Becker              | EPA-HQ-OAR-2015-0111-0213.html, EPA-HQ-OAR-2015-0111-0213-A1.pdf                                    |
| Mass Comment Campaign sponsored by anonymous 11 (email) - (695)                             | Private Citizens         | Dave Ringkob             | EPA-HQ-OAR-2015-0111-0214.html, EPA-HQ-OAR-2015-0111-0214-A1.pdf                                    |
| Mass Comment Campaign sponsored by anonymous 12 (email) - (560)                             | Private Citizens         | Duane Rixe               | EPA-HQ-OAR-2015-0111-0215.html, EPA-HQ-OAR-2015-0111-0215-A1.pdf                                    |
| Mass Comment Campaign sponsored by anonymous 13 (web) - (121)                               | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0106.html  |
| Mass Comment Campaign sponsored by anonymous 14 (email) - (1339)                            | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0216.html, EPA-HQ-OAR-2015-0111-0216-A1.pdf                                    |
| Mass Comment Campaign sponsored by anonymous 15 (email) - (2485)                            | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0217.html, EPA-HQ-OAR-2015-0111-0217-A1.pdf                                    |
| Mass Comment Campaign sponsored by anonymous 16 (email) - (189)                             | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0218.html, EPA-HQ-OAR-2015-0111-0218-A1.pdf                                    |
| Mass Comment Campaign sponsored by anonymous 17 (email) - (3670)                            | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0219.html, EPA-HQ-OAR-2015-0111-0219-A1.pdf                                    |
| Mass Comment Campaign sponsored by anonymous 18 (email) - (7560)                            | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0220.html, EPA-HQ-OAR-2015-0111-0220-A1.pdf                                    |
| Mass Comment Campaign sponsored by anonymous 19 (email) - (4910)                            | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0221-A1.pdf, EPA-HQ-OAR-2015-0111-0221.html                                    |

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| Mass Comment Campaign sponsored by anonymous 2 (web) - (2781)      | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0208-A1.pdf, EPA-HQ-OAR-2015-0111-0079.html, EPA-HQ-OAR-2015-0111-0208.html |
| Mass Comment Campaign sponsored by anonymous 20 (email) - (11431)  | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0222.html, EPA-HQ-OAR-2015-0111-0222-A1.pdf                                 |
| Mass Comment Campaign sponsored by anonymous 21 (web) - (13)       | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0279.html   |
| Mass Comment Campaign sponsored by anonymous 22 (email) - (57)     | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-1478.html, EPA-HQ-OAR-2015-0111-1478-A1.pdf                                 |
| Mass Comment Campaign sponsored by anonymous 23 (email) - (10)     | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-1479.html, EPA-HQ-OAR-2015-0111-1479-A1.pdf                                 |
| Mass Comment Campaign sponsored by anonymous 24 (postcard) - (207) | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2563.html, EPA-HQ-OAR-2015-0111-2563-A1.pdf                                 |
| Mass Comment Campaign sponsored by anonymous 25 (email) - (11)     | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2567.html, EPA-HQ-OAR-2015-0111-2567-A1.pdf                                 |
| Mass Comment Campaign sponsored by anonymous 26 (web) - (11)       | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2826.html   |
| Mass Comment Campaign sponsored by anonymous 27 (paper) - (120)    | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2959.html, EPA-HQ-OAR-2015-0111-2959-A1.pdf                                 |

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| Mass Comment Campaign sponsored by anonymous 28 (USB) - (250,144)    | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2554-A5.pdf, EPA-HQ-OAR-2015-0111-2554-A4.pdf, EPA-HQ-OAR-2015-0111-2554-A3.pdf, EPA-HQ-OAR-2015-0111-2554-A23.pdf, EPA-HQ-OAR-2015-0111-2554-A22.pdf, EPA-HQ-OAR-2015-0111-2554-A21.pdf, EPA-HQ-OAR-2015-0111-2554-A20.pdf, EPA-HQ-OAR-2015-0111-2554-A17.pdf, EPA-HQ-OAR-2015-0111-2554-A19.pdf, EPA-HQ-OAR-2015-0111-2554-A16.pdf, EPA-HQ-OAR-2015-0111-2554-A18.pdf, EPA-HQ-OAR-2015-0111-2554-A15.pdf, EPA-HQ-OAR-2015-0111-2554-A14.pdf, EPA-HQ-OAR-2015-0111-2554-A13.pdf, EPA-HQ-OAR-2015-0111-2554-A12.pdf, EPA-HQ-OAR-2015-0111-2554-A11.pdf, EPA-HQ-OAR-2015-0111-2554-A10.pdf, EPA-HQ-OAR-2015-0111-2554.html, EPA-HQ-OAR-2015-0111-2554-A2.pdf, EPA-HQ-OAR-2015-0111-2554-A1.pdf, EPA-HQ-OAR-2015-0111-2554-A9.pdf, EPA-HQ-OAR-2015-0111-2554-A8.pdf, EPA-HQ-OAR-2015-0111-2554-A7.pdf, EPA-HQ-OAR-2015-0111-2554-A6.pdf |
| Mass Comment Campaign sponsored by anonymous 29 (email) - (29)       | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2558.html, EPA-HQ-OAR-2015-0111-2558-A1.pdf   |
| Mass Comment Campaign sponsored by anonymous 3 (web) - (893)         | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0126.html   |
| Mass Comment Campaign sponsored by anonymous 30 (email) - (26)       | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2560.html, EPA-HQ-OAR-2015-0111-2560-A1.pdf   |
| Mass Comment Campaign sponsored by anonymous 31 (paper) - (301)      | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2561.html, EPA-HQ-OAR-2015-0111-2561-A1.pdf   |
| Mass Comment Campaign sponsored by anonymous 32 (postcard) - (7,903) | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2562.html, EPA-HQ-OAR-2015-0111-2562-A1.pdf   |
| Mass Comment Campaign sponsored by anonymous 33 (paper) - (164)      | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2957.html, EPA-HQ-OAR-2015-0111-2957-A1.pdf   |
| Mass Comment Campaign sponsored by anonymous 34 (postcard) - (56)    | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-3472.html, EPA-HQ-OAR-2015-0111-3472-A1.pdf   |
| Mass Comment Campaign sponsored by anonymous 35 (paper) - (347)      | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-3474.html, EPA-HQ-OAR-2015-0111-3474-A1.pdf   |

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| Mass Comment Campaign sponsored by anonymous 4 (web) - (786)   | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0127.html  |
| Mass Comment Campaign sponsored by anonymous 5 (web) - (386)   | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0128.html  |
| Mass Comment Campaign sponsored by anonymous 6 (web) - (391)   | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0129.html  |
| Mass Comment Campaign sponsored by anonymous 7 (email) - (82)  | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0209.html, EPA-HQ-OAR-2015-0111-0209-A1.pdf  |
| Mass Comment Campaign sponsored by anonymous 8 (email) - (505)   | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0210.html, EPA-HQ-OAR-2015-0111-0210-A1.pdf  |
| Mass Comment Campaign sponsored by anonymous 9 (email) - (230)   | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0212.html, EPA-HQ-OAR-2015-0111-0212-A1.pdf  |
| Mass Comment Campaign sponsored by Biodiesel.org (email) - (93)  | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0211.html, EPA-HQ-OAR-2015-0111-0211-A1.pdf  |
| Mass Comment Campaign sponsored by Care2 (email) - (9720)  | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-1476.html, EPA-HQ-OAR-2015-0111-1476-A1.pdf  |
| Mass Comment Campaign sponsored by Corn, LP (web) - (37)   | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2047.html, EPA-HQ-OAR-2015-0111-2047-A1.pdf  |
| Mass Comment Campaign sponsored by Creppie Masters (paper) - (120)   | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2960.html, EPA-HQ-OAR-2015-0111-2960-A1.pdf  |
| Mass Comment Campaign sponsored by DENCO II. Absolute Energy. L.L.C. (paper) - (633)                             | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-0207.html, EPA-HQ-OAR-2015-0111-0207-A1.pdf  |
| Mass Comment Campaign sponsored by employees of Western Dubuque Biodiesel (web) - (1)                            | Private Citizens         |                          | EPA-HQ-OAR-2015-0111-1961.html, EPA-HQ-OAR-2015-0111-1961-A1.pdf  |
| Mass Comment Campaign sponsored by Fuels America (email and paper) - (213,555)                                   | Private Citizens         | Ben Dotson               | EPA-HQ-OAR-2015-0111-2555-A1.pdf, EPA-HQ-OAR-2015-0111-2555.html, EPA-HQ-OAR-2015-0111-2555-A6.pdf, EPA-HQ-OAR-2015-0111-2555-A5.pdf, EPA-HQ-OAR-2015-0111-2555-A4.pdf, EPA-HQ-OAR-2015-0111-2555-A3.pdf, EPA-HQ-OAR-2015-0111-2555-A2.xlsx |
| Mass Comment Campaign sponsored by Indiana Corn Growers Association and Indiana Soybean Alliance (email) - (304) | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-3387.html, EPA-HQ-OAR-2015-0111-3387-A1.pdf, EPA-HQ-OAR-2015-0111-2568.html, EPA-HQ-OAR-2015-0111-2568-A2.pdf, EPA-HQ-OAR-2015-0111-2568-A1.pdf  |

| <b>Organization</b>  | <b>Organization Type</b> | <b>Commenter Name(s)</b> | <b>Docket File(s)</b>  |
|--|--------------------------|--------------------------|--|
| Mass Comment Campaign sponsored by Indiana Soybean Alliance (email) - (250)            | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2569.html, EPA-HQ-OAR-2015-0111-2569-A2.pdf, EPA-HQ-OAR-2015-0111-2569-A1.pdf   |
| Mass Comment Campaign sponsored by KeepAmericaFishing (web) - (5403)                   | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2050.html, EPA-HQ-OAR-2015-0111-2050-A3.pdf, EPA-HQ-OAR-2015-0111-2050-A2.pdf, EPA-HQ-OAR-2015-0111-2050-A1.pdf   |
| Mass Comment Campaign sponsored by Little Sioux Corn Processors (web) - (44)           | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2045.html, EPA-HQ-OAR-2015-0111-2045-A1.pdf   |
| Mass Comment Campaign sponsored by Minnesota Corn Growers Association - (784)          | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2962.html, EPA-HQ-OAR-2015-0111-2962-A1.pdf, EPA-HQ-OAR-2015-0111-2961.html, EPA-HQ-OAR-2015-0111-2961-A1.pdf, EPA-HQ-OAR-2015-0111-2570.html, EPA-HQ-OAR-2015-0111-2570-A2.pdf, EPA-HQ-OAR-2015-0111-2570-A1.pdf   |
| Mass Comment Campaign sponsored by National Corn Growers Association (NCGA) - (24,661) | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2565-A1.pdf, EPA-HQ-OAR-2015-0111-2564.html, EPA-HQ-OAR-2015-0111-2564-A1.pdf, EPA-HQ-OAR-2015-0111-2557.html, EPA-HQ-OAR-2015-0111-2557-A1.pdf, EPA-HQ-OAR-2015-0111-2556.html, EPA-HQ-OAR-2015-0111-2556-A1.pdf, EPA-HQ-OAR-2015-0111-3477.html, EPA-HQ-OAR-2015-0111-3477-A1.pdf, EPA-HQ-OAR-2015-0111-3476.html, EPA-HQ-OAR-2015-0111-3476-A1.pdf, EPA-HQ-OAR-2015-0111-3475.html, EPA-HQ-OAR-2015-0111-3475-A1.pdf, EPA-HQ-OAR-2015-0111-3473.html, EPA-HQ-OAR-2015-0111-3473-A1.pdf, EPA-HQ-OAR-2015-0111-3470.html, EPA-HQ-OAR-2015-0111-3470-A1.pdf, EPA-HQ-OAR-2015-0111-3389.html, EPA-HQ-OAR-2015-0111-3389-A1.pdf, EPA-HQ-OAR-2015-0111-3291.html, EPA-HQ-OAR-2015-0111-3291-A1.pdf, EPA-HQ-OAR-2015-0111-2964.html, EPA-HQ-OAR-2015-0111-2964-A1.pdf, EPA-HQ-OAR-2015-0111-2824.html, EPA-HQ-OAR-2015-0111-2824-A2.pdf, EPA-HQ-OAR-2015-0111-2824-A1.pdf, EPA-HQ-OAR-2015-0111-2566.html, EPA-HQ-OAR-2015-0111-2566-A1.pdf, EPA-HQ-OAR-2015-0111-2565.html |

| <b>Organization</b>   | <b>Organization Type</b> | <b>Commenter Name(s)</b> | <b>Docket File(s)</b>  |
|---|--------------------------|--------------------------|--|
| Mass Comment Campaign sponsored by Nebraska Corn Board (paper) - (1856)                   | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-3388.html, EPA-HQ-OAR-2015-0111-3388-A1.pdf   |
| Mass Comment Campaign sponsored by POET (email) - (661)                                   | Private Citizens         | Sara Andresen            | EPA-HQ-OAR-2015-0111-2772.html, EPA-HQ-OAR-2015-0111-2772-A2.pdf, EPA-HQ-OAR-2015-0111-2772-A1.pdf                                 |
| Mass Comment Campaign sponsored by POET Biorefining (paper) - (25)                        | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2954.html, EPA-HQ-OAR-2015-0111-2954-A1.pdf   |
| Mass Comment Campaign sponsored by POET Biorefining 1 (paper) - (692)                     | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2963.html, EPA-HQ-OAR-2015-0111-2963-A1.pdf   |
| Mass Comment Campaign sponsored by Quad County Corn (web) - (37)                          | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2046.html, EPA-HQ-OAR-2015-0111-2046-A1.pdf   |
| Mass Comment Campaign sponsored by soybean farmers (email) - (8)                          | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-1480.html, EPA-HQ-OAR-2015-0111-1480-A1.pdf   |
| Mass Comment Campaign sponsored by VoteVets (email) - (46994)                             | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2056-A1.pdf, EPA-HQ-OAR-2015-0111-2056.html, EPA-HQ-OAR-2015-0111-2056-A2.pdf                                 |
| Mass Comment Campaign submitted by DuPont employees (web) - (1)                           | Private Citizens         | Jeppe Nelson             | EPA-HQ-OAR-2015-0111-2825.html   |
| Mass Comment Campaign submitted by employees of New Leaf Biofuel (web) - (24)             | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2048.html, EPA-HQ-OAR-2015-0111-2048-A1.docx  |
| Mass Comment Campaign submitted by employees of Siouxland Energy Cooperative (web) - (30) | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-1960.html, EPA-HQ-OAR-2015-0111-1960-A1.pdf   |
| Mass Comment Campaign submitted by investors in Golden Grain Energy LLC. (paper) - (327)  | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-2559.html, EPA-HQ-OAR-2015-0111-2559-A1.pdf   |
| Mass Comment Campaign submitted by members of the marine industry (email) - (408)         | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-1477.html, EPA-HQ-OAR-2015-0111-1477-A1.pdf   |
| Mass Comment Campaign submitted by recreational boat owners (email) - (17697)             | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-3253.html, EPA-HQ-OAR-2015-0111-3253-A1.pdf, EPA-HQ-OAR-2015-0111-1475.html, EPA-HQ-OAR-2015-0111-1475-A1.pdf |
| Mass Comment Campaign sponsored by Lincoln Energy LLC (paper) - (9)                       | Private Citizens         | N/A                      | EPA-HQ-OAR-2015-0111-3471.html, EPA-HQ-OAR-2015-0111-3471-A1.pdf   |

| <b>Organization</b>                           | <b>Organization Type</b>                         | <b>Commenter Name(s)</b> | <b>Docket File(s)</b>  |
|---|--|--------------------------|--|
| Metropolitan Energy Center                    | Other Organizations, Institutes, and Foundations | Kelly Gilbert            | EPA-HQ-OAR-2015-0111-1044  |
| Michigan Boating Industries Association       | Vehicle Dealers and Organizations                | Nicki Polan              | EPA-HQ-OAR-2015-0111-3448.html, EPA-HQ-OAR-2015-0111-3448-A1.pdf   |
| Michigan Corn Growers Association             | Agribusiness                                     | Jim Zook                 | EPA-HQ-OAR-2015-0111-1044  |
| Mid-Missouri Energy                           | Renewable Fuels Industry                         | Chris Wilson             | EPA-HQ-OAR-2015-0111-1224.html, EPA-HQ-OAR-2015-0111-1224-A2.pdf, EPA-HQ-OAR-2015-0111-1224-A1.pdf                                 |
| Miller, Denis                                 | Private Citizens                                 | Denis Miller             | EPA-HQ-OAR-2015-0111-1043  |
| Minnesota Bio-Fuels Association (MBA)         | Renewable Fuels Industry                         | Timothy J. Rudnicki      | EPA-HQ-OAR-2015-0111-1936.html, EPA-HQ-OAR-2015-0111-1936-A1.pdf, EPA-HQ-OAR-2015-0111-1905.html, EPA-HQ-OAR-2015-0111-1905-A1.pdf |
| Minnesota Corn Growers Association (MCGA)     | Agribusiness                                     | Bruce Peterson           | EPA-HQ-OAR-2015-0111-1920.html, EPA-HQ-OAR-2015-0111-1920-A1.pdf   |
| Minnesota Corn Research and Promotion Council | Agribusiness                                     | Jerry Demmer             | EPA-HQ-OAR-2015-0111-1043  |
| Minnesota Farm Bureau                         | State and Local Governments and Organizations    | Kevin Paap               | EPA-HQ-OAR-2015-0111-2263.html, EPA-HQ-OAR-2015-0111-2263-A1.pdf   |
| Minnesota Farmers Union (MFU)                 | State and Local Governments and Organizations    | Doug Peterson            | EPA-HQ-OAR-2015-0111-1311.html, EPA-HQ-OAR-2015-0111-1311-A1.docx  |
| Minnesota Soybean Processors (MnSP)           | Agribusiness                                     | Ronald Marr              | EPA-HQ-OAR-2015-0111-2505.html, EPA-HQ-OAR-2015-0111-2505-A1.pdf   |
| Minnesota State Senate                        | State and Local Governments and Organizations    | Torrey Westrom, Senator  | EPA-HQ-OAR-2015-0111-3284.html, EPA-HQ-OAR-2015-0111-3284-A1.pdf   |
| Minsk, Ronald                                 | Private Citizens                                 | Ronald E. Minsk          | EPA-HQ-OAR-2015-0111-1307.html, EPA-HQ-OAR-2015-0111-1307-A1.pdf   |
| Missouri Coalition for the Environment        | Environmental Non-governmental Organizations     | Melissa Vatterott        | EPA-HQ-OAR-2015-0111-2271.html, EPA-HQ-OAR-2015-0111-2271-A1.pdf   |
| Missouri Corn Growers Association (MCGA)      | Agribusiness                                     | Kevin Hurst              | EPA-HQ-OAR-2015-0111-2507.html, EPA-HQ-OAR-2015-0111-2507-A2.pdf, EPA-HQ-OAR-2015-0111-2507-A1.pdf                                 |
| Missouri Corn Merchandising Council           | Agribusiness                                     | Morris Heitman           | EPA-HQ-OAR-2015-0111-1043  |
| Missouri Farm Bureau (MFB)                    | State and Local Governments and Organizations    | Blake Hurst              | EPA-HQ-OAR-2015-0111-1824.html, EPA-HQ-OAR-2015-0111-1824-A1.pdf   |
| Missouri Soybean Association (MSA)            | Agribusiness                                     | Gary Wheeler             | EPA-HQ-OAR-2015-0111-3304.html   |

| <b>Organization</b>   | <b>Organization Type</b>          | <b>Commenter Name(s)</b>  | <b>Docket File(s)</b>   |
|---|-----------------------------------|---|---|
| Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC  | Renewable Fuels Industry          | John B. McShane, Thomas J. Perrelli, Matthew E. Price, and Micah J. Cogen | EPA-HQ-OAR-2015-0111-2603.html, EPA-HQ-OAR-2015-0111-2603-A3.pdf, EPA-HQ-OAR-2015-0111-2603-A2.pdf, EPA-HQ-OAR-2015-0111-2603-A1.pdf  |
| Monsanto  | Agribusiness                      | Lisa Safarian   | EPA-HQ-OAR-2015-0111-1945.html, EPA-HQ-OAR-2015-0111-1945-A1.pdf  |
| N. Bowdish Company  | Renewable Fuels Industry          | Nick Bowdish  | EPA-HQ-OAR-2015-0111-1202.html, EPA-HQ-OAR-2015-0111-1202-A1.pdf  |
| NAFA Fleet Management Association   | Vehicle Dealers and Organizations | Phillip E. Russo  | EPA-HQ-OAR-2015-0111-3171.html, EPA-HQ-OAR-2015-0111-3171-A1.pdf  |
| National Association of Charterboat Operators   | Other Companies/Industries        | R. F. Zales, II   | EPA-HQ-OAR-2015-0111-1922.html, EPA-HQ-OAR-2015-0111-1922-A1.pdf, EPA-HQ-OAR-2015-0111-1812.html, EPA-HQ-OAR-2015-0111-1812-A1.pdf  |
| National Association of Convenience Stores (NACS), National Association of Truck Stop Operators (NATSO), Society of Independent Gasoline Marketers of America (SIGMA) and Petroleum Marketers Association of America (PMAA) | Other Companies/Industries        | David Fialkov   | EPA-HQ-OAR-2015-0111-2480.html, EPA-HQ-OAR-2015-0111-2480-A1.docx, EPA-HQ-OAR-2015-0111-1937-A2.pdf, EPA-HQ-OAR-2015-0111-1921.html, EPA-HQ-OAR-2015-0111-1921-A1.doc   |
| National Association of Truck Stop Operators (NATSO)  | Other Companies/Industries        | David H. Fialkov  | EPA-HQ-OAR-2015-0111-2478.html, EPA-HQ-OAR-2015-0111-2478-A1.docx   |
| National Biodiesel Board  | Renewable Fuels Industry          | Anne Steckel and Joe Jobe   | EPA-HQ-OAR-2015-0111-1953-A8.pdf, EPA-HQ-OAR-2015-0111-1953-A7.pdf, EPA-HQ-OAR-2015-0111-1953-A6.pdf, EPA-HQ-OAR-2015-0111-1953-A5.pdf, EPA-HQ-OAR-2015-0111-1953-A4.pdf, EPA-HQ-OAR-2015-0111-1953-A3.pdf, EPA-HQ-OAR-2015-0111-1953-A2.pdf, EPA-HQ-OAR-2015-0111-1953-A10.pdf, EPA-HQ-OAR-2015-0111-1953-A1.pdf, EPA-HQ-OAR-2015-0111-1953.html, EPA-HQ-OAR-2015-0111-1953-A9.pdf |
| National Chicken Council (NCC)  | Agribusiness                      | Mike Brown  | EPA-HQ-OAR-2015-0111-1814.html, EPA-HQ-OAR-2015-0111-1814-A1.pdf  |
| National Corn Growers Association (NCGA)  | Agribusiness                      | Chip Bowling  | EPA-HQ-OAR-2015-0111-1939-A1.pdf, EPA-HQ-OAR-2015-0111-3276.html, EPA-HQ-OAR-2015-0111-3276-A1.pdf, EPA-HQ-OAR-2015-0111-1939.html  |

| <b>Organization</b>                                      | <b>Organization Type</b>                         | <b>Commenter Name(s)</b>                        | <b>Docket File(s)</b>  |
|--|--|---|--|
| National Corn-to-Ethanol Research Center (NCERC at SIUE) | Academic Institutions                            | John Caupert                                    | EPA-HQ-OAR-2015-0111-1226.html, EPA-HQ-OAR-2015-0111-1226-A2.pdf, EPA-HQ-OAR-2015-0111-1226-A1.pdf   |
| National Corn-to-Ethanol Research Center (NCERC)         | Academic Institutions                            | John Caupert                                    | EPA-HQ-OAR-2015-0111-1225.html, EPA-HQ-OAR-2015-0111-1225-A2.pdf, EPA-HQ-OAR-2015-0111-1225-A1.pdf   |
| National Council of Chain Restaurants (NCCR)             | Other Companies/Industries                       | M. Scott Vinsong                                | EPA-HQ-OAR-2015-0111-2258-A1.docx, EPA-HQ-OAR-2015-0111-2258.html  |
| National Farmers Union (NFU)                             | Farms  | Thomas Driscoll and Donn Teske and Vern Jantzen | EPA-HQ-OAR-2015-0111-1662-A1.pdf, EPA-HQ-OAR-2015-0111-1661.html, EPA-HQ-OAR-2015-0111-1661-A1.pdf, EPA-HQ-OAR-2015-0111-1657.html, EPA-HQ-OAR-2015-0111-1657-A1.pdf, EPA-HQ-OAR-2015-0111-2475.html, EPA-HQ-OAR-2015-0111-2475-A1.pdf, EPA-HQ-OAR-2015-0111-2261.html, EPA-HQ-OAR-2015-0111-2261-A1.pdf, EPA-HQ-OAR-2015-0111-1913.html, EPA-HQ-OAR-2015-0111-1913-A1.pdf, EPA-HQ-OAR-2015-0111-1825.html, EPA-HQ-OAR-2015-0111-1825-A1.pdf, EPA-HQ-OAR-2015-0111-1813.html, EPA-HQ-OAR-2015-0111-1813-A1.pdf, EPA-HQ-OAR-2015-0111-1679.html, EPA-HQ-OAR-2015-0111-1679-A1.pdf, EPA-HQ-OAR-2015-0111-1662.html |
| National Marine Manufacturers Association (NMMA)         | Vehicle Manufacturers and Organizations          | T. Nicole Vasilaros and Michael Lewan           | EPA-HQ-OAR-2015-0111-1928.html, EPA-HQ-OAR-2015-0111-1928-A1.pdf   |
| National Renderers Association (NRA)                     | Other Companies/Industries                       | Nancy E. Foster                                 | EPA-HQ-OAR-2015-0111-2496.html, EPA-HQ-OAR-2015-0111-2496-A1.pdf   |
| National Restaurant Association                          | Other Companies/Industries                       | Laura Abshire                                   | EPA-HQ-OAR-2015-0111-2267.html, EPA-HQ-OAR-2015-0111-2267-A1.pdf   |
| National Sorghum Producers                               | Agribusiness                                     | J.B. Stewart and John Duff                      | EPA-HQ-OAR-2015-0111-1914.html, EPA-HQ-OAR-2015-0111-1914-A1.pdf   |
| National Taxpayers Union (NTU)                           | Other Organizations, Institutes, and Foundations | Pete Sepp                                       | EPA-HQ-OAR-2015-0111-3279.html, EPA-HQ-OAR-2015-0111-3279-A2.pdf, EPA-HQ-OAR-2015-0111-3279-A1.pdf   |
| Nebraska Energy Office                                   | State and Local Governments and Organizations    | David Bracht                                    | EPA-HQ-OAR-2015-1044   |
| Nebraska Unicameral Legislature                          | State and Local Governments and Organizations    | Curt Friesen                                    | EPA-HQ-OAR-2015-1044   |

| <b>Organization</b>                                    | <b>Organization Type</b>                      | <b>Commenter Name(s)</b>                   | <b>Docket File(s)</b>  |
|--|---|--|--|
| Nestle   | Other Companies/Industries                    | Paul Bakus and Joe Sivewright              | EPA-HQ-OAR-2015-0111-1918.html, EPA-HQ-OAR-2015-0111-1918-A1.docx  |
| New England Fuel Institute (NEFI)                      | Fuels Industry                                |  | EPA-HQ-OAR-2015-0111-2501.html, EPA-HQ-OAR-2015-0111-2501-A1.doc   |
| New Leaf Biofuel, LLC                                  | Renewable Fuels Industry                      | Jennifer Case                              | EPA-HQ-OAR-2015-0111-1909.html, EPA-HQ-OAR-2015-0111-1909-A1.pdf   |
| Newport Biodiesel                                      | Renewable Fuels Industry                      | Bob Morton                                 | EPA-HQ-OAR-2015-1044   |
| NH Energy Forum  | State and Local Governments and Organizations | Dennis Green, Joe Guthrie, and Joe Sweeney | EPA-HQ-OAR-2015-0111-0282.html, EPA-HQ-OAR-2015-0111-0282-A1.pdf, EPA-HQ-OAR-2015-0111-0281.html, EPA-HQ-OAR-2015-0111-0281-A1.pdf, EPA-HQ-OAR-2015-0111-0280.html, EPA-HQ-OAR-2015-0111-0280-A1.pdf |
| North Dakota Corn Growers Association (NDCGA), et al., | Agribusiness                                  | Blair Thoreson                             | EPA-HQ-OAR-2015-0111-2541.html, EPA-HQ-OAR-2015-0111-2541-A4.pdf, EPA-HQ-OAR-2015-0111-2541-A3.pdf, EPA-HQ-OAR-2015-0111-2541-A2.pdf, EPA-HQ-OAR-2015-0111-2541-A1.pdf                               |
| North Dakota Ethanol Council                           | State and Local Governments and Organizations | Jeff Zueger                                | EPA-HQ-OAR-2015-0111-1927.html, EPA-HQ-OAR-2015-0111-1927-A1.pdf   |
| North Dakota Farmers Union (NDFU)                      | State and Local Governments and Organizations | Kayla Pulvermacher                         | EPA-HQ-OAR-2015-0111-1916.html, EPA-HQ-OAR-2015-0111-1916-A1.pdf   |
| North Dakota Grain Growers Association                 | Agribusiness                                  | Mark J. Formo                              | EPA-HQ-OAR-2015-0111-1656-A1.pdf, EPA-HQ-OAR-2015-0111-1656.html   |
| North Dakota Office of the Governor                    | State and Local Governments and Organizations | Jack Dalrymple, Governor                   | EPA-HQ-OAR-2015-0111-1763.html, EPA-HQ-OAR-2015-0111-1763-A2.pdf, EPA-HQ-OAR-2015-0111-1763-A1.pdf   |
| Northern Canola Growers Association                    | Agribusiness                                  | Barry Coleman                              | EPA-HQ-OAR-2015-0111-2036.html, EPA-HQ-OAR-2015-0111-2036-A1.doc   |
| Novozymes Americas                                     | Renewable Fuels Industry                      | Adam Monroe                                | EPA-HQ-OAR-2015-0111-3277.html, EPA-HQ-OAR-2015-0111-3277-A1.pdf   |
| NUVUFuels, LLC and DENCO II                            | Renewable Fuels Industry                      | Mick Miller                                | EPA-HQ-OAR-2015-0111-2631.html, EPA-HQ-OAR-2015-0111-2631-A1.pdf   |
| Office of Commissioners, Lawrence County, Pennsylvania | State and Local Governments and Organizations | Daniel J. Vogler                           | EPA-HQ-OAR-2015-0111-3458.html, EPA-HQ-OAR-2015-0111-3458-A1.pdf   |
| Office of the Lt. Governor, Indianapolis, Indiana      | State and Local Governments and Organizations | Sue Ellspermann                            | EPA-HQ-OAR-2015-0111-2482-A1.pdf, EPA-HQ-OAR-2015-0111-2482.html   |
| Ohio Corn & Wheat Growers Association                  | Agribusiness                                  | Tadd Nicholson                             | EPA-HQ-OAR-2015-0111-1723.html, EPA-HQ-OAR-2015-0111-1723-A1.pdf   |

| <b>Organization</b>                               | <b>Organization Type</b>                         | <b>Commenter Name(s)</b>           | <b>Docket File(s)</b>  |
|---|--|------------------------------------|--|
| Ohio House of Representatives                     | State and Local Governments and Organizations    | Bill Reineke, State Representative | EPA-HQ-OAR-2015-0111-3486.html, EPA-HQ-OAR-2015-0111-3486-A1.pdf   |
| Outdoor Power Equipment Institute (OPEI)          | Other Companies/Industries                       | Kris Kiser                         | EPA-HQ-OAR-2015-0111-2492.html, EPA-HQ-OAR-2015-0111-2492-A1.pdf   |
| Pacific Ethanol, Inc.                             | Renewable Fuels Industry                         | Tom Koehler                        | EPA-HQ-OAR-2015-0111-2508.html, EPA-HQ-OAR-2015-0111-2508-A2.pdf, EPA-HQ-OAR-2015-0111-2508-A1.pdf   |
| Paul Bertels Farms                                | Farms  | Paul Bertels                       | EPA-HQ-OAR-2015-0111-2799.html, EPA-HQ-OAR-2015-0111-2799-A1.pdf   |
| PBF Holding Company LLC                           | Petroleum Fuels Industry                         | Jeffrey Dill                       | EPA-HQ-OAR-2015-0111-1724.html, EPA-HQ-OAR-2015-0111-1724-A1.pdf   |
| Pennsylvania Off-Highway Vehicle Association      | Other Organizations, Institutes, and Foundations | Dick Lepley                        | EPA-HQ-OAR-2015-0111-1941.html, EPA-HQ-OAR-2015-0111-1941-A1.docx  |
| Petroleum Marketers Association of America (PMAA) | Petroleum Fuels Industry                         | Mark S. Morgan                     | EPA-HQ-OAR-2015-0111-1197.html, EPA-HQ-OAR-2015-0111-1197-A1.doc   |
| Phillips 66 Company                               | Petroleum Fuels Industry                         | Marla K. Benyshek                  | EPA-HQ-OAR-2015-0111-2039.html, EPA-HQ-OAR-2015-0111-2039-A1.pdf   |
| Poet, LLC   | Renewable Fuels Industry                         | Kyle Gilley and Mark DeVries       | EPA-HQ-OAR-2015-0111-2481.html, EPA-HQ-OAR-2015-0111-2481-A2.pdf, EPA-HQ-OAR-2015-0111-2481-A1.pdf   |
| POET-DSM Advanced Biofuels                        | Renewable Fuels Industry                         | Dan Cummings                       | EPA-HQ-OAR-2015-0111-1943.html, EPA-HQ-OAR-2015-0111-1943-A1.pdf   |
| Protec Fuel                                       | Fuels Industry                                   | Steve Walk                         | EPA-HQ-OAR-2015-0111-1194.html, EPA-HQ-OAR-2015-0111-1194-A1.pdf   |
| Quad County Corn Processors Cooperative (QCCP)    | Agribusiness                                     | Delayne D. Johnson                 | EPA-HQ-OAR-2015-0111-1817.html, EPA-HQ-OAR-2015-0111-1817-A1.pdf   |
| Renew Kansas                                      | Renewable Fuels Industry                         | Randy E. Stookey                   | EPA-HQ-OAR-2015-0111-1309.html, EPA-HQ-OAR-2015-0111-1309-A1.pdf   |
| Renewable Energy Group, Inc. (REG)                | Renewable Fuels Industry                         | Anthony Hulen and Gary Haer        | EPA-HQ-OAR-2015-0111-1952.html, EPA-HQ-OAR-2015-0111-1952-A1.pdf   |
| Renewable Fuels Association (RFA)                 | Renewable Fuels Industry                         | Jeff Cooper                        | EPA-HQ-OAR-2015-0111-2540.html, EPA-HQ-OAR-2015-0111-2540-A3.pdf, EPA-HQ-OAR-2015-0111-2540-A2.pdf, EPA-HQ-OAR-2015-0111-2540-A1.pdf, EPA-HQ-OAR-2015-0111-1917.html, EPA-HQ-OAR-2015-0111-1917-A1.pdf |
| Rider, Allen                                      | Private Citizens                                 | Allen Rider                        | EPA-HQ-OAR-2015-0111-1043  |

| <b>Organization</b>  | <b>Organization Type</b>                      | <b>Commenter Name(s)</b>   | <b>Docket File(s)</b>  |
|--|---|--|--|
| San Diego Regional Clean Cities Coalition  | Environmental Non-governmental Organizations  | Kevin Wood   | EPA-HQ-OAR-2015-0111-1719.html, EPA-HQ-OAR-2015-0111-1719-A1.pdf   |
| Senate of Pennsylvania   | State and Local Governments and Organizations | Michele Brooks   | EPA-HQ-OAR-2015-0111-3447.html, EPA-HQ-OAR-2015-0111-3447-A1.pdf   |
| Shell Oil Products US  | Fuels Industry                                | John E. Reese  | EPA-HQ-OAR-2015-0111-2716.html, EPA-HQ-OAR-2015-0111-2716-A2.pdf, EPA-HQ-OAR-2015-0111-2716-A1.pdf   |
| Sisk, Joseph   | Private Citizens                              | Joseph Sisk  | EPA-HQ-OAR-2015-0111-1043  |
| Small Refinery Owners Coalition  | Fuels Industry                                | LeAnn Johnson Koch, PerkinsCole; Bob Neufeld   | EPA-HQ-OAR-2015-0111-2339.html, EPA-HQ-OAR-2015-0111-2339-A1.pdf   |
| Smithfield Foods, Inc.   | Other Companies/Industries                    | Stewart T. Leeth   | EPA-HQ-OAR-2015-0111-2041.html, EPA-HQ-OAR-2015-0111-2041-A1.pdf   |
| Society of Independent Gasoline Marketers of America (SIGMA) and the National Association of Convenience Stores (NACS) | Other Companies/Industries                    | R. Timothy Columbus  | EPA-HQ-OAR-2015-0111-1937-A1.pdf, EPA-HQ-OAR-2015-0111-1937.html   |
| Solazyme Inc.  | Renewable Fuels Industry                      | Graham Ellis   | EPA-HQ-OAR-2015-0111-2497.html, EPA-HQ-OAR-2015-0111-2497-A1.pdf   |
| Sonoma Cycle   | Other Companies/Industries                    | Jason Arrien   | EPA-HQ-OAR-2015-0111-1930.html, EPA-HQ-OAR-2015-0111-1930-A1.pdf   |
| South Dakota Corn Growers Association  | Agribusiness                                  | Keith Alverson, Troy Knecht, and Lisa Richardson   | EPA-HQ-OAR-2015-0111-1811.html, EPA-HQ-OAR-2015-0111-1811-A1.pdf, EPA-HQ-OAR-2015-0111-0269.html, EPA-HQ-OAR-2015-0111-0269-A1.pdf   |
| South Dakota Farmers Union   | State and Local Governments and Organizations | Doug Sombke, Chad Johnson, Terry Sestak, Jim Wahle, Lynn Frey, Joel Keierleber, and Franklin Olson | EPA-HQ-OAR-2015-0111-2579.html, EPA-HQ-OAR-2015-0111-2579-A1.docx, EPA-HQ-OAR-2015-0111-2578.html, EPA-HQ-OAR-2015-0111-2578-A1.docx, EPA-HQ-OAR-2015-0111-2363.html, EPA-HQ-OAR-2015-0111-2363-A1.pdf, EPA-HQ-OAR-2015-0111-2362.html, EPA-HQ-OAR-2015-0111-2362-A1.docx, EPA-HQ-OAR-2015-0111-2360.html, EPA-HQ-OAR-2015-0111-2360-A1.docx, EPA-HQ-OAR-2015-0111-2359.html, EPA-HQ-OAR-2015-0111-2359-A1.docx, EPA-HQ-OAR-2015-0111-2358.html, EPA-HQ-OAR-2015-0111-2358-A1.docx |
| South Dakota Soybean Association   | State and Local Governments and Organizations | John Horter  | EPA-HQ-OAR-2015-0111-1308.html, EPA-HQ-OAR-2015-0111-1308-A1.pdf   |

| <b>Organization</b>   | <b>Organization Type</b>                         | <b>Commenter Name(s)</b> | <b>Docket File(s)</b>  |
|---|--|--------------------------|--|
| Specialty Equipment Market Association (SEMA)               | Equipment Manufacturers & Suppliers              | Stephen B. McDonald      | EPA-HQ-OAR-2015-0111-2490.html, EPA-HQ-OAR-2015-0111-2490-A1.pdf   |
| Sprague Operating Resources LLC                             | Renewable Fuels Industry                         | Steven J. Levy           | EPA-HQ-OAR-2015-0111-1924.html, EPA-HQ-OAR-2015-0111-1924-A1.pdf   |
| St. Louis Clean Cities Program                              | Other Organizations, Institutes, and Foundations | Kevin Herdler            | EPA-HQ-OAR-2015-0111-1044  |
| STAR Energy   | Renewable Fuels Industry                         | Jason Stauffer           | EPA-HQ-OAR-2015-0111-1043  |
| State of Indiana  | State and Local Governments and Organizations    | Jean Leising, Senator    | EPA-HQ-OAR-2015-0111-3347.html, EPA-HQ-OAR-2015-0111-3347-A1.pdf   |
| State of Indiana House of Representatives                   | State and Local Governments and Organizations    | Don Lehe                 | EPA-HQ-OAR-2015-0111-3466.html, EPA-HQ-OAR-2015-0111-3466-A1.pdf   |
| State of Nebraska   | State and Local Governments and Organizations    | Governor Pete Ricketts   | EPA-HQ-OAR-2015-0111-1810.html, EPA-HQ-OAR-2015-0111-1810-A1.pdf   |
| State of South Dakota                                       | State and Local Governments and Organizations    | Dennis Daugaard          | EPA-HQ-OAR-2015-0111-1919.html, EPA-HQ-OAR-2015-0111-1919-A1.pdf   |
| Syngeta   | Agribusiness                                     | Jack Bernens             | EPA-HQ-OAR-2015-0111-2493.html, EPA-HQ-OAR-2015-0111-2493-A1.pdf   |
| Tenaska Commodities, LLC                                    | Renewable Fuels Industry                         | Jason Meers              | EPA-HQ-OAR-2015-0111-0503.html, EPA-HQ-OAR-2015-0111-0503-A1.pdf   |
| The Andersons, Inc.   | Renewable Fuels Industry                         | Mike Anderson, Sr.       | EPA-HQ-OAR-2015-0111-2509-A2.pdf, EPA-HQ-OAR-2015-0111-2509-A1.pdf, EPA-HQ-OAR-2015-0111-2275.html, EPA-HQ-OAR-2015-0111-2275-A2.pdf, EPA-HQ-OAR-2015-0111-2275-A1.pdf, EPA-HQ-OAR-2015-0111-2779.html, EPA-HQ-OAR-2015-0111-2509.html |
| The Boat Owners Association of The United States (BOATU.S.) | Other Companies/Industries                       | David Kennedy            | EPA-HQ-OAR-2015-0111-2265.html, EPA-HQ-OAR-2015-0111-2265-A1.pdf   |
| Trenton Agri Products LLC                                   | Agribusiness                                     | Charles B. Wilson        | EPA-HQ-OAR-2015-0111-1686.html, EPA-HQ-OAR-2015-0111-1686-A1.pdf   |
| U.S. Canola Association (USCA)                              | Agribusiness                                     | Jeff Scott               | EPA-HQ-OAR-2015-0111-1819.html, EPA-HQ-OAR-2015-0111-1819-A1.pdf   |
| Unilever  | Other Companies/Industries                       | Mark Bescher             | EPA-HQ-OAR-2015-0111-2273.html, EPA-HQ-OAR-2015-0111-2273-A2.pdf, EPA-HQ-OAR-2015-0111-2273-A1.pdf   |

| <b>Organization</b>   | <b>Organization Type</b>   | <b>Commenter Name(s)</b>   | <b>Docket File(s)</b>  |
|---|--|--|--|
| Union of Concerned Scientists   | Non-governmental Institutes and Foundations (other than Environmental) | Jeremy Martin, David M. Babson   | EPA-HQ-OAR-2015-0111-3523.html, EPA-HQ-OAR-2015-0111-3523-A1.pdf, EPA-HQ-OAR-2015-0111-2260.html, EPA-HQ-OAR-2015-0111-2260-A2.pdf, EPA-HQ-OAR-2015-0111-2260-A1.pdf |
| Union of Concerned Scientists (UCS), Clean Air Task Force, Environmental Working Group, ActionAid USA, and National Wildlife Federation (NWF) | Environmental Non-governmental Organizations                           | Jeremy I. Martin, Jonathan Lewis, Emily Cassidy, Kelly Stone, and Ben Larson | EPA-HQ-OAR-2015-0111-2476.html, EPA-HQ-OAR-2015-0111-2476-A1.pdf   |
| Union of Concerned Scientists; Natural Resources Defense Council; National Wildlife Federation  | Environmental Non-governmental Organizations                           | David M. Babson  | EPA-HQ-OAR-2015-0111-2477.html, EPA-HQ-OAR-2015-0111-2477-A1.pdf   |
| United States Senate  | Federal Government   | Joni Ernst   | EPA-HQ-OAR-2015-0111-3427.html   |
| Urban Air Initiative  | Non-governmental Institutes and Foundations (other than Environmental) |  | EPA-HQ-OAR-2015-0111-1821.html, EPA-HQ-OAR-2015-0111-1821-A3.docx, EPA-HQ-OAR-2015-0111-1821-A2.docx, EPA-HQ-OAR-2015-0111-1821-A1.docx                              |

| <b>Organization</b>                  | <b>Organization Type</b>                         | <b>Commenter Name(s)</b> | <b>Docket File(s)</b>  |
|--------------------------------------|--|--------------------------|--|
| Valero Companies                     | Fuels Industry                                   | Richard J. Walsh         | EPA-HQ-OAR-2015-0111-2765-A37.pdf, EPA-HQ-OAR-2015-0111-2765-A36.pdf, EPA-HQ-OAR-2015-0111-2765-A35.pdf, EPA-HQ-OAR-2015-0111-2765-A34.pdf, EPA-HQ-OAR-2015-0111-2765-A33.pdf, EPA-HQ-OAR-2015-0111-2765-A32.pdf, EPA-HQ-OAR-2015-0111-2765-A31.pdf, EPA-HQ-OAR-2015-0111-2765-A30.pdf, EPA-HQ-OAR-2015-0111-2765-A3.pdf, EPA-HQ-OAR-2015-0111-2765-A29.pdf, EPA-HQ-OAR-2015-0111-2765-A28.pdf, EPA-HQ-OAR-2015-0111-2765-A27.pdf, EPA-HQ-OAR-2015-0111-2765-A26.pdf, EPA-HQ-OAR-2015-0111-2765-A25.pdf, EPA-HQ-OAR-2015-0111-2765-A24.pdf, EPA-HQ-OAR-2015-0111-2765-A23.pdf, EPA-HQ-OAR-2015-0111-2765-A22.pdf, EPA-HQ-OAR-2015-0111-2765-A21.pdf, EPA-HQ-OAR-2015-0111-2765-A20.pdf, EPA-HQ-OAR-2015-0111-2765-A2.pdf, EPA-HQ-OAR-2015-0111-2765-A19.pdf, EPA-HQ-OAR-2015-0111-2765-A18.pdf, EPA-HQ-OAR-2015-0111-2765-A17.pdf, EPA-HQ-OAR-2015-0111-3530.html, EPA-HQ-OAR-2015-0111-2765-A16.pdf, EPA-HQ-OAR-2015-0111-3530-A1.pdf, EPA-HQ-OAR-2015-0111-2765-A15.pdf, EPA-HQ-OAR-2015-0111-2765.html, EPA-HQ-OAR-2015-0111-2765-A14.pdf, EPA-HQ-OAR-2015-0111-2765-A9.pdf, EPA-HQ-OAR-201 |
| Vets for Energy                      | Other Organizations, Institutes, and Foundations | Dennis George            | EPA-HQ-OAR-2015-0111-2473.html, EPA-HQ-OAR-2015-0111-2473-A1.pdf   |
| Volvo Lexington Operation            | Other Companies/Industries                       | Thomas V. Hale           | EPA-HQ-OAR-2015-0111-0538.html, EPA-HQ-OAR-2015-0111-0538-A1.pdf   |
| W2Fuel LLC                           | Renewable Fuels Industry                         | N/A                      | EPA-HQ-OAR-2015-0111-2053.html   |
| WB Services                          | Renewable Fuels Industry                         | Bernie Hoffman           | EPA-HQ-OAR-2015-0111-1044  |
| Western Canada Biodiesel Association | Renewable Fuels Industry                         | Ian Thomson              | EPA-HQ-OAR-2015-0111-0265.html, EPA-HQ-OAR-2015-0111-0265-A1.pdf   |
| Western Dubuque Biodiesel            | Renewable Fuels Industry                         | Tom Brooks               | EPA-HQ-OAR-2015-1044   |

| <b>Organization</b>                                      | <b>Organization Type</b>                      | <b>Commenter Name(s)</b>                           | <b>Docket File(s)</b>  |
|--|---|--|--|
| Western Plains Energy, LLC (WEP)                         | Renewable Fuels Industry                      | Derek Peine, Curtis V. Sheldon, and Tracy Ellegood | EPA-HQ-OAR-2015-0111-2958.html, EPA-HQ-OAR-2015-0111-2958-A1.pdf, EPA-HQ-OAR-2015-0111-2471.html, EPA-HQ-OAR-2015-0111-2471-A1.pdf, EPA-HQ-OAR-2015-0111-0283.html, EPA-HQ-OAR-2015-0111-0283-A1.pdf |
| White Energy   | Renewable Fuels Industry                      | Don Gales  | EPA-HQ-OAR-2015-0111-1043  |
| Wisconsin BioFuels Association                           | Renewable Fuels Industry                      | Erik Huschitt                                      | EPA-HQ-OAR-2015-0111-2539.html, EPA-HQ-OAR-2015-0111-2539-A2.pdf, EPA-HQ-OAR-2015-0111-2539-A1.pdf   |
| Wisconsin Corn Growers Association (WCGA)                | Agribusiness                                  |  | EPA-HQ-OAR-2015-0111-1830.html   |
| Wisconsin Farm Bureau Federation                         | State and Local Governments and Organizations | Karen Gefvert                                      | EPA-HQ-OAR-2015-0111-1716.html, EPA-HQ-OAR-2015-0111-1716-A1.docx  |
| World Agricultural, Economic, and Environmental Analysis | Other Companies/Industries                    | John Kruse   | EPA-HQ-OAR-2015-1044   |
| ZeaChem Inc.   | Renewable Fuels Industry                      | Joseph A. Regnery                                  | EPA-HQ-OAR-2015-0111-1906.html, EPA-HQ-OAR-2015-0111-1906-A1.pdf   |

## Introduction

There was a high level of interest in the Proposed Rule for the Renewable Fuel Standard Program: Standards for 2014, 2015, and 2016 and Biomass-Based Diesel Volume for 2017. We had a high turnout at the June 25, 2015 public hearing in Kansas City, Missouri for the proposal with about 250 parties providing testimony and we received over 670,000 comments from stakeholders in the oil, renewable fuel, and agricultural industries, as well as from small businesses, state and local governments, congressional members, non-governmental organizations (NGOs), universities, and private citizens.

In this response to comments (RTC) document, we organized the comments into ten main sections and a number of subsections. The sections are organized to align as closely as possible to the final rule to provide easier cross reference for readers trying to locate information on a particular topic of interest. This RTC document is organized under the following main section topics:

- Section 1: General Comments
- Section 2: Proposed National Volume Requirements for Advanced Biofuel and Total Renewable Fuel
- Section 3: Proposed National Volume Requirement for Biomass-Based Diesel for 2014 - 2017
- Section 4: Proposed Cellulosic Biofuel Standards
- Section 5: Proposed Percentage Standards
- Section 6: Treatment of Carryover RINs
- Section 7: Economic Impacts of the Proposed Rule
- Section 8: Environmental Impacts of the Proposed Rule
- Section 9: Proposed Changes to Regulations
- Section 10: Other Comments

Similar to RTC documents that EPA has prepared for other rulemakings, the general layout of each subsection is organized such that excerpts of comments based on a particular topic are first provided, and then EPA's response to the collection of comments represented by the excerpts follows. The excerpts include either portions of a commenter's submission on a particular topic, or the entirety of the commenter's submission if the breadth of the comments were narrow enough. In general, EPA has associated comments with a specific commenter in responding to comments. However, due to the large number of comments that addressed similar issues, as well as the volume of the comments received, EPA did not attempt to identify for each response every comment or commenter addressed by the response.

In comparison to most other RTC documents, this document has an additional layer of complexity which is atypical due to the intertwined nature of a number of relevant issues and the breadth of factors and issues that we had to consider during this multi-year rulemaking. Therefore, this document is much larger than other RTC documents prepared in past annual Renewable Fuel Standard (RFS) rulemakings. In responding to the Notice of Proposed Rulemaking (NPRM), many stakeholders discussed the relevant issues in ways that demonstrated their interconnectedness. Due to this complexity, we were not always able to separate out the

comments under a specific topic area, and at times had to retain comments in part or in whole that spanned across multiple topic areas because it was necessary to retain the context of the comments. We have made every attempt to place stakeholder comments into the subsections that are most directly related to the primary topic being address, but in many cases multiple topics were addressed in the same comment, and often within the same paragraph of a stakeholder's comment. If the comment was crafted such that breaking up the issues would lose the point and context of the commenter's position, then we have retained the comment in whole, and have provided references to each section that provides substantive explanation of how the issues raised were considered and addressed in the final rule. In some cases, comments could be categorized as belonging to multiple sections, and thus comments as well as responses to the issues raised by a comment may be located in in multiple sections. In other cases, we have deleted multiples of the same language if the same language was submitted by multiple commenters. This does not mean that we have not responded to the entities that are not listed. We believe responding to the issues raised is sufficient to respond to the commenters submitting the same comment. Other comments that did not fit neatly under a particular section or subsection were either included in the "Section 10: Other Comments," or included in a particular section with a response immediately following the comment. In addition, this document serves to respond to many comments that are not explicitly included in this document, such as individual citizen comments, specifically when the issues raised were already included in other commenters and addressed by the responses.

Finally, this RTC document is also atypical in the breadth and magnitude of comments received that are either outside the scope of the rulemaking or only tangentially related. We have often noted when comments are outside the scope of the rulemaking, and, although not required for the purposes of this rulemaking, have in some cases provided a response where we determined that it would promote understanding of the RFS program. The fact that EPA has provided a response to such comments should not be interpreted as opening or reopening any issue or converting a comment that is beyond the scope of this rulemaking into one that is relevant to the rule. The responses presented in this document are intended to augment the responses to comments that appear in the final rule and to address comments not discussed in the final rule. Although portions of the final rule are paraphrased in this RTC document, and some comments are discussed in the both documents, to the extent such paraphrasing or overlap in comment responses introduces any confusion or apparent inconsistency it is our intention that the preamble to the final rule be viewed as definitive. This document, together with the final rule, docket memoranda and related technical support documents, should be considered collectively as EPA's response to all of the significant comments submitted on EPA's proposed rule.

# **1. General Comments**

## **1.1 Supports Rule**

### **Comment:**

#### **Americans for Prosperity**

While Americans for Prosperity supports efforts to repeal the RFS in its entirety, we're encouraged to see that the EPA has proposed to reduce the overall renewable fuel blending requirements. This proposed rule is a step in the right direction to relieving American families and businesses from the harmful effects of this energy mandate, but it does not go far enough. [The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 235.]

In general, AFP opposes the RFS because it's harmful to consumers and because it represents a special interest corporate welfare carve-out.

AFP is encouraged by any proposed reduction in the overall renewable fuel blending requirements, but we continue to believe that this mandate is harmful at any level, and we hope

#### **American Automobile Association (AAA)**

AAA supports the Environmental Protection Agency's efforts to improve air quality and believes that a comprehensive portfolio of policies are required to meet the nation's overall environmental and energy goals. Moving forward, we believe that the aforementioned policies should be implemented in a manner that produces the desired benefits while simultaneously ensuring the fair treatment and protection of motorists.

We applaud the EPA for recognizing the current constraints in the fuel market and for adjusting the Renewable Fuel Standard's volumetric requirements for 2014, 2015, and 2016 to be more reflective of current market realities. AAA appreciates the fact that the Agency has proposed targets that recognize the diversity of the existing vehicle fleet, and appear to be keeping the needs of the average motorist front of mind. However, a number of our previously voiced concerns remain. [EPA-HQ-OAR-2015-0111-2037-A1 p.1]

The proposed volumetric requirements are a step in the right direction. They support the continued development of alternative fuels, while also recognizing the needs of motorists who drive every day. EPA should continue to set and reassess targets based on actual market realities, and increase outreach and educational efforts designed to prevent misfueling. In the interim, AAA will continue to encourage the motoring public to consult their owner's manuals and/or the vehicle manufacturer's website before using E15 in their vehicles. [EPA-HQ-OAR-2015-0111-2037-A1 p.2]

### **Brazilian Sugarcane Industry Association (UNICA)**

UNICA is supportive of EPA's efforts to bring the 2015 and 2016 volumes up from 2014 and so drive significant growth in production of the fuels into the future. UNICA further supports EPA's intention to move beyond the blendwall issue and its perceived constraints [EPA-HQ-OAR-2015-0111-2495-A1 p.26]

### **California Dairy Campaign**

We support the efforts of the Environmental Protection Agency (EPA) to reduce the corn ethanol level in the Renewable Fuels Standard's volume mandate. We consider the proposed reduction to be too small to decrease pressure on corn demand or significantly lower the amount of U.S. produced corn used to make corn ethanol. However, we do believe it is an important step in the right direction in comprehensively reforming our national renewable fuels standard as it relates to corn ethanol. [EPA-HQ-OAR-2015-0111-1816-A1 p.1]

### **Energy Policy Research Foundation, Inc. (EPRINC)**

Congress provided EPA with widespread latitude to ensure the volumetric targets set by EPA would be tempered by common sense, the current state of technology, available supply, and even economic harm to the national economy. In this regard, EPA should be commended for recognizing emerging price and technology constraints from requiring blending volumes of renewable fuel above 10 percent of the gasoline pool. [EPA-HQ-OAR-2015-0111-1946-A1 p.1]

### **Illinois Soybean Growers (ISG)**

Illinois soybean growers are proud to support biodiesel fuels and an industry that creates jobs and stimulates rural and urban Illinois economies. [EPA-HQ-OAR-2015-0111-3428 p.2]

### **Imperium Renewables and Renewable Biofuels**

We welcome EPA's proposal for biomass-based diesel (BBD) and advanced biofuel (AB) volumes for 2014-2017. This proposed rule is a significant improvement from the one that the EPA released in November 2013. [EPA-HQ-OAR-2015-0111-2043-A1 p.1]

### **Independent Fuel Terminal Operators Association (IFTOA)**

IFTOA is an association of importers, marketers, blenders, and exporters – all of which own and/or operate petroleum terminals. Most Members are obligated parties, and all are subject to the Renewable Fuel Standard (“RFS”) Program. IFTOA supports EPA's efforts to recognize and address the constraints that exist in the commercial market (the blendwall and its attendant problems) and to balance those operating restrictions with Congressional intent to increase renewable fuels in the transportation pool. The proposals for 2014 and 2015 generally achieve a reasonable balance, but the volumes for 2016 raise uncertainties and difficulties discussed below. However, and most importantly, Members of the Association have serious concerns about future more ambitious mandates. They believe that EPA should continue to exercise its

waiver authority to prevent shortages in transportation fuels and corresponding higher fuel prices for consumers. [EPA-HQ-OAR-2015-0111-1947-A1 p. 2]

It appears that EPA has taken a new approach to administering the RFS Program in this proposed rule. The Agency recognizes the blendwall and other infrastructure restrictions in the near-term - as the reality of the market during 2014 and 2015 -- and has properly reduced the mandates for the four categories of renewable fuels. [EPA-HQ-OAR-2015-0111-1947-A1 p. 2]

The Independent Fuel Terminal Operators Association supports EPA's exercise of its waiver authority to reduce the RFS mandates, thereby ensuring that the mandates more properly align with market conditions. [EPA-HQ-OAR-2015-0111-1947-A1 p. 8]

**Mass Comment Campaign sponsored by anonymous 11 (email) - (695)**

Additionally, renewable fuels are better for the air we breathe and for our environment [EPA-HQ-OAR-2015-0111-0214-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 20 (email) - (11431)**

While I'm pleased to see that the RFS biofuel-blend standards proposed by your agency aren't as extreme as they could be, I urge the EPA to revise proposed standards further---to the lowest blend levels permissible by law. [EPA-HQ-OAR-2015-0111-0222-A1 p.1]

The Renewable Fuel Standard is a failed policy. It's contributed to higher food and grocery costs, harm to the environment, and could lead to damage to older vehicles and small engines. [EPA-HQ-OAR-2015-0111-0222-A1 p.1]

If I had my way, Congress would repeal the RFS entirely. But until that happens, the EPA should limit the policy to the least possible harm by reducing fuel blend standards as much as the law will allow. [EPA-HQ-OAR-2015-0111-0222-A1 p.1]

Demand for high ethanol-blend fuel just isn't there. Please listen to the American people on this issue and reduce the burden the RFS places on each of us. [EPA-HQ-OAR-2015-0111-0222-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 28 (USB) - (250,144)**

The Renewable Fuel Standard has contributed to higher food and grocery costs, harms the environment and could lead to damage in older vehicles and small engines. [EPA-HQ-OAR-2015-0111-2554-A1 p.1]

It is unpopular with the public. It is a failed policy and it should be repealed by Congress. [EPA-HQ-OAR-2015-0111-2554-A1 p.1]

But until that happens, the EPA should minimize the damage done by the RFS by reducing the fuel blend standards by as much as the law allows, including ensuring the availability of ethanol-free gasoline. [EPA-HQ-OAR-2015-0111-2554-A1 p.1]

Please do the right thing and reduce the burden the RFS places on American families and the American economy. [EPA-HQ-OAR-2015-0111-2554-A1 p.1]

#### **Mass Comment Campaign sponsored by anonymous 4 (web) - (786)**

The EPA recently proposed lowering the amount of ethanol in gasoline below limits set in the law - but it still undermines access to affordable, energy-efficient fuel for millions of American motorists across the country. [EPA-HQ-OAR-2015-0111-0127 p.1]

EPA policies should not result in the mandate of more expensive, less efficient sources of energy that cause more trips to gas stations and more money spent at the pump. As such, the EPA should lower the ethanol levels in their final ruling to minimize the policy's financial burden on American consumers. [EPA-HQ-OAR-2015-0111-0127 p.1]

#### **Missouri Coalition for the Environment**

The Environmental Protection Agency (EPA) has proposed to update the federal Renewable Fuels Standard (RFS) by increasing the amount of biofuel required to be blended with our gasoline supply, but at levels lower than required by the original legislation. We've read the headlines and heard the sound bites on corn ethanol's so-called environmental benefits, but as fact-based science makes clear, corn ethanol's promised environmental benefits are a myth. The ethanol mandate incentivizes the expansion and intensification of corn production on marginal lands causing harmful effects on water, soil, and habitat. Furthermore, corn-based ethanol has not provided the carbon emission reductions its advocates promised. We support EPA in using the tools provided by Congress to waive the annual volume requirements of ethanol in the RFS below statutory levels. [EPA-HQ-OAR-2015-0111-2271-A1 p. 1]

#### **National Association of Truck Stop Operators (NATSO)**

NATSO's members generally support the Proposal because it appropriately recognizes that the RFS has the potential to cause problems in the retail fuels market if left unchanged. The Proposal appropriately seeks to address these potential problems without undermining the principles on which the Program is premised: diversifying fuel supply, increasing the overall fuel supply, encouraging domestic fuel production, and lowering fuel costs for American consumers. [EPA-HQ-OAR-2015-0111-2478-A1 p.2]

#### **National Chicken Council (NCC)**

NCC is supportive of EPA's proposed actions to adjust the biofuels targets for 2014, 2015, and 2016 to reflect the practical limits imposed by the blendwall. NCC strongly believes this adjustment is necessary and that lowering the proposed target levels from the recommended statutory levels prescribed by the Energy Independence and Security Act of 2007 (EISA) are an

important step toward ensuring the RFS reflects reasoned economic and environmental policy. [EPA-HQ-OAR-2015-0111-1814-A1 p.1]

NCC would, however, support further reductions in the target level for conventional biofuels for 2015 and 2016 to account for the distorting effects the RFS has on the market for corn, substitute feed products, chicken prices, and food prices in general. [EPA-HQ-OAR-2015-0111-1814-A1 p.1]

### **National Taxpayers Union (NTU)**

On behalf of the members of National Taxpayers Union (NTU), I write to express our concerns regarding the recently issued “Standards for the Renewable Fuel Standard (RFS) Program for 2014, 2015, and 2016.” Though long overdue, the Environmental Protection Agency (EPA) deserves credit for recognizing in its announcement that “the volume targets specified by Congress in the Clean Air Act for 2014, 2015, and 2016 cannot be achieved,” by virtue of being overly ambitious and out of step with the current market. Nonetheless, despite modest reductions from the statutory levels, the Renewable Volume Obligations (RVO) targets prescribed under the proposed rule are not sufficiently limited to provide the relief taxpayers and consumers need. [EPA-HQ-OAR-2015-0111-3279-A1 p.1]

Until Congress takes action to repeal or reform the broken RFS, the EPA has the authority and responsibility to set some sensible boundaries on this policy that will protect as many Americans as possible. [EPA-HQ-OAR-2015-0111-3279-A1 p.2]

### **Nestle**

EPA expressed a desire that comments on the proposed rules for 2014-16 be ‘succinct,’ and we will not reiterate all the information we provided in comments on prior rulemakings. We would simply repeat our basic support for the direction EPA has taken in the proposed rule, but also our caution that the growth path for corn ethanol can still have unintended – and negative – consequences. [EPA-HQ-OAR-2015-0111-1918-A1 p.4]

### **Specialty Equipment Market Association (SEMA)**

SEMA is encouraged by the EPA’s decision to decrease the required amounts for this time period. This is a clear indication that the EPA recognizes that the current marketplace cannot sustain increased levels of ethanol through sales of gasoline with 10 percent ethanol (E10), and that sales of 15 percent ethanol (E15) are limited. [EPA-HQ-OAR-2015-0111-2490-A1, p.1]

### **Unilever**

We believe EPA’s proposed renewable volume obligation (RVOs) for 2014 and 2015 are a sound and modest step to avoid the higher gasoline and diesel fuel prices projected by economists including Advanced Economic Solutions.<sup>1</sup> [EPA-HQ-OAR-2015-0111-2273-A2 p.1]

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<sup>1</sup> Testimony to the EPA Hearing Regarding Proposed 2014/2015/2016 Standards for the Renewable Fuel Standard Programs – June 25, 2015

## **Volvo Lexington Operation**

I am writing to oppose the EPA proposal (EPA-HQ-OAR-2015-0111), which will increase the ethanol volumes to historic levels. This is a misguided decision that fails to take into account years of objective studies and analysis on the dangers of ethanol to the American public and environment. [EPA-HQ-OAR-2015-0111-0538-A1 p.1]

### **Response:**

The fundamental objective of the RFS provisions under the CAA is clear: to increase the use of renewable fuels in the U.S. transportation system every year through at least 2022. These fuels include corn starch ethanol, the predominant biofuel in use to date, but Congress envisioned the majority of growth over time to come from advanced biofuels, as the non-advanced (conventional) volumes remain constant starting in 2015 while the advanced volumes continue to grow. Cellulosic biofuels are required to have 60 percent or greater greenhouse gas (GHG) emissions benefits on a lifecycle basis than the petroleum based fuels they replace; advanced biofuels 50 percent or greater benefit; and conventional biofuels (other than grandfathered facilities) 20 percent or better benefit. Increased use of renewable fuels means less use of fossil fuels, which results in lower GHG emissions over time as advanced biofuel production and use becomes more commonplace. By diversifying the country's fuel supply, increased use of renewable fuels will also increase the nation's energy security. Renewable fuels represent an opportunity for the U.S. to move away from fossil fuels towards a set of lower GHG transportation fuels, and a chance for a still-developing low GHG technology sector to grow.

Our decision to finalize volumes for total renewable fuel that rely on exercising the general waiver authority is based on the same fundamental reasoning we relied upon in the June 10, 2015 proposal. Despite significant increases in renewable fuel use in the United States, real-world constraints, such as the slower than expected development of the cellulosic biofuel industry and constraints in supplying certain biofuels to consumers, have made, at least the near term timeline laid out by Congress impossible to achieve. These challenges remain, even as we recognize the success of the RFS program over the past decade in boosting renewable fuel production and use, and the recent signs of progress towards development of increasing volumes of advanced, low-emitting GHG fuels, including cellulosic biofuels. The challenge we faced in developing this final rule is increasing renewable fuels over time while also accounting for the real-world constraints that have slowed progress. The approach we have taken in this final rule is designed to achieve this objective.

Many commenters are supportive of the proposed rule but for varying, and at times opposing reasons. Some commenters express overall support for the proposed increase of volumes above the prior November 2013 proposal and getting back on track with the statutory deadlines for the annual volume rulemakings. Some commenters stated EPA is moving in the right direction to increase 2015 and 2016 volumes up from 2014 and go beyond the blendwall. Other commenters provide support for increased volumes for the 2014-2017 proposed volumes for the advanced biofuel and biomass-based diesel, referencing that this increase will help support jobs and stimulate the economy. EPA acknowledges these comments and is establishing final volume requirements that will push the fuels sector to produce and blend more renewable fuels in 2016 in a manner that is consistent with the goals Congress envisioned. While, the final volumes are

less than the statutory targets for 2016 they are higher than what the market would produce and use in the absence of such market-driving standards. The 2016 standards are expected to spur further progress in overcoming current constraints and lead to continued growth in the production and use of qualifying renewable fuels, including higher-level ethanol blends. In this regard the final standards are intended to fulfill the intent of Congress and provide guidance to market participants. The final rule puts renewable fuel production and use on a path of steady, ambitious growth in the years ahead. EPA also agrees with commenters that it is important for the RFS program to get back on track with statutory deadlines for the annual rulemakings, which we are doing with the multi-year proposal and final rule for the 2014-2016 renewable fuel volumes standards and the 2017 biomass-based diesel volume requirements.

Conversely, other commenters expressed support for the proposed decrease of volumes below the statutory targets. These commenters provided specific support for the proposed reduction in corn ethanol levels (conventional biofuel) below statutory targets and stated they would support further reductions to help decrease pressure on corn demand or significantly lowering the amount of U.S. corn used to make corn ethanol. Others provide support for reductions based on concerns of corn ethanol expansion on marginal lands and harmful effects on water, soil, habitat and false claims of carbon emission reductions. Some commenters stated EPA should be commended for recognizing emerging price and technology constraints, among other constraints by reducing 2014 and 2015 volumes below the blendwall. These same commenters express concerns of the uncertainties raised by the proposed 2016 volumes and about the future more ambitious mandates and believe EPA should continue to exercise its waiver authority to prevent shortages of transportation fuels and corresponding higher fuel prices. Similarly, others support further reductions for conventional biofuels for 2015 and 2016 to account for the distorting effects the RFS has on the market for corn, substitute feed products, chicken prices, and food prices. Others support reductions from statutory mandates based on the potential to cause problems in the retail fuels market if left unchanged while maintaining the principles of the program which are diversifying fuel supply, increasing overall fuel supply, encouraging domestic fuel production, and lowering fuel costs for American consumers.

Some commenters that oppose the proposed rule commend EPA for recognizing that the statutory targets cannot be met by virtue of being overly ambitious and out of step with current market and believe the proposed volumes should be reduced even further because the proposed levels are not sufficiently reduced to provide the relief taxpayers and consumers need. Other commenters state EPA fails to take into account the studies and analysis on the dangers of ethanol to the American public and environment. These commenters also believe EPA policies should not result in a mandate of more expensive, less efficient sources of energy that cause more trips to the gas stations and more money spent at the pump. Commenters believe until Congress takes action to repeal or reform the RFS, EPA has the authority and responsibility to set boundaries on this policy to protect the American public.

EPA believes that the statutory targets were not achievable based on real-world constraints. In the June 10, 2015 notice of proposed rulemaking (NPRM), we proposed standards based on an approach that sought to achieve the Congressional intent of increasing renewable fuel use over time, while at the same time accounting for the real-world constraints that have slowed progress toward that goal. Those constraints have made the volume targets established by Congress for

2014, 2015, and 2016 beyond reach. In the NPRM we proposed to use waiver mechanisms that Congress provided to allow for the volume targets to be reduced if necessary. The proposed volume requirements were lower than the statutory targets but set at a level that we believed would spur growth in renewable fuel use, consistent with Congressional intent.

We disagree with commenters that state there should be further reductions. We believe that the RFS program can and will drive renewable fuel production and use, and that it is appropriate to consider the ability of the market to respond to the standards we set when we assess the amount of renewable fuel consumption that can be achieved. Therefore, while the final rule applies the tools Congress provided to make adjustments to the law's volume targets in recognition of the constraints that exist today, we believe the standards we are finalizing today will drive growth in renewable fuels, particularly advanced biofuels, which achieve the lowest lifecycle GHG emissions. Further, we believe this approach establishes the expected path for growth in future years. In our view, while Congress recognized that supply challenges may exist as evidenced by the various waiver provisions, it did not intend growth in the renewable fuels market to be ultimately prevented by those challenges, including such constraints as the "E10 blendwall." The fact that Congress chose to mandate increasing and substantial amounts of renewable fuel clearly signals that it intended the RFS program to create incentives to increase renewable fuel supplies and overcome limitations in the market. The standards we are finalizing will provide those incentives.

The final volume requirements would push the fuels sector to produce and blend more renewable fuels in 2016 in a manner that is consistent with the goals Congress envisioned. The final volumes are less than the statutory targets for 2016 but higher than what the market would produce and use in the absence of such market-driving standards. The 2016 standards are expected to spur further progress in overcoming current constraints and lead to continued growth in the production and use of qualifying renewable fuels, including higher-level ethanol blends. In this regard the final standards are intended to fulfill the intent of Congress and provide guidance to market participants. This rule puts renewable fuel production and use on a path of steady, ambitious growth in the years ahead.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

- Section 2.2: Statutory Authorities for Reducing Volume targets
- Section 2.3.1: Congressional Intent to Increase Volumes
- Section 2.3.2: Power of the Market to Respond to Ambitious Standards
- Section 3.3.1: Balance between Supporting the Biomass-Based Diesel Industry and Ensuring Opportunities for Other Advance to Grow
- Section 7.2: Agricultural Impacts
- Section 7.3: Fuels Industry Impacts
- Section 7.5: Retail Fuel Prices
- Section 7.7: Impacts on Jobs and Local/State Economy
- Section 8.2: Climate change (GHG impacts)
- Section 10.2.2: Statutory Deadlines 10

## 1.2 Opposes Rule

### Comment:

#### **Abengoa Bioenergy**

To revitalize investment in advanced biofuels, EPA must set and enforce the statutory volumes for Advanced Biofuels and for Total Renewable Biofuels for 2015 and 2016. [EPA-HQ-OAR-2015-0111-2474-A1 p.5]

If EPA's proposed rule is implemented, it will have the effect of validating the blend wall at a level of the petroleum industry's choosing. This would constitute a complete reversal of course on the RFS and would deny the country a true opportunity to develop a robust cellulosic ethanol industry. A reduction in the overall Advanced Biofuel and Total Renewable Fuel RVO thus will assure that Obligated Parties, investors and entrepreneurs will all step back and wait to see how U.S. renewable fuels policy develops in the future, while they take their investments and resources elsewhere. Without the RFS, America can be all but certain that domestic investment in advanced renewable fuels like cellulosic ethanol will halt. [EPA-HQ-OAR-2015-0111-2474-A1 p.16]

#### **Ace Ethanol/Fox River Valley Ethanol**

Comments urging EPA to **REJECT your proposed rule that reduces the 2014, 2015 and 2016 Renewable Volume Obligations (RVO)** and instead restore the RVO to the statutory amounts as required by the Renewable Fuels Standards (RFS). [EPA-HQ-OAR-2015-0111-1200-A2 p. 2]

When the RFS was established it was known and intended that ethanol blends would need to exceed 10% but oil companies are doing everything they can to control their monopoly on the nation's fuel supply. With this flawed proposal, EPA is fundamentally dismissing the law and the intent of how the RFS should work under the 2005 and 2007 RFS as enacted. For all the above reasons we again implore that EPA restore the RVO to the statutory volume amounts. [EPA-HQ-OAR-2015-0111-1200-A2 p. 2]

**AL-Corn Clean Fuel; Badger State Ethanol; Big River Resources, LLC; Central Indiana Ethanol (CIE); Commonwealth Agri-Energy, LLC; Husker Ag LLC; Mid-Missouri Energy; Pacific Ethanol, Inc.; The Andersons, Inc.**

We are adamantly opposed to the proposal to reduce the renewable volume obligations (RVO) for 'renewable fuel,' the category of the RFS for which corn ethanol qualifies, from the statutory levels in 2014, 2015 and 2016. The Renewable Fuel Standard (RFS) has been a tremendous success and is working exactly as intended. The program has played a pivotal role in reducing petroleum imports to the lowest level since the 1980s, lowering gas prices, improving air quality, and strengthening the economic health of rural America. We simply do not understand why EPA is proposing to abandon a program that has undoubtedly delivered on its promise. [EPA-HQ-OAR-2015-0111-1214-A2 p.1]

The proposed rule would stifle innovation and fundamentally alter the future course of the RFS program. Therefore, we are strongly encouraging EPA to reconsider its proposal. [EPA-HQ-OAR-2015-0111-1214-A2 p.1-2]

In closing, we ask that EPA reconsider its ill-advised proposed rule and finalize the 2014-2016 RVOs for renewable fuel at the levels envisioned by Congress. We believe EPA should continue to let the RFS work as intended. The refueling infrastructure, vehicles and surplus RIN credits needed to meet statutory RFS requirements are already in place. In the longer term, RINs will drive the appropriate behavior in the marketplace and encourage investment in the infrastructure needed to meet RFS requirements in 2016 and beyond. [EPA-HQ-OAR-2015-0111-1214-A2 p.5]

### **American Council on Renewable Energy (ACORE)**

USEPA's decision to restrict biofuel production levels to the artificial constructs of the "blend wall" weakens our country's most comprehensive renewable energy and GHG reduction policy as well as a key component of the Clean Air Act (CAA), raising concern throughout the renewable energy industry. [EPA-HQ-OAR-2015-0111-1926-A1 p.2]

### **American Farm Bureau Federation (Farm Bureau)**

Farm Bureau opposes the Environmental Protection Agency's (EPA) proposed reduction in the amount of renewable fuels that must be blended into the nation's gasoline supply. This decision strikes a blow to conventional ethanol production and dampens the prospects for the further development of advanced biofuels. The targets within the RFS2 program have been reduced to 15.93 billion gallons, 2.22 billion gallons below the statutory framework in the RFS2 law. The proposed rule falls further behind statutory mandates in the coming years. The proposed target for 2015 is 4.2 billion gallons below the obligation, and by 2016 the proposed volume requirement is 4.85 billion gallons below the standard. Farm Bureau urges EPA to reconsider its Proposed Rule and stay the course in order to meet the targets set out by Congress in the Energy Independence and Security Act (EISA) of 2007. [EPA-HQ-OAR-2015-0111-2355-A1 p. 1]

Furthermore, a significant reduction in the 2015 and 2016 volume requirements would slow or halt investments in the infrastructure needed to distribute and dispense larger volumes of ethanol. This proposal would halt new investments in cellulosic biofuels and introduce detrimental ambiguity in a market that is still developing. Farm Bureau strongly urges EPA to stay the course with the RFS2 as defined in the 2007 EISA. Without question, this decision, if finalized, will have tremendous consequences for the agricultural sector, for our nation's energy policy and for the intended regulatory framework and goals of the RFS2. [EPA-HQ-OAR-2015-0111-2355-A1 p. 1]

### **Association of Nebraska Ethanol Producers (ANEPP)**

The RFS was intended to 'move the needle' by pushing the transportation fuels supply toward increased levels of biofuels. USEPA should not simply adhere to the desires of petroleum industry interests who, solely for reasons promoting their own self-interest, are working to

undermine the RFS and block the nation from meeting the stated goal to increase biofuels in the national transportation fuel mix. The RFS is forward-looking and is not meant only to maintain the status quo. USEPA can do its part in helping reach the national biofuels goal by maintaining the original statutory RFS volumes authorized by the Clean Air Act. [EPA-HQ-OAR-2015-0111-1809-A1 p.2]

To date, the RFS program has achieved significant successes and the continued success of the RFS would be undermined if USEPA adopted the current proposal which rolls back the statutory RFS volumes.

The RFS has provided the following benefits to the American public:

- The RFS has sparked investment in rural America which has led to increased economic prosperity for the American farmer and rural America in general.
- The RFS has reduced foreign oil imports and advanced the national goal of achieving energy independence.
- The RFS has reduced gasoline and diesel prices for the American consumer.
- The RFS has reduced greenhouse gas (GHG) emissions associated with fuel combustion in the US transportation fleet.
- The RFS has improved air quality for the American public through reductions in pollutants such as aromatic hydrocarbons, fine particulate matter (FPM), and ozone precursors. [EPA-HQ-OAR-2015-0111-1809-A1 p.2]

ANEEP requests that USEPA continue the use of biofuels at the levels prescribed by the 2007 Congress. There are many good reasons quoted by others for continuing the higher levels of biofuels usage, such as those promoted by those attending the June 25, 2015 Public Hearing. However, the most important benefit for retaining the statutory RFS levels will be the faster transition to more environmentally friendly transportation fuels with fewer adverse health effects, resulting in a healthier environment for U. S. citizens. USEPA should look to its own history in the phase-out of unleaded gasoline. Like the unleaded gasoline debate, USEPA should not accept arguments advanced by petroleum industry interests that more environmentally friendly transportation fuels are not achievable. By being bold and forward thinking, USEPA can continue to advance the nation toward cleaner transportation fuels and protect the health and welfare of the American public. [EPA-HQ-OAR-2015-0111-1809-A1 p.4]

### **BioEnergy R&D**

I support a strong federal RFS because we need more alternatives to our transportation fuel supply and biofuels today represent an economic and sustainable alternative to fossil based gasoline. A diverse transportation fuel supply means lower greenhouse gas emissions, greater economic development and jobs here in America, lower gas prices and greater national security. [EPA-HQ-OAR-2015-0111-0124-A1]

Renewable biofuels are the cleanest and most sustainable transportation fuel in the world and the United States is currently the leading producer. These fuels are available today because of the RFS. The RFS was intended to build a strong biofuels industry, reduce reliance on fuel imports, support agriculture, and reduce greenhouse gas emissions. This was realized because of stable federal policy but that stability and future is in severe jeopardy with this regulation. This proposal would pull the rug out on the hardworking Americans and Companies who have made renewable fuels a reality and helped grow the economy while making US less dependent on oil imports. [EPA-HQ-OAR-2015-0111-0124-A1]

Please change the final proposal so that it complies with the existing law and continues to diversify our national fuel supply with low carbon, sustainable biofuels.[EPA-HQ-OAR-2015-0111-0124-A1]

### **Biotechnology Industry Organization**

EPA's actions have significantly hindered the market-forcing incentives in the RFS that would otherwise drive obligated parties toward working with their partners, including their advanced biofuel partners, to ensure the capacity to produce and use renewable fuels at the levels required under the program. As further explained below, EPA's delays and its proposed decision to destabilize the statutory waiver provisions have significantly dampened investments in capacity to meet the RFS volume goals. Because EPA's new proposed rule contains many of the same errors as EPA's now withdrawn November 2013 proposed rule for 2014 RVOs, the new proposed rule can be expected to continue to undermine investor confidence in the program and to discourage investment in the development and commercialization of advanced biofuels. [EPA-HQ-OAR-2015-0111-1958-A2 p. 28-29]

### **Board of County Commissioners of Putnam County, Ohio**

The county commissioners of Putnam County, Ohio, pray that the Obama administration and the Environmental Protection Agency fully restore the ethanol use levels for the Renewable Fuel Standards (RFS). [EPA-HQ-OAR-2015-0111-3289-A1 p. 1]

### **Butrolix**

That's why I'm asking the Environmental Protection Agency (EPA) to not alter the RFS. It's working just as Congress intended it to. There is no need to change it. [EPA-HQ-OAR-2015-0111-2819-A2 p.1]

We've made tremendous strides and a lot of progress in the ethanol industry in recent years. Why threaten future progress by cutting the RFS and moving America's energy policy backward? [EPA-HQ-OAR-2015-0111-2819-A2 p.1]

Ethanol has helped this country make significant progress, both environmentally and economically. Please don't roll back that progress and threaten future advancement of clean, renewable, homegrown biofuels by unnecessarily cutting the RFS. [EPA-HQ-OAR-2015-0111-2819-A2 p.1]

## **Corn Producers Association of Texas (CPAT)**

CPAT urges you to restore the Renewable Volume Obligations (RVO) for each year to the statutory amount and maintain a strong methodology. [EPA-HQ-OAR-2015-0111-2276-A2 p. 1]

Since the inception of the RFS, Texas and American corn farmers have risen to the challenge of increasing our production to meet the demand for this renewable fuels sector, while still providing for existing markets and maintaining a surplus. U.S. consumers have benefitted by having a clean-burning, domestically produced fuel. The EPA should not turn its back on Americans and halt the progress toward a cleaner, healthier air and access to renewable fuel resources. [EPA-HQ-OAR-2015-0111-2276-A2 p. 2]

CPAT urges you to restore the Renewable Volume Obligations (RVO) for each year to the statutory amount and maintain a strong methodology.[EPA-HQ-OAR-2015-0111-2276-A2 p. 2]

## **Cornhusker Energy Lexington**

I would like to submit the following as a comment against the EPA's RFS-RVO proposal. [EPA-HQ-OAR-2015-0111-1198-A1 p.1]

Don't mess with regular ethanol!

-It stimulates the economy.

-It's a solid investment.

-It's a positive for cattle.

-Still room for growth without affecting corn.

-Cuts down on rail congestion and saves on transportation by not having to move corn very far.

-It adds local, high-paying jobs. [EPA-HQ-OAR-2015-0111-1198-A1 p.6]

## **DENCO II**

On behalf of DENCO II, LLC in Morris MN we are writing you with deep concern regarding the recent proposed rule for the 2014, 2015, and 2016 Renewable Volume Obligations as required as part of the Renewable Fuel Standard. DENCO II requests that the EPA return to the statutory requirements as passed into law by Congress in 2007. [EPA-HQ-OAR-2015-0111-1216-A2 p.1]

DENCO II, and the rest of the ethanol industry, is a product of The Renewable Fuels Standard. The RFS has provided our investors' confidence. And, at DENCO II, our investors and managers have done our part in fulfilling the original goals of The Renewable Fuels Standard as laid out by congress in a multitude of ways. [EPA-HQ-OAR-2015-0111-1216-A2 p.1]

Currently our board of directors is evaluating a plant expansion that would escalate DENCO II's annualized production to 30 million gallons per year. However, this investment is at risk due to the precarious proposed renewable volume obligations as proposed for 2014, 2015, and 2016 by the EPA. Our board of directors would be much more confident in this project if the EPA were to stand by the RFS as it was originally designed, [EPA-HQ-OAR-2015-0111-1216-A2 p.1]

At DENCO II we have also developed an advanced biofuels program. Since inception we have produced over 120,000 gallons of advanced biofuel from waste food sources. These are gallons that would have not been produced without a strong RFS. This program was adopted because of the incentives provided by the Renewable Fuels Standard. Without a strong RFS this program would cease to exist and the potential to produce advanced biofuel gallons from our feedstock sources would not be realized. [EPA-HQ-OAR-2015-0111-1216-A2 p.1-2]

DENCO II is in the midst of evaluating a new cellulosic bolt-on technology. This investment, as any other, comes with inherent risks. The RFS was originally intended to provide confidence to investors while evaluating such technology. The approach that the EPA has taken when proposing renewable volume obligations over the past few years has done all but increase confidence in the RFS as a whole. And, the evaluation of this new technology would be much easier if the EPA would stay the course on the RFS as congress intended. [EPA-HQ-OAR-2015-0111-1216-A2 p.2]

We need the RFS volume requirements to stay on track if we want to decrease our dependence on petroleum based fuels as well as offer consumers renewable, less expensive, and locally produced choices at the pump in blends such as E15, E30, and E85. [EPA-HQ-OAR-2015-0111-1216-A2 p.2]

And, now the oil industry is attempting to get the EPA to change the rules that were set by Congress because they refuse to comply. In fact, the oil industry is spending millions of dollars a year spreading false information to consumers about ethanol and then turning around and telling the EPA and Congress that the public doesn't want to consume our fuel. The EPA simply cannot reward this behavior, and should instead stay the course on the RVO's for 2014, 2015, 2016 and beyond. The ethanol industry and rural America has done its part to make the RFS the most successful energy policy in over 40 years. And we have proven through past investment and future commitments that we can make this policy work. [EPA-HQ-OAR-2015-0111-1216-A2 p.2-3]

The bottom line is that this proposal would have a devastating ripple effect on investments in ethanol plants, their production and the jobs they support — as well as the surrounding communities. With less money recirculating in rural America, there is a smaller tax base —our schools, hospitals, area business owners and local municipal services will suffer. Every year DENCO II spends over \$500,000 with local businesses in our small community for a wide variety of services. During a time of economic uncertainty we need to capitalize on the opportunities, such as biofuel production, to spur investment and innovation to keep America, and our rural economy strong. [EPA-HQ-OAR-2015-0111-1216-A2 p.3]

As you move forward in putting together a final rule I hope you will consider the fallout the rule will have on investors and the workers who count on their jobs at ethanol production facilities around the country. And, we thank you for giving us the ability to provide comments on your latest proposal. [EPA-HQ-OAR-2015-0111-1216-A2 p.3]

### **DuPont**

As discussed in Sections I and IV of these comments, DuPont does not believe that there are constraints on supply resulting from the E10 blendwall. For that and other reasons, we believe that EPA has exceeded its authority and unnecessarily reduced the volumes for Total Renewable Fuel and advanced biofuels. [EPA-HQ-OAR-2015-0111-1826-A1 p.30]

### **East Kansas Agri-Energy, LLC (EKAE)**

I would like to take a moment to discuss the desire to decrease our dependency on Middle Eastern oil. We as a country have fought a war to keep the flow of this oil safe. Our brave service men and women risked life and limb in this effort. Today revenues from those same oil fields are used to fund terrorists groups that wish to exert harm to our citizens and country. We have also found new oil reserves in the U.S. to help us become energy independent. The OPEC nations do not appreciate this either and are trying to control the oil price to discourage production. It only makes sense to me that we use every drop of renewable energy we can in our country to extend the life of our natural resources. [EPA-HQ-OAR-2015-0111-1721-A1 p.2]

The RFS has been the frame work for this great success story and I would encourage the EPA to stay true to the gallon requirements in the statute. Most of all the reasoning that went into the creation of the RFS is still viable today. I would hope that through this hearing and comment period that the EPA would do the right thing and allow the RFS to work as it was intended. [EPA-HQ-OAR-2015-0111-1721-A1 p.2]

The bottom line is that this proposal would have a devastating ripple effect on investment in ethanol plants, their production and the jobs they support - as well as the surrounding communities. With less money, there is a smaller tax base - our schools, hospital and local municipal services will suffer. During a time of economic uncertainty we need to capitalize on the opportunities, such as biofuel production to spur investment and innovation to keep America, and our rural economy strong. This is not an exaggeration, it is the reality. Supporting RFS is critical for America and the future of our energy and agriculture sectors. [EPA-HQ-OAR-2015-0111-2607-A2 p.3-4]

Please leave the RFS as our Congress wrote it. [EPA-HQ-OAR-2015-0111-2783-A1 p.1]

### **Environmental and Energy Study Institute (EESI)**

EPA's proposal will continue to have a chilling effect on the nation's biofuels industry and particularly the investment climate for advanced biofuels, an industry that is providing clean, homegrown fuel to Americans. [EPA-HQ-OAR-2015-0111-1944-A1 p.2]

## **Farm Credit Services of America**

Farm Credit Services of America has deep concerns regarding the recent proposed rule for the 20142016 Renewable Volume Obligations (RVOs) as required as part of the Renewable Fuel Standard (RFS). Our association has emerged as a predominant lender to farmer-owned ethanol plants in Midwest states where there is a high concentration of ethanol facilities. We are very proud of the record of success we have in helping to build the renewable fuels industry and view the proposed rule as a significant step backward. [EPA-HQ-OAR-2015-0111-2491-A1 p.1]

## **Fremont Industries**

Ethanol and biofuels have brought that back. The renewable fuel standard implemented by Congress has been a great success. Unfortunately, you, the EPA, has chosen to try and weaken this contract with America.

If you weaken the RFS, you will kill investment in second-generation advanced biofuels, as they will not have access to capital. The hope for additional biodiesel and cellulosic production facilities that utilize wood chips, corn stover, garbage, switchgrass, animal fats, and the like will not become a reality without the RFS. Homeland security is what homegrown ethanol is all about. Cutting back on foreign oil and keeping those dollars here in the United States is another value that biofuels brings to the table, and not having to fight a war over the access to biofuels.

EPA works for the American people to protect our health and the environment. Opening up the RFS does not help the American people. Leave the RFS intact.

## **Governor of Iowa, et al.,**

We write to strongly encourage you to revise and increase the proposed U.S. Environmental Protection Agency (EPA) Renewable Fuels Standard (RFS) volume obligation levels to demonstrate your continued commitment to growing the production and use of renewable fuels and revitalizing the economy in rural America. A robust RFS is needed to provide the Federal policy predictability that rural America needs to continue investments in renewable fuels that diversify our nation's energy portfolio, reduce transportation emissions, provide value-added opportunities to various bio-stocks, give consumers lower-cost choices at the fuel pump, and create good paying jobs that empower rewarding careers. [EPA-HQ-OAR-2015-0111-1915-A1 p.1]

We urge your Administration to use its regulatory authority in a manner that both supports a growing renewable fuels industry and meets the statutory requirements of the law. We hope you will protect the RFS, renew your commitment, and stand strong along with us, consumers, and agricultural producers in supporting American-made renewable fuels.[EPA-HQ-OAR-2015-0111-1915-A1 p.3]

## **Highwater Ethanol, LLC**

We have Americans that have protected and served our Country, for freedom, for the right to protect the oil that is needed, however it was also done to protect the opportunity to grow,

develop and utilize the renewable fuels we can produce right here in the USA. We have the knowledge, the ability to displace an even higher percentage of oil than we currently do at this time. **We need to stay the course on the Renewable Fuels Standard 2 and not reduce the volume of renewable ethanol, biodiesel and related renewable products.** I ask for my employees, investors, the agricultural industry and all other vendors. But mostly importantly I ask this for the United States of America and the people that make this Country great! We need to take care of the present, while focusing on the future!!!! [EPA-HQ-OAR-2015-0111-2506-A2 p.3]

### **Illinois Department of Agriculture**

Illinois' agricultural community has grave concerns over the components of the subject rule. These proposed standards are troublesome because the volumes are below the obligations set by Congress under the Energy Independence and Security Act of 2007. The RFS has been successful in Illinois and is working just as intended. [EPA-HQ-OAR-2015-0111-0260-A1 p.1] I urge you to evaluate the impacts to both rural and urban America and reconsider the proposed RFS volume obligations. [EPA-HQ-OAR-2015-0111-0260-A1 p.2]

### **Illinois Farm Bureau**

Illinois Farm Bureau opposes the Environmental Protection Agency's (EPA) proposed reduction in the amount of renewable fuels that must be blended into the nation's motor fuel supply. This decision strikes a blow to conventional ethanol production and diminishes the prospects for the further development of advanced biofuels. [EPA-HQ-OAR-2015-0111-3290-A2 p.1] Farm Bureau urges EPA to reconsider its proposed rule and stay the course to meet the targets set out by Congress in the Energy Independence and Security Act (EISA) of 2007. [EPA-HQ-OAR-2015-0111-3290-A2 p.1]

### **Indiana Ethanol Producers Association**

The Renewable Fuels Standard has been a tremendous success for Indiana. As ethanol producers, we are proud to produce a product that cleans our air while reducing our dependence on foreign oil and reducing the price at the pump. Any efforts to change the RFS will do nothing but jeopardize the progress we have made while creating uncertainty for Hoosiers whose livelihood depends on the promises that the government made through RFS. [EPA-HQ-OAR-2015-0111-3485-A1, p.1]

It is time for the administration to honor the commitments made in the RFS instead of giving in to the demands of oil companies who refuse to comply with the law. [EPA-HQ-OAR-2015-0111-3485-A1, p.1]

The RFS is America's most successful energy policy in the last 40 years and now is not the time to take a step backwards. The proposed rule is bad for Indiana and bad for the country; the EPA should return the RVO to the statutory volume assigned by Congress. [EPA-HQ-OAR-2015-0111-3485-A1, p.1]

## **Indiana Farm Bureau**

Indiana Farm Bureau represents over 72,000 farmer members consisting of all types and sizes of farming operations and business. On behalf of those members, their families, and rural communities whose economic livelihoods depend on a strong biofuels sector, Indiana Farm Bureau strongly opposes the Environmental Protection Agency's (EPA) proposed reduction in the amount of renewable fuels that must be blended into the nation's gasoline supply. [EPA-HQ-OAR-2015-0111-2486-A1 p.1]

This decision strikes a blow to conventional ethanol production and dampens the prospects for the further development of advanced biofuels. [EPA-HQ-OAR-2015-0111-2486-A1 p.1]  
Farm Bureau urges EPA to reconsider its Proposed Rule and stay the course in order to meet the targets set out by Congress in the Energy Independence and Security Act (EISA) of 2007. [EPA-HQ-OAR-2015-0111-2486-A1 p.1]

It is evident that the use of renewable fuels is enhancing our energy security by reducing our dependence on foreign oil. It is also evident that the White House has repeatedly stated its strong support for renewable fuels and the importance of improving our nation's energy independence. Indiana Farm Bureau supports and defends the standards and incentives necessary to further develop the U.S. renewable fuels industry and is opposed to EPA's Proposed Rule. [EPA-HQ-OAR-2015-0111-2486-A1 p.4]

## **Iowa Corn Growers Association (ICGA)**

As an association representing farmer members, the ICGA is deeply concerned with the EPA's rulemaking regarding the 2014-2016 RVOs and feels the EPA has proposed a rule that is inconsistent with the 2007 Renewable Fuel Standard (RFS) statute as well as contradictory to Congressional intent. If finalized the proposed rule would severely damage the ethanol industry and as a nation, we will be more reliant on oil, consumers will pay more for fuel, we will harm our environment, and we will be crippling our rural economies. Farmers and ethanol producers have relied on the EPA to implement the law as Congress intended, and in turn have done their part to grow more corn and build additional ethanol plant capacity to meet these demands. Now, the EPA is turning the clock back on these investments at the expense of rural America. [EPA-HQ-OAR-2015-0111-1820-A1 p. 1]

### **Summary**

This proposed rule does not meet Congress' statutory requirements, is in direct contradiction to both Congressional intent and stomps on American farmers' commitment to building a renewable fuels industry. This proposed rule by the EPA is going to have a very *real* impact on farmers, ethanol producers, rural communities, and consumers. It will result in a depressed farm economy which we have already seen from the effects of the 2014 proposed rule, which will in turn hurt agricultural businesses and lenders, as well as our main streets in rural America. The consumer will see higher prices at the pump, not to mention at the cost of a finite fuel source and energy security all while pumping more dirty emissions into the air. On behalf of Iowa's corn farmers, we collectively join our voices in opposition to the proposed rule to lower the RVO for ethanol and we encourage the EPA to rethink the proposal and implement the statutory levels for

corn based ethanol. Iowa's hard working farm families need nothing less. [EPA-HQ-OAR-2015-0111-1820-A1 p. 6]

### **Iowa Farm Bureau Federation (IFBF)**

IFBF opposes the Environmental Protection Agency's (EPA) proposed reduction in the amount of renewable fuels that must be blended into the nation's gasoline supply. This decision is extremely detrimental to conventional ethanol production and dampens the prospects for the further development of advanced biofuels. Renewable fuels have been a tremendous success story for the nation and especially for Iowa. The RFS has reduced our country's dependence on foreign oil, reduced air pollution, increased farm incomes, spurred investment in Iowa, and provided good paying jobs in rural communities. Iowa and the U.S. have seen tremendous growth within the agricultural sector because of the RFS2. If the lower blending requirements in the proposed rule are finalized, investment and growth in domestic renewable fuels as well as the broader agricultural economy will be hampered. IFBF urges EPA to reconsider its proposed rule and maintain the targets set out by Congress in the RFS2. [EPA-HQ-OAR-2015-0111-1717-A1 p. 1]

### **Iowa Renewable Fuels Association**

Just as that reality was beginning to take shape, the EPA essentially pushed "pause" on the RFS program for the last 18 months. If the current proposal is allowed to move forward, the EPA will effectively push the "stop" button on the RFS. On the other hand, if the EPA allows the RFS program to move forward as envisioned by Congress under the levels outlined in the second paragraph of these comments, the next 18 months will be replete with much better headlines than the previous 18 months. [EPA-HQ-OAR-2015-0111-1957-A2 p. 4]

The bottom line remains clear: there is no legal, marketplace, or consumer rationale for reducing the conventional biofuels level below the RFS statutory requirements. The EPA must enforce the RFS as Congress wrote the law. Let the RIN marketplace do its job in lowering fuel prices and incenting additional renewable distribution capacity. [EPA-HQ-OAR-2015-0111-1957-A2 p. 20]

### **Iowa Soybean Association**

We agree with Iowa Congressman David Young who stated, The RFS is working. Renewable fuels infrastructure was developed to ensure that more Americans can benefit from biofuels. We urge the EPA to reexamine the facts, listen to the experts and adhere to Congressional intent for the RFS. [EPA-HQ-OAR-2015-0111-3424 p.2]

### **John Deere**

While your proposed RVO volumes move the nation to higher levels of renewable fuels utilization, our concern is that the proposal makes inaction by the obligated parties an acceptable and increasingly viable option. [EPA-HQ-OAR-2015-0111-2042-A1 p.1]  
We appreciate EPA's commitment to continued support for steady growth in renewable fuel use. Our request asks EPA to take a stronger stance, to more clearly demonstrate its commitment, and

ensure that all parties look beyond the challenges that may exist today. [EPA-HQ-OAR-2015-0111-2042-A1 p.3]

### **Kane Ranch, LLC**

As a rancher and a good steward of the land I am an avid protector of the environment and understand the importance of renewable energy. However, the current RFS is not the ideal course of action. The best long term solution is for Congress to fix the RFS through legislation, but, in the meantime please set the final ethanol mandate as I previously stated at 9.7 percent.[EPA-HQ-OAR-2015-0111-1660-A1]

### **Kansas Farm Bureau**

Kansas Farm Bureau opposes the Environmental Protection Agency's (EPA) proposed reduction in the amount of renewable fuels to be blended into the nation's gasoline supply. By veering from the total volumes as outlined in the RFS2, EPA is harming conventional (D6) ethanol producers, clouding the prospects for further development and innovation of advanced biofuels, and ignoring the intent of Congress. [EPA-HQ-OAR-2015-0111-1195-A1 p.1]

A demonstrated commitment to renewable fuels is vital in order to achieve 36 billion gallons of use by 2022. Making space in the market for alternative fuels that contribute to energy independence, environmental improvement, and economic development is exactly the point of RFS2. And while it's working, there is still much to be done. We ask EPA to grant an RVP volatility waiver for E15, maintain the 15 billion gallon target for conventional ethanol as written in the RFS2 and to consider further increases in biomass diesel targets. [EPA-HQ-OAR-2015-0111-1195-A1 p.2]

### **Kentucky Corn Growers Association**

I submit this letter to encourage EPA to amend its Proposed Rule, and return the RVO's for each of these years back to statutory levels. [EPA-HQ-OAR-2015-0111-2499-A1 p.1]  
The RFS is working as intended. Please leave it alone. [EPA-HQ-OAR-2015-0111-2499-A1 p.1]

### **Little Sioux Corn Processors**

Again, I urge the EPA to reconsider. Basing the RFS on the e-10 blend wall violates the law as it was intended by Congress. [EPA-HQ-OAR-2015-0111-1664-A1]

### **Marquis Energy LLC**

The benefits that ethanol has contributed to America's economy and agricultural sector are well known, which is why it is disheartening that the EPA is considering rolling back the RVO for the amount of conventional biofuels to be blended into America's fuel supply. [EPA-HQ-OAR-2015-0111-2800-A1 p.1]

**Mascoma LLC, Lallemand Inc.**

Since Mascoma's inception in 2006 we have seen firsthand the positive impact the RFS has had on local economies and throughout the US as the biofuels industry grew dramatically and realized major efficiency gains via the adoption of new technologies and better practices. [EPA-HQ-OAR-2015-0111-0263-A1 p. 1]

**Mass Campaign Comment sponsored by America's Renewable Future (email) - (474)**

'Iowa's economy depends on ethanol and other renewable fuels. So, why is the EPA letting the oil industry rewrite the Renewable Fuel Standard to serve its own interests? Your voice deserves to be heard. Stand up for our country's farmers who feed and fuel America by sending a message to the EPA. Tell the EPA not to cave in to oil industry demands and support a strong Renewable Fuel Standard!' [EPA-HQ-OAR-2015-0111-1962-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 17 (email) - (3670)**

The Renewable Fuel Standard (RFS) is an outdated, unnecessary, and harmful policy that should be scaled back or eliminated. I therefore oppose the EPA's RFS proposal for 2014 -- 2016. I oppose the RFS from two perspectives---as an American consumer and as a member of the energy sector. The potential harm to consumers from the RFS is real: 'The use of ethanol, mandated under RFS, could drive up fuel costs and lowers fuel efficiency. A gallon of ethanol produces about a third less energy than a gallon of gasoline. 'Ethanol shifts agriculture to fuel production, driving up food costs. The average American family may pay as much as \$2,000 more per year for food because of the RFS. 'Ethanol in higher concentrations, such as E15, can damage engines. No automaker supports the use of E15 in cars made before 2011. Repair costs and damaged engines could be the result of an increased RFS mandate. For the energy sector, ethanol and biofuel mandates add production and compliance expenses, pose supply challenges, and put equipment at risk. At the retail end, gas stations---often small businesses themselves---face significant added costs because of the RFS. I urge the EPA to reconsider its recent RFS proposal and withdraw it altogether. I also urge the EPA to make the case to Congress that the RFS should be repealed. [EPA-HQ-OAR-2015-0111-0219-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 19 (email) - (4910)**

The RFS has contributed to higher food and grocery costs, harm to the environment, and could lead to damage to older vehicles and small engines. It's wildly unpopular with the American people and, to put it plainly, is a failed policy. If I had my way, Congress would repeal the RFS entirely. [EPA-HQ-OAR-2015-0111-0221-A1 p.1]

Please listen to the American people on this issue. What's best for American consumers is more important than what's best for the ethanol lobby. [EPA-HQ-OAR-2015-0111-0221-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 2 (web) - (2781)**

I am writing to oppose the EPA proposal (EPA-HQ-OAR-2015-0111), which will increase the ethanol volumes to historic levels. This a misguided decision that fails to take into account years of objective studies and analysis on the dangers of ethanol to the American public and environment. [EPA-HQ-OAR-2015-0111-0079 p.1]

**Mass Comment Campaign sponsored by ActionAid USA (web) - (2629)**

The EPA is in an increasingly difficult situation in trying to implement this policy, as several of the assumptions made by the Congress in 2007 have proved incorrect. This makes the rule making process, however, even more important. Our research has found that the Renewable Fuel Standard (RFS) will be responsible for more than half of global biofuels demand over the next decade, so the impact of this rule will reach far beyond U.S. borders. [EPA-HQ-OAR-2015-0111-2553-A1 p.1]

The U.S. Environmental Protection Agency's Administrator, Gina McCarthy, must move the U.S. away from food-based biofuels in the yearly Renewable Volume Obligations. Fuel consumption in the U.S. must not increase hunger around the world. [EPA-HQ-OAR-2015-0111-2553-A2 p.1]

**Mass Comment Campaign sponsored by Adkins Energy LLC (paper) - (120)**

**Supporting the RFS is critical for America and for the future of our energy and agriculture sectors.** I ask that you return the RFS to a program based on supply of renewable fuel and ambitious goals to reduce our dangerous dependence on foreign oil and not let the program be held captive by the oil industry and its unwillingness to allow higher ethanol blends into the marketplace. [EPA-HQ-OAR-2015-0111-2956-A1 p.1]

**Mass Comment Campaign sponsored by America's Renewable Future (email) - (1313)**

I'm writing to ask that EPA support a strong Renewable Fuel Standard that restores the targets set by Congress. As an Iowan, I know that the Renewable Fuel Standard supports thousands of Iowa jobs, and investment in ethanol and advanced biofuels is helping preserve our rural economies. Iowa needs ethanol. Don't let the oil industry continue to dictate energy policy. Support a strong Renewable Fuel Standard. [EPA-HQ-OAR-2015-0111-1963-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 1 (web) - (23)**

I support a strong federal RFS because we need more alternatives to our transportation fuel supply. A diverse transportation fuel supply means lower greenhouse gas emissions, greater economic development and jobs here in America, lower gas prices and greater national security. [EPA-HQ-OAR-2015-0111-0118 p.1]

Renewable biofuels are the cleanest and most sustainable transportation fuel in the world and --- the United States is currently the leading producer. These fuels are available today because of the RFS. The RFS was intended to build a strong biofuels industry, reduce reliance on fuel imports,

support agriculture, and reduce greenhouse gas emissions. Those things are happening because of stable federal policy but that stability would be erased with this regulation. This proposal would pull the rug out on the hardworking Americans who have made renewable fuels a reality. [EPA-HQ-OAR-2015-0111-0118 p.2]

Please change the final proposal so that it complies with the existing law and continues to diversify our national fuel supply with low carbon, sustainable biofuels. [EPA-HQ-OAR-2015-0111-0118 p.2]

**Mass Comment Campaign sponsored by anonymous 10 (email) - (297); Mass Comment Campaign sponsored by anonymous 12 (email) - (560)**

As you move forward in developing a final rule, I hope you will consider the fallout that a rule such as the one proposed would have on the investors and workers who count on their jobs at ethanol production facilities around the country. I would also ask that you return the RFS to a program based on supply of renewable fuel and ambitious goals to reduce our dangerous dependence on foreign oil and not let the program be held captive by the oil industry and its unwillingness to allow higher ethanol blends into the marketplace. [EPA-HQ-OAR-2015-0111-0213-A1 p.2]

**Mass Comment Campaign sponsored by anonymous 11 (email) - (695); Mass Comment Campaign sponsored by anonymous 31 (paper) - (301)**

The RFS has made America stronger. Our rural towns are thriving and our children are moving back to where they were raised to carry on the legacy of the family farm. They are also finding other great opportunities back home within this industry. We cannot afford to turn our backs on such a successful policy by turning away from the congressionally established levels called for by the RFS. [EPA-HQ-OAR-2015-0111-0214-A1 p.1]

Bottom line – this proposed rule shows the world we are retreating from the goals of the RFS and embracing the status quo of foreign oil and fossil fuels for our growing energy needs. [EPA-HQ-OAR-2015-0111-0214-A1 p.2]

Supporting the RFS is critical for America and for the future of our energy and agriculture sectors. I would ask that you return the RFS to a program based on supply of renewable fuel and ambitious goals to reduce our dangerous dependence on foreign oil and not let the program be held captive by the oil industry and its unwillingness to allow higher ethanol blends into the marketplace. [EPA-HQ-OAR-2015-0111-0214-A1 p.2]

**Mass Comment Campaign sponsored by anonymous 13 (web) - (121)**

All it takes is for the EPA to stick to the original targets in the RFS. [EPA-HQ-OAR-2015-0111-0106 p.1]

No law or policy has significantly reduced CO2 emissions, prices at the pump or our nation's dependency on foreign oil more than the RFS. [EPA-HQ-OAR-2015-0111-0106 p.2]

Full implementation of the RFS can do even more for Americans and the environment. [EPA-HQ-OAR-2015-0111-0106 p.2]

I kindly urge the EPA to revert to the original targets of the RFS. Let's stop playing by the oil industry's rules. [EPA-HQ-OAR-2015-0111-0106 p.2]

**Mass Comment Campaign sponsored by anonymous 14 (email) - (1339)**

The Renewable Fuel Standard is working. Every year it offsets millions of gallons of foreign oil imports, keeping investment and jobs here at home and frequently in otherwise distressed rural communities. It provides consumer choice at the gas pump for those who want a cheaper, cleaner-burning domestic fuel. [EPA-HQ-OAR-2015-0111-0216-A1 p.1]

The EPA should not forget its mission to protect human health and the environment. [EPA-HQ-OAR-2015-0111-0216-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 15 (email) - (2485); Mass Comment Campaign sponsored by anonymous 30 (email) - (26); Mass Comment Campaign sponsored by anonymous 33 (paper) - (164)**

As an American citizen, I care about the environment and the energy and national security of my country for my generation and generations to come. I, along with 82 percent of Americans, want to have a choice and savings at the pump. I believe American-made ethanol can make a difference in our nation's economy by keeping hard-earned American dollars here at home. I am tired of reading about the record profits of oil companies quarter after quarter. Just recently, it was reported that the five biggest oil companies reported nearly \$90 billion in combined profits in 2014. The \$171,100 per minute they earn is more than 95 percent of Americans earn in a year. Enough is enough, especially when I am spending more at the pump. Were it not for renewable fuels, I'd pay even more. I wholeheartedly support the RFS. [EPA-HQ-OAR-2015-0111-0217-A1 p.1]

This policy is making America stronger. We cannot afford to turn our backs on such a successful policy. [EPA-HQ-OAR-2015-0111-0217-A1 p.2]

Supporting the RFS is critical for America and for the future of our nation. I would ask that you return the RFS to a program based on supply of renewable fuel and ambitious goals to reduce our dangerous dependence on foreign oil and not let the program be held captive by the oil industry and its unwillingness to allow higher ethanol blends into the marketplace. [EPA-HQ-OAR-2015-0111-0217-A1 p.2]

**Mass Comment Campaign sponsored by anonymous 21 (web) - (13)**

As a part owner in a family farm, I see the benefits every day of a renewable fuel standard that has spurred private investment, created jobs, and made the United States more energy independent. The RFS has been good for the rural economy and good for our environment.

[EPA-HQ-OAR-2015-0111-0279 p.1]

Your proposed November 2013 rule amounted to a monumental slap in the face to farmers across the country, and this proposal is not much better. [EPA-HQ-OAR-2015-0111-0279 p.1]

As a member of a farm organization that pushed hard for the RFS-2, I urge you to find a way to reverse the damage you've done. It's not too late. [EPA-HQ-OAR-2015-0111-0279 p.1]

Finally, EPA's disappointing lack of enthusiasm for biofuels is completely inconsistent for an agency and administration that has been willing to pull out all of the stops to pursue a vigorous climate change agenda. [EPA-HQ-OAR-2015-0111-0279 p.1]

**Mass Comment Campaign sponsored by anonymous 22 (email) - (57); Mass Comment Campaign sponsored by anonymous 8 (email) - (505)**

I am writing in response to your proposal to reduce the use of ethanol in the Renewable Fuel Standard. Many communities, like mine, depend on a strong agricultural sector. The negative impact of this announcement on renewable, domestic ethanol production affects me where I live, shop and do business. [EPA-HQ-OAR-2015-0111-1478-A1 p.1]

Your decision to reduce conventional ethanol levels harm both the rural economy and the environment which it is your mission to protect. I strongly urge you to reconsider your proposed reduction in the baseline renewable volume obligations. Return them to the levels decided upon by Congress in the Renewable Fuel Standard. Many rural communities depend on your making the right decision. [EPA-HQ-OAR-2015-0111-1478-A1 p.1-2]

**Mass Comment Campaign sponsored by anonymous 23 (email) - (10)**

I am a strong supporter of renewable fuels and strongly disagree with your proposal to reduce the use of ethanol in the Renewable Fuel Standard. [EPA-HQ-OAR-2015-0111-1479-A1 p.1]  
The EPA should not forget its mission to protect human health and the environment. [EPA-HQ-OAR-2015-0111-1479-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 32 (postcard) - (7,903)**

I am strongly opposed to EPA's latest proposal to slash the RFS levels for 2014-16. [EPA-HQ-OAR-2015-0111-2562-A1 p.1]

A strong and growing RFS will keep us moving toward cleaner air, consumer choice and cracking the petroleum monopoly. **Don't mess with the RFS!** [EPA-HQ-OAR-2015-0111-2562-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 34 (postcard) - (56)**

Biofuels. More jobs, cleaner air, less dependency on non-renewable energy. Helps U.S. be self-sufficient. Help support biofuels and rural america by increasing ethanol volumes into the fuel supply. [EPA-HQ-OAR-2015-0111-3472-A1 p.1]

Don't abandon renewable fuels and rural America. [EPA-HQ-OAR-2015-0111-3472-A1 p.2]

**Mass Comment Campaign sponsored by anonymous 35 (paper) - (347); Mass Comment Campaign sponsored by anonymous 7 (email) - (82); Mass Comment Campaign sponsored by anonymous 9 (email) - (230)**

**We must move forward, not backward**, when it comes to developing alternatives to fossil fuels and foreign oil. We all know that the RFS and biofuels have created jobs that cannot be outsourced, which have helped revitalize rural America. Additionally, renewable fuels are better for the air we breathe and for our environment and they are making a difference by decreasing our dangerous dependence on foreign oil. [EPA-HQ-OAR-2015-0111-3474-A1 p.1]

Biofuels are better for our national security, energy security and they benefit consumers like me by providing a choice and savings at the pump. [EPA-HQ-OAR-2015-0111-3474-A1 p.1]

Supporting the RFS is critical for America and for the future of our nation. **I would ask that you return the RFS to a program based on supply of renewable fuel** and ambitious goals to reduce our dangerous dependence on foreign oil and not let the program be held captive by the oil industry and its unwillingness to allow higher ethanol blends into the marketplace. [EPA-HQ-OAR-2015-0111-3474-A1 p.1]

**Mass Comment Campaign sponsored by Corn, LP (web) - (37); Mass Comment Campaign sponsored by Little Sioux Corn Processors (web) - (44); Mass Comment Campaign sponsored by Quad County Corn (web) - (37); Mass Comment Campaign submitted by employees of Siouxland Energy Cooperative (web) - (30)**

We, the undersigned, dedicated employees of Corn, LP, respectfully request that the statutory requirements of the Renewable Fuel Standard be upheld. My job and the welfare of my family depends upon it. [EPA-HQ-OAR-2015-0111-2047-A1 p.1]

The original Renewable Volume Obligation established by Congress under the RFS must be upheld. There is no legal, marketplace or consumer rationale for reducing the conventional biofuels level from the RFS statutory requirements. This is the most successful U.S. energy policy in history, and it must be maintained. [EPA-HQ-OAR-2015-0111-2047-A1 p.1]

**Our request is simple: Don't Mess with the RFS!** Reverse the economic and environmental harm that the proposed lower volumes will have on our nation. The RFS is working and it's the one policy in place today that creates market access for alternatives to petroleum, breaking the oil industry's virtual monopoly over the transportation fuel supply. We are counting on the EPA to preserve our industry, our jobs and the well-being of our family, friends and the great state of Iowa! [EPA-HQ-OAR-2015-0111-2047-A1 p.2]

**Mass Comment Campaign sponsored by Creppie Masters (paper) - (120)**

As a boater and avid fisherman, preserving and protecting our natural resources is important. My fellow anglers and I care about the environment and doing what's best for future generations. When I head out on the water, ethanol (E10) is running through my boat motor. Ethanol is cleaner for the environment and reduces harmful emissions being pumped into our lakes as a result of today's low quality gasoline. And higher ethanol blends in our vehicles helps provide

cleaner air and reduces our country's dependence on toxic crude oil. [EPA-HQ-OAR-2015-0111-2960-A1 p.1]

For these reasons, I do not support the Environmental Protection Agency's propose reductions to the Renewable Fuel Standard (RFS) volume obligations. [EPA-HQ-OAR-2015-0111-2960-A1 p.1]

The RFS is the tool Congress chose to help improve our environment, slowly bring fairness to the marketplace and provide drivers with additional fuel choices. Now is not the time to throttle back alternatives to fossil fuel and foreign oil. If EPA's proposed rule is enacted, ethanol production is expected to slow. This decrease in ethanol demand will reduce jobs in rural communities, decrease tax dollars to schools, put a damper on local and state economies and effectively halt investments in next generation biofuels. Consumers will suffer at the pump as oil companies choose to utilize their own, higher-priced product rather than a cheaper, cleaner, renewable fuel. [EPA-HQ-OAR-2015-0111-2960-A1 p.1]

Continuing to implement the RFS at the intended statutory level is vital to increasing our energy independence, improving the environment and supporting American agriculture and our environment. Please reconsider the proposed rule and show your support for a cleaner, locally refined future. [EPA-HQ-OAR-2015-0111-2960-A1 p.1]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 195.]

Now is not the time to move backward when it comes to developing alternatives to fossil fuels and foreign oil. We must move forward. Continuing to implement the RFS at the intended levels is vital to increasing our energy independence, improving the environment, and supporting American agriculture and our environment.

**Mass Comment Campaign sponsored by DENCO II. Absolute Energy. L.L.C. (paper) - (633); Mass Comment Campaign submitted by investors in Golden Grain Energy LLC. (paper) - (327)**

I am writing you with deep concern regarding the recent proposed rule for the 2014-2016 Renewable Volume Obligations (RVOs) as required as part of the Renewable Fuel Standard (RFS). [EPA-HQ-OAR-2015-0111-0207-A1 p.1]

The impact that the RFS has had on ethanol plants and production cannot be overstated. Since its original enactment in 2005, I have witnessed firsthand the positive impact it has had on my local economy and how it stimulates investment from domestic and international sources. [EPA-HQ-OAR-2015-0111-0207-A1 p.1]

With this flawed proposal, EPA is fundamentally changing how the RFS works by putting the burden of fuel distribution on biofuel producers rather than branded oil, which controls more than 50 percent of the convenience stores in this country through branding agreements and ownership. [EPA-HQ-OAR-2015-0111-0207-A1 p.2]

I hope you will consider the fallout that a rule such as the one proposed would have on the investors and workers who count on their jobs at ethanol production facilities around the

country. I would also ask that you return the RFS to a program based on supply of renewable fuel and ambitious goals to reduce our dangerous dependence on foreign oil and not let the program be held captive by the oil industry and its unwillingness to allow higher ethanol blends into the marketplace. [EPA-HQ-OAR-2015-0111-0207-A1 p.2]

**Mass Comment Campaign sponsored by employees of Western Dubuque Biodiesel (web) - (1)**

**Our request is simple: Increase the RFS!** The RFS is working for the economy, energy security, consumers, farmers, and the environment. It is the most effective energy policy in our nation's history. The RFS creates market access for alternatives to petroleum, breaking the oil industry's virtual monopoly over the transportation fuel supply. [EPA-HQ-OAR-2015-0111-1961-A1 p.2]

We are counting on the EPA to preserve our industry, our jobs and the well-being of our family, friends and the great state of Iowa! [EPA-HQ-OAR-2015-0111-1961-A1 p.2]

**Mass Comment Campaign sponsored by Fuels America (email and paper) - (213,555)**

I'm writing to ask you to implement a strong Renewable Fuel Standard. [EPA-HQ-OAR-2015-0111-2555-A3 p.1]

Under the Renewable Fuel Standard, America has tripled the production of renewable fuel, driven oil imports down to the lowest level in 20 years, reduced harmful pollution, and created hundreds of thousands of jobs. [EPA-HQ-OAR-2015-0111-2555-A3 p.1]

Please follow Congress's intent and get the RFS back on track. Implement a strong Renewable Fuel Standard that follows the requirements mandated by Congress and fix the flawed methodology that threatens the future of renewable fuel. [EPA-HQ-OAR-2015-0111-2555-A3 p.1]

**Mass Comment Campaign sponsored by POET (email) - (661)**

We need your help to urge the Obama Administration and the Environmental Protection Agency (EPA) to restore strong blending levels for the Renewable Fuel Standard (RFS). [EPA-HQ-OAR-2015-0111-2772-A2 p.1]

On May 29, 2015 the EPA unveiled a proposal that would reduce the RFS and jeopardize rural economies like ours. [EPA-HQ-OAR-2015-0111-2772-A2 p.1]

**Mass Comment Campaign sponsored by POET Biorefining (paper) - (25)**

Please support our state's rural jobs, economy, and environment by keeping the Renewable Fuel Standard (RFS) intact. America's ethanol industry:

- . Employs 400,000 people in the US
- . Helps reduce our dependence on foreign oil
- . Leads the world in biofuels innovation

- . Saves consumers an average \$ 1,200 per year
- . Reduces greenhouse gas emissions [EPA-HQ-OAR-2015-0111-2954-A1 p.1]

**Mass Comment Campaign sponsored by POET Biorefining 1 (paper) - (692)**

My name is Mark Liebrecht and I am the co-owner for my family's manufacturing and farm drainage business in Continental, Ohio. I am writing to urge the Obama Administration and the EPA to restore strong blending standards for the Renewable Fuel Standard (RFS). [EPA-HQ-OAR-2015-0111-2963-A1, p.7]

We must move forward, not backward when it comes to developing alternative to fossil fuels and foreign oil. [EPA-HQ-OAR-2015-0111-2963-A1, p.7]

Supporting the RFS is critical for American and the future of our energy and agriculture sectors. [EPA-HQ-OAR-2015-0111-2963-A1, p.7]

We need your help to urge the Obama Administration and the Environmental Protection Agency (EPA) to restore strong blending levels for the Renewable Fuel Standard (RFS). On May 29, 2015 the EPA unveiled a proposal that would reduce the RFS and jeopardize rural economies, like ours. [EPA-HQ-OAR-2015-0111-2963-A1, p.7]

I Support Agriculture

I Support Ethanol

I Support Energy Independence

I Support The RFS

I Support America

Do You? [EPA-HQ-OAR-2015-0111-2963-A1, p.8]

I am writing to you because the EPA is changing the RFS and reducing the RVO gallons to less than what was promised in the law. [EPA-HQ-OAR-2015-0111-2963-A1, p.10]

**Mass Comment Campaign sponsored by VoteVets (email) - (46994)**

Please preserve a strong Renewable Fuel Standard — one that puts our national security, our environment, and American consumers ahead of the interests of Big Oil. As veterans, military families, and VoteVets supporters, we know the cost of our dependence on foreign oil. The Renewable Fuel Standard has fostered a homegrown fuel industry that lessens our dependence on oil — the rising prices of which pay for weapons used against our men and women in uniform. More than that, investing in cheaper, cleaner-burning renewable fuels has strengthened our economy — creating new jobs inside our borders, and saving Americans money with every fill-up. Don't allow oil industry lobbyists to put their interests ahead of the nation's. Save the Renewable Fuel Standard, and keep our country on the road to a transportation future that depends less on the Middle East, and more on the Midwest. [EPA-HQ-OAR-2015-0111-2056-A2 p.1]

### **Mass Comment Campaign submitted by DuPont employees (web) - (1)**

I strongly urge EPA to reconsider the proposal and stand behind the commitment to long term growth in renewable fuels. [EPA-HQ-OAR-2015-0111-2825 p.2]

### **Mass Comment Campaign submitted by members of the marine industry (email) - (408)**

As a member of the marine industry, I am writing to oppose the EPA proposal (EPA-HQ-OAR-2015-0111), which will increase the volume of ethanol in the fuel supply to historic levels. [EPA-HQ-OAR-2015-0111-1477-A1 p.1]

However, our industry, and our very way of life, is threatened by this proposal which calls for higher levels of ethanol in the fuel supply. This threat is due to the fact that ethanol levels higher than 10 percent cause severe internal damage to outboard motors, including damage to pistons, valves, and various internal parts, as proven through extensive testing by the National Marine Manufacturers Association. [EPA-HQ-OAR-2015-0111-1477-A1 p.1]

### **Mass Comment Campaign sponsored by Lincoln Energy LLC (paper) - (9)**

Nothing less than the future of our plant, our industry, and rural America is at stake! Tell EPA 'Don't Mess with the RFS!' [EPA-HQ-OAR-2015-0111-3471-A1 p.1]

P.S. The RFS battle is far too important to let Big Oil call the shots. Don't sit on the sidelines! Protect the future of ethanol by letting EPA hear your voice in support of the RFS today! [EPA-HQ-OAR-2015-0111-3471-A1 p.1]

### **Minnesota Corn Growers Association (MCGA)**

The recent announcement by the Environmental Protection Agency (EPA) to scale back Renewable Volume Obligation (RVO) numbers as called for by Congress in the Renewable Fuel Standard (RFS) is a major step backward for America's energy policy. [EPA-HQ-OAR-2015-0111-1920-A1, p.1]

### **Minnesota Farm Bureau**

Minnesota Farm Bureau opposes the Environmental Protection Agency's (EPA) proposed reduction in the amount of renewable fuels that must be blended into the nation's gasoline supply. This decision strikes a blow to conventional ethanol production and dampens the prospects for the further development of advanced biofuels. [EPA-HQ-OAR-2015-0111-2263-A1 p. 1]

On behalf of the nearly 30,000 farm families, Minnesota Farm Bureau urges EPA to reconsider its proposed rule and stay the course in order to meet the targets set out by Congress in the Energy Independence and Security Act of 2007. [EPA-HQ-OAR-2015-0111-2263-A1 p. 1]

Farm Bureau policy supports the RFS2 as passed in the Energy Independence and Security Act of 2007. We do not believe that the criterion which would justify implementation of the two waivers EPA is imposing have been met. EPA's proposal will severely undermine the goals that were set by Congress, as well as the Administration's stated support for renewable fuels. Minnesota Farm Bureau requests EPA withdraw the proposed rules for 2014, 2015, and 2016

RFS2 program and set the levels as stated in the 2007 legislation. [EPA-HQ-OAR-2015-0111-2263-A1 p. 2]

### **Minnesota Farmers Union (MFU)**

On behalf of the membership of the Minnesota Farmers Union (MFU) I would like to offer some brief comments in support of the Renewable Fuel Standard (RFS) and for keeping the 2014-2016 Renewable Volume Obligations (RVOs) under the RFS intact. [EPA-HQ-OAR-2015-0111-1311-A1 p. 1]

### **Minnesota State Senate**

As an elected official in the state of Minnesota and with Denco II, a 25 million gallon per year ethanol plant, within my district, I am writing you with deep concern regarding the recent proposed rule for the 2014-2016 Renewable Volume Obligations (RVOs) as required as part of the Renewable Fuel Standard (RFS). [EPA-HQ-OAR-2015-0111-3284-A1 p.1]

Drastic cuts, such as the one that EPA proposed, will have a devastating impact on agriculture and our rural economies, as well as investments in ethanol plants throughout the nation. By taking a step backward, you are sending a signal that the government no longer supports the production of biofuels. This uncertainty, coupled with a dramatic cut in what should be produced, puts the future of investment, growth and innovation of renewable fuels at risk know, with such uncertainty surrounding the RFS, investors and stakeholders will likely scale back, if not completely withdraw their investments. [EPA-HQ-OAR-2015-0111-3284-A1 p.1-2]

The ramifications for the industry and for the towns and communities that count on these facilities to generate economic activity would be widespread and very damaging. When there is uncertainty and increased risk, investments dry up quickly, causing the renewable fuels industry to fall well short of its potential. [EPA-HQ-OAR-2015-0111-3284-A1 p.2]

As a local elected official, the prosperity and well-being of my community is my top priority and I am deeply concerned that if this proposed rule were to take effect, the entire community and surrounding towns would suffer. Farmers would lose money, agri-business would be negatively impacted, jobs would be lost and our community would face serious economic challenges. It is part of my responsibility to serve and foster opportunities, economic growth and innovation. This rule would do just the opposite. [EPA-HQ-OAR-2015-0111-3284-A1 p.2]

### **Missouri Corn Growers Association (MCGA)**

The RFS has played a pivotal role in increasing the profitability of the corn farmer and revitalizing rural Missouri. At the same time it has reduced oil imports, lowered gas prices, and improved air quality. It has been proven that the RFS works. We strongly oppose the proposal to reduce the 2014-2016 renewable volume obligations (RVOs) for renewable fuel from the levels envisioned by Congress. The EPA is abandoning congressional intent and violating the waiver authority. [EPA-HQ-OAR-2015-0111-2507-A2 p. 1]

Farmers have responded to the RFS by fulfilling their role in producing enough corn and therefore enough ethanol to meet the requirements. This response has fostered unprecedented investment in agriculture over the past decade. Farmers should not be punished by the oil

industry intentionally failing to meet their obligations. [EPA-HQ-OAR-2015-0111-2507-A2 p. 1]

In conclusion we strongly urge the EPA to follow Congressional intent. The RVO numbers should return to the levels required by statute. It is critical the United States remains committed to domestically produced biofuels. [EPA-HQ-OAR-2015-0111-2507-A2 p. 2]

### **Missouri Farm Bureau (MFB)**

We are disappointed the Agency's recommended biofuel volume standards for 2015 and 2016 fall below the targets set by Congress, and therefore oppose the proposed rule. [EPA-HQ-OAR-2015-0111-1824-A1 p. 1]

### **National Farmers Union (NFU)**

**These comments will explain why the Renewable Fuel Standard Program (RFS) is important in terms of climate resiliency and the changes to the proposed volume standards for advanced biofuels and total renewable fuels that are needed to achieve the goals of the program. [EPA-HQ-OAR-2015-0111-1657-A1 p. 1]**

The proper execution of the RFS is vital to the American people and economy for two main reasons. First, the renewable transportation fuels promoted by the RFS have immense potential to reduce climate-influencing greenhouse gas (GHG) emissions from the transportation sector, which means implementing effective volume standards is one of the most important actions the Administration can take to mitigate climate change. Second, the production of the renewable fuels promoted by the RFS carries important economic benefits. The program decreases U.S. reliance on foreign transportation fuels. The RFS has also driven much-needed and substantial reinvestment in our rural communities, and has the potential to perpetuate even more investment. Unfortunately, the policy and regulatory uncertainty that can be expected from the proposed volume standards jeopardize existing investment in biofuels production and could create so much uncertainty that investment could be more difficult to attract than if the RFS had never been implemented in the first place. [EPA-HQ-OAR-2015-0111-1657-A1 p. 1]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, pp. 27-28.]

The NFU supports the RFS for several reasons, including the much-needed reinvestment it drives in rural America and the reduction in U.S. dependency on foreign oil it facilitates. The RFS also carries important environmental benefits, particularly in regard to climate change. Producers across the U.S. are already feeling the impact of increasing weather volatility and disruption of water resources, whether related to precipitation irregularities or loss of river flow due to diminished snowpack.

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 29.]

Oil companies have argued that there is insufficient infrastructure to accommodate the volume of biofuels mandated by Congress, allowing EPA to waive some volume requirements. However, Congress did not grant EPA the authority to waive volume requirements under these

circumstances. The statutes are specifically designed to force oil companies to build new infrastructure to accommodate increasing amounts of biofuels, opening their monopolistic stranglehold on transportation fuels and allowing consumers more choice.

### **National Sorghum Producers**

The National Sorghum Producers strongly opposes any reduction in renewable volume obligations below statutory levels. [EPA-HQ-OAR-2015-0111-1914-A1, p.1]

NSP feels congressional intent was clear in both the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007 that renewable fuel policy was to enable the ethanol industry to break the effective fuel market monopoly held by petroleum-based fuels. Therefore, this barrier should not be used as justification to reduce renewable volume obligations. Absent ethanol, it is doubtless the U.S. economy would re-enter recession, as the industry supports over a half-million jobs and touches millions more. It has revitalized rural communities and restored family farming traditions. It has saved consumers as much as \$1.09 per gallon at the pump, to say nothing of its positive impact on refining industry margins. It has reduced dependence on foreign oil to levels not seen since the 1980s and thus saved American lives. [EPA-HQ-OAR-2015-0111-1914-A1, p.2]

### **North Dakota Ethanol Council**

On behalf of the North Dakota Ethanol Council (NDEC), we would like to voice our concerns regarding the recent proposed rule for the 2014-2016 Renewable Volume Obligations (RVOs) as required as part of the Renewable Fuel Standard (RFS), which keeps RVOs below statutory levels. The ethanol industry plays an important role in our state's diverse energy sector, and the proposed rule would be detrimental to our state's economy. [EPA-HQ-OAR-2015-0111-1927-A1 p. 1]

North Dakota's ethanol industry is adamantly against the proposed reduction of RVOs and is requesting that the statutory RFS RVOs are maintained. Supporting the RFS is critical to North Dakota, the nation, and the future of our energy and agriculture sectors. [EPA-HQ-OAR-2015-0111-1927-A1 p. 2]

### **North Dakota Farmers Union (NDFU)**

For these reasons, NDFU respectfully asks EPA to issue a final rule implementing volume standards that match those Congress set in the EISA. EPA needs to consider the RFS's overall goal and its impact to agriculture in a time when rural America's agricultural community is a significant driver in our country's economy. We strongly encourage the agency to revise its standards. [EPA-HQ-OAR-2015-0111-1916-A1 p. 1]

### **North Dakota Grain Growers Association**

Supporting the existing RFS corn-based ethanol volumes is critical for America and for the future of our energy and agriculture sectors. Therefore the North Dakota Grain Growers Association respectfully requests that EPA return the RFS to a program based on supply of renewable fuel and ambitious goals to reduce our dangerous dependence on foreign oil. [EPA-HQ-OAR-2015-0111-1656-A1 p.2]

### **North Dakota Office of the Governor**

After reviewing the proposed rule, I believe that certain modifications need to be made to ensure that the nation's biofuels industry isn't negatively impacted. In particular, I am concerned by the fact that the proposed rule would lower the amount of the Renewable Volume Obligations under the RFS to a level below the goals that had been set out by Congress. [EPA-HQ-OAR-2015-0111-1763-A2 p. 1]

### **Office of the Lt. Governor, Indianapolis, Indiana**

I write to express my concern about the proposed renewable volume requirements for 2014, 2015, and 2016. Governor Pence wrote to you previously on January 21, 2014. At that time, the U.S. EPA was considering reducing the 2014 volume requirements. Now, over eighteen months later, the 2014 requirements are still not complete and neither is the requirement for 2015. I urge you to take swift action to correct the delay, to keep volume requirements as high as possible, and to provide industry with greater certainty in the future.

The proposed reductions in the renewable volume requirements and the delays by the EPA in setting them have created uncertainty for the Hoosiers involved in this industry, particularly with the 2014 and 2015 requirements that remain incomplete. Industry decisions on growth, investment, and employment are being dampened given this uncertainty. This must change for our nation to realize the objectives put in place by Congress when the renewable volume requirements were established. [EPA-HQ-OAR-2015-0111-2482-A1 p.1]

### **Ohio Corn & Wheat Growers Association**

Recognizing we continue to meet our end of the bargain to produce the crops to help make the needed biofuels, it is very disappointing to see your agency continuing to let the oil industry off the hook by rolling back the RFS. By decreasing the Renewable Volume Obligations (RVO) statutorily spelled out in the RFS to nearly status quo biofuels production, why would the oil industry invest in infrastructure to use higher blends of biofuels? In short, they won't. [EPA-HQ-OAR-2015-0111-1723-A1 p.1]

We ask for your agency to simply restore the RVOs to the statutory levels to maintain the partnership that was formed with the American farmer in 2007 and hold the oil industry accountable. We continue to uphold our end of the bargain, now we ask the EPA to uphold theirs. [EPA-HQ-OAR-2015-0111-1723-A1 p.2]

### **Paul Bertels Farms**

I am writing to strongly encourage the EPA to abandon the ill-conceived 2014-2016 NPRM for the Renewable Volume Obligations, and return to the statutory levels for conventional biofuels. Throughout this rule promulgation, the EPA has displayed a wanton disregard for the intent of the Energy Independence Security Act (EISA), if not clearly violating the law. I submitted comments during the 2013 NPRM which contained a number of substantive questions related to your process and logic behind the proposed rule. I am troubled that the Agency merely rescinded the 2013 NPRM and the requirement to answer those questions, instead issuing a new proposal. [EPA-HQ-OAR-2015-0111-2799-A1 p.1]

## **Poet, LLC**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 201.]

The RFS was intended to be a forward-looking regulation that fostered increasing amounts of renewable fuels through a combination of targets and market incentives. It was not meant to be a backward- looking accounting exercise that placed the burden of infrastructure investment solely on the biofuels community.

## **Renew Kansas**

Members of Renew Kansas engage in the processing, transportation, and marketing of ethanol fuel. Our industry supports the public policy and economic benefits to every American that flow from ethanol and other renewable fuels. We write today to express our strong opposition to the EPA's proposed rule. [EPA-HQ-OAR-2015-0111-1309-A1 p.1]

Renew Kansas seeks to ensure that our nation remains on a steady path toward the goals Congress prescribed in the renewable fuels standard program. Additionally, Renew Kansas advocates for the continued growth of renewable fuels into our national vehicle fuel portfolio. The EPA's proposal to reduce the total renewable fuel percentage standards for years 2014, 2015, and 2016 is detrimental to that goal; is inconsistent with its limited waiver authority, as set out in the Clean Air Act; and, is unnecessary. [EPA-HQ-OAR-2015-0111-1309-A1 p.2]

We urge the EPA to use its regulatory authority in a manner that continues to promote a growing renewable fuels industry and meets the statutory requirements of the Clean Air Act. Now is not the time to retreat from the clear goals of the RFS by rolling back what has proven to be the most effective energy policy in the last 40 years. We must continue to move forward.

The proposed EPA rule to lower the RFS requirements for renewable fuels works directly against our national energy and fuel needs, the interests of the American consumer, and the strength of our local and national economy. [EPA-HQ-OAR-2015-0111-1309-A1 p.4]

We appreciate the EPA's historical support on renewable fuels and the commitments pledged to the industry in carrying forth the requirements of the Clean Air Act. Our industry continues to support the goal of increasing ethanol and biofuel use, consistent with the goal and requirements set forth in the Clean Air Act. We look forward to working with EPA to develop a final rule which maintains a strong and successful RFS program. [EPA-HQ-OAR-2015-0111-1309-A1 p.4]

## **Rider, Allen**

Despite a slight increase in the proposed volumes over the November 2013 proposal, EPA's latest proposed volume requirements are not in alignment with the congressionally established biofuel blending requirements. As proposed, the standards would curtail the attainment of economic, environment, energy, and national security and public health benefits that Congress expected to achieve through the implementation of the RFS.

Also, we must recognize that this act will reduce the desire to put more investment in both the production side and the distribution side.

#### **South Dakota Corn Growers Association**

With so much success in the last decade, we believe that EPA should let the Renewable Fuel Standard continue working as it was intended. [EPA-HQ-OAR-2015-0111-1811-A1 p.2]

#### **South Dakota Farmers Union**

On behalf of the over 14000 farmers, ranchers and consumers who are members of South Dakota's Farmers Union, we urge you to protect and keep the current Renewable Fuel Standard. [EPA-HQ-OAR-2015-0111-2358-A1 p. 1]

Please continue to support the RFS and the commitment to renewable fuels. [EPA-HQ-OAR-2015-0111-2358-A1 p. 3]

#### **State of Indiana House of Representatives**

I implore you to please consider the positive impacts of biofuels when issuing your final volume obligations. [EPA-HQ-OAR-2015-0111-3466-A1 p.2]

#### **State of Nebraska**

I am writing in opposition to the Environmental Protection Agency's (EPA) proposed volume requirements under the Renewable Fuel Standard (RFS), which undermines the nation's commitment to utilize cleaner-burning fuels and diversify our country's energy portfolio. When it comes to air quality, American ethanol-blended fuel burns cleaner. [EPA-HQ-OAR-2015-0111-1810-A1 p.1]

As Governor, I am dedicated to supporting the economic growth of the state, as well as the health of Nebraskans. Therefore, I urge you to reconsider the proposed changes to the volume requirements of the RFS and instead comply with the statutory annual volume targets set by Congress. [EPA-HQ-OAR-2015-0111-1810-A1 p.2]

#### **Syngenta**

We wish to express our deep concern regarding the recently proposed rule for the 2014-2016 Renewable Volume Obligations (RVOs) as required as part of the Renewable Fuel Standard (RFS). The drastic cuts proposed by the EPA in the 2014-2016 RFS will have a shattering impact on the rural American economy and will stifle investment in ethanol plants throughout the nation. If EPA and the government turn their backs on the production of current conventional biofuels, it would result in devastation for the full-scale commercialization of next generation biofuels. The industry has just begun the commercialized production of these next generation biofuels, such as cellulosic; now would the worst time possible to undermine these efforts. [EPA-HQ-OAR-2015-0111-2493-A1 p.1] [EPA-HQ-OAR-2015-0111-1044 pp. 287-288]

### **Tenaska Commodities, LLC**

With a domestic industry that's capable of producing well over 2 billion gallons, not to mention imported volume and the 20% carryover from previous years, we were very disappointed to see your May 29 proposal for 2014-2017 RVO's. [EPA-HQ-OAR-2015-0111-0503-A1]

The purpose of the program was to annually increase the share of advanced fuels vs conventional, but yet you leave zero room for growth with such timid RVOs thru 2017. The industry has already proven capable of exceeding these figures, even while facing highly distressed production economics.[EPA-HQ-OAR-2015-0111-0503-A1]

Why let Big Oil off the hook with what Congress intended when there is no economic reason to do so? [EPA-HQ-OAR-2015-0111-0503-A1]

### **Trenton Agri Products LLC**

In concluding, please, re-propose the RVO's through 2016 to be back to the levels laid out by Congress and consistent with the renewable fuel supply that is adequately available and implement the 1 # waiver rule for E15. [EPA-HQ-OAR-2015-0111-1686-A1 p.3] [EPA-HQ-OAR-2015-0111-1043, p.321]

### **Urban Air Initiative**

Like thousands of other interested parties, UAI disagrees with EPA's proposed 2014 - 2016 RVO rule, and hopes that the Agency will issue a Final Rule that more accurately reflects the congressionally mandated RFS targets for 2015 and 2016. [EPA-HQ-OAR-2015-0111-1821-A1 p.2]

We hope that EPA will give serious consideration to these and other comments, but whatever decisions it makes, when EPA does publish its final RVO rule a few months from now, it will be binding and effective. The renewable fuels industry's only recourse at that point will be judicial review, and by the time that process reaches its ultimate conclusion, we are likely to be only months away from the time when EPA will be required to exercise its responsibilities under the so-called 'permanent re-set' provisions of the RFS2 law for some categories of renewable fuels<sup>1</sup>. What is urgently needed is a permanent, sustainable, and cost-effective solution so that the Blend Wall's adverse effects need never be experienced again. [EPA-HQ-OAR-2015-0111-1821-A1 p.2]

Conclusion. EPA's reliance on the E10 Blend Wall as justification for invoking its general waiver authority to reduce the 2014 - 2016 RVO requirements under RFS2 is unfortunate, ill-advised, and unnecessary. EPA has all of the necessary statutory, technological, and commercial tools at hand to solve the challenge.

### **WB Services**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 50.]

And I want to share that I'm here 100 percent in support of the RFS as enacted and voice my concern and disappointment over the current proposed RVO.

### **Western Plains Energy, LLC (WEP)**

I am writing you with deep concern regarding the recent proposed rule for the 2014-2016 Renewable Volume Obligations (RVOs) as required as part of the Renewable Fuel Standard (RFS). [EPA-HQ-OAR-2015-0111-0283-A1 p.1]

The Renewable Fuels Standard program began in 2006 and was later modified through the Energy Independence and Security Act of 2007. The stated purpose of this act, in part, is to move the United States toward greater energy independence and security and to increase the production of clean renewable fuels. [EPA-HQ-OAR-2015-0111-0283-A1 p.2] [EPA-HQ-OAR-2015-0111-2471-A1 p.1] [EPA-HQ-OAR-2015-0111-2958-A1 p.1] [EPA-HQ-OAR-2015-0111-1044 p. 359]

Since enactment, the RFS has done just that. It has supported billions of dollars of investment into the ethanol industry, created nearly 400,000 direct, indirect and induced jobs, added \$50 billion to the nation's Gross Domestic Product (GDP) in 2014, and paid in excess of \$10 billion in taxes in 2014. As a result of the RFS, the ethanol industry has increased annual production from 3.9 billion gallons in 2005 to 15 billion gallons today, making the U.S. the largest producer and consumer of ethanol in the world.[EPA-HQ-OAR-2015-0111-0283-A1 p.2] [EPA-HQ-OAR-2015-0111-2471-A1 p.1] [EPA-HQ-OAR-2015-0111-2958-A1 p.1]

Unfortunately, the proposed rule takes our country in a backward direction. I understand EPA's need to adjust the cellulosic and biomass based biodiesel numbers as technology and innovation hasn't progressed fast enough to support the original volumes. However, it is difficult for me to understand the rationale for reducing the corn-based volumes.[EPA-HQ-OAR-2015-0111-0283-A1 p.2]

As mentioned in the Executive Summary of the proposed rule 'The fundamental objective of the RFS provisions under the Clean Air Act is clear: To increase the use of renewable fuels in the U.S. transportation system every year through at least 2022.' Reducing the total volume obligations by more than the reduction in advanced biofuel volumes certainly does not meet this fundamental objective. [EPA-HQ-OAR-2015-0111-0283-A1 p.2] [EPA-HQ-OAR-2015-0111-2471-A1 p.1-2] [EPA-HQ-OAR-2015-0111-2958-A1 p.1-2]

In closing, I would like to say that I believe that the RFS has been the single most successful energy policy of the United States in my lifetime. It has boosted agriculture, created jobs in rural America, improved our air quality and our environment, and improved our national security. By enacting the proposed rule, the EPA is sending our country backwards and jeopardizing each of these accomplishments. [EPA-HQ-OAR-2015-0111-0283-A1 p.3]

I ask that you reconsider your proposal in regards to the corn-based volumes. I urge you to follow through on what the Congress intended by maintaining the mandated volumes, let the free market decide what fuels and what infrastructure is needed, and most of all 'protect the environment' by holding the obligated parties accountable to the required volumes set by Congress.[EPA-HQ-OAR-2015-0111-0283-A1 p.3] [EPA-HQ-OAR-2015-0111-2471-A1 p.3] [EPA-HQ-OAR-2015-0111-1044 pp. 360-361]

The impact that the RFS has had on ethanol plants and production cannot be overstated. Since its original enactment in 2005, I have witnessed firsthand the positive impact it has had on my local economy and the plant I work at. I am very proud of our ethanol plant and the impact that it has had for me personally and for our community. Western Plains Energy is recognized as one of the leading employers in our area providing solid wages and strong benefits for 48 employees. [EPA-HQ-OAR-2015-0111-2471-A1 p.1] [EPA-HQ-OAR-2015-0111-2958-A1 p.1]

### **White Energy**

When the United States Government took action to phase out leaded gas out of the U.S. fuel supply, there was a timeline defined, and the U.S. Government held the petroleum industry to that timeline to make sure it was successful. Why hasn't the EPA administered the RFS in the same manner as the phase out of leaded gas?

### **Wisconsin Farm Bureau Federation**

Thank you for the opportunity for the Wisconsin Farm Bureau Federation to comment in opposition to EPA's Renewable Fuel Standard Program: Standards for 2014, 2015, and 2016. The Wisconsin Farm Bureau Federation requests that the rule be withdrawn and the 2007 levels set in the original RFS remain the standard for future blending requirements. [EPA-HQ-OAR-2015-0111-1716-A1 p. 2]

### **Response:**

The majority of commenters that oppose the proposed rule believe EPA should increase volumes back to statutory levels or at least to some other level higher than the proposed levels that continue the momentum and upward trajectory in the growth of renewable fuels.<sup>1</sup> The specific reasons for these comments are discussed below, but in more detail in other sections throughout this RTC document as well as the final rule.

Commenters who believe volumes should set at statutory levels state believe the proposed rule is dismissive of the law and the intent of how the RFS should work under the statute. These commenters believe EPA's actions have significantly hindered the market-forcing incentives that would otherwise drive obligated parties to work with others in the supply and marketing business to ensure to production and use of renewable fuels at levels required under the program. Other commenters believe the RFS has been successful and is working exactly as intended and a deviation from the statutory volumes will have consequences to the agricultural sector, our nation's energy policy and the intended regulatory framework and goals of the RFS program. Commenters believe RFS is meant to be forward-looking and not to maintain status quo. These commenters believe the statutory volumes or other volumes substantially higher than EPA's proposed volumes can be met in the short term, and that in the long-term that high RIN prices will drive the appropriate behavior in the marketplace and encourage investments to meet the RFS requirements for 2016 and beyond. Commenters believe the proposed reductions will stall or halt investments in advanced and cellulosic biofuels (some citing specific projects that will be impacted), which they claim will cause detrimental ambiguity in the market, and fundamentally

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<sup>1</sup> Some stakeholders who opposed the NPRM asked that EPA significantly reduce volumes even further beyond proposed levels. These comments are addressed in Section 1.1.

alter the future course of the RFS program. Some believe the proposal strikes a direct blow to conventional biofuels, halting investments needed to distribute larger volumes of ethanol. Commenters also believe the proposed rule will have the effect of validating the blendwall at the level the petroleum industry's choosing, who they claim are working to undermine the RFS program. Some commenters do not believe that there are any constraints on supply resulting from the E10 blendwall. Commenters cite the phase-out of unleaded gasoline as a successful example of how EPA should hold their position and not accept arguments that higher volumes of more environmentally friendly transportation fuel is not achievable. Commenters urge EPA to increase the proposed volumes to levels that demonstrate EPA's continued commitments to growing the production and use of renewable fuels and revitalizing the economy in rural America, citing benefits that will help by: diversifying our nation's energy portfolio, reducing transportation emissions, providing value-added opportunities to various bio-stocks, giving consumers lower-costs choices at the fuel pump, and creating good paying jobs.

We agree with commenters that the RFS program has proven to be a success in meeting Congress' intent and goals. Since promulgation of RFS implementing regulations in 2007, domestic production and use of renewable fuel volumes in the U.S. has increased dramatically. The RFS program has also played a role in state and local economies, particularly in rural areas. These facilities generate revenue and create jobs for the local community, as well as support local farms that grow and sell biofuel crops as renewable fuel feedstock and its co-products such as soybean meal and dried distillers grains (DDGs) for animal feed. Businesses and organizations serving the renewable fuels industry have also grown as a result of the RFS program. While the proposed volumes are lower than the statutory volumes (for everything but biomass-based diesel), they are very forward looking and will continue to incentivize ongoing investment and growth in renewable fuel volumes of all types. We disagree that the proposed volumes are backward looking and a change in policy direction and against Administration goals to continue to support and grow biofuels, particularly those with lower GHG emissions. As discussed in more detail in Section 2.3.1 in this RTC document and Section II in the final rule, the proposed volumes will continue to help incentivize growth in renewable fuel volumes to meet the Congressional and goals for this program.

We disagree with commenters that state our interpretation and use of the waiver authorities are wrong, illegal and against Congressional intent. We believe we have correctly interpreted the authorities provided to us by Congress, as discussed in more detail in Section 2.2 through 2.2.2.1 of this RTC document and Section II.A.1 and II.A.2 in the final rule, we believe our authority to waive the statutory volume requirements, in whole or in part, in the event of inadequate domestic supply allows us to address the current supply constraints facing the RFS program, including the full extent of constraints on production, blending, distribution and use. Additionally, we are granted broad authority to reduce volumes under the cellulosic waiver authority when we reduce the cellulosic biofuel volumes.

Commenters from the ethanol industry do not believe the blendwall is a real constraint as EPA and the oil industry have claimed, and believe that this so-called "blendwall" could be resolved by increasing investment of flex-fuel vehicles that can use gasoline with higher ethanol blends such as E85, investment in E85 fueling stations, production and use of higher level ethanol blends and drop-in fuels, and investment in infrastructure to deliver these fuels to these vehicles. These commenters believe that the oil industry has done nothing in terms investment and

planning to overcome concerns of the “blendwall” in order to meet the RFS mandate levels that they have known about ever since EISA was signed into law in 2007. These commenters do not believe EPA should reward the oil industry for non-action and the threat of noncompliance by lowering volume mandates below statutory levels. These commenters believe that lowering the mandate would remove the market pressure that is needed to force higher volumes of biofuels and drive investment in infrastructure necessary to deliver these fuels. These commenters believe that maintaining the statutory levels and high RIN prices are the forcing mechanisms EPA should use that will help spur the needed investments in the FFVs, E85 stations and infrastructure that will help achieve statutory levels.

We also believe that RFS volumes above the E10 blendwall are possible. In fact, the final 2016 standards require volumes roughly 4 billion gallons beyond the amount of ethanol that can be consumed as E10. The 2016 standards are based on continued investment in both ethanol (FFVs, E85 stations and infrastructure), and non-ethanol biofuels (biodiesel, renewable diesel, biogas, etc.) necessary to continue to grow renewable fuel volumes just as the commenters suggest. We disagree with commenters that maintaining statutory levels and using RIN prices is a strong enough forcing mechanism to spur sufficient investments and overcome current market constraints to achieve statutory levels within the time available. A more detailed discussion on all these issues can be found in Section 2.6.1 of this RTC document and Section II in the final rule.

For responses to comments on the uncertainty created by reductions in the statutory targets, see Section 2.1.1.

For responses to comments on how the RIN mechanism operates to subsidize the cost of renewable fuels at retail, see Section 2.3.2.

For responses to comments stating that the E10 blendwall is not a constraint, or has been fabricated by the refining industry, see Section 2.4.

For responses to comments suggesting that obligated parties have failed in their statutory responsibilities to invest in the infrastructure needed to expand renewable fuel supply, see Section 2.7.1.

For responses to comments on the role of carryover RINs in the RFS program and suggestions that they could be used to increase the volume requirements, see Section 6.

For responses to comments requesting a 1 psi waiver for E15, see Section 10.6.5.

## **2. Proposed National Volume Requirements for Advanced Biofuel and Total Renewable Fuel**

### **2.1 General Comments**

#### **Comment:**

##### **Advanced Biofuels Association (ABFA)**

ABFA supports the 1.68 billion gallon volume, which is proposed for 2014, as it reflects the actual net gallons posted in EMTS for that year. In addition, we are encouraged and supportive of EPA's recognition of the increased capacity of new gallons from both domestic and international sources, which are currently being used to meet America's transportation fuel needs. This helps to create supply certainty for those suppliers of these fuels and a more robust set of producers to provide fuels to this sector of the fuels market place. In a global market, the recognition of all parties is necessary and more supportive of the overall consumers in the market place and will encourage further downstream investment of blending equipment to spread the fuel use more broadly. And more competition always results in better prices for consumers. [EPA-HQ-OAR-2015-0111-2498-A1 p.5]

##### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

EPA should not promote non-domestic biofuels and set standards that amount to a de-facto mandate for imports. Promoting foreign production of biofuels, or providing a ready market for foreign biofuels, was not the intent of EPA and EISA. Some of these options including palm based bio/renewable diesel run counter to the greenhouse gas reduction standards of the RFS program. [EPA-HQ-OAR-2015-0111-1948-A1 p.20]

##### **Clean Fuels Development Coalition and the Nebraska Ethanol Board**

EPA has made little if any effort to educate media and the public that the RFS is not an ethanol mandate. Nor have we seen much in the way of statements from EPA that to the extent ethanol is used, it does not raise food prices, does not increase gasoline costs, and based on the agency's own approval of E15 does not hurt engines. Because these issues are considered by EPA they should be addressed in a factual manner in order to facilitate a more accurate understanding of the law EPA has been charged with implementing. [EPA-HQ-OAR-2015-0111-2259-A1 p.2]

##### **Dakota Spirit AgEnergy**

I would also ask that you return the RFS to a program based on supply of renewable fuel and ambitious goals to reduce our dangerous dependence on foreign oil and not let the program be held captive by the oil industry and its unwillingness to allow higher ethanol blends into the marketplace. [EPA-HQ-OAR-2015-0111-2057-A1 p.2]

##### **John Deere**

From experience, we know there are numerous other benefits directly attributable to higher renewable fuel volumes, including environmental and health benefits, job creation, and the revitalization of many rural communities including funding for education, health care and other

governmental services. Yet we believe renewable fuel's greatest contributions lies in our future. Ensuring the realization of that future requires a continued aggressive approach today. [EPA-HQ-OAR-2015-0111-2042-A1 p.3]

### **Nebraska Unicameral Legislature**

Support the original intent of Congress and the people, and don't mess with the RFS.

### **The Valero Companies**

We question why EPA would promote importing non-domestic biofuels and setting standards at a level that create a de-facto mandate for imports. We do not believe that this result is consistent with the intent of Congress in passing the EISA, especially given that promoting palm-based bio/renewable diesel runs counter to the greenhouse gas reduction standards of the RFS program. [EPA-HQ-OAR-2015-0111-2765-A1 p.25]

5. "Expand co-production of non-ethanol renewable fuels with petroleum at new and existing facilities"

Once again, this option will have negligible impact for 2016, and most likely 2017. Most renewable feedstocks for non-ethanol renewable fuels require pre-treatment which requires significant capital investment and time to design, permit, and construct. [EPA-HQ-OAR-2015-0111-2765-A1 p.25]

### **Response:**

Some stakeholders raised a number of concerns about our proposed treatment of imports of renewable fuels in response to the NPRM, focusing primarily on the possibility that any underestimates of potential imports in the determination of the final volume requirements could result in imported volumes displacing domestically-produced volumes. Many stakeholders raising such concerns based their views on the presupposition that it was Congress's intent that the RFS program preferentially increase the use of domestically-produced renewable fuels over imports of renewable fuel. However, the statute as a whole does not support this view.

With regard to the word "domestic" in "inadequate domestic supply," we believe that the intent of the statutory language was to clarify that any inadequacy was to be measured according to that which can be supplied to consumers in the United States, through both domestic production and import. Imports are clearly part of the supply of materials in the U.S., and this is as true for renewable fuels as it is for other materials. Similarly, energy security includes a measure of the diversity of fuel sources as well as the geopolitical source of the sources; increasing diversity (such as through use of biofuels from a variety of countries) reduces risks associated with a potential disruption of supply. Thus, biofuel imports contribute to energy security in the United States. This issue was discussed in the original 2007 rulemaking establishing the RFS program. Also, we do not believe that statutory references to rural economic development and job creation, such as those found in 211(o)(2)(B)(ii), suggest that EPA should discourage imports of renewable fuel, when such imports can and do contribute to the major goals of the Act in reducing GHG emissions from the transportation sector and increasing energy security.

The statutory language clearly presumes that imports can play a role in meeting the volume targets that Congress set. For instance, section 211(o)(5)(A) directs EPA to issue regulations implementing the RFS program and specifies that

"The regulations ... shall provide ... for the generation of an appropriate amount of credits by any person that refines, blends, *or imports* gasoline that contains a quantity of renewable fuel ..." (Emphasis added.)

See also 211(o)(5)(E) (providing for credits for persons who import additional renewable fuel).

In addition, discrimination against qualifying foreign-produced renewable fuels would be of concern with respect to the non-discrimination principles under the World Trade Organization (WTO), of which the U.S. is a signatory. That said, it is within the EPA's purview, both under WTO and the statutory provisions for the RFS program, to consider all relevant factors that could affect supply, both those related to domestically-produced renewable fuels and those related to imports. Insofar as there are constraints on the combined potential supply of all sources of renewable fuel, or differences in the potential for supply from domestic versus foreign sources, we have the authority and the responsibility to take these into consideration when assessing supply. Regarding imports of renewable fuels, there are a variety of factors that make the level of potential supply considerably less certain than for domestically-produced renewable fuels. These factors include but are not limited to:

- High variability of imports into the U.S. in the past
- Growing international demand for renewable fuel
- Unpredictable policies in other nations regarding production, trade, taxes, and tariffs for renewable fuels
- Fluctuating demand for alternative uses of the feedstocks used to make renewable fuels, such as sugar from sugarcane

Thus while we did consider potential supply from imports in both the NPRM and final rule, our estimates of their contributions to total supply have been tempered by the uncertainty associated with them.

For responses to comments suggesting that obligated parties have failed in their statutory responsibilities to invest in the infrastructure needed to expand renewable fuel supply, see Section 2.7.1.

For responses to comments on what actions obligated parties could take to increase the supply of renewable fuel, see Section 2.7.1.

For responses to comments related to imports of sugarcane ethanol and conventional biodiesel, see Sections 2.7.4 and 2.7.5, respectively.

For responses to comments related to the impacts of the RFS program on agriculture, see Section 7.2.

For responses to comments related to the impacts of the RFS program on retail fuel prices, see Section 7.5.

For responses to comments on the impacts of different ethanol blends on engines, see Section 10.6.4.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

Section 2.3.1: Congressional intent to increase volumes

Section 2.7.4: Impacts on imports of sugarcane ethanol

Section 2.7.5: Impacts on imports of conventional biodiesel

### **2.1.1 General Comments on Advanced Biofuels**

#### **Comment:**

##### **American Farm Bureau Federation (Farm Bureau)**

Farm Bureau remains optimistic that the advanced biofuel provisions can succeed in diversifying the RFS2. From 2007 through the second quarter of 2011, over \$2.4 billion was invested in advanced biofuel companies by venture capitalists alone. It is important that these investments from the private sector be fully implemented and that incentives for continued research and development remain fully in place. Past R&D work in the sector has resulted in increasing product yields with lower input costs. The goals set forth by the RFS2 have been and remain an important catalyst for this type of cutting edge work; and it is important to the long-term health of both the economy and the environment that this work continues. [EPA-HQ-OAR-2015-0111-2355-A1 p. 3]

Farm Bureau is also concerned about the Proposed Rule and its impact on our country's commitment to advanced biofuels. The commitment to advanced biofuels is critical in order to achieve the 36 billion gallon goal of renewable fuel sold in the marketplace by 2022. In fact, by 2020, total advanced biofuels are set to equal the volume requirement assigned by conventional biofuel of 15 billion gallons and are then set to exceed the volume requirement of conventional biofuel starting in 2021. Currently, advanced biofuels still have to prove themselves as a source of major supply, but technologies are developing and good paying jobs are being created from these advancements and innovations. [EPA-HQ-OAR-2015-0111-2355-A1 p. 3]

##### **Algae Biomass Organization (ABO)**

To achieve the full energy security, economic development and greenhouse gas potential of advanced biofuels, however, EPA must do everything in its power to minimize uncertainty for advanced biofuel developers and leave no doubt in its final rule and in future year rules that advanced biofuel developers will have a market for their fuel. This requires setting volumes that reflect Congressional intent and take the advanced biofuels industry beyond today's real and perceived market constraints. It also requires removing administrative barriers to deployment,

including delays in new pathway approval and unnecessary limitations on feedstocks and co-location of facilities. [EPA-HQ-OAR-2015-0111-1951-A1, p.1]

### **East Kansas Agri-Energy, LLC (EKAE)**

Furthermore, if the EPA and the government turn its back on the production of current conventional biofuel, it will have a devastating effect on the full-scale commercialization of next generation biofuels, such as cellulosic biofuel. The biofuels industry is right on the cusp of breaking through, making commercialized production a reality and now would be the worst possible time to take a step backward. [EPA-HQ-OAR-2015-0111-2607-A2 p.2]

### **ExxonMobil Refining & Supply Company**

Lower the advanced biofuel and total renewable fuel volumes for 2016 to account for factors including the blendwall which cannot be surmounted without putting fuel consumers, distributors and many others at risk. [EPA-HQ-OAR-2015-0111-2270-A1 p.1]

### **Mass Comment Campaign submitted by DuPont employees (web) - (1)**

If the three-year 2014 to 2016 RFS rule is finalized, consistent with the proposal, it would undo much of the progress that has already been achieved and set an alarming precedent that biofuels should not exceed 10% of the fuels supply. The current U.S. biofuels industry supports 852,000 U.S. jobs and has made great strides in promoting rural economic development across the U.S. Much of this progress is attributable to the corn ethanol industry that has made significant investments relying on the promise of the RFS. In addition, the U.S. is on the cusp of bringing more than 100 million gallons of cellulosic ethanol capacity on-line by the end of this year. In order to see additional investments in cellulosic ethanol technology, EPA must issue an RFS rule that supports robust growth for existing corn ethanol capacity. [EPA-HQ-OAR-2015-0111-2825 p.2]

### **Missouri Farm Bureau (MFB)**

EPA asserts that the proposed standards for 2015 and 2016 “will drive growth in renewable fuels.” We believe the volumes set forth in the rule will slow or even halt investment in the infrastructure needed to distribute and dispense larger volumes of ethanol as well as dampen prospects for the further development of advanced biofuels. [EPA-HQ-OAR-2015-0111-1824-A1 p. 2]

### **Union of Concerned Scientists**

This combined Renewable Volume Obligation (RVO) for 2014, 2015, and 2016 represents a new direction for the administration of the Renewable Fuel Standard (RFS), which is necessary and appropriate not only because of ethanol blending challenges but also because the post 2015 RFS enters a new phase, focused heavily on growth in cellulosic biofuels, production of which are lagging statutory timelines significantly. Setting a direction for the next phase of the RFS has obviously been challenging and controversial, and uncertainty over EPA’s approach has increased uncertainty in the biofuels marketplace and created a drag on investment. In this context, the most important outcome of the present rulemaking process is to reduce uncertainty and provide the maximum amount of clarity to all market participants and stakeholders about

EPA's plans going forward. The limited scope of the present proposal means it cannot fully eliminate uncertainty on the related policy questions. However, the present rule can do a great deal to improve the situation, particularly by providing clear rationale for how decisions are being made and laying out next steps toward longer term forward guidance. [EPA-HQ-OAR-2015-0111-2260-A1 p.1]

**Response:**

A number of stakeholders said that the proposed reductions in advanced biofuel would, if finalized, increase uncertainty, and that as a result there would be increased reticence to invest in new technologies or expanded infrastructure. Some stakeholders said that the proposed volume requirements undermined investments already underway. On the contrary, we believe that uncertainty would be considerably higher if we did not reduce the volume requirements for advanced biofuel. Since we have determined that the statutory targets for advanced biofuel cannot be met as described in Sections II.B.5 and II.B.6 of this final rule, setting final volume requirements at the statutory targets would lead to shortfalls in supply, high and unstable RIN prices, and potential non-compliance. In addition, since parties may petition EPA at any time to exercise its general waiver authority, these circumstances would likely result in waiver requests, which would lead to a significant period of unnecessary uncertainty in the market. In an effort to avoid such an outcome, we are reducing the volume requirements for advanced biofuel in this action to levels that are reasonably attainable but which nevertheless represent significant growth over past levels.

For responses to comments suggesting that the proposed volumes would not drive ethanol use above the E10 blendwall, see Section 2.7.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

- Section 2.3.1: Congressional intent to increase volumes
- Section 2.6.1: E10 blendwall and demand for gasoline
- Section 2.8.2: Comments supporting lower volumes
- Section 4.1: General comments on cellulosic biofuels
- Section 4.2: Cellulosic biofuel volume assessment
- Section 7.1: General comments on economic impacts
- Section 7.2: Agricultural impacts (food, animal feed, crops, feedstock)
- Section 7.5: Retail fuel prices
- Section 7.7: Impact on jobs and local/state economy
- Section 7.8: Cost to consumers
- Section 10.1: Outlook for 2017 and beyond
- Section 10.6.3: RIN-generating pathway approvals
- Section 10.6.4: Ethanol impacts on engines
- Section 10.6.9: Biointermediates

## 2.1.2 General Comments on Total Renewable Fuel

### Comment:

#### 62nd Legislative District, Pennsylvania House of Representatives

*Specific concerns regarding the use of incentives to expand use of ethanol*

Like many, I am generally skeptical about government intervention in a marketplace to support a specific class of product. While there may be situations where such an action is appropriate, it should be temporary. This is true even when, as mentioned above, the market intervention is being done for a legitimate policy goal.

With a decade of incentives and market mandates, cellulosic biofuel, biomass-based diesel, advanced biofuel remain uncompetitive and demand for them remains anemic. As an elected official, I have heard from constituents who are unhappy with the expanded use of ethanol, but I have not heard from constituents who are seeking expanded access to these types of fuels. This seems to be an indication that efforts to induce adoption of these fuels will continue to not be successful. [EPA-HQ-OAR-2015-0111-3462-A1 p. 2]

#### BP America (BP)

Standards that reflect both vehicle and infrastructure capability as certified by vehicle manufacturers and nationally recognized testing laboratories are essential to avoiding a poor outcome for consumers and market participants. [EPA-HQ-OAR-2015-0111-1935-A1 p. 1]

#### DuPont

In the Proposed Rule EPA cites, at least ten times<sup>12</sup>, some combination of practical or legal constraints or barriers as an obstacle for setting the annual RVO for Total Renewable Fuel at a value that would exceed 10% of the fuel pool. While EPA cites practical or legal constraints extensively, the Proposed Rule does not contain an explanation, definition or scope for these practical or legal concerns. As a result, stakeholders are left to guess as to the constraints that EPA has considered and is concerned about. We can only imagine that vehicle warranties and current state and local laws may be two categories of concern. While it is indisputable that cars and trucks manufactured prior to 2001 cannot use fuel with ethanol blends beyond ten percent, we are not suggesting that introducing higher volumes of ethanol would require gas stations to only offer blends higher than E10. As a result, all vehicles should have access to fuel that complies with any warranty requirements. [EPA-HQ-OAR-2015-0111-1826-A1 p.18]

#### Poet, LLC

EPA is at a crossroads: EPA can honor the 15 billion gallon bargain that Congress established with biofuels producers and see continued investment in cellulosic biofuels. Doing so will create the market incentives to solve the very biofuels distribution issues that EPA is concerned about in the NOPR. By comparison, EPA's current approach in the NOPR undermines those investments. [EPA-HQ-OAR-2015-0111-2481-A1 p.11]

## **White Energy**

The renewable fuels industry has the capacity to produce lower-carbon fuels than we are today. Without proper implementation of the RFS, what's the incentive? Why would the industry invest billions of dollars in lower carbon technologies? This can be changed. The EPA can rebuild the integrity of the RFS by doing what's right with the RVOs. This will unleash substantial investment into the facilities that will create billions of gallons of lower-carbon fuels and will improve our environment, reduce our dependence on fossil fuels, and increase our energy security.

### **Response:**

A number of stakeholders said that the proposed reductions in total renewable fuel would, if finalized, increase uncertainty, and that as a result there would be increased reticence to invest in new technologies or expanded infrastructure. Some stakeholders said that the proposed volume requirements undermined investments already underway. As described in Section 2.1.1 in the context of similar comments made for the proposed advanced biofuel volume requirements, we believe that uncertainty would be considerably higher if we did not reduce the volume requirements for total renewable fuel. Since we have determined that the statutory targets for total renewable fuel cannot be met as described in Sections II.B.5 and II.B.6 of the final rule, ignoring the constraints on supply and setting final volume requirements at the statutory targets would lead to shortfalls in supply, RIN prices that are both considerably higher than current levels and unstable, and potential non-compliance. In addition, since parties may petition EPA at any time to exercise its general waiver authority, these circumstances would likely result in waiver requests, which would lead to a significant period of unnecessary uncertainty in the market. In an effort to avoid such an outcome, we are reducing the volume requirements for total renewable fuel in this action to levels that represent the maximum achievable supply.

While we have reduced the volumes of advanced biodiesel and total renewable fuel below the statutory targets for 2014, 2015, and 2016, the required volumes nevertheless represent substantial growth over this time period. As described in Sections II.E.5 and II.F of the final rule, the final volume requirements for 2016 in particular will require the market to supply more renewable fuel than at any time in the past, and greater than would have been supplied in the absence of the RFS program. As a result, the final volume requirements we are setting for 2016 are technology-forcing in the sense of requiring and expecting the market to invest, innovate, and expand to increase supply above historical levels. This fact should provide confidence to market participants that EPA is committed to driving growth in the use of renewable fuels, consistent with Congressional intent.

One stakeholder said that the standards EPA sets must reflect constraints associated with both vehicles and infrastructure to avoid a poor outcome for consumers and market participants. While we have taken into account both types of constraints, including impacts of vehicle warranties on consumer behavior as well as other relevant factors, in our determination of the volume requirements for 2016, we disagree that vehicle certification is the requisite criterion for determining the types of fuels that those vehicles can use. For instance, EPA has previously determined that E15 can be used in model year 2001 and later vehicles, despite the fact that many of those vehicles were not specifically certified on E15.

One legislator indicated that he had heard from constituents who were unhappy about the expanded use of ethanol, but had not heard from any constituents who were seeking to expand renewable fuels. However, the experience of this legislator is inconsistent with the range of responses that we received on the NPRM. In fact, responses to the proposed 2016 volume requirement for total renewable fuel were mixed. Some stakeholders, such as The American Council on Renewable Energy and Trestle Energy, indicated that the proposed volumes appeared to be reasonable given constraints on supply. Stakeholders who were obligated parties, petroleum marketers and retailers, livestock owners, or small engine owners typically said that the proposed volumes were too high. These stakeholders typically pointed to expected high costs, adverse impacts on vehicles or engines, or a general inability of the market to supply the proposed volumes. Many treated the constraints associated with the E10 blendwall as representing a firm barrier that could not or should not be crossed. In contrast, renewable fuel producers and farmers generally believed the proposed volumes to be too low. These stakeholders typically pointed to certain elements of the market such as production capacity and available feedstocks to support their views, and often argued that the power of the market to respond to the standards EPA sets is essentially unlimited in its ability to overcome any potential constraints on supply.

Some stakeholders said that EPA had cited legal and practical constraints on the supply of renewable fuel that warranted reductions from the statutory targets, but had not provided any explanation, definition, or scope for those constraints. The NPRM did provide examples of these constraints, though in some cases they were described as limitations. Examples include the following:

"...constraints as the "E10 blendwall" or demand for gasoline or diesel." (80 FR 33102)

"Practical and legal constraints on the supply of ethanol blends to the vehicles that can use them (in the form of E10, E15, and higher level ethanol blends), driven in part by lower gasoline consumption than was expected in 2007 when the target statutory volumes were established." (80 FR 33014)

"...limitations on the supply of higher level ethanol blends, and of non-ethanol renewable fuels." (80 FR 33107)

"...constraints associated with shortfalls in cellulosic biofuel production and other advanced biofuels, and constraints associated with supplying renewable fuels to the vehicles and engines that can use them." (80 FR 33108)

"...limitations in production and import capabilities..." (80 FR 33109)

"...including fuel infrastructure and other constraints." (80 FR 33111)

"Legal requirements limit ethanol content of most gasoline to 10% (which is delivered as E10), but for subsets of vehicles allow up to either 15% ethanol (for 2001 and newer light-duty vehicles) or up to 85% ethanol (for flex fuel vehicles). In addition there are marketplace and infrastructure constraints that limit the use of higher level (>10%) ethanol blends." (80 FR 33113)

"...as of today that there are a limited number of fueling stations selling high ethanol blends, and as a result, the number of stations operates as a constraint..." (80 FR 33114)

"...the number of FFVs with access to E85 also operates as a constraint on how much ethanol can be delivered." (80 FR 33114)

Nevertheless, to provide additional clarity we have provided an expanded discussion of the various constraints at play in our determination of the appropriate volume requirements to set. This expanded discussion can be found in Section II.E.1 of the final rule.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

Section 2.2.1: Cellulosic Waiver Authority

Section 2.2.2: General Waiver Authority

Section 2.2.2.1: Inadequate Domestic Supply

Section 2.3.1: Congressional intent to increase volumes

Section 2.3.2: Power of the market to respond to ambitious standards

Section 4.1: General Comments on Cellulosic Biofuels

Section 7.8: Cost to Consumers

Section 10.6.4: Ethanol impacts on engines

## **2.2 Statutory Authorities for Reducing Volumes Targets**

### **Comment:**

#### **Advanced Ethanol Council**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 63-66.]

The problem is, as I'm putting on my attorney hat here, is that we have a problem structurally with the regulation. And any time you set a goal in a Clean Air Act regulatory standpoint -- from a Clean Air Act regulatory standpoint, from an RFS Clean Air Act regulatory standpoint, once you've agreed where you want to go, the next most important discussion is under what conditions those obligations are waived.

We knew then that what we could not live with was what we call distribution waivers. Senator Inhofe proposed it in 2005. It was rejected in the final bill. It was scratched from the law. It was scratched from the law for a very, very, very specific reason, and that's because the oil industry controls distribution. And so that if you send a signal to the marketplace that you really, really wanted to have the numbers be bigger and the cellulosic biofuel industry be more robust, but simultaneously tell the oil industry that every gallon of renewable fuel that they avoid from a distribution and sales standpoint will get waived from the RFS, and every gallon of renewable fuel that you actually voluntarily buy and distribute will get mandated for use going forward, the oil industry is not stupid. They are not going to sign long-term offtake agreements with our industry. And when long-term offtake agreements are not signed, financing does not flow. And so, we have a problem here that we need to fix. EPA is saying we've got to fill up the bucket, but

EPA has also got a big hole in the bottom of the bucket. And so, if we can clean up by November the problems that you guys have in both the general waiver authority bucket and the D3 cellulosic waiver bucket, then this RFS will return to where we need it to go very, very quickly. If we can't, we're not going to see the innovation that EPA wants to see.

If you look at the industry and why that chain reaction of waiver problems is happening, it's an unforced error. We have an industry that has 15 billion gallons of capacity. You're not counting billions of carryover RINs. We can get to the statute that would allow you to erase the waiver problems that is creating the consternation that you're going to see in the room today.

#### **American Coalition for Ethanol (ACE)**

It appears EPA is mistakenly and unlawfully conflating the cellulosic waiver authority with the general waiver authority to try and justify its proposed reductions. [EPA-HQ-OAR-2015-0111-2543-A2 p. 5]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 20.]

Congress struck the phrase 'distribution capacity' from the final statute out of concern that oil companies would exploit it to confine ethanol blending at 10 percent. EPA is conflating the very broad discretion you have under the cellulosic waiver authority with the very narrow, clear, general waiver provisions of the RFS, and legal precedent dictates that when statutory language is clear, EPA must adhere to the statute.

#### **American Farm Bureau Federation (Farm Bureau)**

The bulk of the total RFS2 renewable fuel volume consists of conventional ethanol. It is primarily at this point that EPA's proposed rule becomes problematic. The proposed total renewable volume, and therefore the proposed implied conventional ethanol mandate, is well below the level mandated by EISA. No one disputes the fact that EPA has the authority to partially waive RFS volume requirements. EPA has specific authorization to partially waive the cellulosic ethanol mandate if sufficient volumes of product are not available to meet the mandate, and EPA has had to use that waiver authority repeatedly over the life of the RFS2. [EPA-HQ-OAR-2015-0111-2355-A1 p. 2]

Farm Bureau policy supports the RFS2 as passed in the Energy Independence and Security Act of 2007. We do not believe that the criterion which would justify implementation of the two waivers EPA is imposing has been met in either case. [EPA-HQ-OAR-2015-0111-2355-A1 p. 6]

#### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

We reluctantly support EPA's re-proposed percentage standards for 2014. We fully support EPA's necessary exercise of its cellulosic and general waiver authority in the context of the 2014 RFS rulemaking to reflect the supply of RINs generated *and* separated in 2014 that are available for compliance. [EPA-HQ-OAR-2015-0111-1948-A1 p.16]

## **DuPont**

EPA has acted beyond its granted authority and in ways inconsistent with the plain language and underlying purposes of the statute. [EPA-HQ-OAR-2015-0111-1826-A1 p.4][EPA-HQ-OAR-2015-0111-1044 p.134]

## **East Kansas Agri-Energy, LLC (EKAE)**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, pp. 288-289.]

The EPA proposal violates the law. Changing the RFS would be inconsistent with the statute and contradictory to Congress' intent of this law. Moreover, the Clean Air Act does not permit the Agency to take into account factors that affect consumption or perceived infrastructure and capacity concerns in determining whether to waive or change the RFS. So the EPA's hypothesis that the "blend wall" of 10% has been reached is not only inaccurate but, by law, cannot be considered or used as a reason to propose changes to the RFS.

## **Growth Energy**

For the reasons set forth below, Growth Energy urges EPA to change course and to refrain from issuing a general waiver that is unauthorized, unnecessary, and counterproductive. EPA should not decrease the 2014, 2015, or 2016 statutory requirements for renewable fuel, other than through its cellulosic waiver authority. [EPA-HQ-OAR-2015-0111-2604-A2 p.2]

## **Kansas Farm Bureau**

In conclusion, Farm Bureau policy supports the RFS2 as passed in the Energy Independence and Security Act of 2007, and we do not believe there is reason to justify implementation of the two waivers EPA is imposing. [EPA-HQ-OAR-2015-0111-1195-A1 p.2]

## **Marathon Petroleum Company**

The agency acted correctly in using its statutory waiver authority to reduce the cellulosic, advanced biofuel, and total renewable volumes to minimize the chance of hitting the blendwall. [EPA-HQ-OAR-2015-0111-1932-A1 p. 4]

## **Mass Comment Campaign sponsored by ActionAid USA (web) - (2629)**

We strongly support the EPA's use of its waiver authorities to lower the advanced mandate with the reduction in the cellulosic mandate. It was disappointing, however, that the advanced volume was not reduced fully in conjunction with the cellulosic volume and that the effective corn ethanol mandate continues to grow. Also of serious concern, your discussion weighing whether or not to waive down the advanced mandate did not fully acknowledge that failing to do so, would effectively be expanding the mandate for food-based biofuels. There was no consideration of what the impact of expanding production would be for food markets, land, the climate or local communities. [EPA-HQ-OAR-2015-0111-2553-A1 p.1]

The RFS is entering a new phase where the majority of the growth should come from cellulosic biofuels, which are expected to avoid the food security and land rights problems of food-based

biofuels. Continued expansion of and reliance on food-based biofuels would be a step backward. Particularly in light of blend-wall related constraints, the priority should be on renewable fuels that offer real climate benefits without undermining hunger and land rights, not continued growth in food-based biofuels which are an old technology. We urge the EPA to reconsider its decision and reduce the advanced and cellulosic mandates in conjunction and not raise the effective corn ethanol mandate. [EPA-HQ-OAR-2015-0111-2553-A1 p.1-2]

### **Minnesota Bio-Fuels Association (MBA)**

The Renewable Fuel Standard is unequivocal. Compliance with the RFS will, by its very nature, continue to stimulate the type of creativity and potential actions which the EPA outlines as potential actions stakeholders, such as vehicle manufacturers, fuel retailers and other essential parties in the fuel supply chain, can take to attain and fulfill the provisions of the RFS. [EPA-HQ-OAR-2015-0111-1936-A1 p.13]

### **Missouri Farm Bureau (MFB)**

As proposed, the biofuel volume requirement for 2015 is 4.2 billion gallons below the target set by Congress. By 2016, the proposed volume requirement is 4.85 billion gallons below the standard. Part of the reduction in 2015 is accounted for by waiving 2.89 billion gallons of the cellulosic mandate, which EPA can do if sufficient volumes of product are not available. A small portion of the waived volume is made up by a higher biomass-based diesel volume; therefore, 2.6 billion gallons is the total amount waived in the advanced biofuel category. The total renewable fuel waiver—the difference between the EISA target and EPA’s recommendation—is not 2.6 billion gallons though; it is 4.2 billion gallons. The remaining volume to be waived is conventional ethanol. The renewable fuels industry has more than enough capacity to produce in excess of the 15 billion gallons of conventional biofuel prescribed for 2015 by the EISA. Supply is not a problem. [EPA-HQ-OAR-2015-0111-1824-A1 p. 1-2]

### **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

In its NPRM, EPA correctly recognized that the E10 blendwall prevents the use of renewable fuel at the volume levels specified in the Clean Air Act. In imposing these statutory volumes, Congress expected that the cellulosic biofuels industry would experience robust growth and that transportation fuel use would continue to rise. Neither expectation has come to pass. Instead, the cellulosic biofuel industry remains in its infancy, and gasoline usage has significantly declined. As a result, the statutory volume levels are now grossly in excess of the amount of renewable fuel that the economy can supply in transportation fuel to consumers. Accordingly, EPA appropriately has proposed to exercise both its cellulosic waiver authority and its general waiver authority to reduce the volume requirements to a level that was actually achieved in 2014<sup>3</sup>—as the year is already complete—and that it suggests can actually be achieved in the few months that remain in 2015.<sup>4</sup> [EPA-HQ-OAR-2015-0111-2603-A2, pp.1-2]

EPA has the authority to reduce the statutory volume requirements by waiving them. As EPA stated in the NPRM, the agency may exercise its waiver authority under both Section 211(o)(7)(A)(ii) and Section 211(o)(7)(D)(i) of the Clean Air Act. [EPA-HQ-OAR-2015-0111-2603-A2, p.7]

<sup>3</sup> Because no additional 2014 RINs can be made available for compliance in 2014, the Merchant Refiners Group agrees in principle with EPA’s decision to set 2014 mandates no higher than the number of RINs that were actually made available for compliance in 2014. However, EPA continues to struggle with limitations on its ability to determine the number of D6 RINs that will be available for compliance in 2014. See Korotney, “Memo to docket on correction to the determination of 2014 RIN supply to account for ethanol exports” (Jul. 24, 2015). For that reason, EPA should either leave 2014 volumes as proposed or—instead of relying on RIN generation figures that risk overstating actual supply in transportation fuel in 2014—EPA should use other available data, such as EIA’s May STEO 2015 figures on ethanol consumed in 2014. Whatever approach it chooses, for the reasons set forth below, it is of paramount importance that EPA not intentionally set standards that will draw down stocks of carryover RINs.

<sup>4</sup> While these Comments focus on EPA’s proposed mandates for 2016, the Merchant Refiners Group observes that EPA’s proposed mandates for 2015 are infected with many of the same errors highlighted below. For example, in setting 2015 mandates, EPA: (i) disregards significant E0 usage; (ii) adopts the fallacy that the current RFS program can incent meaningful growth in E85; (iii) ignores structural constraints that prevent ramping up biomass-based diesel production, as well as limitations on meaningfully increasing sugarcane ethanol imports; and (iv) adopts unrealistic projections for cellulosic biofuel production. As a consequence, for the same reasons discussed below regarding 2016, the Merchant Refiners Group urge EPA to revise the 2015 proposed mandates.

### **National Association of Truck Stop Operators (NATSO)**

NATSO supports EPA’s exercise of its statutory waiver authority to avoid the blend wall and tie RVOs to market realities. [EPA-HQ-OAR-2015-0111-2478-A1 p.2]

### **National Biodiesel Board**

As the D.C. Circuit has found, Congress “directed” EPA “to *ensure* that transportation fuel sold or introduced into commerce in the United States ..., on an annual average basis, contains *at least* the applicable volume of renewable fuel[, advanced biofuel, cellulosic biofuel, biomass-based diesel]” under the statute. *NPRA*, 630 F.3d at 147, 149 n.15 (quoting 42 U.S.C. § 7545(o)(2)(A)(i)) (emphasis added); *see also* 42 U.S.C. § 7545(o)(3)(B)(i). Based on the plain meaning of the word “ensure,” the statute requires EPA to “make certain” that the statutory applicable volumes of each type of renewable fuel are sold or introduced into commerce. *NPRA*, 630 F.3d at 153. The requirement that “at least” the applicable volumes be sold signals Congress’s “intent that volumes not be reduced, at least not in the first decade of the renewable fuel program.”<sup>8</sup> *Id.* at 156. Thus, EPA’s nondiscretionary obligation is to enforce the *statutory* volumes. *See API v. EPA*, 706 F.3d 474, 481 (D.C. Cir. 2013) (finding “in sharp distinction with cellulosic biofuel, *there appears to be no great obstacle to the production of advanced biofuel generally*; to the extent that estimates in the record are relatively low, that seems to be based on want of a market, which of course continued pressure will tend to solve”) (citing 77 Fed. Reg. 1320, 1334-1335 (Jan. 9, 2012)) (emphasis added). There is sufficient and increasing domestic supply, which EPA must promote, not suppress. Even if Congress’s volumes were “ambitious,” EPA must strive to ensure the country meets those volumes. [EPA-HQ-OAR-2015-0111-1953-A2 p.5-6]

Indeed, EPA is trying to create its own version of how it thinks the RFS market should operate, rather than the way Congress intended. That Congress established a mandate is evidence that EPA's job is not to determine how the market will react. Among EISA's enumerated purposes is "increas[ing] the production of clean renewable fuels." 121 Stat. 1492. To allow EPA to waive the minimum applicable volumes on the basis of considerations found nowhere in the statute would run counter to its explicit purposes. [EPA-HQ-OAR-2015-0111-1953-A2 p.87-88]

In establishing a maximum achievable control technology requirement for regulation of hazardous air pollutants, the D.C. Circuit has recognized that Congress sought to have its directives be technology-forcing and rejected the notion that this means what the market can handle. [EPA-HQ-OAR-2015-0111-1953-A2 p.89]

EPA provides no explanation why it needs to use its waiver authority for advanced biofuels or why it cannot rely solely on its general waiver authority to address ethanol concerns only. Nor can it. There is more than adequate supply for higher volumes of advanced biofuels. [EPA-HQ-OAR-2015-0111-1953-A2 p.104]

EPA does not explain, however, what consultation was provided with respect to its proposed volumes here. Indeed, USDA and DOE would likely be in better position to inform EPA if there are other advanced biofuels that can be competitive and if the proposed volumes appropriately incentivize those fuels and support the programs being implemented by USDA and DOE. [EPA-HQ-OAR-2015-0111-1953-A2 p.105]

EPA also purports to be furthering the intent of Congress by setting the volumes at the "maximum achievable" volume. 80 Fed. Reg. at 33,117. But, EPA's analysis keeps referencing levels "as can reasonably be justified," *id.* at 33,106, and levels that are "market-driving while staying within the limits of feasibility." *Id.* at 33,109. As outlined above, Congress does not include cost considerations or "feasibility" in the waiver authority provisions. Moreover, as EPA recognizes, "[Congress] did not intend growth in the renewable fuels market to be ultimately prevented by those challenges, including, such constraints as the 'E10 blendwall' or demand for gasoline or diesel." *Id.* at 33,102. Indeed, EPA admits that there were increases in renewable fuel use in 2013 and 2014 despite the saturation of market with ethanol. *Id.* at 33,122. Reducing the statutory volumes based on an assessment of what might "reasonably" be consumed, rather than promoting production, undermines the mandates Congress sought to impose to create *statutory* incentives to promote renewable fuel production and, thereby, use. Allowing the obligated parties to dictate demand and set the volumes based on that demand does not meet these goals. In so doing, it perpetuates the reliance on fossil fuels. [EPA-HQ-OAR-2015-0111-1953-A2 p.110]

The petitions filed by API/AFPM, certain individual obligated parties, and some state governors under Section 211(o)(7)(A) to waive the 2014 RVOs must be rejected. [EPA-HQ-OAR-2015-0111-1953-A2 p.136]

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<sup>66</sup> These comments are incorporated by reference.

<sup>67</sup> Because EPA did not reduce the statutory volume for 2013, any challenge to EPA's interpretation was not ripe at that time. EPA previously declined to respond to these comments, because it had not adjusted the other standards. *See* NBB Comments on RFS2 Proposed Rule, at

48-49 (EPA-HQ-OAR-2005-0161-2249); Response to Comments at 3-255 (EPA-HQ-OAR-2005-0161-3188); *see also* NBB Comments on 2011 and 2012 RFS proposals (EPA-HQ-OAR-2010-0133-0070; EPA-HQ-OAR-2010-0133-0159).

### **Poet, LLC**

The NOPR says renewable fuels “growth should emphasize advanced biofuels.”<sup>105</sup> However, the statute doesn’t work that way. The RFS sets *separate* targets for Advanced and Base Renewable biofuels. One target is not favored over the other, and thus the statutory structure does not support “emphasizing” the Advanced target to the detriment of the Base Renewable target. [EPA-HQ-OAR-2015-0111-2481-A1 p.25]

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<sup>105</sup> NOPR at 33,123.

### **POET-DSM Advanced Biofuels**

Nevertheless, accepting the NPRM’s premise that EPA has some discretion in how to interpret the statute, the Agency would need to explain to a reviewing court how EPA had effected a “reasonable accommodation of conflicting policies” by giving the statute the interpretation that EPA adopted. *Chevron*, 467 U.S. at 485. Judged by that standard, and in light of the straightforward and ultimately simple cellulosic ethanol value equation we present above, the NPRM could not withstand even deferential scrutiny. [EPA-HQ-OAR-2015-0111-1943-A1 p.9]

### **Renew Kansas**

However, ample supplies of total renewable fuels exist, as does the capacity in the market to produce sufficient biofuels to meet the targets established by Congress. The Clean Air Act does not grant the EPA authority to set annual volume target based on a perceived 'blend wall' or perceived infrastructure limitations. [EPA-HQ-OAR-2015-0111-1309-A1 p.3]

### **Renewable Fuels Association (RFA)**

As addressed elsewhere in these comments, EPA’s proposed use of a general waiver to address perceived constraints on ethanol consumption clearly oversteps the bounds of the Agency’s statutory authority and undermines Congressional intent. But beyond these legal maladies, the use of a general waiver to reduce the 2014-2016 RVOs for renewable fuel is completely unnecessary; the statutory volumes are “reasonably achievable” with judicious use of the cellulosic waiver provision, correction of an important error regarding 2014 RINs available, consideration of carryover RINs, and a proper understanding of the RIN market’s ability to drive expanded renewable fuel production and use. [EPA-HQ-OAR-2015-0111-1917-A1 p. 16]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, pp. 33-34.]

We continue to believe that EPA is overstepping the bounds of its legal authority by proposing to partially waive the RFS, based on perceived distribution capacity constraints. Nothing in the statute allows EPA to set the RVOs based on the so-called blend wall or alleged infrastructure limitations.

## **Wisconsin BioFuels Association**

Even in its own announcement the EPA itself admits the proposed volumes are below those set by Congress. The EPA does not have the legal authority for such an action. [EPA-HQ-OAR-2015-0111-2539-A2 p.1]

### **Response:**

Commenters had many comments about the use of our general and cellulosic waiver authorities. Some commenters noted that we were conflating the authorities, or that we were using our broad discretion under the cellulosic waiver authority to impermissibly reduce volumes under the general waiver authority. For the final rule, we are relying solely on the cellulosic waiver authority for reductions in the advanced biofuel standard. The reduction in the total renewable fuel standard is supported by both the cellulosic waiver authority and the general waiver authority.

Many of the comments in this section touch on issues explored and addressed more fully in the following three sections: 2.2.1 on cellulosic waiver authority, 2.2.2 on general waiver authority, and 2.2.2.1 on inadequate domestic supply. Please see these sections for a more thorough discussion of issues specific to those authorities and terms.

Some commenters supported exercising both the cellulosic and general waiver authorities. Others argued our use of the waiver authorities was inconsistent with the plain language and purpose of the statute or unnecessary and unsupported. Others still argued that the use of the cellulosic waiver authority was appropriate while the use of the general waiver authority was beyond the scope of EPA's authority. Some commenters suggested that implementing the program using statutory volumes is all that needs to be done to foster "creativity" and compliance. EPA disagrees with commenters who argued that our use of the waiver authorities is inappropriate and strongly believes that the statutory volumes of cellulosic biofuel, advanced biofuel and total renewable fuel cannot be attained within the timelines set forth in the Act because of the many factors discussed in the final rule and this document. We believe that our interpretation of the authorities used to reduce volumes today is consistent with the text and purpose of the act, and is reasonable and appropriate.

Some commenters supported our proposed use of the waiver authorities to reduce the volume of advanced biofuels but expressed disappointment that the advanced volume was not reduced to the fullest extent possible using the cellulosic waiver authority for various reasons. Some commenters noted that this would result in continued growth of the "effective corn ethanol mandate." They critiqued our failure to consider the impact of expanding biofuel production on food markets, land, the climate, or local communities. In the final rule we have declined to reduce the advanced volume by the full amount of the cellulosic biofuel waiver because we believe the volumes of advanced biofuels we are finalizing today are reasonably attainable, and because we believe there is a benefit in terms of GHG reduction and energy security in requiring that these volumes be used, as is more fully described in the final rule. The impact of expanding biofuel production on food markets, land, and local communities is discussed in this document in sections 7 and 8. To the extent that the record suggests that there are negative impacts in such areas from the increased advanced biofuel production and use that is associated with this final rule, we do not believe that such negative impacts outweigh the positive GHG reduction and

energy security benefits associated with increased advanced biofuel use. While there is no “corn mandate” under the statute, the difference between the total renewable fuel volume requirement and the advanced biofuel volume requirement can be satisfied with corn ethanol (as well as other types of renewable fuel). EPA is using the general waiver authority based on a finding of inadequate domestic supply to reduce the total renewable fuel volume requirement to a level representing the maximum volume that is reasonably achievable. We believe that this is appropriate, since we believe we only have authority to waive volumes on the basis of inadequate domestic supply to the extent an inadequacy in supply exists. (That is, we are not authorized to reduce levels below the “adequate supply” level, except insofar as other bases for exercising the general waiver authority, such as severe economic or environmental harm, may be present.) This approach is consistent with Congressional intent to grow use of renewable fuel over time, including use of corn ethanol, except to the extent that conditions justifying a waiver are present. More specific discussion of our consideration of the effects on food markets, climate, and local communities is presented in section 2.2.1 of this document.

Some commenters noted that the RFS program is not intended to favor advanced biofuels, as it sets separate targets for advanced biofuels and total renewable fuel. However, we note that the purpose of the statute is increased production of clean renewable fuels, and all growth in volumes in the statute beyond 2014 is in advanced biofuels. An emphasis on advanced biofuels is therefore entirely consistent with the statute. However, we also note that our final action establishes a record requirement for the use of total renewable fuels, including a substantial growth in the volumes that may be satisfied with conventional biofuels.

Some commenters noted that there was clearly not a lack of supply due to the industry’s capacity and availability of carryover RINs. However, we interpret “supply” to involve a more comprehensive view than just production capacity. We also do not consider carryover RINs to be part of the “supply” in determining if an inadequate domestic supply exists. We do, however, take carryover RINs into consideration in determining whether or not we should exercise our discretion to issue a waiver of the statutory volumes based on a determination of “inadequate domestic supply.” Please see section 2.2.2.1 on inadequate domestic supply, and section 6.1 on carryover RINs for further discussion of this issue.

Some commenters noted that the absence of a reference to “distribution capacity” from the final bill is an indication that EPA is precluded from considering “distribution capacity” in evaluating “inadequate domestic supply.” Many commenters made statements about why this phrase was removed, but there was no evidence found or provided supporting those statements about why this phrase was removed. EPA disagrees with these commenters’ interpretations of both the meaning of the lack of reference to “distribution capacity” in the final rule and the factors EPA can consider when evaluating whether there is “inadequate domestic supply.” There is no explanation in the legislative history of why Congress adopted the version they did and there are various potential explanations as mentioned in Section 2.2.2.1 of this document and the final rule. Given the ambiguity in the statute on the meaning of the phrase “inadequate domestic supply,” it is appropriate for us to interpret the phrase in a manner that best comports with the achieving the purposes of the statute. Please see section 2.2.2.1 on inadequate domestic supply for further discussion of this issue.

Despite the statutory language that EPA is to “ensure” that gasoline in the United States contains the applicable volume of renewable fuel provided in the statute, the statute also provides EPA

with the authority to issue a waiver of those statutory volumes in specific situations. CAA section 211(o)(7)(A)(D) requires EPA to reduce the cellulosic biofuel volumes when the projected production volume is less than the statutory volume. That provision also allows EPA to reduce advanced biofuels volumes and total renewable fuel volumes by the same or a lesser amount. Additionally, CAA section 211(o)(7)(A) provides EPA with the authority to reduce statutory targets on the basis of a finding of inadequate domestic supply, severe harm to the environment, or severe economic harm. Thus, the statute does not give EPA a nondiscretionary obligation to enforce the statutory volumes, but instead provides other avenues for EPA to adjust the statutory volumes in particular situations. Situations justifying the use of the cellulosic waiver authority and the general waiver authority are before us today.

A commenter noted that EPA's use of the term "maximum achievable" in the NPRM did not match the meaning of that term under other Clean Air Act programs. In response, we note that we have used the term to help explain our approach to identifying required volumes when exercising the general waiver authority based on a determination of inadequate domestic supply. The words "maximum achievable" do not appear in the statutory waiver provision, and we are not required to give this term the same meaning as it is given in other provisions of the Act.

A commenter suggested that EPA was acting inappropriately in setting volumes at what may "reasonably" be consumed rather than promoting production. In the final rule we are establishing volume requirements for total renewable fuel at the maximum levels that are reasonably achievable taking into account the ability of the market to respond to the standards we set. We believe that this approach will promote both increased production, and increased investment in capacity to distribute and use renewable fuels, while also acknowledging the constraints in the current market on what is achievable. We do not interpret the statute to require us to set volume requirements that are unreasonable under the circumstances.

Some commenters noted that EPA failed to base its interpretation of "inadequate domestic supply" on "reasonable accommodation of conflicting policies," citing *Chevron v. NRDC*, 467 U.S. at 485. However, we find that our broad interpretation of "supply" does accommodate conflicting policies by considering all of the potential constraints from production to ultimate supply to the consumer, on the one hand, and the overriding objective of the Act to increase the use of renewable fuels over time, on the other. Our final decision is consistent with the waiver authorities uses, and will result in very considerable, yet achievable, growth in renewable fuel use of the time period in question.

Some parties said that EPA had not sufficiently described why the statutory target for advanced biofuel cannot be reached in 2016. . We agree that it is appropriate to elaborate on the limitations in the supply of advanced biofuel that have led us to conclude that the statutory target for advanced biofuel cannot be reached in 2016. This discussion can be found in Section II.B.5 of the final rule.

One commenter questioned whether EPA had fulfilled its obligation to consult with the secretaries of Energy and Agriculture in establishing the final standards which make use of the waiver authorities. EPA has had considerable consultation with DOE and USDA regarding the proposed volumes and the exercise of waiver authorities, including (but not limited to), circulating multiple drafts of the rule for consideration in inter-agency review. Additional information can be found in the docket for this rule.

For responses to comments on whether the statutory volume requirements can be reached in 2014, 2015, or 2016, under either the general waiver authority or the cellulosic waiver authority, see Section 2.2.4.

For responses to comments on how the RIN mechanism operates to subsidize the cost of renewable fuels at retail, see Section 2.3.2.

For responses to comments stating that the E10 blendwall is not a constraint, or has been fabricated by the refining industry, see Section 2.4.

For responses to comments stating that production capacity should be the basis of the volume requirements, see Section 2.4.

For responses to comments suggesting that obligated parties have failed in their statutory responsibilities to invest in the infrastructure needed to expand renewable fuel supply, see Section 2.7.1.

For responses to comments on the environmental impacts of the proposed volume requirements, see Section 8.

## **2.2.1 Cellulosic Waiver Authority**

### **Comment:**

#### **Advanced Biofuels Business Council (ABBC)**

While the ABBC has some concerns about the appropriateness of the reductions contained in the proposed rule, particularly with regard to the general intent of Congress, the so-called blend wall and related legal directives to “increase the production of clean renewable fuels,” the proposed blending targets for cellulosic biofuel and advanced biofuel appear to at least not run afoul of CAA section 211(o)(7)(D)(i). [EPA-HQ-OAR-2015-0111-3528-A1 p.11]

#### **American Coalition for Ethanol (ACE)**

If cellulosic biofuel production is less than the applicable volume provided in the statute, this waiver authority compels EPA to reduce the cellulosic biofuel RVO to the projected volume available during the calendar year. [EPA-HQ-OAR-2015-0111-2543-A2 p. 5]

#### **American Council on Renewable Energy (ACORE)**

ACORE recommends that USEPA should set total RVOs at levels dictated by the statute, less the amount that USEPA proposes to reduce advanced biofuel targets due to a projected shortfall in cellulosic ethanol. [EPA-HQ-OAR-2015-0111-1926-A1 p.13]

#### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

Due to the nested nature of the standards, to lower the overall cost of the program to consumers and to make the regulations more achievable, EPA should always extend the full volume of any cellulosic waiver to both the advanced biofuel and the total renewable fuel RVO requirements. [EPA-HQ-OAR-2015-0111-1948-A1 p.24]

### **Badger State Ethanol**

We recommend that EPA use only its cellulosic--biofuel waiver authority and refrain from the pronged misuse of the 'general' waiver authority. EPA should carry through the full amount of the cellulosic biofuel waiver to the advanced and total renewable fuel categories, keeping the 2014, 2015 and 2016 requirements for undifferentiated renewable fuel at the levels intended by Congress (14.4, 15.0, and 15.0 billion gallons, respectively). [EPA-HQ-OAR-2015-0111-1201-A2 p. 2]

### **Big River Resources, LLC**

We recommend that EPA use only its cellulosic biofuel waiver authority and refrain from the proposed misuse of the “general” waiver authority. EPA should carry through the full amount of the cellulosic biofuel waiver to the advanced and total renewable fuel categories, keeping the 2014, 2015 and 2016 requirements for undifferentiated renewable fuel at the levels intended by Congress (14.4, 15.0, and 15.0 billion gallons, respectively). [EPA-HQ-OAR-2015-0111-3419-A1, p.1]

### **Biotechnology Industry Organization**

EPA has failed properly to justify its use of its cellulosic waiver authority<sup>94</sup> to reduce the advanced and total renewable fuel volumes to the same extent that it is proposing to reduce RVOs for cellulosic biofuels. EPA has failed to show that there are insufficient potential gallons of advanced and total renewable fuels, used along with carryover RIN credits, to meet the full RVO requirements. [EPA-HQ-OAR-2015-0111-1958-A2 p. 25]

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<sup>94</sup> See 42 U.S.C. § 7545(o)(7)(D)(i).

### **Brazilian Sugarcane Industry Association (UNICA)**

It does not appear that EPA made any efforts to calculate exactly how much sugarcane ethanol might be needed and available to support a lower reduction under section 211(o)(7)(D)(i); it just assumed the maximum reduction in advanced biofuels and total renewable fuels possible under the provision, implying there were no such volumes of those fuels available to make up the shortfall. As indicated above, EPA's assumptions about the availability of sugarcane ethanol imports are incorrect. [EPA-HQ-OAR-2015-0111-2495-A1 p.17]

UNICA does not believe that the cellulosic waiver provision can be read, consonant with the purposes of the RFS2 program, to authorize reductions in advanced biofuel volumes or total renewable fuel volumes where such fuels are available to replace any projected shortfall in cellulosic biofuels. [EPA-HQ-OAR-2015-0111-2495-A2 p.7]

### **Central Indiana Ethanol (CIE)**

We recommend that EPA use *only* its cellulosic biofuel waiver authority and refrain from the proposed misuse of the 'general' waiver authority. EPA should carry through the full amount of the cellulosic biofuel waiver to the advanced and total renewable fuel categories, keeping the 2014, 2015 and 2016 requirements for undifferentiated renewable fuel at the levels intended by

Congress (14.4, 15.0, and 15.0 billion gallons, respectively). We provide more detail below to support this recommendation. [EPA-HQ-OAR-2015-0111-2821-A2 p.2]

### **Commonwealth Agri-Energy, LLC**

We recommend that EPA use *only* its cellulosic biofuel waiver authority and refrain from the proposed misuse of the ‘general’ waiver authority. EPA should carry through the full amount of the cellulosic biofuel waiver to the advanced and total renewable fuel categories, keeping the 2014, 2015 and 2016 requirements for undifferentiated renewable fuel at the levels intended by Congress (14.4, 15.0, and 15.0 billion gallons, respectively). We provide more detail below to support this recommendation. [EPA-HQ-OAR-2015-0111-1215-A2 p.2]

### **Growth Energy**

EPA then proposed to flow the cellulosic waiver through to reduce the statutory advanced biofuel and renewable fuel volume requirements.<sup>54</sup> Although EPA did not say so explicitly, it is evident that it would flow the cellulosic waiver through only partially because the proposed cellulosic waivers are greater than the proposed waivers of the advanced levels. Specifically, EPA proposed to reduce the cellulosic requirement by 1.717 bil gal in 2014, 2.894 bil gal in 2015, and 4.044 bil gal in 2015, but to reduce the advanced requirement only by 1.070 bil gal in 2014, 2.600 bil gal in 2015, and 3.850 bil gal in 2016.<sup>55</sup> EPA then proposed to also flow the cellulosic waiver through to the renewable fuels requirement for all three years by the same amounts as to advanced.<sup>56</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.10]

The statutory renewable fuel volume requirements, after being reduced by EPA’s proposed cellulosic waiver flow-through, are 17.08 bil gal for 2014, 17.90 bil gal for 2015, and 18.40 bil gal for 2015.<sup>174</sup> If EPA maintained these cellulosic waiver flow-throughs, the combined production capacity of ethanol and BBD alone would be more than enough to meet the adjusted volume requirements.<sup>175</sup> In fact, even in the worst case, supply would suffice to support 1 bil RINs in excess of these requirements. Consequently, EPA lacks the power to invoke its general waiver authority to reduce the renewable fuel volume requirements for 2014-2016 further than it proposes to do by flowing the cellulosic waiver through. [EPA-HQ-OAR-2015-0111-2604-A2 p.31-32]

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<sup>54</sup> *Id.* at 33,110-33,111.

<sup>55</sup> *See id.* at 33,122.

<sup>56</sup> *Id.* at 33,110.

<sup>174</sup> As explained above, EPA proposed to reduce the cellulosic requirement by 1.717 bil gal in 2014, 2.894 bil gal in 2015, and 4.044 bil gal in 2015, but to flow that waiver through only by 1.070 bil gal in 2014, 2.600 bil gal in 2015, and 3.850 bil gal in 2016. *See* 80 Fed. Reg. at 33,122.

<sup>175</sup> We assume for purposes of this comment that EPA performed its projection calculations properly when calculating the cellulosic waiver. If we discover that EPA made errors in this assessment, we reserve the right to object to the cellulosic waiver at a later time.

## **Indiana Farm Bureau**

Farm Bureau policy supports the RFS2 as passed in the Energy Independence and Security Act of 2007. We do not believe that the criterion which would justify implementation of the two waivers EPA is imposing has been met in either case. [PA-HQ-OAR-2015-0111-2486-A1 p.4]

## **Husker Ag LLC**

We recommend that EPA use *only* its cellulosic biofuel waiver authority and refrain from the proposed misuse of the 'general' waiver authority. EPA should carry through the full amount of the cellulosic biofuel waiver to the advanced and total renewable fuel categories, keeping the 2014, 2015 and 2016 requirements for undifferentiated renewable fuel at the levels intended by Congress (14.4, 15.0, and 15.0 billion gallons, respectively). [EPA-HQ-OAR-2015-0111-2044-A2 p.2]

## **Iowa Corn Growers Association (ICGA)**

The statute dictates that the RVO for conventional/corn ethanol is:

2013: 13.8 billion gallons

2014: 14.4 billion gallons

2015: 15 billion gallons

2016: 15 billion gallons

The current law governing the RFS provides the EPA with specific authority to adjust to shifting and unforeseen market conditions often called “waiver” authorities. The first is section 211(o)(7)(D) of the Clean Air Act. When the anticipated production of cellulosic ethanol is not expected to meet its targets, this allows the EPA the flexibility to reduce the target for cellulosic if needed. This provision also allows the EPA to reduce the advanced biofuel standard and total renewable fuel standard by the same (or lesser) amount as the reduction in cellulosic. This waiver can only be invoked when renewable fuel production is low. The current authority keeps the RFS working by ensuring that as long as the fuel can be produced, it can be sold. [EPA-HQ-OAR-2015-0111-1820-A1 p. 1-2]

## **Iowa Renewable Fuels Association**

The members of IRFA are adamantly opposed to the proposed volume requirements and we strongly encourage the EPA to reconsider its proposal. We recommend the EPA only exercise its cellulosic biofuel waiver authority and discard its convoluted misinterpretation of the “general” waiver authority. EPA should maintain the levels for undifferentiated renewable fuel at the levels prescribed by Congress for 2014, 2015, and 2016 (14.4, 15.0, and 15.0 billion gallons respectively), while setting the biomass-based diesel levels for 2016 and 2017 at no less than 2.0 and 2.3 billion gallons respectively. [EPA-HQ-OAR-2015-0111-1957-A2 p. 2]

## **Mass Comment Campaign sponsored by ActionAid USA (web) - (2629)**

Under the justification, the rule stated that one of the primary reasons for reducing the mandates was 'Insufficient supply of other advanced biofuel to offset the shortfall.' This suggests that the EPA would be willing to consider backfilling missing cellulosic gallons with food-based biofuels to meet the advanced quota, if there is sufficient supply. This is a dangerous signal to be sending biofuel producers. As the proposed rule pointed out, there will be a growing gap between the available cellulosic biofuel volume and the mandate going forward. Biofuel producers then would have every incentive to then try to expand production of food-based biofuels, regardless of the possible resulting land use change, impact on food prices or consequences for local communities, to backfill missing gallons. Signalling that there may again be a growing market for first generation, food-based biofuels is the absolute wrong message to be sending producers. At a minimum, the EPA must develop far more stringent requirements and analysis for food-based biofuels going forward, which would include careful study of the impact on food prices, land use change and land rights, climate, and other impacts on local communities. [EPA-HQ-OAR-2015-0111-2553-A1 p.2]

### **N. Bowdish Company**

I recognize the authority Congress granted EPA to adjust the renewable volume obligations based on the Cellulosic Waiver Authority. [EPA-HQ-OAR-2015-0111-1202-A1 p.2]

### **National Biodiesel Board**

Congress did identify the criteria that would provide “substantial justification” for reducing the statutory volumes—the criteria outlined under Section 211(o)(7)(A). Indeed, EPA is limited to such criteria even under the cellulosic biofuel waiver provision. [EPA-HQ-OAR-2015-0111-1953-A2 p.82]

NBB explained that the statute does provide EPA with procedural and substantive criteria for the reduction of the statutory volumes for advanced biofuels, which are outlined under Section 211(o)(7)(A). EPA-HQ-OAR-2012-05460069 at 16-17.<sup>66</sup> In response, EPA contended that Section 211(o)(7)(D)(i) is a separate and independent provision, and, because it has no cross-references to Section 211(o)(7)(A), EPA had no obligation to consider these criteria. 78 Fed. Reg. at 49,810. EPA further stated that, “[i]f it did, the waiver language in 211(o)(7)(D)(i) would be superfluous, since 211(o)(7)(A) would already provide the discretionary authority to reduce advanced biofuel and total renewable fuel in the circumstances where the criteria in 211(o)(7)(A) are satisfied.” *Id.* at 49,810-49,811. EPA is incorrect.<sup>67</sup> The second sentence in Subparagraph (D)(i) does not create brand new authority with respect to advanced biofuels or renewable fuels. It merely clarifies that EPA may (not must) reduce the volumes, if allowed under Subparagraph (A), by the same or a lesser volume as the reduction in the cellulosic biofuel volume, not more. [EPA-HQ-OAR-2015-0111-1953-A2 p.83]

In addition, incorporating the criteria from the general waiver provision in Section 211(o)(7)(A) in assessing whether to reduce the advanced biofuel volume under Section 211(o)(7)(D) does not render any provision superfluous. Subparagraph (D) provides an alternative basis for reducing the cellulosic biofuel volume and supports the alternative procedure to the petition required and addressed in Subparagraphs (B) and (C), confirming that any other waiver under this provision is

limited to the amount of the cellulosic biofuel reduction (*i.e.*, it cannot go beyond that reduction). [EPA-HQ-OAR-2015-0111-1953-A2 p.85]

Whether a shortfall in projected cellulosic biofuel production translates into a shortfall of “the same or a lesser volume” in the broader categories, depends solely on the availability of other fuels. Thus, even if not compelled to consider the criteria in Subparagraph (A), the availability of other biofuels to make up the shortfall (that is, the inadequate domestic supply in cellulosic biofuel) is the only relevant criterion to reduce those volumes. [EPA-HQ-OAR-2015-0111-1953-A2 p.87]

### **National Chicken Council (NCC)**

NCC also believes the Clean Air Act provides EPA adequate authority to reduce the renewable fuel volume requirements by the same or lesser amount as EPA reduces cellulosic biofuel targets. The statutory language plainly states that EPA may “reduce the applicable volume of renewable fuel . . . by the same or a lesser volume.”<sup>7</sup> The Clean Air Act does not require that the renewable fuel volume be decreased in fixed proportion relative to the advanced biofuels requirement; the only point of reference in the statute is the cellulosic biofuel requirement. NCC therefore fully supports using this authority to reduce the renewable fuel target by the same amount as the cellulosic biofuel target is reduced. [EPA-HQ-OAR-2015-0111-1814-A1 p.7]

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<sup>7</sup> 42 U.S.C. § 7545(o)(7)(D).

### **National Corn Growers Association (NCGA)**

NCGA believes the EPA is properly using the waiver authority by reducing the obligated volumes for cellulosic and advanced biofuels. [EPA-HQ-OAR-2015-0111-1939-A1 p.5]

### **Novozymes Americas**

We respectfully request that EPA use *only* its cellulosic biofuel waiver authority and refrain from the proposed misuse of the “general” waiver authority. [EPA-HQ-OAR-2015-0111-3277-A1 p.2]

### **Pacific Ethanol, Inc.**

We recommend that EPA use only its cellulosic biofuel waiver authority and refrain from the proposed misuse of the “general” waiver authority. EPA should carry through the full amount of the cellulosic biofuel waiver to the advanced and total renewable fuel categories, keeping the 2014, 2015 and 2016 requirements for undifferentiated renewable fuel at the levels intended by Congress (14.4, 15.0, and 15.0 billion gallons, respectively). [EPA-HQ-OAR-2015-0111-2508-A2, p.2]

### **Poet, LLC**

EPA requests comment on whether it “would be appropriate to *only* waive volumes of advanced biofuel and total renewable fuel under the cellulosic waiver authority for 2016” without waiving volumes under the general waiver authority.<sup>118</sup> POET’s answer to this question is “yes.” [EPA-HQ-OAR-2015-0111-2481-A1 p.31]

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<sup>118</sup> NOPR at 33,123 (emphasis added).

### **The Andersons, Inc.**

We recommend that EPA use *only* its cellulosic biofuel waiver authority and refrain from the proposed misuse of the 'general' waiver authority. EPA should carry through the full amount of the cellulosic biofuel waiver to the advanced and total renewable fuel categories, keeping the 2014, 2015 and 2016 requirements for undifferentiated renewable fuel at the levels intended by Congress (14.4, 15.0, and 15.0 billion gallons, respectively). [EPA-HQ-OAR-2015-0111-2509-A2 p.2]

### **Union of Concerned Scientists**

Our specific recommendations include:

- Apply the full cellulosic waiver to the advanced and renewable mandates. [EPA-HQ-OAR-2015-0111-2260-A1 p.2]

Avoid discretionary increases in food based fuels by applying the full cellulosic waiver to advanced and renewable mandates

On pages 33104 and 33110 EPA seeks comment on the criteria under which it should exercise its cellulosic waiver authority. If EPA does not reduce the advanced and renewable mandates by the same amount as the cellulosic mandate, it is in effect making a discretionary enlargement of the mandate for food based fuel beyond the level implied by the statute. [EPA-HQ-OAR-2015-0111-2260-A1 p.4]

While EPA clearly has authority to make such an enlargement, it is important that the exercise of this authority is made with consideration of all the goals and criteria set forth in section 211 (o)(2)(B)(ii) of the Clean Air Act, which include the impact on climate change, ecosystems, wildlife habitats, infrastructure, the price and supply of agricultural commodities and food prices. [EPA-HQ-OAR-2015-0111-2260-A1 p.4]

By adopting a clear approach to the cellulosic waiver now, the RFS will still provide and aggressive schedule of growth in non-cellulosic advanced biofuels and will reduce the role of speculation about EPA administration from driving the marketplace. [EPA-HQ-OAR-2015-0111-2260-A1 p.5]

### **Union of Concerned Scientists (UCS), Clean Air Task Force, Environmental Working Group, ActionAid USA, and National Wildlife Federation (NWF)**

EPA's discussion of this decision restricted the criteria, and did not include consideration of all the goals and criteria set forth in section 211 (o)(2)(B)(ii) of the Clean Air Act, which include the impact on; climate change, ecosystems, wildlife habitats, infrastructure, the price and supply of agricultural commodities and food prices. [EPA-HQ-OAR-2015-0111-2476-A1 p.1]

**Response:**

Most commenters did not object to our use of the cellulosic waiver authority to reduce volumes of cellulosic biofuels. The statute provides that we shall reduce volumes based on the projected volume of cellulosic biofuel production, and we have done so in this rulemaking.

When EPA uses the cellulosic waiver authority to reduce volumes of cellulosic biofuel, we are also authorized to reduce volumes of total renewable fuel and advanced biofuel by the same or a lesser amount. The statute provides no criteria which EPA must consider in making the determination whether to reduce volumes of total renewable fuel and advanced biofuel. The D.C. Circuit has noted that this provision grants EPA "broad discretion regarding whether and in what circumstances" to reduce volumes. *Monroe v. EPA*, 750 F.3d 909, 915 (D.C. Cir. 2014). EPA is using our broad discretion to reduce the volume of advanced biofuel to a reasonably attainable level, and to provide an equal reduction of the total renewable fuel applicable volume. Further reductions in total renewable fuel are obtained using the general waiver authority. . Regarding carryover RIN credits, EPA has considered the possible role of carryover RINs in avoiding the need to reduce the statutory applicable volumes. However, we have assessed the size of the carryover RIN bank and have determined that the availability of the current RIN bank does not support setting the volume requirement at a level higher than the amount of renewable fuels and associated RINs that can be produced and consumed. This issue is discussed further in Section II of the final rule.

Several commenters recommended that EPA should set total RVOs at the statutory levels less the full amount of the cellulosic waiver. Many of these commenters also suggested that EPA should not use the general waiver authority to further reduce volumes. These commenters assert that the statutory volumes reduced by the full extent of the cellulosic waiver authority would be "reasonably achievable." However, their argument assumes a drawdown of the carryover RIN bank. As noted in the preamble, we have determined that the current bank of carryover RINs serves an important programmatic purpose, and that setting the volumes at a level that requires drawdown or elimination of the RIN bank, rather than at the level of renewable fuel that can be produced and consumed, would be inappropriate. Additionally, we do not find that a reduction by the full amount of the waiver in cellulosic volumes is necessary or appropriate, since advanced biofuels are able to partially backfill for the missing cellulosic volume, and additional GHG reductions can be achieved in the program by specifying through the advanced biofuel standard that reasonably available volumes of advanced biofuel be used. Finally, we believe that the total renewable fuel standard cannot be met if it is set at the statutory volume less the reduction in the cellulosic volume. Legal and practical limitations on supply prevent achievement of even the volumes resulting from exercise of the cellulosic waiver authority, and thus we are further reducing the total renewable fuel volume under our general waiver authority.

Some commenters suggested that EPA should apply the full cellulosic waiver to the advanced and total renewable fuel volumes to avoid "discretionary increases in food based fuels" or "backfilling missing cellulosic gallons with food-based biofuels to meet the advanced quota." They suggested that EPA should consider the factors in 211(o)(2)(B)(ii) in deciding whether or not to exercise its discretion under the cellulosic waiver authority, especially on climate change, land use change, wildlife habitats, infrastructure, and the price and supply of agricultural commodities and food pricing. They suggested that our discretionary decision to reduce the

volume of advanced biofuel by less than the full amount of the reduction in cellulosic volumes is not warranted by the available feedstocks and, generally, that EPA should instead use its full cellulosic waiver authority with respect to advanced biofuels to avoid food-related impacts.

Their arguments are based partially on the concept that requiring greater quantities of non-cellulosic biofuels could result in greater production of food-based biofuels, with one commenter specifically mentioning that the use of vegetable oil as a feedstock to provide biodiesel and renewable diesel to the United States could lead to the increased global production and use of palm oil. Their argument is also based partially on the concept that requiring greater quantities of food-based biofuels in the United States could impact food markets, and effect people living in extreme poverty for whom vegetable oil is an important part of their diet. We note that in establishing the total renewable fuel volumes for 2014-2016 EPA is waiving statutory volume targets to achieve volumes representing that maximum reasonably achievable through use of the general waiver authority based on a finding of inadequate domestic supply of renewable fuel. In this context we must consider all available sources of qualifying renewable fuel, and we cannot consider the factors in 211(o)(2)(B)(ii) except as they relate to supply. As a result, whether or not we consider factors such as those the commenters highlighted in setting the advanced biofuel standard, or the initial increment of reduction in the total renewable fuel standard for which we are using the cellulosic waiver authority we cannot do so in setting the total renewable fuel volume requirement at a lower level that reflects maximum reasonably achievable volumes. To the extent that renewable fuel volumes can be supplied, either advanced biofuels such as soy based biodiesel or conventional biofuels such as corn ethanol or imported grandfathered conventional biodiesel, they must be considered as part of available domestic supply in setting the total renewable fuel volume requirement.

The constraints identified in determining maximum reasonably achievable volumes of biodiesel in deriving the total renewable fuel standard are not specific to the feedstocks used to produce it. Corn, sugar cane, soy oil and palm oil are currently the major feedstocks used to make renewable fuels, and would be expected to continue to be so in the coming years. All of these feedstocks are used for food purposes, thus whatever impact on food markets satisfying the total renewable fuel standard that EPA is finalizing today will generally occur regardless of which feedstock is used to produce the biodiesel. EPA can, however, influence the volumes of advanced versus conventional biodiesel that is produced to satisfy the total renewable fuel standard by its action in setting the advanced biofuel volume requirement. We believe that the greenhouse gas reduction goal of the Act is best achieved by establishing a higher, rather than a lower, advanced biofuel standard, and thus exercising our use of the cellulosic waiver authority to a lesser degree than the maximum allowable reductions. This decision is not likely to impact food markets since, as noted above, this decision only impacts which feedstock is likely to be used to make renewable fuel used to satisfy RFS standards, rather than influencing how much food-grade oil is used for this purpose.

With regard to food prices, we did look at the cost impacts of our standards on soy oil in the context of the advanced biofuel volume requirement, and this information is presented in Section II.I of the final rule and the “Illustrative Costs Impact of the Final Annual RFS2 Standards, 2014-2016” memorandum found in the docket. While these analyses indicate that there could be an increase in costs of vegetable oil, we do not find that it justifies further reductions under the cellulosic waiver authority since, as noted above, such a decision would likely only influence

which food grade vegetable oil is used to make biofuel, rather than the total volume of food-grade vegetable oils devoted to such use. Although EPA has not done an analysis of the overall impact on overall food prices of the total renewable fuel volume standard in this rulemaking, in the March 2010 RFS rule EPA found that increased renewable fuel volumes would result in a modest increase in overall U.S. food prices.

For the commenters' suggestion that we should consider wildlife habitats, we note that the commenter did not explain how this consideration should influence our decision, and we are not aware of a particular reason why these considerations should lead us to a different result than requiring the use of reasonably attainable volumes.

Some commenters stated that EPA proposed the maximum reduction in advanced biofuels and total renewable fuels possible under the cellulosic waiver provision, and that we had not assessed whether advanced biofuel volumes were available to make up the shortfall. This is inaccurate. We have used the cellulosic waiver authority as the basis for reducing the advanced biofuels and total renewable fuels volumes, but the volume reductions are of a lesser amount than the reduction in cellulosic biofuels. The volume reduction in advanced biofuels brings the required levels to those we have determined are reasonably attainable. We specifically considered the availability of sugarcane ethanol in assessing reasonably attainable volumes. We have provided an equal reduction in total renewable fuel using this authority (and then a further reduction in total renewable fuels using the general waiver authority).

Some commenters contended the EPA can only reduce advanced biofuel and total renewable fuel volumes using the cellulosic authority to the extent that fuels are not available to replace a shortfall in cellulosic biofuels. We disagree. The statute provides broad authority for EPA to reduce volumes of advanced and total renewable fuel by the same or a lesser amount than a reduction in cellulosic biofuels. However, we have exercised our discretion in this rulemaking to lower volumes of advanced biofuels such that use of reasonably attainable volumes of advanced biofuel will be required, and we have used this authority for an equal reduction in total renewable fuel. (We used the general waiver authority to provide further reductions in total renewable fuel.) Some commenters contended that the EPA's use of the cellulosic waiver authority to reduce the volumes for advanced biofuels and total renewable fuels was inappropriate and unsupported. The justification for our final use of this authority is fully described in the final rule.

A commenter contended that EPA must use the criteria in Section 211(o)(7)(A) to determine whether to reduce statutory volumes under Section 211(o)(7)(D). EPA disagrees with this interpretation and has support from the D.C. Circuit indicating that "[i]n the absence of any express or implied statutory directive to consider particular factors, EPA reasonably concluded that it enjoys broad discretion regarding whether and in what circumstances to reduce the advanced biofuel and total renewable fuel volumes under the cellulosic biofuel waiver provision." *Monroe v. EPA*, 750 F.3d 909, 915 (D.C. Cir. 2014).

Some commenters noted that the EPA failed to consider the factors in 211(o)(2)(B)(ii) when deciding whether to use the cellulosic waiver authority to reduce the volumes of advanced biofuels and total renewable fuels. We note that the criteria in 211(o)(2)(B)(ii) apply to setting standards for calendar years not provided in the statute, and EPA is not obligated under the statute to consider them when using its waiver authority under 211(o)(7)(D). EPA may, in its

discretion, consider the factors in 211(o)(2)(B)(ii) when exercising the cellulosic waiver authority, but it is not required to do so.

One commenter suggested that the Act does not require equal reductions in advanced and total renewable fuel when EPA uses the cellulosic waiver authority. This commenter suggested that EPA use the full extent of the authority to reduce the total renewable fuel requirement. We have accomplished the objective of the commenter through a different approach (use of both the cellulosic and general waiver authorities to reduce the total renewable fuel requirement to the fullest extent permissible under the cellulosic waiver authority.) Indeed we have provided an additional reduction in total renewable fuel, bringing the final volume requirement to a level below that which could be attained using the cellulosic waiver authority alone. Thus, it is unnecessary for EPA to re-evaluate the matter raised by the commenter at this time.

For responses to comments on the role of carryover RINs in the RFS program, see Section 6.1.

For response to comments related to the impact of renewable fuel use on food see Section 7.2.

## **2.2.2 General Waiver Authority**

### **Comment:**

#### **Advanced Biofuels Business Council (ABBC)**

The ABBC agrees that EPA has the authority to waive volumetric targets under CAA section 211(o)(7), but strongly disagrees that the constraints on this authority set forth in CAA section 211(o)(7)(A)(ii) are ambiguous, and can be read to allow considerations related to the distribution of adequate supply. [EPA-HQ-OAR-2015-0111-3528-A1 p.12]

As discussed, we believe that EPA's proposed use of "distribution waivers" pursuant to a reinterpretation of its "general waiver authority" is in clear violation of the statute, as well as the legislative history and intent of the Act. [EPA-HQ-OAR-2015-0111-3528-A1 p.19]

#### **American Coalition for Ethanol (ACE)**

The general waiver authority is clear. EPA may only waive or reduce RVOs if 1) implementation of the RFS would severely harm the economy or environment of a State, a region, or the U.S., or, 2) if there is an inadequate domestic supply of renewable fuel. Neither of those two conditions has been met. [EPA-HQ-OAR-2015-0111-2543-A2 p. 5]

#### **American Farm Bureau Federation (Farm Bureau); Indiana Farm Bureau**

Farm Bureau policy supports the RFS2 as passed in the Energy Independence and Security Act of 2007. We do not believe that the criterion which would justify implementation of the two waivers EPA is imposing has been met in either case. [EPA-HQ-OAR-2015-0111-2355-A1 p. 6]

## **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

EPA should exercise its general waiver authority on both grounds. [EPA-HQ-OAR-2015-0111-1948-A1 p.3]

## **Biotechnology Industry Organization**

The term “inadequate domestic supply” unambiguously refers only to the potential availability of volumes of RFS qualified renewable fuels.<sup>4</sup> It does not include “factors that constrain supplying available volumes [of renewable fuels] to the vehicles that can consume them,”<sup>5</sup> such as the so-called “E10 blendwall” and fuel infrastructure. And the obligations of the Act do not extend to the ultimate consumer or to biofuel producers, as EPA suggests they do.<sup>6</sup> [EPA-HQ-OAR-2015-0111-1958-A2 p. 4]

EPA concluded in its final rule implementing the RFS2 program that “it is ultimately the availability of qualifying renewable fuel, as determined in part by the number of [Renewable Identification Numbers (RINs)] in the marketplace, that will determine the extent to which EPA should issue a waiver of RFS requirements on the basis of inadequate domestic supply.”<sup>59</sup> [EPA-HQ-OAR-2015-0111-1958-A2 p. 15]

Both the structure and purpose of the statute show that Congress intended to drive the creation of a new and robust market for renewable fuels, including by creating some burdens for obligated parties. [EPA-HQ-OAR-2015-0111-1958-A2 p. 17]

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<sup>6</sup> See, e.g., Proposed Rule 33111, 33114.

<sup>59</sup> EPA, Regulation of Fuels and Fuel Additives: Changes to the Renewable Fuel Standard Program, 75 Fed. Reg. 14670, 14698 (Mar. 26, 2010) (final rule) [Final RFS2 Rule] available at <http://www.gpo.gov/fdsys/pkg/FR-2010-03-26/pdf/2010-3851.pdf> (emphasis added). The RFS2 program was mandated by Congress in the Energy Independence and Security Act of 2007 (EISA). “EISA made significant changes to both the structure and the magnitude of the renewable fuel program created by the Energy Policy Act of 2005 (EPAct). The EISA fuel program, hereafter referred to as RFS2, mandates the use of 36 billion gallons of renewable fuel by 2022 – a nearly fivefold increase over the highest volume specified by EPAct.” Id. at 14673.

## **Brazilian Sugarcane Industry Association (UNICA)**

The underlying basis for EPA's concern with regard to distribution capacity, the alleged 'E10 blendwall,' does not justify derogating from Congressional intent and reducing statutory volumes of advanced biofuels and total renewable fuels. [EPA-HQ-OAR-2015-0111-2495-A1 p.23]

## **Crimson Renewable Energy LP**

For 2014, the EPA proposed to use its waiver authority to reduce the 3.75 billion statutory mandate set by Congress for the advanced category, and rather, set the advanced and biomass-based diesel based on “available RIN supply.” Crimson disagrees with this approach for the reasons spelled out in the comments submitted by the National Biodiesel Board (NBB) >> Inappropriate use of waiver authority, EPA’s lack of consideration of the prior-year RINS,

improper consideration of “RIN supply” as opposed to “actual production,” etc. [EPA-HQ-OAR-2015-0111-1823-A1 p.1]

### **Enerkem**

Enerkem does not support the EPA's unreasonably broad interpretation of the general waiver authority to revise downwards the total renewable fuel mandate due to distribution issues. Failure by obligated parties to put in place the infrastructure necessary to meet their obligations under the RFS should not be grounds for revising downwards those RFS obligations, and does not constitute "inadequate domestic supply", which is the only provision for the use of the general waiver authority as specified in 42 U.S.C. § 7545(o)(7)(A). [EPA-HQ-OAR-2015-0111-1940-A1 p.1-2]

### **ExxonMobil Refining & Supply Company**

Lower the advanced biofuel and total renewable fuel volumes for 2016 to account for factors including the blendwall which cannot be surmounted without putting fuel consumers, distributors and many others at risk. [EPA-HQ-OAR-2015-0111-2270-A1 p.1]

### **Governor of Iowa, et al.,**

The Clean Air Act does not give the EPA the authority to issue a general waiver of the Renewable Fuel Standard in this situation. The law makes it clear that EPA may only issue a general waiver based on a determination that there is “an inadequate domestic supply”, not other grounds such as distribution capacity. [EPA-HQ-OAR-2015-0111-1915-A2 p.1]

### **Growth Energy**

During the comment period, Growth Energy submitted a comment on EPA’s 2014 proposal. Growth Energy identified numerous fundamental flaws in EPA’s proposed exercise of its general waiver authority and the proposed renewable fuel requirement, including:

- EPA’s proposal would undermine Congress’s goal of using RFS volume requirements to spur rapid growth in the production and use of renewable fuels.<sup>33</sup>
- EPA could not exercise its general waiver authority because the supply of ethanol, as measured by production capacity, was sufficient to meet the statutory renewable fuel requirement.<sup>34</sup>
- EPA incorrectly interpreted the general waiver provision to mean that in determining whether there is inadequate domestic supply, EPA could consider not just the capacity for producing renewable fuels, but also the capacity for distributing and consuming them.<sup>35</sup>
- Even under EPA’s erroneous interpretation of the general waiver provision, it could not exercise that authority because supply was still adequate.<sup>36</sup>
- EPA substantially understated the volume of E85 that could be distributed and consumed in 2014.<sup>37</sup>
- EPA should not have disregarded the potential for distributing and consuming E15 in 2014.<sup>38</sup>
- EPA understated the amount of biodiesel that could be produced and consumed in 2014.<sup>39</sup>

- EPA erred in failing to account for the sizeable RIN bank when determining whether supply was adequate, instead setting the renewable fuel volume requirement low enough to preserve a RIN “buffer.”<sup>40</sup>
- Even if EPA could preserve a RIN buffer, EPA had failed to articulate any basis for setting the buffer at the chosen level.<sup>41</sup>
- EPA’s proposal would have numerous adverse consequences, including harming corn farmers and the ethanol industry, setting back the development of second-generation renewable fuels, increasing energy dependence, raising retail gasoline prices, and harming the environment.<sup>42</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.7-8]

EPA also proposed to use its general waiver authority in two ways: “in a supplemental fashion with respect to the volumes [it] propose[s] waiving using the cellulosic waiver authority, [and] as the sole authority for [further] reductions [in] total renewable fuel” volumes.<sup>57</sup> In EPA’s view, the general waiver provision is “ambiguous” and “is reasonably and best interpreted to encompass the full range of constraints that could result in an inadequate supply of renewable fuel to the ultimate consumers, including fuel infrastructure and other constraints. This would include, for instance, factors affecting the ability to produce or import qualifying renewable fuels as well as factors affecting the ability to distribute, blend, dispense, and consume those renewable fuels in vehicles.”<sup>58</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.10]

According to EPA, the principal limitations on supply so understood are the E10 blendwall and the apparent barriers to surmounting it: “The decrease in total gasoline consumption in recent years which resulted in a corresponding and proportional decrease in the maximum amount of ethanol that can be consumed if all gasoline was E10, the limited number and geographic distribution of retail stations that offer higher ethanol blends such as E15 and E85, the number of FFVs that have access to E85, as well as other market factors, combine to place significant restrictions on the volume of ethanol that can be supplied to vehicles at the present time.”<sup>59</sup> EPA therefore explained that it “believe[s] that limitations in production or importation of qualifying renewable fuels, and factors that limit supplying those fuels to the vehicles that can consume them, both constitute circumstances that warrant a waiver ....”<sup>60</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.10-11]

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<sup>33</sup> Growth Energy, Comments on EPA’s Proposed 2014 Standards for the Renewable Fuel Standard Program, Dkt. # EPA-HQ-OAR-2013-0479 (“Growth Energy Prior Comments on 2014 RFS”), at 16-18 (Jan. 28, 2014).

<sup>34</sup> *Id.* at 10-11.

<sup>35</sup> *Id.* at 11-19.

<sup>36</sup> *Id.* at 19-44.

<sup>37</sup> *Id.* at 22-30.

<sup>38</sup> *Id.* at 35-43.

<sup>39</sup> *Id.* at 43-44.

<sup>40</sup> *Id.* at 30-35.

<sup>41</sup> *Id.* at 35.

<sup>42</sup> *Id.* at 45-50.

<sup>59</sup> *Id.* at 33,109.

<sup>60</sup> *Id.* at 33,109-33,110.

## **Highwater Ethanol, LLC**

It is appropriate to provide for the **continued growth of conventional renewable fuels at this time as well.** [EPA-HQ-OAR-2015-0111-2506-A2 p.3]

## **Hinman Trucking**

The blendwall and its harmful impacts must be prevented from causing further damage to our industry. EPA could use the waiver authority to waive the RFS completely or at the very least decrease the blending volumes. I as a trucker and owner of a trucking company request that you do so. [EPA-HQ-OAR-2015-0111-1659-A1 p. 1]

## **HollyFrontier Corporation**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, pp. 175-176.]

We appreciate EPA's use of the general waiver authority in the proposed RVOs. Given the current state of consumer demand relative to volumes originally prescribed under the RFS, it is appropriate to have called upon the general waiver to specifically prevent the blending of more than 10 percent ethanol into the gasoline supply.

## **Independent Fuel Terminal Operators Association (IFTOA)**

It was generally assumed in 2007 when the Energy Independence and Security Act was adopted, that gasoline demand would continue to grow and that greater volumes of renewable fuels could readily be incorporated into the transportation pool. As everyone is aware today, that was a false assumption. Nevertheless, it is important to note that Congress recognized that circumstances might change. Accordingly, Congress only established mandates to a sunset date. It established initial volumetric mandates for total renewable fuels, advanced biofuels, and cellulosic biofuels only through 2022 and for biomass-based diesel only through 2012. Recognizing future uncertainty in the market, Congress provided (1) several waiver provisions to address unanticipated circumstances; (2) a “reset” provision that could apply as early as 2016 if conditions required it; and (3) delegation to EPA to set the volumetric mandates after 2022 – again based on conditions that could exist at that time, taking into account several factors enumerated in the statute. Simply stated, Congress created a statute with great flexibility and provided various means by which EPA could adjust the mandates throughout the entire course of the Program. [EPA-HQ-OAR-2015-0111-1947-A1 p. 2-3]

EPA may believe it should set future mandates at high levels so as to compel the market to make dramatic changes, but such changes are also likely to cause great economic harm to consumers and the economy. The potential for these adverse effects must be taken into consideration by the Agency. While it may be appropriate for EPA to establish the mandates at levels that encourage somewhat greater production and use of renewable fuels than the market would achieve in the absence of such mandates, there is nothing that compels EPA -- when exercising its waiver authority -- to establish aspirational or ambitious mandates. [EPA-HQ-OAR-2015-0111-1947-A1 p. 3]

The U.S. energy picture has changed dramatically since the Program was initially established. The Energy Information Administration now predicts declining gasoline demand for the foreseeable future, and due to lower energy content and corresponding additional costs, consumers resist using fuels with higher concentrations of ethanol (E85). The authorizing statute gives EPA substantial authority to adjust the mandates in light of these changed circumstances. [EPA-HQ-OAR-2015-0111-1947-A1 p. 3]

## VII. “Reset” Provision

As stated above, EPA appears to have taken a new approach to the RFS mandates. It will fully recognize market constraints for 2014 and part of 2015, waive a portion of the statutory volumes, and set the mandates at levels that promote growth in renewable fuels -- more than would be achieved without the mandates -- but still at achievable levels. However; for the future, it will establish far more ambitious targets. In the Preamble to the proposed rule, EPA says: [EPA-HQ-OAR-2015-0111-1947-A1 p. 6]

While we are proposing to use the tools Congress provided to make adjustments to the law’s volume targets in recognition of the constraints that exist today, we are proposing standards for 2015 and 2016 that will drive growth in renewable fuels, particularly those fuels that are required to achieve the lowest lifecycle GHG emissions. We believe that over time, use of both higher ethanol blends and non-ethanol biofuels can and will increase, consistent with Congress’ intent in enacting the Energy Policy Act and the Energy Independence and Security Act. In our view, while Congress recognized that supply challenges may exist as evidenced by the various waiver provisions, it did not intend growth in the renewable fuels market to be ultimately prevented by those challenges, including such constraints as the ‘E10 blendwall’ or demand for gasoline or diesel. The fact that Congress chose to mandate increasing and substantial amounts of renewable fuel clearly signals that it intended the RFS program to create incentives to increase renewable fuel supplies and overcome limitations in the market. The standards we are proposing are forward-leaning and reflect those incentives. [EPA-HQ-OAR-2015-0111-1947-A1 p. 6]

We believe that this interpretation of the statute is incorrect. It is clear that Congress wanted to increase the use of renewable fuels in the transportation pool, but when it enacted the mandates, it was unaware of significant market constraints/limitations – e.g. the ‘E10 blendwall,’ and the substantially reduced demand for gasoline. It did not intend for growth in renewable fuels to “overcome those challenges.” It did not know that such challenges existed. Congress and everyone else, industry and consumers, assumed there would be continued, uninterrupted economic growth and continued expansion in the demand for gasoline. Therefore, EPA should adopt an approach for the future that promotes growth in the production and use of renewable fuels, but does so in a more limited manner than seems to be its current plan. As the Agency goes forward, the mandates should not be ambitious. They should promote some growth – more than the market would do in the absence of a regulatory mandate – but still within ranges that recognize market constraints/limitations and are achievable. [EPA-HQ-OAR-2015-0111-1947-A1 p. 6-7]

The “reset” provision of the RFS Program states that if the Administrator waives (i) at least 20 percent of the applicable volume requirement for two consecutive years; or (ii) at least 50 percent of such volume requirement for a single year, the Administrator **shall** promulgate a rule that modifies the applicable volumes in the statute for all the years following the final year to

which the waiver applies. In doing so, the Administrator must coordinate with the Secretaries of Agriculture and Energy and analyze and consider – [EPA-HQ-OAR-2015-0111-1947-A1 p. 7]

- a. The impact of the production and use of renewable fuels on the environment;
  - b. The impact on energy security;
  - c. The expected annual rate of future commercial production of renewable fuels;
  - d. The impact of renewable fuels on U.S. infrastructure, including deliverability of products other than renewable fuels and sufficiency of infrastructure to deliver and use renewable fuels;
  - e. The impact of use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods; and
  - f. The impact of the use of renewable fuels on other factors, including job creation, the price and supply of agricultural commodities, rural economic development, and food prices.
- [EPA-HQ-OAR-2015-0111-1947-A1 p. 7]

Simply stated, while Congress was not aware of the E10 blendwall and did not anticipate a dramatic decrease in the demand for gasoline when it set the mandates, it did recognize that circumstances change. It provided ample authority for the Agency to analyze and consider significant factors and to reset all of the mandatory volumes if certain conditions are met. Indeed, in recent testimony before the Senate Committee on Homeland Security and Government Affairs, EPA acknowledged that the circumstances supporting a “reset” are likely to exist, and said “we actually think that it makes a lot of sense to focus a reset on all volumes at one time and you just will provide a lot more certainty to everybody to do that.” Therefore, the Agency is not caught in a position where it must set the renewable fuel mandates at such levels that it dramatically changes how transportation fuels are sold and substantially raises the prices of these commodities at the pump. It has the authority to start anew with a more modest approach, balance the enumerated factors set forth by Congress, and establish future mandates that are (1) realistic, recognizing market constraints, and (2) promote moderate growth in the production and use of renewable fuels. [EPA-HQ-OAR-2015-0111-1947-A1 p. 7-8]

Recommendation: For 2017 and beyond, the EPA should exercise its authority under the reset provision of the RFS Program, 42 USC 7545(o)(7)(F), and establish more modest and achievable RFS mandates. [EPA-HQ-OAR-2015-0111-1947-A1 p. 8]

#### VIII. Authority for Proposed Reduction in RFS Mandates

When Congress established the RFS Program, it fully recognized that circumstances could arise over the years that would warrant complete or partial waiver of the RFS mandates. To address these situations, Congress gave EPA broad authority to (1) adjust the standards, indicating its confidence in the Agency to consider all of the competing interests and the consequences of such action, and (2) reach a reasonable and balanced judgment on the appropriate volumetric levels of the standards. Based on a careful review of the statute, the Association believes that EPA has ample authority to grant the waivers set forth in this rulemaking. [EPA-HQ-OAR-2015-0111-1947-A1 p. 8]

Specifically, the Association recommends the following: [EPA-HQ-OAR-2015-0111-1947-A1 p. 8]

2. For the future -- beyond 2016 -- EPA should not establish ambitious mandates that are designed to create dramatic changes in the market. Rather, the Agency should, using its “reset” authority, take a more modest approach and continue to balance market conditions/limitations and incentives for renewable fuel growth. [EPA-HQ-OAR-2015-0111-1947-A1 p. 8]

8. Congress gave EPA substantial authority to waive the statutory mandates, and EPA has properly done so in this rulemaking. [EPA-HQ-OAR-2015-0111-1947-A1 p. 9]

### **Iowa Corn Growers Association (ICGA)**

Section 211(o)(7)(A) of the Clean Air Act is the second waiver provision which allows the EPA to waive the RFS in part or its entirety if at least one of two criteria is met: [EPA-HQ-OAR-2015-0111-1820-A1 p. 2]

- 1) “severe harm” to the economy or environment; or
- 2) inadequate domestic supply of renewable fuels to meet the requirements. [EPA-HQ-OAR-2015-0111-1820-A1 p. 2]

In 2013, the EPA was petitioned by several states who argued the drought conditions had created “severe harm” to their states; however the EPA rejected these requests. And, even with drought conditions in 2013, it was a record corn crop. Today, in 2015, neither of these waiver qualifications exists, we do not have severe harm to the economy or environment, and we have a very adequate supply of corn and the capacity to turn that corn into 15.0 billion gallons of conventional ethanol. [EPA-HQ-OAR-2015-0111-1820-A1 p. 2]

Since neither of the statutory waiver authorities have been met, the EPA should not have the authority to change the RVO for corn ethanol. Regardless of this fact, the EPA has invented a new waiver to consider the availability of renewable fuel distribution infrastructure (limitations on “consumption”) as criteria for waiving the RFS. This new imaginary provision suddenly includes the blend wall as a valid reason for waiving the statute. Nothing could be further from the truth. Not only does EPA not have the authority to waive the RFS under this concept, the blend wall is an idea invented by the oil monopoly to convince EPA to shift from their statutory obligations. By using the “blend wall” concept, the EPA’s proposal effectively eliminates the incentive to expand biofuel production and distribution capacity, and allows oil companies to blend only as much renewable fuel as they are comfortable using. [EPA-HQ-OAR-2015-0111-1820-A1 p. 2]

### **Iowa Renewable Fuels Association**

The Illegal Distribution Capacity Waiver [EPA-HQ-OAR-2015-0111-1957-A2 p. 7]

The preceding two sections provide arguments for why the EPA should increase the annual RFS levels for “undifferentiated renewable fuel” from those in the proposed rule. However, we should not be having this discussion at all, because under the current circumstances, no conditions exist which allow the EPA to modify the statutory levels in this area. [EPA-HQ-OAR-2015-0111-1957-A2 p. 7]

There has been absolutely no scintilla of evidence brought forward to suggest that the implementation of the statutory RFS levels for undifferentiated renewable fuel in 2014-2016

would cause severe economic harm or that there is an inadequate domestic supply of renewable fuel. Absent such evidence, the EPA is simply not authorized to modify the statutory levels. [EPA-HQ-OAR-2015-0111-1957-A2 p. 7]

IRFA commends to the EPA, Iowa Attorney General Tom Miller's clear and concise review of the legal aspects of this point provided to the Agency on January 28th of last year during the public comment period for the previous proposed rule on 2014 RFS levels. For your convenience, IRFA incorporates this document into our comments as an attachment (Attachment C). [EPA-HQ-OAR-2015-0111-1957-A2 p. 8]

[Attachment C can be found on p. 39-42 of docket number EPA-HQ-OAR-2015-0111-1957-A2]

In summary, AG Miller highlights that the structure of the statute is not ambiguous and only refers to the supply (or lack thereof) of renewable fuel, not blended fuel. In addition to the actual statute, Congressional legislative history makes clear that Congress' intent was not to include a "distribution capacity" waiver. Previous court rulings also bolster this interpretation. If the EPA insists on finalizing RFS levels based on the application of an illegal distribution capacity waiver, it is not hard to imagine the issue ending up in court and the EPA on the losing side. But the real losers will be the American consumers forced to decide between only E0 and E10 for additional years, instead of the RFS opening up the market for additional competition. [EPA-HQ-OAR-2015-0111-1957-A2 p. 8]

The members of IRFA recommend that the EPA discard its convoluted misinterpretation of the "general" waiver authority and maintain the levels for undifferentiated renewable fuel at the levels prescribed by Congress for 2014, 2015, and 2016 (14.4, 15.0, and 15.0 billion gallons respectively). [EPA-HQ-OAR-2015-0111-1957-A2 p. 21]

### **Marquis Energy LLC**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1044, pp.319-320]

The purpose of the RFS2 was to give investors certainty that there would be a growing renewable fuels business in the United States. The waiver authority granted to the EPA in the RFS2 was only to be used in the event that there was an inadequate domestic supply of ethanol. Last year, 800 million gallons of U.S. ethanol was exported. It's obvious that there was not a lack of domestic supply of ethanol. Obligated parties, including oil companies, failed to comply with the system that was set up and instead complain about high RIN cost. This does not give EPA the basis needed to waive the statutory requirement. Obligated parties have had 7 years to take action and put in place the necessary infrastructure to offer higher blends of ethanol. The fact that they refused to make that investment and then claim that there is a blend wall is a self-imposed problem. The term 'blend wall' was not included in the RFS and is consequently not listed as a criteria for a waiver. Furthermore, a reduction in miles driven or an increase in average miles per gallon was also not included or cited in the RFS2 as a criteria for waiver authority for the EPA. We are being cheated by the improper application of a waiver, and the reason cited has nothing to do with an inadequate supply of domestic ethanol. In addition, ethanol is currently trading at 50 cents per gallon below gasoline. EPA's improper actions are forcing hundreds of millions of gallons of ethanol to be sold to foreign buyers at a price 50 cents a gallon cheaper than gasoline,

a savings that could be provided to U.S. motorists if the obligated parties were incentivized by threat of high-cost RINs to invest in appropriate infrastructure to market higher volumes of low-cost, clean-burning renewable fuels.

### **Mascoma LLC, Lallemand Inc.**

While appreciating the fact that the EPA is trying to be aggressive on the blending targets for advanced biofuels, the conditions under which those targets are waived has emerged as a key issue. Companies trying to limit advanced biofuels will be able to secure waiver credits rather than work with the biofuels industry to increase the use of biofuels via higher biofuel blends. Though the technical rationale is weak, and the work done to prove that higher blends of ethanol in our gasoline provide an excellent and clean burning fuel, the blend wall has become the stumbling block for slowing the growth of the biofuels industry. [EPA-HQ-OAR-2015-0111-A1 p. 1] [EPA-HQ-OAR-2015-1044 p. 294]

### **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

In sum, EPA must, when exercising its general waiver authority, leave sufficient breathing room to ensure that the purpose of the waiver is achieved—that a situation of “inadequate domestic supply” will not occur. By pushing the volume requirements right to the boundary of adequate and inadequate supply, based on “forward-leaning” estimates of what EPA believes “might” occur in response to the standards it promulgates, EPA has failed to leave a sufficient margin for error. Congress did not intend to place obligated parties in “an impossible position, or at least a highly punitive one.”<sup>46</sup> Yet that is exactly what will result if EPA’s projections are unrealized in practice.<sup>47</sup>

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<sup>46</sup> Am. Petroleum Inst., 706 F.3d at 479.

<sup>47</sup> The Merchant Refiners Group also adopts the argument by the American Petroleum Institute and the American Fuel and Petrochemical Manufacturers that a waiver is justified because imposing the full statutory volume requirements would cause severe economic harm. See 42 U.S.C. § 7545(o)(7)(A)(i).

### **N. Bowdish Company**

When RIN prices retreat back to 40 cents per gallon, we see our sales across all gallons retreat back closer to an E10 blend rate. Retreat from the use of the General Waiver Authority and Stick to the Statute![EPA-HQ-OAR-2015-0111-1202-A1 p.2]

I disagree with your logic to implement the ‘General Waiver Authority’ in Section 11A. 2 based on your interpretation and subsequent defining of ‘inadequate domestic supply’ which you, yourself, have written is ‘ambiguous’. While your lawyers have certainly spent much time contemplating the terms and other like uses within the Clean Air Act, the cognizant choice EPA is making to include distribution capacity within this definition has the flat out result of maintaining the status quo in the United States fuel market which means more GHG pollution from gasoline as opposed to reductions from biofuels. Retreat from the use of the General Waiver Authority and Stick to the Statute! The physical fuel exists and your manipulating of the definition of inadequate domestic supply to provide a basis for your reductions in this category

ultimately violates the law. [EPA-HQ-OAR-2015-0111-1202-A1 p.3] [EPA-HQ-OAR-2015-0111-1044 pp.334-335]

The elephant in the room is that there is a cost to transform the United States fuel market distribution from status quo today to a market that consumes fuels with lower GHG emissions. The statute placed that cost on obligated parties in 2007. This proposal audaciously removes that obligation and surrenders the entire statute to status quo. If you Retreat from the use of the General Waiver Authority and Stick to the Statute, either obligated parties or small family owned businesses like Al's Corner are going to transform that distribution infrastructure: they simply need a clear signal of certainty from your Agency and will accomplish it with a RIN driven marketplace. [EPA-HQ-OAR-2015-0111-1202-A1 p.3] [EPA-HQ-OAR-2015-0111-1044 pp.336-337]

### **National Association of Truck Stop Operators (NATSO)**

#### III. NATSO Supports EPA's Exercise of its Waiver Authority

NATSO believes that EPA's Proposal wisely takes advantage of the Agency's statutory authority to avoid the blend wall. The blend wall represents the point at which there is an insufficient supply of renewable fuel that can be delivered to consumers. If the RFS's volume obligations exceed the volume of renewable fuels that the market can absorb, the market will hit the blend wall. This would lead to a significant increase in the price of fuel, caused by a shortage of Renewable Identification Numbers ("RINs"), which are used to ensure compliance with the RFS's volume obligations. If the market reaches the blend wall, there will not be enough RINs to allow obligated parties to satisfy their volume obligations under the RFS. This will result in significantly elevated prices for RINs that are available. Some obligated parties could fail to acquire sufficient RINs and face fines from EPA. Others would take steps to reduce their obligations under the Program (such as reducing or exporting production).

All of these situations will add costs to fuel production and, as happens in every industry, these costs will be passed down to retailers and ultimately will be absorbed by consumers. [EPA-HQ-OAR-2015-0111-2478-A1 p.4]

### **National Corn Growers Association (NCGA)**

Reducing levels below the recommended reduction in the advanced category, as proposed by EPA, is in direct violation of the law and puts the Agency in an actionable position. In order to grant a waiver and reduce the RFS2 requirement, EPA must either determine that implementing the requirements would "severely harm the economy or environment" or that there is "an inadequate domestic supply." In the Proposed Rule, EPA justifies the proposed reduction in conventional biofuel due to "inadequate domestic supply" based on a lack of retailer infrastructure and a fabricated blendwall—a criterion that is not a statutory trigger. [EPA-HQ-OAR-2015-0111-1939-A1 p.3]

### **National Farmers Union (NFU)**

If EPA exercises general waiver authority in setting the total renewable fuel volume standard in the final rule as it does in the proposed rule, the Agency will undermine the RFS' ability to provide the biofuels industry with any reliable measure of certainty for the remainder of the

program. If this occurs, biofuel developers will have an even more difficult time securing investment that they are already experiencing due to the enormous delays in finalizing the 2014 volume standards. [EPA-HQ-OAR-2015-0111-1657-A1 p. 7]

EPA should not attempt to use waiver authority unless severe environmental or economic consequences hang in the balance. EPA would then allow the biofuels industry to be confident in the statutory volume standards for the remainder of the program, giving investors the stability they need to grow the industry and achieve the economic and environmental goals the program was designed to attain. [EPA-HQ-OAR-2015-0111-1657-A1 p. 8]

## **Nestle**

We support EPA's use of its statutory waiver authority to reduce mandated volumes of ethanol and other biofuels below the amounts otherwise mandated by Section 211 of the Clean Air Act. We agree that what the agency calls the 'E10 blendwall' makes it practically impossible to meet the original standard. [EPA-HQ-OAR-2015-0111-1918-A1 p.1]

## **POET-DSM Advanced Biofuels**

Nevertheless, the NPRM published last month omits any consideration of the impacts of conventional biofuel RVO reductions on the cellulosic ethanol industry from its discussion of the constraints on EPA's exercise of general waiver authority in section 211(o)(7)(A). [EPA-HQ-OAR-2015-0111-1943-A1 p.7]

It is also possible that some might not believe that EPA has a statutory duty to consider the impact of the proposed reductions in the conventional biofuel RVOs on the cellulosic ethanol industry. If so, we would ask how such a position can be reconciled with the Agency's position that interpretation and application of the general waiver authority presents a *Chevron* Step Two problem, and why the statutory goals set forth in section 211(o) for cellulosic ethanol (*see* pp. 7-10 above) are not among the objectives that the Agency must consider in effecting a "reasonable accommodation of conflicting policies." *Chevron*, 467 U.S. at 485. [EPA-HQ-OAR-2015-0111-1943-A1 p.11]

## **Renew Kansas**

The EPA does not indicate that its proposed partial waiver of the annual volume target is based on any foreseen harm to the economy or environment of a state. The EPA's remaining authority to waive annual volume targets for renewable fuel must be based on the theory of an inadequate domestic supply of renewable fuel. [EPA-HQ-OAR-2015-0111-1309-A1 p.2]

For this reason, no legal authority or rational basis exists for the EPA's proposed reduction of the annual volume targets. Simply stated, the EPA exceeds its legal authority by proposing to partially waive the RFS and propose targets based on perceived distribution or capacity constraints, when there is no basis in fact of an inadequate domestic supply of renewable fuel. Because there is no shortage in domestic supplies of renewable fuels, we ask that the EPA seek reinstatement of the statutory renewable fuel targets. [EPA-HQ-OAR-2015-0111-1309-A1 p.3]

Additionally, the waiver authority relied on by the EPA to waive the statutory RFS is problematic, and should be given careful review and consideration. [EPA-HQ-OAR-2015-0111-1309-A1 p.4]

### **Union of Concerned Scientists**

One of the biofuel market dynamics that has emerged clearly over the last few years is the competition between BBD and E85 to provide compliance for advanced and renewable mandates that cannot be met within E10 blends. This competition has been illuminated by several studies from Scott Irwin at the University of Illinois published on FarmDocDaily. In light of this competition between E85 and BBD, it seems likely that absent exercise of general waiver authority, a 2016 renewable mandate of 18 Bgal (the statutory minimum) plus the cellulosic volume, would result in a dramatic increase the use of biodiesel rather than steady progress on availability and competitive pricing of higher ethanol blends. As discussed earlier, the supply of BBD is already straining to meet the non-cellulosic advanced mandate, and is clearly insufficient to increase by a further 667 Mgal to make up for the missing 1 Bgal worth of D6 RINs that would be required absent exercise of general waiver authority. Such a dramatic increase in the use of biodiesel would be destabilizing and not supportive of steady growth of fuel production and distribution capacity over time. In this sense, the availability of additional corn ethanol in the US is irrelevant if the markets will not support its use as fuel. [EPA-HQ-OAR-2015-0111-2260-A1 p.6]

Thus EPA is justified in using the inadequate supply argument to reduce the 2016 mandate, although it is the supply of BBD rather than ethanol that is inadequate. EPA should determine the extent of the general waiver to support the maximum realistic potential use of ethanol in various blends while limiting spillover that increases demand for BBD and other biofuels beyond available supplies (taking feedstocks into consideration). This should provide fuel market participants the assurance that as infrastructure to distribute ethanol at cost effective prices is deployed, EPA will administer the RFS standards in a manner that supports the sale of these higher blends. EPA's arguments and analysis are generally sound, and quantitatively the proposal seems quite aggressive in its support for higher ethanol blends. [EPA-HQ-OAR-2015-0111-2260-A1 p.6]

### **Urban Air Initiative**

For the first time, EPA has proposed to exercise its general waiver authority under the law to substantially reduce the RVOs in all of the RFS 'buckets.' EPA justified its decision as being necessitated by the so-called E10 Blend Wall. In so doing, we believe EPA improperly conflated the definition of 'inadequate domestic supply' with non-production factors such as the 'ability to distribute, blend, dispense and consume those renewable fuels.' [EPA-HQ-OAR-2015-0111-1821-A1 p.2]

UAI's comments make the following points:

EPA has all of the statutory authority it needs to surmount the Blend Wall. [EPA-HQ-OAR-2015-0111-1821-A1 p.3]

### **Western Plains Energy, LLC (WEP)**

EPA was granted waiver authority for the RFS for two scenarios, inadequate domestic supply and severe economic harm. The ethanol industry today is currently producing at a rate equivalent to roughly 15 billion gallons per year, with nearly 1 billion gallons per year being exported to other countries. Clearly, there is not a domestic supply constraint. Further, ethanol is currently trading for approximately \$0.40 to \$0.50 per gallon less than RBOB gasoline. Again, it is clear that ethanol is not causing 'severe economic harm' to the American consumer. In fact, it is reducing the retail price of fuel at the pump. [EPA-HQ-OAR-2015-0111-0283-A1 p.2]

I would also like to reiterate my belief that the EPA's waiver authority does not apply to a perceived lack of infrastructure. Market access to higher blends of ethanol is for the free-market and consumers to decide, not the EPA. [EPA-HQ-OAR-2015-0111-0283-A1 p.2] [EPA-HQ-OAR-2015-0111-1044 p. 360]

**Response:**

Our interpretation of the general waiver authority as it relates to a determination of “inadequate domestic supply” is explained in detail in the final rule establishing the renewable fuel standards for 2014-2016. EPA is reducing the applicable volume of total renewable fuel using both the cellulosic waiver authority and the general waiver authority, in the manner described in the final rule. Use of the general waiver authority is appropriate due to constraints that could limit the supply of qualifying renewable fuel to the ultimate consumers, including limitations on production and import capacity, and legal and practical constraints on the ability to distribute, blend, dispense and consume renewable fuels in vehicles.

Many commenters, especially the biofuels industry and agricultural associations, critiqued the EPA’s use of the general waiver authority. Some commenters suggested EPA need not use the general waiver authority due to sufficient volumes of biofuels or renewable fuels, while others commented that EPA’s use of the general waiver authority was beyond our authority. Other commenters, including many refiners and obligated parties, suggested EPA’s use of the general waiver authority was appropriate and necessary.

We disagree with commenters who commented that the meaning of “inadequate domestic supply” is unambiguous. These commenters stated that the only appropriate consideration was that of the production capacity of renewable fuel producers. They stated that “inadequate domestic supply” should not be interpreted to allow consideration of infrastructure constraints or, more generally, the ability to supply renewable fuel to vehicles. EPA rejects these suggestions. “Supply” must be understood in relation to a party or entity being supplied. The process includes supplying biofuels to obligated parties and terminal blenders, but also includes supplying qualifying renewable fuel to the ultimate consumer as part of their transportation fuel. Supply is not equivalent with production capacity because production capacity fails to capture the entire chain of supply, and only looks to part of the process of supply. Our interpretation of supply is consistent with 211(o) and the purpose of the Act, which is not simply to increase production of biofuels, but also to ensure that biofuels replace fossil fuels used in transportation fuel in the United States, as demonstrated by the definition of “renewable fuel” and “additional renewable fuel,” as well as other provisions of 211(o). Some commenters stated that we understated the volumes of renewable fuel that could be produced and consumed. Please see section II.E and II.F of the final rule for an in depth discussion of the volumes that can be produced and consumed.

Additionally, in determining what qualifies as “supply,” we believe we should consider only those volumes of biofuel that are expected to satisfy all of the relevant statutory definitions and requirements. There are two principal components to the definition of renewable fuel and additional renewable fuel: that it be made from renewable biomass and that it be used in transportation fuel. CAA 211(o)(1)(J); CAA 211(o)(1)(A). Ignoring the extent to which a fuel can actually be used in transportation fuel (or in heating oil or jet fuel) in the inadequate domestic supply inquiry would involve ignoring a critical element of the definition and begs the question of whether in assessing “supply” EPA should also ignore the renewable biomass component of the definition of renewable fuel or other requirements specified in the act such as the requirement that transportation fuel containing renewable fuel be used in the United States and that sub-categories of renewable fuel achieve specified levels of GHG reduction. . We believe that ignoring any component of the definition of renewable fuel or the other provisions of the Act that affect the types of renewable fuels that qualify under the Act would be inconsistent with the objective of the waiver provision, which is to determine if sufficient qualifying fuels are present. For example, if there was abundant production of biofuel that was not made from renewable biomass (and therefore did not qualify as renewable fuel under the Act), but insufficient volumes of fuel that was made from renewable biomass and met other requirements, we believe that EPA would be authorized to grant a waiver on the basis of inadequate domestic supply since compliance would not be possible notwithstanding the abundance of non-qualifying biofuel. This situation is directly comparable to the one we are experiencing at present where an abundance of biofuels are produced that cannot actually be used in transportation fuel, heating oil or jet fuel in the United States. The biofuels that cannot actually be used for qualifying uses , due to constraints discussed in Sections II.E and II.F, are not “renewable fuels” and, we believe, are appropriately excluded from our assessment of “supply.”

Some commenters noted that Congress enacted a statute with the ability for EPA to adjust volumes based on changing conditions. EPA agrees with these comments and is exercising the discretion and flexibility Congress provided in 211(o) to implement the program.

Some commenters stated that EPA’s use of the general waiver authority and interpretation of “inadequate domestic supply” is at odds with the purpose of the Clean Air Act and the RFS program. However, the purpose of the RFS program, discussed more fully in section II.A of the final rule, includes promoting U.S. energy independence and reducing greenhouse gas emissions from U.S. transportation fuel. In order for those goals to be realized, the renewable fuel must actually reduce or replace fossil fuels in transportation fuel used in the United States. Therefore EPA’s evaluation of the entire supply chain, including when the renewable fuel reaches the ultimate consumer, is appropriate and fulfills the purpose of the Clean Air Act and the RFS program. We recognize that the program is also intended to grow use of renewable fuels in transportation fuel over time. The volumes proposed today are set to levels that will encourage use of renewable fuels in transportation fuel beyond what would occur in the absence of the standards. However, the intended growth would not be achieved by imposing requirements that cannot reasonably be attained. Considering the ready availability of ethanol, we have assessed the possibility that higher standards would drive up RIN prices and that higher RIN prices would lead to a reduction in E85 price that would stimulate greater sales. However, we determined that at the present time this dynamic would have limited success, and that this consideration did not justify setting renewable fuel requirements at a higher level than we have established today. For biodiesel, our assessment of what is achievable in 2016 is based on what the market was able to

achieve in 2013, when RIN prices were high and the total renewable fuel requirement challenging. Substantial growth in biodiesel use was achieved, but not enough to completely satisfy the total renewable fuel standard. This experience provides empirical evidence of the extent to which high standards and high RIN prices can incentivize growth in biodiesel supply over a short time period.

Some commenters questioned the existence of an ethanol blendwall and claim it is an idea invented by obligated parties to convince EPA to lower their blending obligations. EPA disagrees; the combination of legal and practical constraints described in the final rule, including legal constraints on vehicles that can use higher level ethanol blends, together with the existing limited number of fueling stations, along with the time and capital needed to expand such infrastructure operate to limit the amount of ethanol that can be supplied. EPA does not intend, in using this term, to suggest that there is a “wall” that is insurmountable. To the contrary, we believe that ethanol use can continue to grow beyond the E10 blendwall through the use of high-level ethanol blends, but that such growth will take time.

Some commenters suggested that the Clean Air Act and the RFS program are technology or innovation forcing, and that the standards proposed today do not encourage those goals. Some cited the D.C. Circuit Court’s opinion in *API v. EPA*, 706 F.3d 474 (D.C. Cir. 2013) where the court noted that the agency may base the standard on action by others when there “exists a rational connection between the regulatory target and the presumed innovation.” EPA disagrees with commenters suggesting that the standards proposed today are not technology or innovation forcing. The standards will require renewable fuel use at record levels, including total renewable fuel use at levels we have determined are the maximum reasonably achievable in the time period under consideration.

Some commenters suggested that EPA's waiver is rewarding obligated parties for their failure to put in place the necessary infrastructure. We do not believe that our requiring use of renewable fuels at record levels will operate as a reward to obligated parties. The RFS program is structured to create a market for renewable fuels, and it is within that market system that many different interested parties contribute to maintaining and expanding the supply chain from producer to ultimate consumer. Obligated parties have a unique role in being required to acquire RINs that demonstrate compliance with RFS standards, but the ultimate success of the program depends on the actions of many.

Some commenters suggested we have not justified the need to use the general waiver authority for reductions. They suggest that either the statutory volumes, or the statutory volumes less the cellulosic waiver reduction are achievable. EPA disagrees with these comments and refers to section II.E of the final rule for the justification of our final total renewable fuel volume. As noted in that section and elsewhere, neither the statutory volumes nor the statutory volumes less the reduction under the cellulosic waiver authority can reasonably be achieved.

Some commenters stated that neither waiver condition in 211(o)(7)(A) has been met. We disagree. As described in the final rule, there is an inadequate domestic supply of total renewable fuel that justifies use of the waiver authority in 211(o)(7)(A).

Some commenters stated that EPA’s interpretation of “supply” must include carryover RINs, and any other interpretation was impermissible. EPA did consider carryover RINs in making our

decision on the use of the general waiver authority, but EPA does not consider carryover RINs as part of the “supply” that is referenced in the term “inadequate domestic supply” in CAA 211(o)(7)(A). Some commenters also stated that EPA has failed to articulate a basis for preserving the RIN bank at current level. EPA discusses carryover RINs in Section II.H. of the final rule. For additional discussion on carryover RINs in this document, see section 6.1.

Some commenters stated that the use of the general waiver authority will result in uncertainty for the biofuels industry. We understand that there has been uncertainty related to the manner in which EPA would interpret its waiver authorities, and expect that our final action will eliminate uncertainty to a considerable degree. The volumes finalized in this rule are at historic levels despite our use of the general waiver authority, and we believe that the total renewable fuel volume requirement represents the maximum that is reasonably achievable.

A commenter stated that our proposal did not reflect that we considered the impact of the reductions in conventional biofuel volumes on the cellulosic industry. They assert that the price that can be obtained for cellulosic ethanol is tied to the value of conventional ethanol. They argue that we should take this impact into account in deciding the extent to which we should use our waiver authorities in the final rule. We acknowledge that use of either waiver authority is discretionary, and therefore we are authorized to consider possible impacts of our action on the cellulosic biofuel industry. We also acknowledge our decisions on final advanced biofuel and total renewable fuel volume requirements could influence the price renewable fuels and their associated RINs. However, the concern raised by the commenter appears to hinge on fears of depressed conventional ethanol prices leading to depressed cellulosic biofuel prices. We do not expect that our final action will depress conventional ethanol prices or D6 RIN prices, so even if the commenters’ assessment of cellulosic biofuel pricing were accurate we do not expect our action would depress the values of cellulosic ethanol. Furthermore, while the information presented by the commenter on how obligated parties can comply with the cellulosic component of their RFS obligations is correct, we disagree with the equation presented to calculate the expected gross cellulosic price. This equation fails to consider that the corn starch ethanol futures price (which they use as part of the equation for calculating the expected price for cellulosic ethanol) includes the value of the D6 RIN. This value must be subtracted from the corn starch ethanol futures price before the advanced RIN price and CWC price are added. Further, we note that the price of the CWC assumed in the equation presented by the commenter is significantly lower than the CWC price for 2016 (\$0.30 rather than \$1.33). Because the value of the D6 RIN must be subtracted from the ethanol price in this equation, driving corn ethanol prices higher by increasing the value of the D6 RIN would not increase the value received for cellulosic ethanol. We also note that even if the equation presented by the commenter is corrected as discussed above it would only be a reasonable estimation of the value for cellulosic ethanol, not representative of all cellulosic biofuel. The expected value of non-ethanol cellulosic biofuels are not expected to be significantly impacted by the value of corn ethanol or D6 RINs, however the advanced RIN prices and CWC price are expected to impact the expected value for non-ethanol cellulosic biofuel.

As a final point, we do not believe it would be appropriate based on the information currently before us to increase the total renewable fuel standard in an effort to provide increased support to the cellulosic biofuel industry. Setting a higher total renewable fuel standard could lead to increased corn ethanol and conventional RIN prices, but would also potentially lead to

noncompliance by obligated parties, or a substantial carry-forward of RVO obligations into future years. Furthermore, lowering the advanced biofuel standard to allow more use of conventional fuel under the total renewable fuel standard could result in less use of advanced biofuels, and therefore less GHG emissions reduction. We believe that our final action is appropriate since it will avoid these types of adverse consequences, provides substantial support to the cellulosic industry through a separate cellulosic biofuel standard, and is unlikely to lead to the consequences feared by the commenter.

Other commenters indicated that our proposed action would result in a number of adverse consequences, including harming corn farmers and the ethanol industry, setting back the development of second-generation renewable fuels, increasing energy dependence, raising retail gasoline prices, and harming the environment. We generally disagree. The RFS program is beneficial to farmers and the ethanol industry, and we do not believe that either would benefit further by EPA finalizing RFS mandates that are not reasonably achievable. We also do not believe that our action today will suppress development of advanced and cellulosic biofuels. We have established standards for each of those fuel types that will incentivize their continued growth. We do not think that our action increases energy dependence, since it requires use of renewable fuels at record levels, and we have set the total renewable fuel standard so as to require use of the maximum volumes that are reasonably achievable. We do not believe that our action will adversely impact retail gas prices as compared to a hypothetical situation where EPA set unattainable RFS standards. See Section 7.5 of this document for discussion of impacts on retail fuel prices. Finally, while we acknowledge that there are environmental impacts associated with growing renewable fuel feedstocks and producing, transporting and using renewable fuels, we also believe that there are negative environmental impacts associated with using the petroleum-based fuels that renewable fuels displace. Our final action is designed to achieve substantial lifecycle GHG emissions reductions, in part by requiring use of reasonably attainable volumes of advanced biofuel.

One commenter stated that the NPRM failed to leave a sufficient margin for error, and that if finalized the proposed requirements could place obligated parties in “an impossible position,” or at least a highly punitive one. We acknowledge that the final requirements will require substantial growth in renewable fuel use; however we have determined that the total volumes required are reasonably achievable. The compliance flexibilities associated with the program (compliance through RIN acquisition rather than blending, carry-forward provision if RVOs cannot be satisfied, and authorization to satisfy up to 20% of a party’s RVO with carryover RINs) are all designed to facilitate compliance notwithstanding the challenges posed. EPA has not set the final volume requirements to intentionally draw-down the collective bank of carry-over RINs, which will be available should our projections prove inaccurate. Furthermore, further waivers could be provided during the compliance year if circumstances warrant.

Many comments address to the meaning of “inadequate domestic supply.” Our interpretation of this term is discussed in detail in the final rule, and in the following section, 2.2.2.1 and we suggest that section be read in conjunction with this one.

Some commenters asserted that EPA had used the word “supply” as a verb rather than as a noun in the NPRM, in an attempt to create ambiguity in the term. We do not discern a meaningful difference between use of the word as a noun or a verb, and believe the ambiguities described in the preamble exist regardless of that distinction. Asking what volume of renewable fuel can be

supplied (a verb) to consumers is equivalent to asking what the supply (a noun) of renewable fuel is to consumers.

In the remainder of this section of the response to comments document, we respond to comments asserting that our proposed interpretation of the general waiver authority to allow consideration of all constraints on the use of renewable fuel by the ultimate consumer, which we are maintaining in the final rule, would amount to focusing on “demand” in addition to or instead of “supply” and would, therefore, be impermissible under the Act. Most of these commenters asserted that EPA’s inquiry should end with an assessment of the production volume of biofuels. As explained in the preamble, the term “supply” is ambiguous. Although we believe it could be interpreted to focus on the production potential of biofuels, we do not believe that this would be the interpretation that best comports with the structure and purposes of the Act. Such an approach would ignore the components of the definitions of renewable fuel and additional renewable fuel that specify that in order to qualify under the Act, biofuel must be used in transportation fuel, jet fuel or heating oil. The commenters’ preferred approach would also ignore the fact that many aspects of the fuels marketplace other than biofuel production are controlled by fuel producers, suppliers, distributors and retailers. Therefore EPA is interpreting the term “inadequate domestic supply” consistent with the statutory definitions and the realities of the transportation fuel marketplace to allow consideration of the full range of constraints that can result in an inadequate supply of qualifying renewable fuel to consumers when EPA uses the general waiver authority.

EPA’s interpretation of the term “inadequate domestic supply” explains why EPA took into account the total volume of transportation fuel expected to be used in 2015 and 2016 in its assessment of the “supply” of renewable fuels. The amount of ethanol that can be sold as E10, for example, is directly related to the total amount of blended gasoline that is expected to be consumed in those years. To the extent larger volumes of gasoline are used, a proportionately larger volume of ethanol could be blended with it as E10 to make renewable fuel. This is not an improper consideration of “demand” but a realistic assessment of the volumes of biofuel that can be blended into transportation fuel and therefore can qualify as renewable fuel.

To the extent that commenters raising the supply versus demand issue intended to criticize EPA’s particular approach to assessing volumes of biofuel that will be put to qualifying uses as an improper assessment of “demand,” EPA disagrees that its broad consideration of such factors as physical limitations in infrastructure (e.g., availability of E15 and E85 pumps), legal barriers to use of renewable fuel, or ability of vehicles to use renewable fuel at varying concentrations, are inappropriate to its assessment of “supply.” These factors operate as practical and legal limits to how much biofuel can be distributed to and used by consumers in the United States, and therefore clearly relate to how much renewable fuel will be “supplied” to them as a replacement to fossil-based transportation fuel. Although there may be some element of consumer preference (i.e., demand) reflected in the historic growth patterns of renewable fuel production and distribution infrastructure and the current status of that infrastructure, it is nevertheless the case as of today that there are a limited number of fueling stations selling high-ethanol blends (approximately 3,000 retail stations), and as a result, the number of stations operates as a constraint on how much renewable fuel can be consumed in transportation fuel. Similarly, only flex fuel vehicles (FFVs) can legally use fuel with ethanol concentrations greater than 15 percent. The population of FFVs is only a small fraction of the passenger vehicle fleet and there

is an even smaller number of FFVs that have ready access to an E85 retail outlet. As a result, the number of FFVs with access to E85 also operates as a constraint on how much ethanol can be sold as transportation fuel. There is no question that a consumer who does not own a FFV will not purchase E85, and a consumer with a FFV will not purchase E85 if it is not readily available. Thus, it is clear that final consumer purchases of E85 depend on the number of FFVs and the fueling infrastructure.

Another example of market control by suppliers involves E85 pricing. As discussed in “An Assessment of the Impact of RIN Prices on the Retail Price of E85,” Dallas Burkholder, Office of Transportation and Air Quality, US EPA. November 2015. EPA Air Docket EPA-HQ-OAR-2015-0111, because there are a very limited number of E85 stations, there is currently little to no competition between them. Retailers of E85 can choose to sell it at a high price (with high profit) to a limited number of motivated consumers, or they can choose to lower the price to sell greater volume at less profit per gallon sold to a larger number of customers. The rational retailer will lower price only to the extent that doing so will increase profits. Our analysis indicates that under current conditions and those expected in the 2014-2016 time period irrespective of the renewable fuel volume requirement we establish, retailers will generally seek to maximize their profits by selling E85 at prices that are higher than the energy-equivalent cost of a gallon of E10. This means that most consumers with FFVs will not purchase it because it is effectively more expensive for them to use than E10. Although in an efficient market individual suppliers have little control over market price due to competition that is not the case at present. The suppliers have sufficient market control that they can establish the price of E85 and by their decisions effectively determine the volume of E85 that will be consumed. And, since E85 will only be produced in volumes necessary to replenish retail station tanks, the end result is that a limited volume of ethanol is likely to be blended with petroleum fuel to make E85 transportation fuel. Therefore, there will be a limited volume of qualifying renewable fuel supplied to consumers as E85, and it is this volume of qualifying renewable fuel that EPA counts, together with supplies of other types of renewable fuel, in determining the maximum reasonably achievable supply of qualifying renewable fuel for purposes of exercising the general waiver authority.

To the extent that commenters suggest that use of the word “supply” in 211(o)(7)(A) must necessarily preclude EPA consideration of all matters that could arguably be characterized as related to “demand” when evaluating the need to exercise the waiver authority, we disagree. Basic economic theory indicates that the two interact with each other, and it may be possible that the effects of certain constraints arise from this interaction. For example, the statute precludes the establishment of per-gallon requirements, and, in general, broadly defines the types of renewable fuels that can participate in the program, thereby relying on the market to identify the renewable fuels and renewable fuel blends that will satisfy the Act’s volumetric requirements. In assessing “supply” for future time periods, EPA must necessarily attempt to discern what the market is capable of doing in the relevant time period by looking at both what the market has done historically and how the market is likely to respond to the standards EPA sets, so as to assess the fuel types and volumes of those fuel types that can reasonably be produced and distributed for qualifying uses. This could be viewed in part as a “demand” oriented analysis, because what the market has done and likely will do are influenced by what consumers will buy and how much they will spend, but it is fundamental to assessing the volumes of qualifying renewable fuel that can and will be supplied in response to the RFS standards.

For a response to comments related to the reset provisions of the statute, see Section 10.1.

For further discussion of the statutory volume and volume requirements, see Section 2.2.4 and 2.3.

For further discussion of carryover RINs, see Section 6.1.

### **2.2.2.1 Inadequate Domestic Supply**

#### **Comment:**

#### **Environmental and Energy Study Institute (EESI)**

This proposal is a complete departure from EPA’s prior volume setting methodology – and more importantly, runs contrary to Congressional intent. EPA asserts that language in the Clean Air Act allows them to lower statutory fuel volumes across fuel categories. However, this is an extremely narrow interpretation of Congressional intent contained in the statute’s language regarding the definition of “inadequate domestic supply”. Senators expressed their displeasure at EPA’s interpretation of the statute in a recent hearing, with Ranking Member of the Senate Homeland Security & Governmental Affairs, Subcommittee on Regulatory Affairs & Federal Management Senator Heitkamp (D-ND), stating,

“The proposal continues to ignore Congressional intent, and reduces congressionally mandated blended volumes, citing availability of distribution capacity ... When you say you can use that language to basically justify a refueling infrastructure waiver. Did you look at the legislative history? In 2005, when the House language pretty clearly addressed this... What does it tell you if distribution capacity is amended out of that [language] and all you have is domestic supply? What would that inform you, in terms of the legislative history? ... You can’t bootstrap the domestic supply issue to deal with infrastructure.”

When the Renewable Fuel Standard was codified into law by the 2005 Energy Policy Act (EPAct) and later expanded under the 2007 Energy Independence and Security Act (EISA), the challenges presented by the E10 “blend wall,” were already well known. And while the nation’s fuel supply reached 10 percent ethanol faster than predicted in both 2005 and 2007, EPA has failed to hold obligated parties – namely petroleum refiners – accountable for their role in ensuring adequate domestic supply of biofuels in the transportation fuel supply. [EPA-HQ-OAR-2015-0111-1944-A1 p.2-3]

#### **Response:**

The Supreme Court has noted that “[t]he views of a subsequent Congress form a hazardous basis for inferring the intent of an earlier one.” U.S. v. Philadelphia Nat’l Bank, 374 U.S. 321, 341 (1963), citing U.S. v. Price, 361 U.S. 304, 313 (1960). Therefore, while we consider the statements from Senator Heitkamp on the intent of Congress, we believe our interpretation of the act and its provisions is reasonable.

## **Comment:**

### **National Chicken Council (NCC)**

The Clean Air Act provides EPA broad discretion in determining whether the “domestic supply” is adequate. The statute provides no limitations on what should be considered part of the “supply,” indicating that Congress has delegated that determination to EPA’s expertise. Any consideration of the domestic supply of biofuel must take into account the entire production and distribution chain, from crop planting all the way to use of the fuel by the engine. The domestic supply could be disrupted in a wide number of ways, from drought or pestilence affecting corn to an accident or breakdown at a refinery or blender to problems with the distribution system. A failure at any of these points would decrease domestic supply. [EPA-HQ-OAR-2015-0111-1814-A1 p.6-7]

According to *Oxford English Dictionary*, “supply” means “a stock, amount, or flow of something supplied or available for use.”<sup>6</sup> Ethanol that cannot be added to an engine for technical or regulatory purposes is not ethanol that is “available for use” by that engine. The blendwall, therefore, represents a very real constraint on the ability of the nation to supply its motor fleet with ethanol-blended gasoline under the RFS. Reducing the blending targets in light of this supply limitation is wholly within the broad waiver authority provided in the Clean Air Act. [EPA-HQ-OAR-2015-0111-1814-A1 p.7]

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<sup>6</sup> Oxford English Dictionary (3d ed. 2012), “Supply,” entry

### **Abengoa Bioenergy**

The phrase ‘inadequate domestic supply’ clearly refers to the supply of renewable fuels: the RVOs that the statute allows EPA to modify in some circumstances are expressed as volumes of ‘renewable fuel,’ ‘advanced biofuel,’ and ‘cellulosic biofuel,’ see 42 U.S.C. § 7545(o)(2)(B)(i)(1)-(111), not gasoline nor blends of gasoline with renewable fuels. See *id.* § 7545(o)(7)(A) (permitting waiver of specified volumes ‘of renewable fuel required under paragraph 2’). [EPA-HQ-OAR-2015-0111-2474-A1 p.3]

Waiving the renewable fuel requirements because the Obligated Parties have failed to satisfy their obligations would undermine the statutory purpose of increasing use of renewable fuels. [EPA-HQ-OAR-2015-0111-2474-A1 p.4]

### **Advanced Biofuels Business Council (ABBC)**

Very clearly, CAA section 211(o)(7)(A) subsection (ii) does not specify what “supply” refers to because CAA section 211(o)(7)(A) itself clearly establishes the focus of subsection (ii) as being “the national quantity of renewable fuel.” [EPA-HQ-OAR-2015-0111-3528-A1 p.12]

First, with regard to the reformulated gasoline program waiver authority specified – CAA section 211(k)(6)(B)(i) and (iii) – it is unclear how more explicit references to “insufficient capacity to supply” found elsewhere in the CAA can be read to suggest that a “*capacity* to supply” should be read into a provision containing only the word supply. We believe a more reasonable interpretation of these

provisions is that when Congress means “capacity to supply” as opposed to just “supply,” it will say so. [EPA-HQ-OAR-2015-0111-3528-A1 p.13]

If Congress had intended EPA to have the discretion to waive the total renewable fuel requirement based on market circumstances other than authority in CAA section 211(o)(7)(A) as it did in CAA sections 211(o)(7)(E) and 211(o)(2)(B)(ii). [EPA-HQ-OAR-2015-0111-3528-A1 p.13-14]

In fact, the structure of the sentence in CAA section 211(c)(4)(C)(ii) – as related to “the distribution of an adequate supply” – clearly suggests that the existence of adequate supply, and the existence of distribution problems of adequate supply, are two different things. The practical effect of the EPA proposed rule is to read the broader waiver authority to consider problems related to “the distribution of an adequate supply” contained in CAA section 211(c)(4)(C)(ii) into CAA section 211(o)(7)(A), even though there is no mention of “distribution” or any related term in CAA section 211(o)(7)(A). [EPA-HQ-OAR-2015-0111-3528-A1 p.14]

Congress had before it language that would have provided EPA with the authority to waive the RFS in situations where there was “inadequate domestic supply or distribution capacity to meet the requirement. [EPA-HQ-OAR-2015-0111-3528-A1 p.14]

In the final regulation published in 2010, EPA stated that “it is ultimately the availability of qualifying [renewable] fuel, as determined in part by the number of [Renewable Identification Numbers, which are assigned per gallon of qualifying neat renewable fuel] in the marketplace, that will determine the extent to which EPA should issue a waiver of the RFS requirements on the basis of inadequate domestic supply.”<sup>25</sup> We believe EPA was right the first time, when it sent a clear and critical signal to obligated parties that they are responsible for complying with the law if there are sufficient quantities of qualifying renewable fuel. [EPA-HQ-OAR-2015-0111-3528-A1 p.15]

The argument against a “capacity to produce” interpretation is not an argument for a “capacity to distribute” interpretation because in actuality the motor fuel supply chain is more layered than that. [EPA-HQ-OAR-2015-0111-3528-A1 p.15]

### **Advanced Ethanol Council**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 64.]

We knew that we could live with the second waiver provision, which is if there's inadequate domestic supply, i.e., not enough of the renewable fuel, we could live with that. Because if we didn't produce it, of course, you're going to waive it.

### **Algae Biomass Organization (ABO)**

Finally, we urge EPA not to allow distribution limitations imposed by obligated parties to constrain RVOs for any renewable fuel. To spur investment in commercialization of algae-based fuels, developers must have confidence in their ability to access markets under the RFS. Limiting fuel obligations based on distribution constraints within the control of obligated parties –

including the so-called “blend wall” puts this market certainty at risk. EPA should set annual RVOs, as required by statute, based on production. [EPA-HQ-OAR-2015-0111-1951-A1, p.2]

### **American Coalition for Ethanol (ACE)**

The House legislation allowed EPA to issue a waiver based on “inadequate domestic supply **or distribution capacity**” (emphasis added) [. . .] The Senate language prevailed in the final legislation enacted by Congress and transmitted to the President for his signature.<sup>2</sup> [EPA-HQ-OAR-2015-0111-2543-A2 p. 2]

**The definition of “inadequate domestic supply” is not ambiguous** [. . .] The definition of “inadequate domestic supply” clearly refers to renewable fuel supply. [EPA-HQ-OAR-2015-0111-2543-A2 p. 3] [EPA-HQ-OAR-2015-0111-1043, p. 20]

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2. Testimony of Mr. Jonathon Lehman, former energy policy counsel to Senate Majority Leader Tom Daschle (D-SD), at EPA Public Hearing for the 2014 Standards for the Renewable Fuel Standard Program, December 5, 2013.

### **American Council on Renewable Energy (ACORE)**

Section 211(o)(7)(a) is unambiguous when read as a whole within the context of Section 211(o) on what is being supplied and to whom it is being supplied, for the purposes of examining whether the waiver applies. Reading the phrase as part of the sentence in which it appears makes it clear that inadequate domestic supply refers to “renewable fuel.” It would have been redundant for Congress to say that USEPA could waive “the quantity of renewable fuel” based on an “inadequate supply of renewable fuel,” so it did not. [EPA-HQ-OAR-2015-0111-1926-A1 p.5]

However, reading the statute as such is bizarre: it would allow a waiver in the “quantity of renewable fuel” based on “inadequate supply of transportation fuel,” the very product made with renewable fuel. This illogical reading must be rejected absent explicit language directing USEPA to implement the statute in such a manner. [EPA-HQ-OAR-2015-0111-1926-A1 p.5]

USEPA’s broad interpretation of “supply” is not a permissible construction of the statute, because the “interpretation goes beyond the limits of what is ambiguous and contradicts what [...] is quite clear.”<sup>10</sup> [EPA-HQ-OAR-2015-0111-1926-A1 p.6]

As USEPA notes, draft versions of the Energy Independence and Security Act (EISA) included a waiver in situations where there was “inadequate domestic supply or distribution capacity to meet the requirement.”<sup>11</sup> The reference to “distribution capacity” was removed before EISA passed Congress and was signed into law. [EPA-HQ-OAR-2015-0111-1926-A1 p.6]

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<sup>10</sup> *Whitman v. American Trucking Ass’ns*, 531 U.S. 457, 481 (2001).

<sup>11</sup> H.R. 6 and S. 606 as reported by Senate Env’t. & Public Works in Senate Report 109-74. See also H.R.2950 - Renewable Fuels, Consumer Protection, and Energy Efficiency Act of 2007 (f) WAIVERS.(1)(b) <https://www.govtrack.us/congress/bills/110/hr2950/text>

## **Biotechnology Industry Organization**

The proposed rule states: “As the volume requirements we are proposing for 2016 represent significant increases from 2014, we believe it would be unreasonable to expect the market to supply more than the proposed volumes.”<sup>103</sup> The proper standard is not whether EPA is proposing “[s]ignificant increases” in a particular renewable fuel volume from a prior year, but whether EPA has proposed the minimum reduction in a renewable fuel volume that is needed to remedy inadequate domestic supply of renewable fuel. [EPA-HQ-OAR-2015-0111-1958-A2 p. 27]

EPA must return to the successful approach it employed in setting prior RVOs in order to ensure the U.S. transportation system achieves maximum reductions in greenhouse gas emissions. [EPA-HQ-OAR-2015-0111-1958-A2 p. 29]

EPA requests comment on “an alternative approach to characterizing expected growth in renewable fuels” by projecting “the share of the fuel pool that can reasonably be expected to be comprised of renewable fuel over time. In this way, increases or decreases in gasoline demand would be reflected in corresponding increases or decreases in mandated renewable fuel volumes.”<sup>125</sup> This alternative approach is inconsistent not only with the text of the RFS statute, but also with the fundamental goals of the statute and the program that the statute creates. The alternative approach can easily be foreseen to generate the same outcome as EPA’s failure to set RVOs for 2014 – it would be a signal to biofuel producers and their investors that the market share for advanced biofuels will perpetually remain limited by artificially constructed blendwall constraints, and will remain to a significant degree under the control and influence of competing fuel producers who are not obligated to make room for alternatives in the marketplace. [EPA-HQ-OAR-2015-0111-1958-A2 p. 36-37]

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<sup>103</sup> *Proposed Rule 33126 (emphasis added).*

<sup>125</sup> *Proposed Rule 33109.*

## **Brazilian Sugarcane Industry Association (UNICA)**

“inadequate domestic supply” ...necessarily refers back to the term “renewable fuel,” which is used in the same sentence to refer to the type of fuel for which waivers may be granted if there is “inadequate domestic supply.” [EPA-HQ-OAR-2015-0111-2495-A1 p.20-21 and EPA-HQ-OAR-2015-0111-2495-A2 p.19]

EISA’s legislative history further reinforces that conclusion. [EPA-HQ-OAR-2015-0111-2495-A1 p.22]

The most glaring problem with that argument is that it treats “supply” to mean “demand,” even though the two terms are inversely related. [EPA-HQ-OAR-2015-0111-2495-A2 p.18]

A further problem with EPA’s argument about the adequacy of domestic supply is that it is entirely at odds with the technology-forcing purpose of Title II of the CAA, of which the RFS2 is a part.<sup>74</sup> The RFS2 was not intended simply to capture the demands or distribution capacities of existing markets. Its overarching purpose was to force the market to incorporate new

technologies and means of distribution to meet the volumetric requirements set out in the CAA.<sup>75</sup> [EPA-HQ-OAR-2015-0111-2495-A2 p.20]

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<sup>74</sup> See, e.g., *Bluewater Network v. EPA*, 370 F.3d 1, 20 (D.C. Cir. 2004) (Title II of CAA is “technology-forcing”); *Sierra Club v. EPA*, 325 F.3d 374, 378 (D.C. Cir. 2003) (same).

<sup>75</sup> See *Am. Petroleum Ass’n Inst. v. EPA*, 706 F.3d 474, 479 (D.C. Cir. 2013) (recognizing the RFS program’s “general mandate” favoring “a technology-forcing agenda,” even while holding that “a broad programmatic objective cannot trump specific instructions”); see also 153 Cong. Rec. H16659, 16739 (2007) (statement of Rep.

### **Chevron**

Chevron agrees with the Administrator’s determination that the blendwall meets the finding of “an inadequate domestic supply.” [EPA-HQ-OAR-2015-0111-1911-A1 p. 2]

Chevron agrees with EPA that “limitations in production or importation of qualifying renewable fuels, and factors that limit supplying those fuels to the vehicles that can consume them, both constitute circumstances that warrant a waiver under section 211(o)(7)” of the Act. [EPA-HQ-OAR-2015-0111-1911-A1 p. 2]

### **Colorado Corn Growers Association**

In addition to the RFS already proving itself successful and the biofuel industry’s ability to produce the statutory levels going forward, we also take issue with the recent proposal because of the EPA’s reasons for decreasing the renewable volume obligations (RVO). In order to grant a waiver and reduce the requirements, the EPA must determine either that implementing the requirements would severely harm the economy or environment, or that there is an inadequate domestic supply. In its proposed rule, the EPA justifies the proposed reduction in conventional biofuel due to inadequate domestic supply based on a lack of retailer infrastructure and a fabricated blendwall a criteria that is not a statutory trigger. [EPA-HQ-OAR-2015-0111-2334-A1 p.2]

### **Commonwealth Agri-Energy, LLC**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 189.]

EPA may grant a waiver request based on inadequate domestic supply of renewable fuel only when it finds that the renewable fuels industry lacks the capability to produce it. I think we’ve proven we can produce it.

### **DuPont**

The phrase “inadequate domestic supply” in Section 211(o)(7)(A)(ii) unambiguously refers back to “renewable fuel required under paragraph (2).” And the phrase “renewable fuel required under paragraph (2),” it is clear, describes pure (or “neat”) renewable fuel, not blended fuel. [EPA-HQ-OAR-2015-0111-1826-A1 p.5]

The statute’s drafting history confirms that EPA may not consider distribution capacity in determining whether to grant a general waiver. [EPA-HQ-OAR-2015-0111-1826-A1 p.8]

The purposes of the Clean Air Act and the Renewable Fuel Standard program reinforce the above interpretation of Section 211(o)(7)(A)(ii). [EPA-HQ-OAR-2015-0111-1826-A1 p.8]

Therefore, even if EPA’s proposed interpretation could make it to *Chevron* step two, it would fail there because the interpretation is “manifestly contrary to the statute.” *Chevron*, 467 U.S. at 843.<sup>3</sup> [EPA-HQ-OAR-2015-0111-1826-A1 p.10]

DuPont disagrees with EPA’s analysis and conclusion that these Clean Air Act sections “highlight both the ambiguity of the RFS general waiver provision and the reasonableness of applying it broadly to include adequacy of supply to the ultimate consumer of the transportation fuel.” 80 Fed. Reg. 33,111. [EPA-HQ-OAR-2015-0111-1826-A1 p.11]

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<sup>3</sup> Granting a general waiver based on inadequate distribution capacity would not only negatively impact first generation ethanol prices, but also would have a significant negative impact on the price of advanced biofuels and hence would dampen investment in development of cellulosic ethanol and other advanced biofuel production capacity. An interpretation of the statute that would undermine investment in advanced biofuel production technologies would be unreasonable and hence fail at *Chevron* Step 2.

## **Growth Energy**

The fundamental problem with EPA’s approach is that constraints on the *distribution and use of transportation fuel* do not matter in determining whether EPA may exercise its general waiver authority. The phrase “inadequate domestic supply” in the general waiver provision refers to the amount of renewable fuel available for obligated parties to comply with their volume obligations, which is properly measured by production capacity. By expanding “supply” of “renewable fuel” to include downstream constraints on the supply and consumption of a different product that contains renewable fuel (that is, blended transportation fuel), EPA in effect interprets “supply” of “renewable fuel” to include “demand for renewable fuel.” That stretches “supply” far beyond what reasonable interpretation permits. [EPA-HQ-OAR-2015-0111-2604-A2 p.2]

In any event, there is adequate “supply” in 2014, 2015, and 2016, even under EPA’s flawed interpretation, to foreclose EPA’s exercise of the general waiver authority. As this comment explains in detail, there are various feasible, relatively inexpensive, and fast pathways to expand distribution and consumption of ethanol-based renewable fuels and biomass-based diesel. Even the most conservative of these pathways could boost distribution and consumption of renewable fuel by hundreds of millions of gallons—more than needed to support compliance with the statutory volume requirements for renewable fuel in 2014-2016, after the proposed cellulosic waiver flow-through. [EPA-HQ-OAR-2015-0111-2604-A2 p.2-3]

EPA’s interpretation of the general waiver authority is impermissible. The statute’s text, structure, purpose, and legislative history all clearly show that Congress intended “supply” to refer to the amount of renewable fuel for obligated parties to comply with the applicable statutory volume requirements, not the amount that can ultimately make it into drivers’ gas tanks as an ingredient in blended transportation fuel. [EPA-HQ-OAR-2015-0111-2604-A2 p.17]

Besides this strong statutory evidence, discussed presently, the ordinary usage of the word “supply” shows that it cannot be interpreted to include constraints on the ability to distribute renewable fuel as an ingredient in another product (transportation fuel) that is delivered to the ultimate consumer or on the ability to consume it. [EPA-HQ-OAR-2015-0111-2604-A2 p.17]

In other words, EPA is trying to expand “supply” of “renewable fuel” to include “demand,” all the way down the value chain to the ultimate consumer. Those concepts are, of course, antitheses. Words are not infinitely malleable, and EPA is not free to treat them interchangeably or to give them their opposite meaning when interpreting a statute. Even if the term “supply” in the general waiver provision were ambiguous in the abstract, EPA’s proposed interpretation would still be foreclosed because it “goes beyond the limits of what is ambiguous and contradicts what ... is quite clear”—that “supply” cannot mean “demand.”<sup>100</sup> It is particularly unreasonable to consider constraints on demand for renewable fuel when, as described below, the very mechanism Congress chose to spur growth in renewable fuels was to *mandate demand* for renewable fuels through increasing volumetric requirements. [EPA-HQ-OAR-2015-0111-2604-A2 p.18]

In providing for waiver authority, section 7545(o)(7)(A) mentions one and only one product: “renewable fuel.” It is therefore plain that the product to which “supply” refers is renewable fuel. [EPA-HQ-OAR-2015-0111-2604-A2 p.19]

Notably, it is solely in the context of the general waiver provision that EPA tries to stretch “renewable fuel” to encompass the downstream products that might contain it. [EPA-HQ-OAR-2015-0111-2604-A2 p.21]

Congress did not design the RFS to wilt in the face of obligated parties’ inadequate investment in infrastructure to facilitate the distribution and consumption of more renewable fuel. [EPA-HQ-OAR-2015-0111-2604-A2 p.25]

The RIN mechanism would work—if EPA would let it—because, as detailed below, the primary barriers to consuming higher-blend transportation fuel are fundamentally economic. [EPA-HQ-OAR-2015-0111-2604-A2 p.25]

The legislative history confirms that the general waiver authority may be invoked only when the amount of renewable fuel is inadequate for obligated parties to meet their volume obligations. Congress in fact specifically removed distribution capacity from the trigger for the general waiver authority, foreclosing any interpretation that would restore it. [EPA-HQ-OAR-2015-0111-2604-A2 p.27]

another category of apparent constraint on greater use of E15 is the suggestion, which EPA apparently credits, that consumer fear that use of E15 in MY2001+ vehicles, although approved by EPA, will nonetheless void engine warranties that do not explicitly approve use of E15. Even if these concerns were legitimate, they would not be an appropriate basis for exercising EPA’s general waiver authority because they affect only consumer demand, not supply of transportation fuel (or renewable fuel). As EPA itself puts it, these factors relate to whether “vehicle owners may be reluctant to use E15,”<sup>288</sup> which would be the case even if stations were overflowing with E15. These concerns, therefore, are not relevant to ascertaining the amount of “supply” for purposes of the general waiver provision, even under EPA’s flawed interpretation. [EPA-HQ-

<sup>100</sup> *Whitman v. American Trucking Ass'ns*, 531 U.S. 457, 481 (2001); *see also City of Arlington, Texas v. FCC*, 133 S. Ct. 1863, 1874 (2013) (“Where Congress has established a clear line, the agency cannot go beyond it; and where Congress has established an ambiguous line, the agency can go no further than the ambiguity will fairly allow.”).

<sup>288</sup> EPA 2015 E15 Memorandum at 3.

### **Highwater Ethanol, LLC**

We have identified a few items below which requires immediate attention on the proposed rule from the U.S EPA in regards to the renewable fuels standards.

3. We believe that the EPA may reduce volumes of advanced biofuel and total renewable fuel only to the extent necessary to remove the inadequacy and supply.” EPA should focus on the existing available supply of biofuels so as to use and comply with the RFS. Based on industry data compiled by BBI International, the total amount of annual production capacity for biofuels in United States, excluding advance biofuels, is currently at least **15.08 billion gallons**. [EPA-HQ-OAR-2015-0111-2506-A2 p.2]

### **Illinois Corn Growers Association (ICGA) and Illinois Renewable Fuels Association (IRFA)**

USEPA is confusing basic economics of supply and demand. The statute allows for waivers due to inadequate supplies of designated biofuels not due to lack of demand because of artificial barriers to the marketplace. Since more than 90% of the light duty spark ignited vehicles can use E15 or E85 and with ethanol trading at 35 cents per gallon below gasoline, it is reasonable to assume that the statutory gallons for conventional biofuels in the RFS II would be purchased if the obligated parties were forced to obey the statute. Allowing them to accumulate RINS and not purchase available gallons is not meeting either the intent or letter of the statute. [EPA-HQ-OAR-2015-0111-1925-A1 p. 1-2]

### **Iowa Farm Bureau Federation (IFBF)**

Most troubling is the flawed methodology that EPA is using to justify a reducing in the blending requirements. The renewable fuels industry has more than enough capacity to produce in excess of the 15 billion gallons of conventional biofuel prescribed for 2015 by the RFS2. There is clearly not a supply limitation. Using the lack of infrastructure as an excuse for setting biofuels levels lowers than originally mandated is not following the intent of the law that was passed by Congress. The EPA should not call the difficulties associated with blending higher than 10% a 'blend wall' and then call this a supply issue. This proposed rule lays out a methodology that will never allow biofuels to exceed approximately 10% of the market share. This is directly against the intent of the RFS2 as passed by Congress — which is to push infrastructure investments to increase market access for biofuels well beyond 10%. [EPA-HQ-OAR-2015-0111-1717-A1 p. 2]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 109.]

The renewable fuels industry has more than enough capacity to produce in excess of the volumes that were specifically laid out in the law. EPA's rationale for this proposed rule is based on a flawed methodology that will never allow biofuels to exceed approximately 10 percent of the market share. This flies in the face of the law's intent to push infrastructure investments to increase market access for biofuels.

### **John Deere**

The biofuel industry requires an emphatic message that EPA will not allow actual or perceived supply constraints to prevent continued growth in renewable fuels consumption. We believe EPA incorrectly interprets Congress' intent when it proposes to apply the statutory 'inadequate domestic supply' waiver-authority to distribution constraints. Even if EPA's interpretation of the waiver authority is correct, its exercise is not required - especially when doing so jeopardizes the fundamental signal that must be sent to the market. As such, we ask that EPA stand by the statutory volume of 15 billion gallons of conventional biofuel in 2016. [EPA-HQ-OAR-2015-0111-2042-A1 p.2]

### **Kansas Farm Bureau**

Conventional ethanol – Clearly, EPA has specific authorization to partially waive a portion of the renewable fuels mandate if sufficient volumes are not available, and that waiver authority has been used repeatedly over the life of the RFS2 with cellulosic ethanol; however, we dispute the need to also reduce the volumes of conventional ethanol. According to the US Energy Information Administration, the US produced 14.34 billion gallons of ethanol in 2014 and the renewable fuels industry has more than enough capacity to produce in excess of the 15 billion gallons of conventional biofuel prescribed for 2015 and beyond by the RFS2. [EPA-HQ-OAR-2015-0111-1195-A1 p.1]

### **Mass Comment Campaign sponsored by anonymous 21 (web) - (13)**

I take exception to your liberal use of your waiver authority. Clearly, EPA has taken the teeth out of the RFS. By redefining 'inadequate supply' you have made up the rules as you've gone along and in doing so thumbed your nose at Congressional intent and rendered the law meaningless. [EPA-HQ-OAR-2015-0111-0279 p.1]

### **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

Revise the NPRM's proposal that EPA set the volume requirements for 2016 at the very "boundary between an adequate domestic supply and an inadequate domestic supply." The Merchant Refiners Group strongly supports EPA's decision to use its cellulosic and general waiver authority to reduce the statutory volume requirements. But its proposal to set volume requirements at the boundary of adequate and inadequate domestic supply conflicts with Congressional intent and ignores the reality that any determination of how much renewable fuel can be supplied to consumers in 2016 is inherently uncertain and prone to error. The economic and social costs of erroneous projections are not linear—whereas there is little downside risk in under-projecting domestic supply, projections that prove too high will dramatically increase RIN prices and price volatility, and will deplete carry-over RIN stocks, which EPA has recognized should be maintained. [EPA-HQ-OAR-2015-0111-2603-A1, p.1]

For 2016, EPA also correctly invoked its waiver authorities to reduce the statutory volume requirements. However, EPA erred in proposing to set the volume requirements at the very “boundary between an adequate domestic supply and an inadequate domestic supply.” As EPA elsewhere acknowledged in the NPRM, any determination of how much renewable fuel can be supplied to consumers in 2016 is inherently uncertain and prone to error. The consequences of aiming too high are severe: obligated parties could be left unable to comply. And Congress did not intend to put obligated parties “in an impossible position, or at least a highly punitive one” in which they face penalties due to structural conditions beyond their control.<sup>6</sup> Moreover, the cost of error is decidedly not linear—projections that prove too low will have only a small impact on RIN prices, whereas projections that prove too high will dramatically increase RIN prices and price volatility, and may make compliance impossible. Thus, in setting volume requirements pursuant to the general waiver authority, it is critical that EPA leave a certain degree of breathing room to account for the possibility of error. [EPA-HQ-OAR-2015-0111-2603-A2, pp.2-3]

Here, the Merchant Refiners Group focuses on the general waiver authority set forth in Section 211(o)(7)(A)(ii), which allows EPA to waive the volume requirements in the event of “inadequate domestic supply.” [EPA-HQ-OAR-2015-0111-2603-A2, p.7]

Under that Section, EPA can and should waive the statutory volume requirement for total renewable fuels. And in setting a new volume requirement, EPA should ensure that “domestic supply” will be adequate by leaving sufficient breathing room to account for the significant uncertainty surrounding projected volumes. [EPA-HQ-OAR-2015-0111-2603-A2, p.7]

#### A. There Is An “Inadequate Domestic Supply” of Renewable Fuel That Can Be Consumed as Transportation Fuel.

The general waiver authority, Section 211(o)(7)(A), states in relevant part: The Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, may waive the [statutory volume] requirements . . . in whole or in part . . . by the Administrator on his own motion by reducing the national quantity of renewable fuel . . . — . . . (ii) based on a determination by the Administrator, after public notice and opportunity for comment, that there is an inadequate domestic supply.<sup>10</sup> [EPA-HQ-OAR-2015-0111-2603-A2, p.7]

The key statutory phrase is “inadequate domestic supply.” The statutory language does not specify what supply must be inadequate nor the purpose against which adequacy is to be assessed. This leaves EPA with considerable discretion to decide how to apply the waiver authority in a manner consistent with the statutory purpose.<sup>11</sup> [EPA-HQ-OAR-2015-0111-2603-A2, pp.7-8]

EPA’s interpretation of the phrase “inadequate domestic supply,” as authorizing it “to consider the full range of constraints, including legal, fuel infrastructure, and other constraints, that could result in an inadequate supply of renewable fuels to consumers,” is clearly permissible. Indeed, that is the most logical interpretation of the statute. The benefits that Congress sought to bring about through the statute—energy independence and a reduction in greenhouse gas emissions—can only be achieved if renewable fuels are ultimately supplied to consumers in place of the fossil fuels they would otherwise consume. [EPA-HQ-OAR-2015-0111-2603-A2, p.8]

Congress understood this. The statute charges EPA with ensuring that “transportation fuel sold or introduced into commerce in the United States” contains particular volumes of renewable fuel.<sup>14</sup> And the term “renewable fuel” is defined to mean “fuel that is produced from renewable biomass and that is used to replace or reduce the quantity of fossil fuel present in a transportation fuel.”<sup>15</sup> For that reason, as EPA explained, the adequacy of supply must account for the various factors that constrain the market’s ability to supply renewable fuels to the vehicles that can consume them as transportation fuel. After all, it would not advance statutory objectives to mandate the production of renewable fuel that cannot feasibly be blended into the transportation fuel supplied to consumers. [EPA-HQ-OAR-2015-0111-2603-A2, p.8]

### C. In Exercising Its General Waiver Authority, EPA Should Reduce the Statutory Volume Requirement to a Level That Will Ensure an Adequate Domestic Supply.

1. Because EPA’s projections are inherently uncertain, and the RIN market does not behave like an ordinary competitive market, EPA must consider the consequences of setting a volume requirement that is too high and must leave sufficient breathing room to account for the likelihood of error. [EPA-HQ-OAR-2015-0111-2603-A2, p.12]

In exercising its general waiver authority to address “inadequate domestic supply,” EPA obviously must reduce volume requirements to the level where supply is “adequate.” It has interpreted that to mean it should set the volume requirements at the very “boundary between an adequate domestic supply and an inadequate domestic supply.” In other words, EPA is “seeking to determine the maximum volumes of renewable fuel that can be expected to be achieved in light of supply constraints.” As EPA has put it, the proposed requirements are “forward-leaning.” [EPA-HQ-OAR-2015-0111-2603-A2, pp.12-13]

The difficulty is that the maximum volumes of renewable fuel that can be expected to be introduced into transportation fuel cannot be determined with pinpoint accuracy. Instead, as EPA’s withdrawn 2014 Notice of Proposed Rulemaking openly acknowledged, there are a range of potential scenarios that could occur with different probabilities.<sup>34</sup> While that probabilistic distribution may produce an expected value, the variation around that expected value could be significant. And it is difficult even to identify the probabilistic distribution with any accuracy. Thus, as EPA recognized in the NPRM, determining the amount of renewable fuel that can be expected to be introduced into transportation fuel in the future is “a very challenging task not only in light of the myriad complexities of the fuels market and how individual aspects of the industry might change in the future, but also because we cannot precisely predict how the market will respond to the volume-driving provisions of the RFS program.” The most EPA can offer is its guess as to “where the intersection between adequate domestic supply and inadequate domestic supply might fall.” [EPA-HQ-OAR-2015-0111-2603-A2, p.13]

Because EPA’s projections are inherently uncertain, EPA must consider the adverse consequences of setting a volume requirement that is too high, and it must leave sufficient breathing room to account for the possibility (indeed, likelihood) of error in its projections. This is critical given the dynamics of the RIN market, where the cost of EPA erring is decidedly not linear—projections that prove too low will have only a small impact on RIN prices, whereas projections that prove too high will dramatically increase RIN prices and price volatility. And a waiver that is too small to remedy the problem of “inadequate domestic supply” would fall

outside the waiver that Congress authorized. The NPRM nowhere considers this important aspect of the problem. [EPA-HQ-OAR-2015-0111-2603-A2, pp.13-14]

Accordingly, EPA should be conservative in setting volume requirements, to ensure domestic supply is in fact adequate to meet those requirements—not just that it “might” be adequate. As EPA stated in the NPRM, “[t]he RFS standards are a mandate with serious ramifications to obligated parties that fail to comply.” At minimum, a compliance requirement set too high would result in “greater volatility in RIN prices and greater difficulty for obligated parties in obtaining RINs and in planning and implementing an orderly compliance strategy.”<sup>39</sup> Setting requirements at the very “boundary between an adequate domestic supply and an inadequate domestic supply” also threatens to negate the wisdom of EPA’s decision to maintain carry-over RIN stocks. Every time EPA even slightly crosses the boundary into inadequate supply, obligated parties must chip away at finite RIN stocks, leaving them dangerously exposed in the event of a not-uncommon future drought or other occurrences that can sharply effect domestic supply. EPA has already recognized the danger of such circumstances, remarking that it “would be disruptive to businesses and therefore to the longterm objectives of the RFS program” to have to change its mandates during the compliance year “to address unforeseen supply disruptions or for other reasons....” (Conversely, if EPA sets the volume requirement somewhat lower than the economy ends up using, parties could generate excess RINs, helping to rebuild RIN stocks closer to the 20 percent level that EPA has previously found to be prudent.) [EPA-HQ-OAR-2015-0111-2603-A2, pp.14-15]

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<sup>10</sup> 42 U.S.C. § 7545(o)(7)(A).

<sup>11</sup> See *EPA v. EME Homer City Generation, L.P.*, 134 S. Ct. 1584, 1603 (2014) (citing *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 843, 866 (1984)).

<sup>14</sup> 42 U.S.C. § 7545(o)(2)(A)(i).

<sup>15</sup> 42 U.S.C. § 7545(o)(1)(J) (emphasis added).

<sup>34</sup> 2014 Standards for the Renewable Fuel Standard Program, 78 Fed. Reg. 71,732 (Nov. 29, 2013).

<sup>39</sup> Interagency Comments Part 9a: Email from Jim Laity, OMB, to Karl Simon, EPA Office of Transportation and Air Quality (Oct. 24, 2013 7:25 PM), EPA-HQ-OAR-2013-0479-0003.

## **N. Bowdish Company**

You have stated in your proposal your objective is to set the volume requirements as precisely as possible at the intersection between an ‘inadequate supply’ and a supply that is adequate and further noted this is a very ‘challenging task’. My feedback to you is, Get Out of the Way! Let the RIN driven marketplace sort out this challenging task. Retreat from the use of the General Waiver Authority and Stick to the Statute! [EPA-HQ-OAR-2015-0111-1202-A1 p.2] [EPA-HQ-OAR-2015-0111-1044 p.335]

## **National Biodiesel Board**

It is also inappropriate to consider whether “legal and practical constraints on their supply to vehicles and other qualifying uses” as part of considerations of “supply” of renewable fuels. [EPA-HQ-OAR-2015-0111-1953-A2 p.88]

Because EPA only focuses on distribution concerns and “competition” among advanced biofuels, it does not appear to fully assess the available supply of advanced biofuels. As NBB shows below, the available supply is higher than EPA has proposed. [EPA-HQ-OAR-2015-0111-1953-A2 p.90]

EPA’s interpretation is contrary to the plain terms of the statute, the statutory structure and the legislative history. Indeed, the only way for EPA to support its proposal is to manufacture an ambiguity in the plain language of the statute to incorporate notions of demand. [EPA-HQ-OAR-2015-0111-1953-A2 p.92]

While the noun and the verb both refer to the same segment of the renewable fuels market, EPA appears to use the verb form to manufacture ambiguity in order to broaden its waiver authority. Instead of focusing on the available supply of renewable fuels, EPA focuses on the ability to supply those fuels *to consumers*. EPA uses the verb form to blend supply-side considerations (supply) with demand-side considerations (consumers), which EPA then claims makes the statute ambiguous. This is counter to the plain terms of the statute. [EPA-HQ-OAR-2015-0111-1953-A2 p.93]

These provisions show, however, that Congress understood the distinctions between concepts reflecting supply (*e.g.*, production and importation) and demand (*e.g.*, distribution). In other words, understanding the purposes and structure of the provisions at issue, Congress chose its words carefully. [EPA-HQ-OAR-2015-0111-1953-A2 p.95]

EPA’s authority to extend the effective date of the prohibition on sales of conventional gasoline to consumers in RFG opt-in areas does not evidence that Congress defined “supply” to include “demand.” [EPA-HQ-OAR-2015-0111-1953-A2 p.96]

When Congress wanted EPA to consider inadequate “distribution,” it clearly said so. [EPA-HQ-OAR-2015-0111-1953-A2 p.97]

The legislative history, and statutory structure, similarly make clear that Congress did not intend to define inadequate domestic supply to include considerations of demand. [EPA-HQ-OAR-2015-0111-1953-A2 p.99]

Even if one could argue that “inadequate domestic supply” is ambiguous, EPA’s interpretation to allow EPA to consider “the full range of constraints, including legal, fuel infrastructure and other constraints, that could result in an inadequate supply of renewable fuels to consumers” is plainly not reasonable. [EPA-HQ-OAR-2015-0111-1953-A2 p.101]

### **National Corn Growers Association (NCGA)**

The Clean Air Act authorizes EPA to grant a general waiver to “reduc[e] the national quantity of renewable fuel required under [the RFS Program] . . . based on a determination . . . that there is an inadequate domestic supply.” Clean Air Act § 211(o)(7)(A)(ii) (codified at 42 U.S.C. § 7545(o)(7)(A)(ii)). There is no doubt that the phrase “inadequate domestic supply” refers to the available quantity of renewable fuel based on production capacity and carryover RINs—and nothing more. [EPA-HQ-OAR-2015-0111-1939-A1 p.5]

Here, the text, purpose, and legislative history of the general waiver provisions, along with the structure of the Clean Air Act more generally, all lead to the same conclusion: the term “supply” refers to the available stock (or quantity) of renewable fuel based on production capacity and carryover RINs, and does not include concepts traditionally associated with “consumption” or the act of “supplying [a commodity] to” the end user. Here, EPA’s interpretation of the general waiver provision unquestionably fails *Chevron*’s first step. [EPA-HQ-OAR-2015-0111-1939-A1 p.6]

If the ability to “consume” is a supply factor, it is incumbent on the Agency to clearly outline what constitutes demand factors. [EPA-HQ-OAR-2015-0111-1939-A1 p.6]

### **National Farmers Union (NFU)**

EPA's arguments that it is entitled to exercise general waiver authority due to 'inadequate domestic supply' are not justified by the EISA. There is no language present in the statute to lead EPA to the conclusion that the Agency may consider fuel infrastructure or other constraints that may limit the ultimate consumers' access to renewable fuels. The RFS was designed to force branded transportation fuel companies to make the infrastructure and other changes necessary to accommodate the renewable fuel volume standards embodied in the EISA. Branded transportation fuels as an industry has failed to fulfill these requirements levied by Congress and must not be rewarded for their stubborn resistance. As EPA notes in the preamble to the proposed rule, parties obligated under the RFS can work with distributors and marketers to make higher biofuel blends available to the ultimate consumers; the current FFV fleet does not currently have adequate access to utilize its maximum biofuel potential. The statute was designed to force the obligated parties to do so to accommodate the statutory biofuel volume standards. [EPA-HQ-OAR-2015-0111-1657-A1 p. 7]

### **National Taxpayers Union (NTU)**

In the regulatory announcement, the EPA purports to be using its waiver authority in order to address “[l]imitations in the volume of ethanol that can be consumed given practical constraints on the supply of higher ethanol blends to the vehicles that can use them.” Given this consideration, it is unclear why the EPA would propose a 2016 RVO that exceeds the E10 blend wall. The EPA seems to be operating under the assumption that there will be a dramatic increase in consumption of higher ethanol blends of gasoline such as E15 or E85, despite no evidence supporting an imminent, sudden surge. [EPA-HQ-OAR-2015-0111-3279-A1 p.1]

### **Novozymes Americas**

Novozymes does not agree that EPA can use its general waiver authority under the RFS to make reductions to the annual advanced or total renewable fuel RVOs based on the Agency’s proposed interpretation of “inadequate domestic supply” in the proposed rule. EPA’s proffered interpretation is not consistent with the text, structure, or purposes of the statute, and is unreasonable. The term “inadequate domestic supply” unambiguously refers only to the potential availability of volumes of RFS qualified renewable fuels. [EPA-HQ-OAR-2015-0111-3277-A1 p.2]

## **Paul Bertels Farms**

Although the 2014 NPRM contains slightly higher volumes, EPA relied upon the same faulty economic reasoning. Specifically, including factors which drive demand into the calculation of supply defies reason. EPA states "...ambiguous provision is reasonably and best interpreted to encompass the full range of constraints...as well as factors affecting the ability to distribute, blend, dispense, and consume those renewable fuels in vehicles." You continue to torture the simplest economic principles with your definition of "Inadequate Domestic Supply." As a trained economist, I challenge you to find an economic text that supports the inclusion of consumption of a resource as a factor in determining the supply of that resource. [EPA-HQ-OAR-2015-0111-2799-A1 p.1]

## **Poet, LLC**

The general waiver authority in Clean Air Act Section 211(o)(7)(A) mentions one and only one product: "renewable fuel." Regarding the "domestic supply prong of the general waiver authority, the product to which "supply" refers is renewable fuel. Plainly and simply, "inadequate domestic supply" means the ability of producers to supply renewable fuel. [EPA-HQ-OAR-2015-0111-2481-A1 p.28]

Given that Congress has already provided EPA with appropriate means of being flexible with obligated parties consistent with the overall purpose of RFS program, EPA is not free to override the statutorily mandated volumes by inventing still more flexibility via its interpretation of the "supply" prong of the general waiver authority.<sup>117</sup> [EPA-HQ-OAR-2015-0111-2481-A1 p.30]

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<sup>117</sup> See Alexander v. Sandoval, 532 U.S. 275, 290 (2001) ("The express provision of one method of enforcing a substantive rule suggests that Congress intended to preclude others."). See Growth Energy comments submitted to this docket for a full legal rebuttal of EPA's misguided attempt to misconstrue "inadequate domestic supply" as meaning anything other than the supply of renewable fuels (and banked RINs) available to obligated parties.

## **Quad County Corn Processors Cooperative (QCCP)**

The Clean Air Act does not permit the Agency to take into account perceived 'constraints in renewable fuel distribution infrastructure'<sup>1</sup> or 'constraints on *supply to* [i.e., distribution to] consumers resulting from the E10 blendwall'<sup>2</sup> in determining whether to grant a general waiver based on an "inadequate domestic *supply*' of renewable fuel. Instead, EPA may grant a waiver based on 'inadequate domestic supply' of 'renewable fuel' only where it finds that the renewable fuel industry lacks the capability to produce the required volumes of renewable fuel, and where there are insufficient carryover RINs available for obligated parties to meet the statutory RVO. [EPA-HQ-OAR-2015-0111-1817-A1 p.2]

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<sup>1</sup> 80 Fed. Reg. 33,100

<sup>2</sup> 80 Fed. Reg. 33,109

## Renewable Fuels Association (RFA)

The Clean Air Act does not permit the Agency to take into account perceived “constraints in renewable fuel distribution infrastructure”<sup>61</sup> or “constraints on supply to [i.e., distribution to] consumers resulting from the E10 blendwall”<sup>62</sup> in determining whether to grant a general waiver based on an “inadequate domestic supply” of renewable fuel. Instead, EPA may grant a waiver based on “inadequate domestic supply” of “renewable fuel” only where it finds that the renewable fuel industry lacks the capability to produce the required volumes of renewable fuel, and where there are insufficient carryover RINs available for obligated parties to meet the statutory RVO. [EPA-HQ-OAR-2015-0111-1917-A1 p. 33]

Here, the text, purpose, and legislative history of the general waiver provisions, along with the structure of the Clean Air Act more generally, all lead to the same conclusion: the term “supply” refers to the available stock (or quantity) of renewable fuel based on production capacity and carryover RINs, and does not include concepts traditionally associated with “consumption” or the act of “supplying [a commodity] to” the end user. [EPA-HQ-OAR-2015-0111-1917-A1 p. 35]

The purpose behind the RFS program generally, and the waiver provision in particular, supports a commodity-driven definition of supply—one that accounts for only a shortage of renewable fuel, but does not take into account the infrastructure needed to distribute it to consumers. [EPA-HQ-OAR-2015-0111-1917-A1 p. 37]

But Congress rejected these proposals. Instead, it limited EPA’s waiver authority to situations where external factors would make it difficult for the oil industry to meet its requirements under the Act—such as “severe” economic harm or an inadequate physical “supply” of renewable fuel necessary to meet the RFS program’s requirements. [EPA-HQ-OAR-2015-0111-1917-A1 p. 40]

In contrast, when Congress has wished to provide EPA with the authority to take into account “distribution capacity” or “capacity to supply,” it has done so explicitly. [EPA-HQ-OAR-2015-0111-1917-A1 p. 40]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 34.]

In fact, Congress did consider measures that would have allowed waivers based on distribution infrastructure, but they rightly rejected those concepts because they knew allowing that type of off ramp would entice the oil companies to hold the RFS program hostage, as they are now doing. Rather, Congress focused its waiver provisions narrowly on the question of supply, and the law is clear. If the supply is adequate to meet the statutory volume requirements, then obligated parties must find a way to distribute those volumes.

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<sup>61</sup> 80 Fed. Reg. 33,100

<sup>62</sup> 80 Fed. Reg. 33,109

## **Shell Oil Products US**

It is entirely reasonable for Congress to provide EPA authority to adjust the standards to address the problems that would arise due to an inability to consume the volumes of renewable fuels specified in EISA. Absent an EPA adjustment of the standards using the general waiver authority, the inability to consume sufficient renewable fuels will result in an inadequate domestic supply of gasoline and diesel fuel. [EPA-HQ-OAR-2015-0111-2716-A2 p.4]

## **Sisk, Joseph**

It is vital to production agriculture that the amount of corn used for ethanol rise, as technology has provided the excess that the ethanol industry needs to thrive. Now that we, as producers, have met that need, the industry has a chance for a great positive impact, both environmentally and economically. The supply needed to make the initial dream of ethanol is a reality now. Why now that the system is functioning to provide what was asked would we want a change that would undo the feasibility of the initial goal? We are providing the increasing supply that the market and mandates asked and required. As a system matures and becomes so productive, it should be embraced and used for the environmental and economic good that it was developed for. Our operation has invested heavily to be able to help meet the corn needed by the RVO. The argument that the resources may not meet the original RVO are the same arguments from years past that were disproven through our ability to evolve and produce corn and ethanol. It is imperative to my operation that the supply and system that is in place be supported as it grows into greater production. It would be devastating if we, as producers, ramped our abilities into the new era only to have outside interests who oppose for their own designs influence new strategies that would undo 10- plus years of advancements.

## **Society of Independent Gasoline Marketers of America (SIGMA) and the National Association of Convenience Stores (NACS)**

While a source can have a capacity to *produce*, regardless of whether it has a market for that product, the concept of “supply” does not occur in isolation, but in reference to the person intending to make use of that product. NACS and SIGMA share EPA’s belief that the inadequate supply waiver provision should be interpreted as authorizing EPA to consider the adequacy of supply to all of the relevant parties, including the adequacy of supply to the ultimate consumer or renewable fuel blended into transportation fuel.<sup>9</sup> [EPA-HQ-OAR-2015-0111-1937-A1 p.8-9]

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<sup>9</sup> See generally 80 Fed. Reg. 33111-33112.

## **Western Plains Energy, LLC (WEP)**

Further, EPA was granted waiver authority for the RFS for two scenarios, inadequate domestic supply and severe economic harm. The ethanol industry today is currently producing at a rate equivalent to roughly 15 billion gallons per year, with nearly 1 billion gallons per year being exported to other countries. Clearly, there is not a domestic supply constraint. [EPA-HQ-OAR-2015-0111-2471-A1 p.3] [EPA-HQ-OAR-2015-0111-2958-A1 p.3]

## Response:

Some commenters objected to EPA's interpretation of "inadequate domestic supply" as presented in Section II.B. Many commented that the phrase "inadequate domestic supply" clearly refers back to the supply of renewable fuels available to obligated parties, or to biofuel producers' capacity to produce renewable fuel. They also argued that this term was unambiguous. In contrast, several commenters supported our broad discretion to interpret "inadequate domestic supply" as encompassing any constraints on production and distribution. We believe that "inadequate domestic supply" is an ambiguous provision and that our interpretation of "inadequate domestic supply" is both reasonable and supported by the statutory language and purpose. "Inadequate domestic supply" is best interpreted to encompass the full range of constraints that could result in an inadequate supply of renewable fuel as transportation fuel, heating oil or jet fuel to the ultimate consumers in the United States, including fuel infrastructure and other constraints. As mentioned in the final rule, this would include, for instance, factors affecting the ability to produce or import biofuels as well as factors affecting the ability to distribute, blend, dispense, and consume those renewable fuels in vehicles or as heating oil and jet fuel.

"Inadequate domestic supply" is ambiguous because it does not specify what the general term "supply" refers to. The common understanding of this term is an amount of a resource or product that is available for use by the person or place at issue. Hence the evaluation of the supply of renewable transportation fuel, a product, is best understood in terms of the person or place using the product. In the RFS program, various parties interact across several industries to make renewable fuel available for use by the ultimate consumers as transportation fuel, heating oil or jet fuel. Supplying biofuel to obligated parties and terminal blenders is one part of this process, while supplying renewable fuel to the ultimate consumer as part of their transportation fuel or in other qualifying fuels is a different and later aspect of this process. For example, the biofuels ethanol and biodiesel are typically supplied to obligated parties or blenders as a neat fuel, but in almost all cases are supplied to the consumer in transportation fuel as a blend with conventional fuel (ethanol blended in gasoline or biodiesel blended in diesel). The waiver provision does not specify what product is at issue (for example, neat biofuel or renewable fuel in transportation fuel) or the person or place at issue (for example, obligated party, blender or ultimate consumer), in determining whether there is an "inadequate domestic supply."

Our interpretation is consistent with the language of 211(o), and Congressional intent in enacting the program. The statutory framework indicates that Congress's intent was not simply to increase production of biofuels, but instead to ensure that biofuels be used by the ultimate consumer as a replacement for fossil-based transportation fuel (or heating oil or jet fuel) in the United States. Section 211(o)(1)(J) defines "renewable fuel" as "fuel that is produced from renewable biomass *and that is used* to replace or reduce the quantity of fossil fuel present *in* transportation fuel" (emphasis added). The term "additional renewable fuel" is defined as fuel that is produced from renewable biomass *and that is used* to replace or reduce the quantity of fossil fuel present *in* home heating oil or jet fuel." Additionally, 211(o)(2)(A)(i) mandates that EPA "ensure that gasoline sold or introduced into commerce *in the United States* . . . contains the applicable volume of renewable fuel." The explicit reference to the use of biofuels in the definitions of "renewable fuel" and "additional renewable fuel", and the reference to the United States in the mandate, indicates Congress's intention to ensure that qualifying renewable fuels include only

those that are actually present in transportation fuel, heating oil or jet fuel that is used in the United States. While ethanol and biodiesel, the two predominant biofuels are used primarily for qualifying purposes, the same cannot be said for other renewable fuels such as renewable compressed natural gas and bioelectricity which predominantly have other uses. For this reason, we have regulations explicitly requiring that their use for qualifying purposes be verified prior to being qualified as a renewable fuel for the RFS program. Additionally, volumes of biofuel produced for export overseas do not qualify as a renewable fuel under the statute. (For practical purposes RINs may initially be generated for denatured ethanol and biodiesel that is introduced into commerce in the United States, but a corresponding number of RINs must be retired by any party exporting such fuels, thus effectively rendering the RINs corresponding to exported biofuel unavailable to obligated parties to show compliance with their RFS obligations.) The RFS program does not achieve the greenhouse gas reductions and energy security benefits that Congress sought to promote unless consumers use renewable fuels that reduce or replace fossil fuels present in transportation fuel, heating oil or jet fuel in the United States.

Some commenters suggested that EPA interpret the statute as equating “supply” with “production capacity.” As explained in Section II.B of the final rule, we interpret the term “supply” to refer to the volume of biofuels that can meet all of the qualifying provisions of the Act, including ultimate use in transportation fuel, heating oil or jet fuel. This includes consideration of the full range of constraints on such use, including the capacity to produce or import biofuels and practical and legal constraints affecting the volume of qualifying renewable transportation fuel, heating oil and jet fuel supplied to the ultimate consumer in the United States. As discussed above, the definitions of the term “renewable fuel” and “additional renewable fuel” include specifications regarding their use; a limited inquiry into the production capacity of biofuels alone would not suffice to inform EPA whether a sufficient volume of such biofuels can ultimately be included in transportation fuel, heating oil or jet fuel that is used in the United States, consistent with the requirements of the Act. Thus, the many commenters who insisted that EPA’s interpretation was impermissible because “supply” must necessarily refer to the volume of qualifying renewable fuel that is available, and who equated such availability with biofuel production capacity, failed to take into consideration the use component of the definition of renewable fuel.

The statute also does not indicate the relevant factors in determining the adequacy of supply. We believe that it logically refers to the adequacy of the supply of qualifying renewable fuel that can be used for compliance purposes. Since renewable fuel is limited to biofuel that is used to replace fossil fuel present in transportation fuel, heating oil and jet fuel, and the Act provides that such products are to be used in the United States, it is logical to assess the adequacy of supply by reference to the ultimate consumer. Some commenters asserted that EPA erred in proposing to set the volumes requirement at the “boundary between an adequate domestic supply and an inadequate domestic supply,” and should instead leave “a certain degree of breathing room” to account for errors. We have set the total renewable fuel standard to require use of the maximum reasonably achievable volumes. To maximize GHG emissions reductions, we are setting the advanced biofuel volume requirements to reflect reasonably attainable volumes of such fuels. Thus, we have taken achievability and attainability into account. In addition, we note that flexibilities built into the program provide “breathing room” as requested by commenters. These flexibilities include the possibility for parties to carry a compliance deficit from one year into the

next, and for the use of carryover RINs, rather than current-year RINs, to demonstrate compliance. Many commenters stated that the legislative history of 211(o) indicates that Congress did not intend for EPA to consider “distribution capacity” because prior to the final adoption of the Energy Independence and Security Act of 2007, Congress had before it bills that would have provided for a waiver in situations where there was “inadequate domestic supply or distribution capacity to meet the requirement.” EPA is not aware of any conference or committee reports or other legislative history, explaining why Congress ultimately enacted the language in EISA in lieu of this alternative formulation. There is no discussion about whether Congress did or did not want EPA to consider distribution capacity, or whether Congress believed the term “supply” was sufficiently broad and the definition of “renewable fuel” sufficiently clear that the “distribution capacity to meet the requirement” language would be superfluous, or whether Congress considered the alternative language too limiting. Given the lack of interpretive value typically given to a failure to adopt a legislative provision, and the lack of explanation in this case, we find the legislative history to be uninformative with regard to Congressional intent on this issue. It does not change the fact that the text adopted by Congress, whether viewed by itself or in the context of other fuel waiver provisions, is ambiguous.

Some commenters pointed to section 211(m)(3)(c) as evidence that Congress uses both terms when Congress wants both factors to be considered.. The inclusion of “distribution capacity” in 211(m)(3)(C) likely exists to ensure that this factor is considered and to prevent ambiguity that could lead to a narrower interpretation. In contrast, Congress, in section 211(o), did not feel the need to mandate EPA’s consideration of “distribution capacity” but through use of the broad term “supply” also did not preclude it. Some commenters also stated that the reference to “distribution” in 211(c)(4)(C)(ii)(l) also indicates that Congress would state distribution capacity if it meant for EPA to consider it. However, again, this reference to “distribution” does not prevent the consideration of it in 211(o)(7)(A), since the term “supply” is ambiguous and distribution capacity is clearly a relevant consideration in assessing the extent to which biofuels that may be available can actually be used in transportation fuel, heating oil or jet fuel. .

Some commenters also pointed to various other statutory references to argue that Congress did not want EPA to consider distribution capacity in evaluating whether there is an “inadequate domestic supply.” These references include 211(o)(2)(B)(ii), which provides the factors EPA is to consider when setting applicable volumes for years in which they are not specified in the statute, including “the impact of renewable fuels on the infrastructure of the United States, including . . . the sufficiency of infrastructure to deliver and use renewable fuel,” and “the “expected rate of future commercial production of renewable fuels.” We believe that the structure of this provision supports our interpretation. In 211(o)(2)(B)(ii) Congress did not use the general term “supply” but instead individually referenced projected rate of future production of renewable fuels and distribution capacity for such fuels as relevant considerations in establishing future volume requirements. Congress would not have done so if both considerations were not relevant to the purposes of the Act. Furthermore, the use of these specific terms in 211(o)(2)(B)(ii) highlights the ambiguity in the term “supply” as used in 211(o)(7)(A). Our interpretation of the term “supply” as including both consideration of production and distribution capacity is thus entirely consistent with 211(o)(2)(B)(ii). Commenters also referenced 211(o)(8)(B), which required the Department of Energy to conduct a study regarding whether the program would cause significant adverse impacts on consumers in 2006, specifically requiring that the study include consideration of “renewable fuel (i) supplies

and prices; (ii) blendstock supplies; and (iii) supply and distribution system capabilities.” This provision was operative during the initial year of the program, prior to EISA amendments, when the term renewable fuel was defined, among other requirements, as one that “is used to replace or reduce the quantity of fossil fuel present in a fuel mixture used to operate a motor vehicle.” We believe that the “supply” of such fuels would necessarily need to be judged in terms of the volumes that could actually be used in motor vehicles, including consideration of all distribution constraints. That Congress specifically listed distribution system capabilities as a required consideration indicates that Congress wished to ensure that this consideration was taken into account. However, we do not believe that it indicates that the term “supply” as used in 211(o)(7)(A) cannot include this consideration. Indeed, we believe the provision highlights the importance of distribution considerations for purposes of assessing the extent to which compliance with the program is possible. . Thus, we believe our interpretation of “inadequate domestic supply” as including consideration of all of the possible constraints in the delivery of qualifying renewable fuel to the ultimate consumers is fully consistent with other provisions of the Act.

Many commenters stated that EPA’s interpretation of “inadequate domestic supply” was inappropriate because carryover RINs must be considered part of the domestic supply. As discussed more fully in Section II.H of the final rule, and 6.1 of this document, EPA does not consider carryover RINs to be part of the “supply” for purposes of the “inadequate domestic supply” inquiry, but does consider them a relevant consideration in determining whether or not to exercise our discretion to grant a waiver when inadequate domestic supply is found.. As discussed in the final rule, this position is entirely consistent with the language we used in the 2010 RFS2 final rule stating that it would be the availability of fuel, as determined in part by the number of RINs in the marketplace that would ultimately determine whether we issued a waiver on the basis of inadequate domestic supply. Please see Section 6.1 of this document for further discussion on this topic.

Some commenters stated that only obligated parties are required to act under the statute, and therefore they must be the party regarding which “supply” should be assessed. We disagree with this interpretation and again point to the definition of “renewable fuel” and the purpose of the statute which seeks to ensure that renewable fuel is used in the United States to replace or reduce fossil fuels in transportation fuel, heating oil or jet fuel. That aim cannot be accomplished by looking only at supply of biofuels to obligated parties.

Several commenters supported our use of the general waiver authority due to "inadequate domestic supply." Where some of these commenters made arguments for its use different from those presented by EPA, we have taken these into account and have incorporated them where appropriate into our support for our use of the general waiver authority.

For responses to comments on the role of carryover RINs in the RFS program, see Section 6.1.

### 2.2.2.2 Severe Economic Harm

#### Comment:

#### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

The Proposed Rule fails to address whether a waiver is necessary because the statutory volume requirements would severely harm the economy, even though EPA has substantial evidence that a waiver is needed to avoid such harm. [EPA-HQ-OAR-2015-0111-1948-A1 p.3]

A Waiver Is Needed to Prevent Severe Harm to the Economy [EPA-HQ-OAR-2015-0111-1948-A1 p.6]

The original NERA study, re-submitted as Appendix D to these comments, demonstrates that implementation of the statutory RFS standards after the blendwall is breached will cause severe harm to the national economy.<sup>97</sup> [EPA-HQ-OAR-2015-0111-1948-A1 p.49]

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<sup>97</sup> See NERA ECONOMIC CONSULTING, ECONOMIC IMPACTS RESULTING FROM IMPLEMENTATION OF THE RFS2 PROGRAM 2 (2012) (hereinafter 2012 NERA STUDY) (Appendix D).

#### **DuPont**

EPA should deny the joint AFPM/API petition for partial waiver of the 2014 RFS volumes. [EPA-HQ-OAR-2015-0111-1826-A1 p.29]

#### **ExxonMobil Refining & Supply Company**

ExxonMobil believes that EPA must also consider economic harm in its analysis in the event that such harm would actually lead the agency to grant a larger waiver. [EPA-HQ-OAR-2015-0111-2270-A1 p.3]

#### **Poet, LLC**

It is undisputed that biofuels producers can produce an adequate domestic supply (15 billion gallons) of Base Renewable fuel. This is the only legitimate consideration when EPA evaluates domestic supply (as further discussed in the next section). Accordingly, the only statutory ground for exercising EPA's general waiver authority to reduce the Base Renewable target is if program implementation would cause "severe economic harm." The NOPR essentially concedes (by not even raising this issue) that there are no grounds whatsoever for finding that implementing the RFS would cause "severe economic harm." [EPA-HQ-OAR-2015-0111-2481-A1 p.27]

#### **Brazilian Sugarcane Industry Association (UNICA)**

Nothing in the NPRM, however, so much as suggests the possibility that complying with the CAA's renewable energy requirements in 2014 would cause *any* economic or environmental harm, let alone *severe* economic or environmental harm. [EPA-HQ-OAR-2015-0111-2495-A2 p.15]

## **Society of Independent Gasoline Marketers of America (SIGMA) and the National Association of Convenience Stores (NACS)**

The economic harm that would result upon the fuels market reaching the blend wall would be directly caused by the RFS. Unlike previous waiver requests that have been predicated upon intervening economic factors (*e.g.*, droughts), the blend wall is an artificial dilemma that emanates solely from the RFS. [EPA-HQ-OAR-2015-0111-1937-A1 p.9]

### **Response:**

We believe it is unnecessary to evaluate concerns that implementation of the statutory applicable volumes would cause severe economic harm, since EPA is exercising its waiver authorities on other grounds to substantially reduce the statutory volumes.

Some commenters suggested that we should evaluate the extent to which EPA should grant a larger waiver under considerations of “severe economic harm” than would be justifiable based on consideration of “inadequate domestic supply.” In exercising the general waiver authority on the basis of inadequate domestic supply, we have identified and are requiring a final total renewable fuel volume requirement that represents the maximum that is reasonably achievable. Similarly, we have determined that our final advanced biofuel volume requirements are reasonably attainable. As such, we do not expect severe economic harm to result from implementing the final requirements. Should EPA’s assessment prove inaccurate during the compliance year, we could issue further waivers on the basis of any of the grounds specified in 211(o)(7)(A), including severe economic harm.

As to concerns that any standards requiring use of ethanol beyond levels represented by the E10 blendwall would cause severe economic harm, we disagree. As noted in the final rule, we believe that there are reasonable measures that are and can continue to be taken to expand use of ethanol to levels beyond the level represented by the E10 blendwall and to expand the use of non-ethanol renewable fuels as well. The final rule presents a table of scenarios indicating different ways that the fuels market may respond to satisfy the requirements in the final rule. We expect that the market will ultimately select the least cost alternative, which may or may not be represented in the scenarios table.

We disagree that term “supply” in “inadequate domestic supply” is equivalent to production capacity, as discussed in the final rule and in section 2.2.2.1.

EPA’s response to petitions seeking a waiver of the 2014 RFS volume requirements is discussed in Section I.B.6 of the final rule.

### **2.2.3 Combining Authorities for Reductions in Advanced Biofuel and Total Renewable Fuel**

**Comment:**

**National Corn Growers Association (NCGA)**

The statute does not allow EPA to reduce the overall advanced or total biofuel mandates by a greater amount than the reduction in the advanced categories. [EPA-HQ-OAR-2015-0111-1939-A1 p.3]

**Response:**

EPA disagrees. In the final rule we are using the cellulosic waiver authority to provide equal reductions in the applicable volumes of advanced biofuel and total renewable fuel, and then using the general waiver authority to reduce the total renewable fuel applicable volume by an additional amount to reflect the inadequacy of supply of such fuels. The statute does not preclude EPA's use of both waiver authorities in one action, and EPA's approach is appropriate to address the greater supply limitation with respect to total renewable fuels.

**Comment:**

**Renewable Fuels Association (RFA)**

applying nothing more and nothing less than the full amount of the cellulosic biofuel waiver to both the advanced biofuel standard and the total renewable fuel standard would result in 2014-2016 RVOs that are "reasonably achievable" and consistent with statutory waiver authorities. Using only a cellulosic biofuel waiver—and fully carrying that waiver through both the advanced biofuel standard and the total renewable fuel standard—would obviate any need for invoking a general waiver and ensure EPA's implementation of the RFS remains faithful to the statutory text and Congressional intent of the program. [EPA-HQ-OAR-2015-0111-1917-A1 p. 10]

**Response:**

EPA disagrees that a reduction of advanced and total volumes by the full amount of the cellulosic biofuel waiver would result in "reasonably achievable" 2014-2016 RVOs. EPA finds that such a reduction in the advanced volume would go further than would be necessary, as additional volumes are reasonably attainable. EPA further finds that such a reduction is not sufficient to address the constraints on total renewable fuel, and that the market could not meet a standard based on such an approach without a substantial draw-down in the bank of carryover RINs. As described in the final rule and in Section 6 of this document, EPA does not believe it should set the volume requirements for the 2014-2016 compliance years at levels that would be expected to require a draw-down in the current bank of carryover RINs. EPA also finds that our use of the general waiver authority is appropriate to address inadequate domestic supply of total renewable fuel. We believe that our approach appropriately reflects Congressional intent. For further discussion of this issue, see section II of the final rule.

**Comment:**

**Brazilian Sugarcane Industry Association (UNICA)**

EPA has not adequately shown it can augment its authority under section 211(o)(7)(D)(i) simply by 'supplementing' its proposed reductions through the general waiver provision of section 211(o)(7)(A). The two provisions make no reference to each other and are located in different sections of the RFS2 statutory provisions. EPA's interpretation would give it authority to override the express limitations in section 211(o)(7)(D)(i) simply by asserting, as it does now, that more decreases in volume are needed than allowed in the cellulosic waiver provision. [EPA-HQ-OAR-2015-0111-2495-A1 p.18]

**Response:**

Despite the fact that the waivers under 211(o)(7)(D)(i) and 211(o)(7)(A) make no reference to each other, they are both waivers available to EPA to adjust statutory targets. Although EPA is using the cellulosic waiver authority for an initial increment of reduction of the total renewable volume target, that reduction is insufficient to address the inadequacy of supply. Therefore EPA is using the general waiver authority to provide an additional increment of volume reduction for total renewable fuels. The Act clearly provides EPA with authority to issue waivers under 211(o)(7)(A) whenever the criteria specified in that section exist, and EPA is doing so today based on a finding of inadequate domestic supply.

**Comment:**

**Chevron**

Without the available volumes of these advanced cellulosic fuels, it is not appropriate to replace these volumes of conventional biofuels beyond the point of the blendwall. Therefore, EPA's proposed use of both the cellulosic and general waiver authorities is appropriate and necessary to reduce the volumes of total renewable fuels and advanced biofuels in each year. [EPA-HQ-OAR-2015-0111-1911-A1 p. 2]

**The George Washington University**

However, EPA does have some discretion to set applicable volume requirements below those specified in the statute, in certain conditions. In this proposal, EPA exercises its cellulosic waiver authority under CAA section 211(o)(7)(D)(i) and the general waiver authority under CAA section 211(o)(7)(A) to mandate less cellulosic biofuel and total renewable fuel than Congress specified in the EISA. [EPA-HQ-OAR-2015-0111-1815-A1 p.4]

EPA is opting to exercise its waiver authority because there was in 2014 (and will continue to be in 2015 and 2016) an insufficient supply of total renewable fuels and advanced biofuels to meet the statutory mandate. There are a few reasons for this supply shortage. As EPA explains in its proposal:[EPA-HQ-OAR-2015-0111-1815-A1 p.4]

[Indented quote] For non-ethanol renewable fuels, the primary supply constraint at present is the projected shortfall in domestic production or importation of qualifying volumes. For ethanol blends, there are both legal and practical constraints on the amount of ethanol that can be

supplied to the vehicles that can use it, notwithstanding the considerable volumes that can be produced and/or imported.[EPA-HQ-OAR-2015-0111-1815-A1 p.4]

For the advanced biofuels, the primary constraint is growth in the cellulosic biofuel market. While Congress set ambitious targets for cellulosic production in 2014, actual production was 33 million gallons, less than 2% of the statutory volume requirements for 2014. Due to the high costs of producing cellulosic and the technological barriers facing the industry, it is likely that cellulosic production will continue to fall short of statutory levels. Increased production of biodiesel, although it currently surpasses the minimum volumes prescribed in the statute, is not sufficient to make up for the shortfall of cellulosic ethanol. Because both of these fuels are nested within the 'advanced biofuels' category, EPA must reduce both the cellulosic volume requirements and the advanced biofuel volume requirements as a result of these supply shortages. [EPA-HQ-OAR-2015-0111-1815-A1 p.4-5]

Ethanol faces a different set of obstacles. While the US has the capacity and ability to either import or produce more ethanol, more ethanol cannot feasibly be blended into gasoline. Legally, only flex fuel vehicles (FFVs) can use fuel with ethanol concentrations greater than 15%, and these vehicles only constitute about 6% of all light-duty cars and trucks.<sup>5</sup> Practically, non-flex-fuel vehicles cannot use fuel with ethanol concentrations greater than 10%, which is termed the “blendwall.” While the authorizing statute requires more ethanol to be blended into transportation fuel each year until 2022, the only way this is possible is if demand for gasoline increases significantly in the near term. As explained in a later section of this comment, this creates a ceiling on the practical growth of ethanol as a transportation fuel. In its proposal, EPA is very cognizant of the fact the blendwall makes it infeasible to significantly increase the volume requirements for ethanol. [EPA-HQ-OAR-2015-0111-1815-A1 p.5]

These constraints certainly justify EPA’s use of its waiver authorities to prescribe lower volume requirements than those listed in the statute. [EPA-HQ-OAR-2015-0111-1815-A1 p.5]

### **International Council on Clean Transportation (ICCT)**

We believe that the proposal to apply both the cellulosic waiver and the general waiver to the renewable fuel volumes for 2014-2016 is appropriate. [EPA-HQ-OAR-2015-0111-1923-A1 p.9]

#### **Response:**

Several commenters noted that they approved of our approach to using both the cellulosic and general waiver authorities, and we have retained the use of both authorities to reduce volumes in the final rule.

#### **Comment:**

##### **Novozymes Americas**

EPA should carry through the full amount of the cellulosic biofuel waiver to the advanced and total renewable fuel categories, keeping the 2014, 2015 and 2016 requirements for undifferentiated renewable fuel at the levels intended by Congress [EPA-HQ-OAR-2015-0111-3277-A1 p.2]

## Union of Concerned Scientists

In the present circumstance we believe that the mandates for advanced and renewable fuels should be adjusted by the full amount of cellulosic waiver. However, there are circumstance in which it might be preferable to make a larger adjustment in the renewable mandate and only apply part of the cellulosic adjustment to the advanced mandate as was described in a paper by James Stock (Stock 2015A).<sup>1</sup> The motivation for such an approach would be to administer the overall program in a manner that provides greater incentives for cleaner fuels and to avoid counterproductive outcomes such as the extensive use of palm oil biodiesel from grandfathered facilities to comply with D6 obligations as occurred in 2013. In light of the exercise of general waiver authority in this proposal, it does not seem as if such a differentiated application of the cellulosic waiver authority is required. However, in the event that making a variable adjustment to the renewable and advanced pool EPA can ensure that more of the fuels used to meet the program are lower carbon, this would be consistent with the goals of the RFS and we would support it. [EPA-HQ-OAR-2015-0111-2260-A1 p.5]

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<sup>1</sup> Stock, James H. *The Renewable Fuel Standard: A Path Forward*. 2015.  
<http://scholar.harvard.edu/files/stock/files/renewablefuelstandard.pdf>

### Response:

Some commenters suggested that EPA should reduce total renewable fuel and advanced biofuel volumes by the full amount of the reduction in cellulosic volumes. EPA declines to carry through the full amount of the cellulosic biofuel waiver to the advanced and total renewable fuel categories. First, we find that the advanced biofuels standard need not be reduced by the full amount of the cellulosic biofuel waiver, since greater volumes are reasonably attainable and there is a potential GHG emissions reduction benefit associated with setting the standard at a level that will require use of these volumes. Some commenters felt that we should reduce the advanced biofuel volumes and the total renewable fuel volumes by differing amounts. We agree, and are taking such an approach in the final rule for the reasons described in the final rule.

### Comment:

#### Iowa Corn Growers Association (ICGA)

The EPA notes, “This proposal uses a combination of these two authorities to reduce volumes of both advanced biofuel and total renewable fuel to address two important constraints: [EPA-HQ-OAR-2015-0111-1820-A1 p. 2]

- Limitations in the volume of ethanol that can be consumed given practical constraints on the supply of higher ethanol blends to the vehicles that can use them
- Limitations in the ability of the industry to produce sufficient volumes of qualifying renewable fuel, particularly non-ethanol fuels.” [EPA-HQ-OAR-2015-0111-1820-A1 p. 2]

In 2013, the EPA was petitioned by several states who argued the drought conditions had created “severe harm” to their states; however the EPA rejected these requests. And, even with drought conditions in 2013, it was a record corn crop. Today, in 2015, neither of these waiver

qualifications exists, we do not have severe harm to the economy or environment, and we have a very adequate supply of corn and the capacity to turn that corn into 15.0 billion gallons of conventional ethanol. [EPA-HQ-OAR-2015-0111-1820-A1 p. 2]

Since neither of the statutory waiver authorities have been met, the EPA should not have the authority to change the RVO for corn ethanol. Regardless of this fact, the EPA has invented a new waiver to consider the availability of renewable fuel distribution infrastructure (limitations on “consumption”) as criteria for waiving the RFS. This new imaginary provision suddenly includes the blend wall as a valid reason for waiving the statute. Nothing could be further from the truth. Not only does EPA not have the authority to waive the RFS under this concept, the blend wall is an idea invented by the oil monopoly to convince EPA to shift from their statutory obligations. [EPA-HQ-OAR-2015-0111-1820-A1 p. 2]

**Response:**

EPA has found that there is indeed an inadequate domestic supply of total renewable fuel and thus EPA is justified in reducing the statutory target. We do not interpret the term “supply” to refer to biofuels that cannot as a practical or legal matter be used for the qualifying purposes specified in the Act. EPA’s rationale is discussed in detail in the final rule.

**2.2.4 Inability of the Market to Reach Statutory Volumes**

**Comment:**

**Association of Nebraska Ethanol Producers (ANEPP)**

ANEPP's position is that USEPA should set the RFS volumetric targets for Calendar Years 2015 and 2016 at the current statutory limits under the Clean Air Act. The draft RFS proposal issued by USEPA to roll back the statutory RFS volumes is both unnecessary and unwise. The RFS is intended to promote the transition of transportation fuels used in the United States to increased volumes of biofuels over time. USEPA has publically stated its desire to promote the transition to biofuels as mandated by Congress and these goals can best be achieved by retaining the statutory RFS volumes listed in the Clean Air Act. However, in the current proposal, USEPA has accepted at face value the unsubstantiated arguments advanced by petroleum industry interests that the statutory RFS targets are not attainable. This is simply not the case. The biofuels industry has unused production capacity sufficient to meet the RFS targets. Also, more and more biofuel production plants are being certified by USEPA as producing 'advanced biofuels' and new cellulosic biofuel facilities are coming on-line during 2015. The so-called 'blend wall' can also be effectively eliminated by providing opportunities for the consumer to select E15 gasoline blends, but such efforts are currently being stymied by the same petroleum industry interests. The biofuels industry can and will meet the statutory production targets under the RFS if simply provided the opportunity. [EPA-HQ-OAR-2015-0111-1809-A1 p.1]

**Brazilian Sugarcane Industry Association (UNICA)**

According to Brazil’s National Agency of Petroleum, Natural Gas and Biofuels (ANP) the installed capacity for anhydrous and hydrous ethanol production are 108.67 million and 205.68 million liters per day (more than 5 billion gallons and 10 billion gallons per year, respectively).<sup>21</sup> If we look at the most recent harvest season, Brazil produced 3.3 billion gallons and 4.6 billion

gallons, respectively of anhydrous and hydrous ethanol. The numbers regarding ethanol productive capacity were based on the 383 producing mills listed by the ANP, and it shows that installed capacity is superior than the actual production, so in case of a higher demand for ethanol, Brazil is able to quickly respond to the market. In fact, under the right market conditions, including more robust volumetric requirements, Brazil can have the capacity to produce an estimated 2 billion gallons of sugarcane ethanol available for export to the United States in 2016. [EPA-HQ-OAR-2015-0111-2495-A1 p.11] **Clean Air Task Force**

The market cannot safely absorb the volume of ethanol that would be eligible for RINs if EPA were to pursue the full statutory target for total renewable fuel (18.15, 20.5, and 22.25 billion gallons in 2014-2016 respectively); EPA must therefore make downward adjustments to EISA's annual targets in order to accommodate the blend wall, beginning in 2014.[EPA-HQ-OAR-2015-0111-1828-A1 p.5]

### **Colorado Corn Growers Association**

There is sufficient capacity in the biofuels industry to produce volumes that would meet the statutory levels. The RFS was originally designed to support growth in the industry by setting attainable targets while pushing the market forward. Events of this past year have demonstrated that the system is working as intended by driving the market towards increased usage of ethanol and laying the foundation for further immediate growth. Further developments in infrastructure are poised to increase volumes with the proper signals from the EPA that future growth is expected. However, the EPA's hesitancy now to uphold the RFS is compromising the ability to reach its goals. [EPA-HQ-OAR-2015-0111-2334-A1 p.1-2]

### **Dakota Spirit AgEnergy**

As a producer, I know the statutory requirements can be met through a combination of gasoline consumption in the form of E10, increased use of higher ethanol blends such as E15 and E85, carry-over RINs and increased biodiesel use. There is no need for EPA to move backward with its proposed volumes for 2015 and 2016. [EPA-HQ-OAR-2015-0111-2057-A1 p.1]

### **Growth Energy**

What was not reasonable was failing to fully account for the BBD that could be distributed and consumed in excess of the proposed BBD volume when setting the total renewable fuel volume requirement. In that analysis, the only factor to consider is whether there is "inadequate domestic supply." And even if EPA were right that that factor accounts for constraints on distribution and consumption, EPA would still have substantially understated the supply of BBD. [EPA-HQ-OAR-2015-0111-2604-A2 p.54]

### **Iowa Corn Growers Association (ICGA)**

1. The ethanol industry has proven that it can produce supplies of renewable fuel that are adequate to meet the statutory RFS requirements in 2014, 2015, and 2016. It also ignores the availability of higher blends of ethanol and the ability to build out infrastructure to meet those targets. [EPA-HQ-OAR-2015-0111-1820-A1 p. 2]

In 2014, the U.S. ethanol industry produced 14.3 billion gallons of ethanol and nearly 14.4 billion D6 RIN credits were generated. This occurred without any final RFS blending requirements, and production could have been higher if the statutory RFS volumes had been implemented by EPA. Similarly, the ethanol industry's "run rate" has surpassed 15 billion gallons on numerous occasions in 2015, according to weekly data from the Department of Energy. As such, the statutory RFS levels of 15 billion gallons could be readily met in both 2015 and 2016, especially when ethanol stocks and RIN stocks are also taken into consideration. [EPA-HQ-OAR-2015-0111-1820-A1 p. 2-3]

### **National Biodiesel Board**

As NBB explained, that the gasoline demand is projected to be less today than in 2007 only illustrates that the RFS2 program is working to reduce dependence on fossil fuels, not that Congress sought to give EPA authority to revise the statutory volumes based on reduced gasoline consumption. NBB also noted that the demand estimates vary over time. For example, the recent drop in fuel prices is likely to result in increased use of gasoline (and EPA's RVO calculation for 2015 does show higher gasoline consumption than for 2014, EPA-HQ-OAR-2015-0005), which in turn allows for more ethanol use. It makes little sense that Congress wanted EPA to make predictions about changing oil prices and consumer demands in setting the volumes under the statute. That is why Congress chose a straight volume mandate. [EPA-HQ-OAR-2015-0111-1953-A2 p.34]

In short, when considering all renewable fuels eligible for the RFS2 program, the easiest and most reasonable approach to meeting the goals of the advanced biofuels program is to increase the biomass-based diesel program. Increasing the volume for biomass-based diesel to at least 2 billion gallons with annual increases of at least 300 million gallons to better effectuate the advanced biofuel volume set by Congress without contributing to any ethanol blend wall and, in fact, alleviating the concerns EPA is purporting to address. Additionally, the volumes are more than reasonable and provide specific direction to obligated parties and renewable fuels producers with historically proven production capabilities of how to meet minimum requirements of the statute. [EPA-HQ-OAR-2015-0111-1953-A2 p.34]

EPA's proposed volume for biomass-based diesel must also be viewed with the proposed volumes for advanced biofuel, which are below what the market can achieve. EPA states that it "remains committed to promoting renewable fuel production and use in the United States, and we believe the RFS program will be effective in achieving this end." 80 Fed. Reg. at 33,120. But then it contends that the intended outcome of the proposal is an "approach that provides volume targets that balances aggressive growth with marketplace realities." *Id.* For biomass-based diesel and advanced biofuels, EPA is doing neither. There is essentially no growth for 2015, then minimal growth for 2016 and 2017. Marketplace realities for biomass-based diesel indicate that substantially more can be produced and, even under EPA's definition, *used*. [EPA-HQ-OAR-2015-0111-1953-A2 p.45]

Finally, it is difficult to understand how there would be a willingness to further invest to grow any "other" advanced biofuel, if EPA sets a level at a smaller market, rather than at a level that was technology-forcing, as Congress did. Investment and innovation occur by creating sufficient market signals or financial incentives to move the entire industry forward. EPA has recognized as much:

Renewable fuel producers and investors must see a sustained, profitable market for renewable fuels before they will be willing to invest in the construction of additional fuel production capacity, which may take years to construct and bring online. Fuel blenders and distributors must see sustained profit opportunities before they are willing to invest in new infrastructure to increase their capacity to blend and distribute renewable fuels. [EPA-HQ-OAR-2015-0111-1953-A2 p.45]

80 Fed. Reg. at 33,119-33,120; *see also* Testimony of Michael Whitney (EPA-HQ-OAR-2015-0111-1004) (“As I speak here today we not only have idle capacity to put more biodiesel into our fuel but we are also engaged in over 50 capital projects to enhance that capacity.”). [EPA-HQ-OAR-2015-0111-1953-A2 p.45]

It is clear that the full *advanced biofuel* statutory volumes, if implemented, would provide greater GHG emission reductions and benefits. EPA does not explain how focusing on the use of ethanol or allowing for “competition” among advanced biofuels furthers these climate change goals, nor can it. [EPA-HQ-OAR-2015-0111-1953-A2 p.107]

### **PBF Holding Company LLC**

It is particularly necessary to adjust the RFS for the 2014-2016 compliance years because the ethanol blendwall creates a situation in which it would be impossible for obligated parties to generate or even acquire sufficient Renewable Identification Numbers ('RINs') to comply with the statutorily mandated volumes. [EPA-HQ-OAR-2015-0111-1724-A1 p.2]

### **Poet, LLC**

In reducing the Base Renewable target in favor of spurring advanced biofuels, EPA is making the same mistake that the D.C. Circuit rejected in its 2013 decision *API v. EPA*: ignoring a clear statutory mandate (here, the Base Renewable target) and supplanting its own policy ruminations. [EPA-HQ-OAR-2015-0111-2481-A1 p.26]

### **Renewable Fuels Association (RFA)**

Clearly, the industry has the capacity and the demonstrated capacity utilization rates to easily satisfy the statutory renewable fuel volume requirements in 2015 and 2016. [EPA-HQ-OAR-2015-0111-1917-A1 p. 21]

### **Response:**

As discussed in Section II.B.5 and II.B.6 of the final rule, we have evaluated potential supplies of renewable fuel for 2014, 2015, and 2016 and have determined that the statutory targets for advanced biofuel and total renewable fuel cannot be reached in any of these years. Moreover, we have determined that this would also be true for total renewable fuel if only the cellulosic waiver authority was used to reduced volumes. Comments and information provided by stakeholders were helpful in our assessment but not sufficient to warrant a change in this determination.

For calendar years 2014 and 2015, the statutory targets cannot be reached because the standards that are being set in this final rule cannot affect the past. Since we have determined that an

intentional drawdown of the bank of carryover RINs for the purposes of increasing the volume requirements in these two years would be inappropriate, and actual supply of renewable fuel in 2014 and that portion of 2015 prior to this final rule is insufficient to reach the statutory targets, a waiver of the statutory targets for both years is necessary and appropriate.

For 2016, we have determined that the statutory targets are beyond the reach of the market, even if all carryover RINs were included in the determination of the 2014 and 2015 volume requirements as suggested by some stakeholders. The market would need to supply either 5.5 billion physical gallons of biodiesel, or 8.7 billion gallons of E85. The statutory volume targets in 2016 could also be satisfied through production and use of a combination of BBD and E85. However, even in this case the volumes are untenable. For instance, one possible combination for 2016 would be 4.4 billion gallons of E85 and 3.6 billion gallons of biodiesel. While both of these volumes are considerably less than the maximums that would be required if the market supplied only one or the other, nevertheless both levels are beyond the reach of the market under current circumstances.

Using only the cellulosic waiver authority, there would need to be 385 million ethanol-equivalent gallons of non-ethanol supplied, equivalent to about 250 million gallons of biodiesel. When added to the 2.5 billion gallons of biodiesel and renewable diesel (3.75 billion RINs) that, as discussed in Section II.E.3 of the final rule, is the maximum we believe can reasonably be achieved in 2016, the total volume of 2.75 billion gallons of biodiesel and renewable diesel is beyond the reach of a responsive market under even the most optimistic assumptions as described more fully in Section II.B.6 of the final rule.

Some stakeholders suggested that setting the applicable volume requirements at the statutory targets would increase certainty for renewable fuel producers and others in the market, and that as a result they would invest in expanded production and infrastructure. We disagree. Based on our assessment of achievable volumes, setting the volume requirements at the statutory targets would result in substantial shortfalls in supply of renewable fuel, which we believe would result in outcomes that would undermine the RFS program. These outcomes could include significant noncompliance, subsequent waiver of the original volume requirements, and a drawdown of the carryover RIN bank to zero with the attendant reduction in the ability of obligated parties to address unforeseen circumstances. Such outcomes would reduce rather than increase certainty.

Some stakeholders suggested that even if the volume requirements are reduced below the statutory targets to the point where the volume requirements are achievable for the market as a whole, it is still possible that some obligated parties would be unable to acquire sufficient RINs and thus would not be able to comply. The fact that access to RINs may be different among obligated parties was a fact addressed during the design of the RFS program in 2007; it was understood that some obligated parties would find it easier to blend renewable fuels into their gasoline and diesel, and thus would have an excess of RINs, while others would find it more difficult to blend renewable fuels into their gasoline and diesel, and thus would need to acquire RINs from those who have excess. In fact, one of the reasons for designing the RFS program around RINs was to enable those parties to have a means of compliance even if they had greater challenges blending renewable fuels into their own gasoline and diesel. Moreover, it would be inappropriate to reduce the volume requirements to the level at which no obligated party needed to acquire RINs from those who had excess, since doing so would mean that the volume

requirements would be significantly lower than what the market as a whole is capable of supplying.

While we have reduced the volumes of advanced biodiesel and total renewable fuel below the statutory targets for 2014, 2015, and 2016, the required volumes nevertheless represent substantial growth over this time period. As described in Sections II.E.5 and II.F of the final rule, the final volume requirements for 2016 in particular will require the market to supply more renewable fuel than at any time in the past, and greater than would have been supplied in the absence of the RFS program. As a result, the final volume requirements we are setting for 2016 are technology-forcing in the sense of requiring and expecting the market to invest, innovate, and expand to increase supply above historical levels.

Some stakeholders said that Congress set a minimum required volume of 15 billion gallons for conventional renewable fuel. This is not the case, as the statute does not specify targets for conventional renewable fuel. Instead, the statute sets targets for total renewable fuel and advanced biofuel, and then provides waiver authorities for reducing either or both of those targets. In this context, EPA is not under any obligation to set the total renewable fuel and advanced biofuel volume requirements in such a way that the gap between them remains at 15 billion gallons. Moreover, under the cellulosic waiver authority we can consider the GHG impacts associated with any reductions, whereas under the general waiver authority we are making reductions only under "inadequate domestic supply." As a result, it is legitimate to reduce total renewable fuel based solely on a consideration of supply under the general waiver authority while basing reductions in advanced biofuel on multiple factors under the cellulosic waiver authority, with the net result being that the volume of conventional renewable fuel falls below 15 billion gallons.

For responses to comments stating that the E10 blendwall is not a constraint, or has been fabricated by the refining industry, see Section 2.4.

For responses to comments stating that supply of renewable fuels cannot increase above the E10 blendwall, see Section 2.4.

For responses to comments stating that production capacity should be the basis of the volume requirements, see Section 2.4.

For responses to comments suggesting that the proposed 2016 volume requirement for total renewable fuel is too low, see Section 2.4.3.

For responses to comments suggesting that the E10 blendwall can be addressed by increasing the required volumes of BBD, see Section 2.5.

For responses to comments suggesting that the proposed 2016 volume requirement for advanced biofuel is too low, see Section 2.5.3.

For responses to comments on gasoline demand and its role in determining the E10 blendwall, see Section 2.6.1.

For responses to comments suggesting that obligated parties have failed in their statutory responsibilities to invest in the infrastructure needed to expand renewable fuel supply, see Section 2.7.1.

For responses to comments related to imports of sugarcane ethanol, see Section 2.7.4.

For responses to comments on the consideration of opportunities for other advanced biofuels when determining the required volume of BBD, see Section 3.3.1.

For responses to comments on the role of carryover RINs in the RFS program and suggestions that they could be used to increase the volume requirements, see Section 6.

For a detailed discussion of the constraints associated with biodiesel and renewable diesel supply, see Section II.E.3 of the final rule.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

Section 2.2.2.1: Inadequate Domestic Supply

Section 2.3.1: Congressional Intent to Increase Volumes

Section 2.3.2: Power of the Market to Respond to Ambitious Standards

Section 2.6.2: Assumptions of Zero Volumes for E0 and E15

Section 2.9: General Comments on Proposed Total Renewable Fuel Volume Requirements

Section 2.9.1: Comments Supporting Higher Volumes

Section 3.1: General Comments on Biomass-Based Diesel

Section 3.5: General Comments on Increasing the BBD Standard No Higher Than 1.28 Billion Gallon

Section 5.2: EIA Projections of Gasoline and Diesel

Section 7.1: General Comments on Economic Impacts

Section 7.3: Fuels Industry Impacts (oil refineries, biofuel facilities)

Section 8.2: Climate Change (GHG Impacts)

Section 10.2.2: Statutory Deadlines

Section 10.6.4: Ethanol impacts on engines

## **2.3 Proposed Approach to Determining Volume Requirements**

### **Comment:**

#### **Abengoa Bioenergy**

EPA's newly proposed RVOs for 2014, 2015 and 2016 are based on the same methodology as the previous Notice of Proposed Rule Making (NPRM) for 2014. [EPA-HQ-OAR-2015-0111-2474-A1 p.5]

#### **Advanced Biofuels Association (ABFA)**

EPA's attempt to put the RFS2 program on a clear trajectory moving forward is essential to creating certainty and support from markets to move the industry. EPA's efforts to address the blend wall are appreciated and we believe the Agency has created a more rational framework

that reflects the changes in energy that have occurred since the inception of RFS2 in 2007. [EPA-HQ-OAR-2015-0111-2498-A1 p.14]

### **Butamax Advanced Biofuels, LLC**

The strongest evidence for assessing the available supply is to rely on historical production; in the current proposal the EPA chooses to ignore historical supply and instead sets targets well below the proven ability of biofuels producers to deliver both advanced and conventional biofuels. [EPA-HQ-OAR-2015-0111-1938-A2 p. 5]

The role of the EPA in setting the RVO at a level that requires absolute growth in renewable fuels is critical. The mechanisms to drive this growth will only function effectively if the RVO is set at a level that requires growth. If the EPA sets an RVO that does not require growth, the mechanisms will be disabled and growth will not occur. [EPA-HQ-OAR-2015-0111-1938-A2 p. 11]

### **Independent Fuel Terminal Operators Association (IFTOA)**

Recommendation: Therefore, when determining the mandates for 2016 and beyond, EPA should take a more neutral approach and establish the required volumes in the context of market realities/constraints, including: (1) the E10 blendwall, (2) limitations in production of advanced and cellulosic biofuels, (3) automobile manufacturers' warranty restrictions, and (4) distribution infrastructure limitations. [EPA-HQ-OAR-2015-0111-1947-A1 p. 3]

### **Union of Concerned Scientists**

Broadly we agree that EPA's approach should "balance aggressive growth with marketplace realities." Overall, the proposed RVO does a good job striking that balance, although there are a few specific areas where refinements will improve the proposal. Our comments reflect three broad goals, expanding investment in and production of cellulosic biofuels, limiting problems caused by expansion of food based fuels and enhancing the stability and predictability of the fuels policy framework. [EPA-HQ-OAR-2015-0111-2260-A1 p.1]

Congress intended to create a stable and durable framework for investment in low carbon renewable fuels when it passed the RFS2 in 2007. The realization of the ambitious targets in the RFS has proven very challenging for many reasons that are beyond EPA's control, but uncertainty surrounding EPA's administration of the policy has added to these challenges. By providing clear guidance in the final rule for 2014, 2015 and 2016 and initiating a comprehensive update to the RSF roadmap, EPA can provide the stable policy foundation that is a precondition to meeting the ambitious and critically important oil saving and climate goals of the Renewable Fuels Standard.[EPA-HQ-OAR-2015-0111-2260-A1 p.8]

### **Response:**

Some commenters opposed EPA's proposed approach for determining the volume requirements, stating that our new proposed volume requirements for 2014, 2015 and 2016 are based on the same methodology as the prior November 2013 proposal. On the other hand, some commenters

supported our approach, stating we have created a more rational framework that reflects the changes that occurred since EISA passed in 2007 and provides the market with greater certainty for growth. Finally some commenters state that we should set volume at levels that require growth, believing that the proposed volume requirements would not accomplish this.

In the NPRM we explained that our approach to determining the applicable volumes of advanced biofuel and total renewable fuel included estimating the market potential for overcoming the various constraints at play. This approach was based on consideration of the potential future contributions from sources of qualifying renewable fuel in the aggregate rather than individually, and in the context of a market that is responsive to the standards that we set. We explained that we believed this approach to be more straightforward and more in keeping with the statute's goals to drive renewable transportation fuel use in the U.S. than the proposed approach we described in the November 29, 2013 proposal for the 2014 standards.

In response to the NPRM, many parties presented alternative volumes for both advanced biofuel and total renewable fuel, either higher or lower than those we proposed, based on an approach more akin to that used in our November 29, 2013 proposal. That is, they made their own estimates of the achievable levels of various types of renewable fuels looking at some individual market factors, and then used those estimates to suggest overall volume requirements for either or both advanced biofuel and total renewable fuel. We recognize that this approach is intended to reduce the generation of the volume requirements to a collection of more easily estimated components; indeed this is why we had previously considered this approach. Nevertheless, as described in the final rule, we no longer believe that such an approach is conducive to determining the intersection between adequate domestic supply and inadequate domestic supply. The fact that individual stakeholders expressed highly disparate views on the levels of each source of renewable fuel that are achievable supports this view. In addition, none of the stakeholders actually fully carried out such an approach, describing and estimating all the individual pieces that might make up the total standards. Instead they tended to focus on one or a few aspects and ignore the others. Furthermore, there was essentially no recognition among stakeholders that each source of renewable fuel is not independent from other sources under the influence of the RFS program, and that the overall uncertainty is not the same as the uncertainty associated with each individual source.

We continue to believe that the approach described in the proposed and final rule to determining the applicable volume requirements for advanced biofuel and total renewable fuel is preferable to one based on identifying reasonably achievable volumes of individual sources and summing them together. This is primarily because each piece of the renewable fuels market is impacted by the others as well as the conventional fuel supply, such that we believe we are more likely to accurately assess the intersection of adequate and inadequate supply by viewing the renewable fuel supply holistically, rather than as the sum of its parts. Nevertheless, we recognize that an assessment of the contribution that individual sources can make to the total is valuable in demonstrating both the achievability of the volume requirements and the extent to which they represent the maximum that can realistically be achieved. Therefore, we have provided additional discussion of the contribution of each type and source of renewable fuel to the totals in Section II.D.6 of the final rule.

While this final rule applies the tools Congress provided to make adjustments to the statutory volume targets in recognition of the constraints that exist today, we believe the standards we are finalizing today will drive growth in renewable fuels, particularly advanced biofuels, which achieve the lowest lifecycle GHG emissions. Further, we believe this approach establishes the expected path for growth in future years. In our view, while Congress recognized that supply challenges may exist as evidenced by the waiver provisions, it did not intend growth in the renewable fuels market to be stopped by those challenges, including those associated with the "E10 blendwall." The fact that Congress chose to mandate increasing and substantial amounts of renewable fuel clearly signals that it intended the RFS program to create incentives to increase renewable fuel supplies and overcome constraints in the market. The standards we are finalizing will provide those incentives.

The final volume requirements will push the fuels sector to produce and blend more renewable fuels in 2016 in a manner that is consistent with the goals Congress envisioned. The final volumes are less than the statutory targets for 2016 but higher than what the market would produce and use in the absence of such market-driving standards. The 2016 standards are expected to spur further progress in overcoming current challenges and lead to continued growth in the production and use of qualifying renewable fuels, including higher-level ethanol blends. In this regard the final standards are intended to fulfill the spirit and intent of Congress and provide guidance to market participants.

We acknowledge that we did not meet the statutory deadline for setting the 2014 or the 2015 percentage standards, nor the deadline for the 2014, 2015, and 2016 BBD applicable volumes, and that this has affected the market. For 2016, our final percentage standards are issued on the statutory schedule, allowing a full year for obligated parties and the market to react to the standards we set. Therefore, we assume that the standards can influence greater renewable fuel use than would be the case in the absence of the standards. On this basis, we have set the volume requirements for 2016 at levels that are higher than in any previous year, and will require the market to respond in kind.

For responses to comments stating that production capacity should be the basis of the volume requirements, see Section 2.4.

### **2.3.1 Congressional Intent to Increase Volumes**

#### **Comment:**

#### **Abengoa Bioenergy**

**The RFS is a success story, and has been the single largest driver of investment in and development of both conventional and advanced biofuels as an alternative to petroleum based transportation fuel.**

The RFS has been an extremely successful program, promoting both rural economic development and a dramatic increase in domestically produced fuel supplies that has significantly reduced this nation's dependence on foreign oil imports. Current ethanol production accounts for approximately 10% of US transportation fuel, and provides cleaner burning and

higher octane fuel to retailers at a significantly lower cost to consumers. Largely because of the long term promise of the RFS, Abengoa Bioenergy invested in developing its six US based first generation ethanol production facilities. These existing facilities have created almost 500 direct jobs, and indirectly generate and support at least another 8,000 positions. [EPA-HQ-OAR-2015-0111-2474-A1 p.2]

In addition, as a direct result of the RFS, Abengoa Bioenergy has invested hundreds of millions of dollars more in the development of second generation biofuels from multiple types of feedstocks, including both agricultural residues and municipal solid wastes (MSW). We started construction of our commercial scale cellulosic ethanol plant in September of 2011, and have now started production operations at the facility and are in the process of commissioning and ramping up production. This facility provides another 75 permanent jobs with an estimated annual payroll of approximately \$5 million, and generated approximately 300 construction jobs during its 2 year construction period. At full capacity, it will also provide payments of approximately \$17 million to local feedstock providers in order to purchase the agricultural residues that previously had no significant market value. Many other companies have also invested significantly in new technologies to produce advanced biofuels, and several production facilities are in advanced stages of development, or have begun construction. Much of this investment was due to the RFS, which until November of 2013, provided a perception of stability in future markets for advanced biofuels, and generated a measure of confidence for investors in these new technologies. Now, The advanced biofuel industry has invested billions of dollars to build first of a kind demonstration and commercial scale biorefineries here in the United States, with several new, large-scale cellulosic biofuel facilities beginning operations in 2014 and 2015. Overall, advanced biofuels met the goals of the law every year from 2010 through 2013, furthering the goals of reducing our reliance on foreign oil, while cellulosic biofuels became a commercial reality. [EPA-HQ-OAR-2015-0111-2474-A1 p.2]

Despite the success spurred by the RFS, EPA's recent actions have undermined the goals and requirements of the RFS statute, undercut investment in advanced biofuels, and raised greenhouse gas emissions in the transportation fuel sector. In particular, EPA's unstable administration of the program since 2013, EPA's failure to issue RFS rules in a timely manner, and EPA's proposal (first announced in the proposed rule initially issued by EPA in November 2013, and reiterated in the replacement proposed rule published on June 10, 2015) to cut statutorily mandated RFS volumes in a manner that is inconsistent with the law. This is an unfortunate and unnecessary departure from how the Agency implemented the law prior to 2013, when the program worked as intended to spur innovation and growth in the advanced and cellulosic biofuels space. As a direct result of this policy uncertainty, Abengoa has chosen to delay its earlier intention to develop additional cellulosic ethanol facilities within the United States, and has instead announced the development of cellulosic projects in both Brazil and in France instead. In addition, it is well worth noting that more than \$600 million has been invested overseas in biorefineries that commercialized new technologies researched and developed here in the United States. Additional companies originally planning to commercialize biorefineries in the United States are now looking for locations overseas or have simply put projects on hold indefinitely. With commercialization of cellulosic and advanced technologies, companies will continue to seek economic opportunities to deploy them. However, unless EPA's enforcement of the RFS is brought back on track to implement the program as conceived and intended by Congress, and as required by the law, policy instability in the United States will likely drive

companies to continue deployment in other countries rather than in the United States. [EPA-HQ-OAR-2015-0111-2474-A1 p.2-3]

Nevertheless, if the Agency returns to stable implementation of the program with a clear commitment to the statutory requirements that had their intended effect in past years, we believe that the industry can look forward to expanding cellulosic, advanced, and total renewable fuels production in the years ahead and continue to make an important contribution to the nation's energy security. [EPA-HQ-OAR-2015-0111-2474-A1 p.3]

Abengoa requests that EPA revise its NPRM to:

1. Set the cellulosic RVO for 2015 at no less than 157 million gallons and for 2016 at no less than 350 million gallons.
2. Set the RVOs for Advanced Biofuels and for Total Renewable Fuels for 2015 and 2016 at the full statutory volumes.
3. Recalculate 2014 RVO volumes using the proper data and criteria as suggested below.[EPA-HQ-OAR-2015-0111-2474-A1 p.3]

### **Advanced Biofuels Association (ABFA)**

The proposed rule<sup>1</sup> represents a significant improvement over the original 2014 document for which our organization submitted extensive comments on the record. The intent of Congress under EISA was to encourage the development of an advanced and cellulosic biofuels industry. This concept was embodied in the statute when it called for 21 billion gallons of advanced and cellulosic biofuels to be produced and consumed by 2022. The original statute specifically capped corn based ethanol at 15 billion gallons in 2015. In doing so the lawmakers were clear in their vision to build on the first generation as a bridge to future innovative fuels that would deliver significantly higher greenhouse gas reductions as well as provide new innovative drop-in fuel alternatives and non-food based fuels from a variety of cellulosic feedstocks. [EPA-HQ-OAR-2015-0111-2498-A1 p.2]

When Congress wrote EISA, the expectation was that we would see significant growth in U.S. gasoline demand and that would allow 10% ethanol to be blended into what was expected to be 150 billion gallons of annual gasoline consumption. That growth has not materialized as a result of a number of factors including, but not limited to, changes in driving patterns, fewer miles driven per year, and the adoption of higher CAFE standards leading to a fleet of cars that is far more efficient than past vehicles. We appreciate EPA's efforts to try and balance all the various issues involving transportation fuels as we move forward under the RFS program. What we cannot allow is the obsession of one or more sectors of the industry to kill the entire program for those companies who are trying to achieve EISA's ambitious objectives. We believe EPA's proposal strikes an appropriate balance given all the factors under consideration at this time. [EPA-HQ-OAR-2015-0111-2498-A1 p.2]

### **Remarks on Congressional Intent**

The RFS was created to “reduce dependence on foreign sources of petroleum, increase domestic sources of energy, and help transition to alternatives to petroleum in the transportation sector” as

well as “provide a reduction of carbon dioxide emissions.”<sup>7</sup> In support of ABFA's discussion of Congressional intent, we wanted to resubmit to the record a number of statements from key legislators on the Energy Independence and Security Act of 2007:

- Ms. Jackson Lee of Texas: “With this commitment to American biofuels, this legislation calls for a significant increase in the Renewable Fuels Standard. It encourages the diversification of American energy crops thus ensuring that biodiesel and cellulosic sources are key components in America's drive to become energy independent.”<sup>8</sup>
- Mr. Udall of Colorado: “The new RFS has specific requirements for the use of biodiesel and cellulosic sources to ensure that these ethanol sources also advance along with corn-based ethanol. Furthermore, the bill includes critical environmental safeguards to ensure that the growth of homegrown fuels helps to reduce carbon emissions.”<sup>9</sup>
- Mr. Stark of California: “I hope that the environmental safeguards contained in the Renewable Fuel Standard--which mandates production of 36 billion gallons of biofuels by 2022--will quickly push production away from corn ethanol and toward advanced cellulosic fuels.”<sup>10</sup>
- Mr. Van Hollen of Maryland: “This package includes a Renewable Fuels Standard, RFS, that expands our nation's domestic biofuel production to 36 billion gallons by 2022. I am especially pleased that this RFS includes a substantial requirement for advanced biofuels from a variety of different feedstocks.”<sup>11</sup>
- Mr. Dingell of Michigan: “The bill before us places an emphasis on using cellulosic biomass as a means of producing ethanol. Cellulosic ethanol holds great promise for the future of renewable fuels because it uses what now constitutes agricultural residue waste or low-value plant matter, and it contributes fewer greenhouse gas emissions to our atmosphere than either corn-based ethanol or conventional gasoline.”<sup>12</sup>
- Mr. Cardin of Maryland: “H.R. 6 makes a historic commitment to develop cellulosic ethanol by requiring that the United States produce 21 billion gallons of advanced biofuels, like cellulosic ethanol.”<sup>13</sup>
- Ms. Pelosi of California: “You are present at a moment of change, or real change, of rejecting the past, respecting the values of the past, but rejecting the insistence that we stay in the past and go into the future. This is a choice between yesterday and tomorrow.”<sup>14</sup>
- Mr. Hoyer of Maryland, “This is a historic turning point in American energy policy.”<sup>15</sup>
- Ms. Boxer of California: “In this bill, we have renewable fuels, fuel efficiency, green buildings. It is a great start.”<sup>16</sup>
- President Bush: “Today we make a major step with the Energy Independence and Security Act. We make a major step toward reducing our dependence on oil, confronting global climate change, expanding the production of renewable fuels and giving future generations of our country a nation that is stronger, cleaner and more secure.”<sup>17</sup> [EPA-HQ-OAR-2015-0111-2498-A1 p.12-13]

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<sup>1</sup> 80 Fed. Reg. 33100 (Jun. 10, 2015.)

<sup>7</sup> See 72 Fed. Reg. 23900 (EPA describing the underlying purposes of the RFS.)

<sup>8</sup> CR p. 35922, 12/18/07.

<sup>9</sup> CR p. 35972, 12/18/07.

<sup>10</sup> CR p. 35928, 12/18/07.

<sup>11</sup> CR p. 35928, 12/18/07.

<sup>12</sup> CR p. 35932, 12/18/07.

<sup>13</sup> CR p. S15428, 12/13/07.

<sup>14</sup> CR p. 35925, 12/18/07.

<sup>15</sup> CR p. 35916, 12/18/07.

<sup>16</sup> CR p. S15422, 12/13/07.

<sup>17</sup> <http://georgewbush-whitehouse.archives.gov/news/releases/2007/12/20071219-6.html>.

### **Advanced Biofuels Business Council (ABBC)**

Global oil markets are collusively price-controlled by OPEC at the global level, and are extremely consolidated and vertically integrated domestically. The absence of free market forces in the liquid fuel marketplace are a problem for the advanced biofuels industry (and other innovators) because a noncompetitive marketplace does not properly facilitate and reward innovation. Non-competitive and non-price driven markets are almost impossible to predict with regard to future demand opportunity, because the market does not behave based on free market fundamentals and the creation of a better product does not necessarily translate into market demand. This lack of predictability increases investment risk – or makes risk impossible to assess – which in turns drives investment and potential strategic partners to other sectors. The RFS is an aggressive but flexible program that requires obligated parties to blend increasing volumes of various types of renewable fuel over time. It is necessary to, in essence, do what a free market would do on its own: promote and reward innovation. [EPA-HQ-OAR-2015-0111-3528-A1 p.7]

### **American Council on Renewable Energy (ACORE)**

The Renewable Fuel Standard (RFS) was enacted with strong bipartisan support by Congress to expand production of renewable fuels in order to decrease our nation’s dependence on oil, aggressively reduce greenhouse gas (GHG) and toxic air emissions, and enhance our nation’s energy and economic security.<sup>1</sup> By enacting the RFS, Congress intended to annually increase market access and demand for renewable fuels, thereby incentivizing investment in and development of these fuels. [EPA-HQ-OAR-2015-0111-1926-A1 p.1]

The RFS has been one of our country’s most successful renewable energy policies when implemented according to statutory intent. The RFS has tripled biofuel production in this country since 2005,<sup>2</sup> and biofuel producers have been able to meet the overall renewable volume obligations (RVOs) every year the obligations have been in place. The RFS has reduced our dependence on petroleum, reduced volatile price swings at the pump, cut greenhouse gas and ambient air emissions from the transportation sector, and increased jobs and tax revenue throughout the country. Today, the country’s economic, security, and environmental interests in expanding the renewable fuel industry remain as vital as ever. [EPA-HQ-OAR-2015-0111-1926-A1 p.1-2]

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<sup>1</sup> Originally passed in Energy Policy Act of 2005. (PUBLIC LAW 109–58). August 8, 2005. <http://www.gpo.gov/fdsys/pkg/PLAW109publ58/pdf/PLAW-109publ58.pdf>. Expanded in Energy Independence and Security Act (EISA) of 2007. Title II, (PUBLIC LAW 110–140). December 19, 2007. <http://www.gpo.gov/fdsys/pkg/PLAW-110publ140/pdf/PLAW->

[110publ140.pdf](#)

<sup>2</sup> EIA, “Table 10.3 - Fuel Ethanol Overview”, 2015.

[http://www.eia.gov/totalenergy/data/monthly/pdf/sec10\\_7.pdf](http://www.eia.gov/totalenergy/data/monthly/pdf/sec10_7.pdf)

### **American Farm Bureau Federation (Farm Bureau)**

It is evident that the use of renewable fuels is enhancing our energy security by reducing our dependence on foreign oil. It is also evident that the White House has repeatedly stated its strong support for renewable fuels and the importance of improving our nation’s energy independence. Farm Bureau supports and defends the standards and incentives necessary to further develop the U.S. renewable fuels industry and is opposed to EPA’s Proposed Rule. EPA’s proposal will severely undermine the goals that were set by Congress to create a more robust renewable fuels industry as well as a pathway to achieving energy independence. [EPA-HQ-OAR-2015-0111-2355-A1 p. 6]

### **Butamax Advanced Biofuels, LLC**

Butamax Advanced Biofuels, LLC appreciates the opportunity to comment on the Proposed Standards for the Renewable Fuel Standard (RFS) Program for 2014, 2015, and 2016 (the NPRM). Butamax, a privately funded joint venture of DuPont and BP, is commercializing proprietary technology to enable the production of biobutanol for gasoline blending. A key attraction of biobutanol is that it supports an expanded role of biofuels in transport fuels. Butamax's formation as a company was a direct result of the clear, long-term direction established by Congress when it created the RFS. That law provided the confidence necessary for our shareholders to invest hundreds of millions of dollars of their own funds to bring this biofuel technology to market. The changes proposed in the NPRM undermine the confidence required by free markets for the long-term investment decisions needed to bring new and advanced technologies to commercialization. [EPA-HQ-OAR-2015-0111-1938-A1 p. 1]

### **Clean Fuels Development Coalition and the Nebraska Ethanol Board**

A casualty of EPA's failure to force volumes is the lost opportunity in terms of investment in advanced technology fuels. Once again, the petroleum industry argues that these fuels are not available. There is a conservative estimate of just under \$14 billion in frozen investment due to EPA's failing to consistently set volumes. Furthermore, as obligated parties, nothing precludes the petroleum industry from investing in and developing advanced biofuels and the legislative history of the RFS clearly supports the notion that Congress intended for them to do so. [EPA-HQ-OAR-2015-0111-2259-A1 p.3]

Many of our Nebraska producers have the ability to add a variety of bolt on technologies such as corn fiber separation or utilizing stover or a mix of feedstocks to produce low GHG advanced fuels. Establishing aggressive requirements assuring a market for these products is critical. Recent statements by Novozymes and other major companies regarding curtailment of investment due to policy uncertainties created by EPA decisions illustrate this point. [EPA-HQ-OAR-2015-0111-2259-A1 p.3]

Congress also knew we would need to move beyond the amount of ethanol that could be used in conventional vehicles and distributed in conventional pumps. The ripple effect of not forcing the

volumes has crippled the momentum we had going in the Flex Fuel Vehicle (FFV) sector. Automakers see the same indecisiveness we see and have reduced the volume of FFVs they are producing. [EPA-HQ-OAR-2015-0111-2259-A1 p.3]

It is important to recognize how all these issues are interconnected. It goes without saying that advanced biofuels from cellulose were assumed to be the end game of the RFS. If the volumes were enforced it would have resulted in refueling infrastructure which would have resulted in OEMs making flex fuel vehicles available to respond to the demand. [EPA-HQ-OAR-2015-0111-2259-A1 p.3]

In addition to Congressional intent to drive technology, auto production, and refueling infrastructure, biofuels represent a huge opportunity to reduce pollution and greenhouse gases. Failing to replace every bit of petroleum based fuels that we can with biofuels ignores the significant health and pollution consequences of petroleum use. This fact seems to have gotten little attention in this debate. [EPA-HQ-OAR-2015-0111-2259-A1 p.3]

### **Commonwealth Agri-Energy, LLC**

The EPA's proposal for 2014 through 2016 violates the law, and it contradicts Congress' intent. You can't -- I'm not a lawyer. You can't understand the details of that maybe without a lot of work and a lot of time. So let's just say if we stay to the intent of the law, do we not do better for the country? Do we not do better for urban areas as well as ag areas? I think we do. [Docket Number EPA-HQ-OAR-2015-0111-1044, pp. 188-189.]

### **Darling Ingredients Inc.**

Darling agrees with both the perspective of the EPA regarding the intent of Congress to grow Advanced Biofuels and that it should take into consideration the ability of the market to respond to the Proposed Volumes. Indeed the Proposed Rule does provide for growth in both BBD and Advanced Biofuels for 2016 and 2017. However, Darling contends the EPA failed to propose volumes for both BBD and Advanced Biofuels that are consistent with its own interpretation of the statute. [EPA-HQ-OAR-2015-0111-1929-A1 p.2-3]

Further the EPA is clear that it believes Congress has provided clear direction that the volume goals established by the EPA should be aspirational and be utilized to increase volumes of Advanced Fuels. It is clear the availability of BBD in 2014 was impacted by lack of clarity on RFS2 volumes created by the EPA's failure to finalize its rules in a timely fashion and uncertainty associated with the extension of the Biodiesel Tax Credit. Although, as mentioned above, the 2014 availability of BBD EXCEEDED the proposed 2016 volumes in spite of the regulatory uncertainty facing the industry. [EPA-HQ-OAR-2015-0111-1929-A1 p.8]

Further, the EPA, despite specifically acknowledging the difficult regulatory environment in which the industry has operated over the last couple of years, fails to provide any aspirational goals to support an industry that, by the EPA's own admission in the Current Proposed Rule has been the driver for expanded Advanced Biofuel production. This despite multiple statements in the Proposed Rule by the EPA that the clear policy direction (established by Congress in EISA) for Advanced Fuels should be 'ambitious.' [EPA-HQ-OAR-2015-0111-1929-A1 p.8-9]

## **DuPont**

In the Proposed Rule, EPA states that “the total volume of ethanol that could reasonably be consumed is a function of three factors: (1) the overall demand for gasoline; (2) the consumption of ethanol as E10, E15 and E85; and (3) the presence of non-oxygenated gasoline (E0).” Given the foregoing analysis, DuPont believes that EPA’s proposed method of determining the volume of ethanol that can be consumed is based on a mistaken belief that the E10 blendwall is a controlling factor in setting the renewable fuel volumes. DuPont strongly objects to this approach. At the time Congress passed the RFS2 and when EPA finalized the 2010 implementing rule, it was well known that renewable fuel would eventually need to be blended above ten percent in order to meet the increasing statutory volumes. DuPont recommends that EPA abandon the proposed methodology for setting the renewable fuel volumes and instead rely on the statutory volumes incorporated in the 2010 implementing rule unless EPA has indication that all biofuels plants combined cannot produce these volumes. Using this approach, DuPont recommends that EPA set the 2016 Total Renewable Fuel Volume at a value higher than 18.206 billion gallons depending on the cellulosic ethanol RVO. [EPA-HQ-OAR-2015-0111-1826-A1 p.17]

## **Governors’ Biofuels Coalition**

Commercialization of advanced ethanol has been remarkably fast. Short-term delays should not be the reason to ignore the law and Congress’s intent. In fact, it took nearly 40 years to turn a 2<sup>1</sup>/<sub>2</sub>-pound cell phone the size of a brick into a 5-ounce smart phone with more computer power than the world’s first computer. It is truly shortsighted to ignore the statutory goals of the RFS2 and to impose even higher standards on the nascent advanced biofuels industry. [EPA-HQ-OAR-2015-0111-2489-A1 p.2]

## **Growth Energy**

At its core, EPA’s proposal rests on a fundamental misunderstanding of the RFS program as Congress designed it. The RFS program forces innovation and investment by intentionally requiring future levels of renewable fuel use far higher than what can be achieved with present production capacity, distribution capacity, and technology. The proposal, by contrast, ignores this mandate and instead only looks backward, setting volumes based on *existing* capacity to produce, distribute, and use renewable fuel. Under EPA’s approach, distribution constraints and weak demand become a self-fulfilling prophecy. [EPA-HQ-OAR-2015-0111-2604-A2 p.3]

That would be lamentable for the United States. Renewable fuel is an American industry that promotes energy independence, improves our nation’s environment, supports hundreds of thousands of jobs (especially in rural areas), and reduces prices at the pump, all without appreciably raising the price of food or feed. Yet EPA would stunt this industry by capping demand for its product and forcing the industry to idle production and identify export markets for excess capacity. That is particularly strange given that EPA’s proposed advanced volume requirement would encourage significant importation of sugarcane ethanol from Brazil. [EPA-HQ-OAR-2015-0111-2604-A2 p.3]

Congress revised the Renewable Fuel Standard (“RFS”) program in 2007 “[t]o move the United States toward greater energy independence and security, to increase the production of clean

renewable fuels, to protect consumers, to increase the efficiency of products, buildings, and vehicles, to promote research on and deploy greenhouse gas capture and storage options, and to improve the energy performance of the Federal Government.”<sup>7</sup> To achieve these goals, Congress required that “gasoline sold or introduced into commerce in the United States ... contain[] the applicable volume of renewable fuel,” and charged obligated parties—such as gasoline refiners—with meeting those volume requirements.<sup>8</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.4]

By mandating the amount of renewable fuel that is blended into transportation fuel, Congress sought to stimulate greater production of renewable fuels. These mandates ensure renewable-fuel suppliers a market for their products, which encourages suppliers to make costly investments in production facilities. The RFS also indirectly stimulates greater *consumption* of transportation fuels that contain renewable fuel. Obligated parties, having acquired and blended renewable fuel, have a strong economic incentive to find an outlet for the resulting blended transportation fuels and, consequently, to invest in renewable-fuel infrastructure to reduce their compliance costs.<sup>9</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.4]

The statute uses market signals to translate its quantitative mandates into action. Specifically, Congress directed EPA to create a “credit program” to enable obligated parties to comply as efficiently as possible, either by blending renewable fuel themselves or by buying credits, called RINs, from others who do.<sup>10</sup> As volume obligations become more difficult to achieve, RIN prices rise accordingly, creating an incentive to invest in infrastructure so that obligated parties can comply with their obligations by generating RINs rather than buying them. High RIN prices also permit blended fuels to be sold at a lower effective price to the consumer—the blender is able to discount the blended fuel by the amount earned from the sale of the accompanying RIN.<sup>11</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.4-5]

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<sup>7</sup> EISA, 121 Stat. 1492; *see Monroe Energy, LLC v. EPA*, 750 F.3d 909, 911-912 (2014).

<sup>8</sup> 42 U.S.C. § 7545(o)(2)(A)(i) & (iii); *see* 40 C.F.R. § 80.1406(a)(1).

<sup>9</sup> *See Monroe Energy*, 750 F.3d at 919.

<sup>10</sup> 42 U.S.C. § 7545(o)(5).

<sup>11</sup> *See generally* Edgeworth Economics, *Impact of the RFS Mandate on Motor Fuel Volumes and Prices, 2014-2016 (“Impact on Motor Fuel Prices”)* (July 27, 2015) (attached as Exhibit 1); Bruce Babcock & Sebastien Pouliot, *Price It and They Will Buy: How E85 Can Break the Blend Wall*, Iowa State University CARD Policy Brief 13-PB 11 (Aug. 2013), at <http://www.card.iastate.edu/publications/dbs/pdffiles/13pb11.pdf>.

## ICM

The EPA can quickly act on this, and it supports the congressional intent of the RFS. Allow the retailers to do their job. [Docket Number EPA-HQ-OAR-2015-0111-1044, p. 313.]

## Illinois Corn Growers Association (ICGA) and Illinois Renewable Fuels Association (IRFA)

Even more disturbing is your persistence to continue down the path of discounting Congressional intent and the law regarding the proposed volume numbers for corn starch ethanol for 2015 and 2016. Corn starch ethanol under the Energy Independence and Security Act is specified to be 15

billion gallons annually right now instead of the 13.4 billion for 2015 and 14.0 billion gallons for 2016 as you have proposed. Your argument for reducing the gallons of corn starch ethanol based on an “inadequate domestic supply” due to “limitations in the volume of ethanol that can be consumed given practical constraints on the supply of higher blends to the vehicles that can use them” is not defensible and mocks the intent of the waiver provision enacted by Congress to protect the consumer and make the RFS workable. It would be more accurate if USEPA argued that the Administration supports the obligated parties who do not want to comply with the statutory requirements of the RFS II passed by Congress because it would impact their market share and control of the fuels industry. [EPA-HQ-OAR-2015-0111-1925-A1 p. 1]

### **Indiana Corn Growers Association (ICGA)**

The Renewable Fuel Standard is an important tool in the nation’s effort to achieve cleaner fuels. If the 2014, 2015 and 2016 proposed RVO volumes were enacted as the EPA propose, it would be in direct violation of the federal statute and intent of this critical energy policy. Reduction in ethanol production will be a step backward in our country’s commitment to cleaner air and make our nation more dependent on petroleum sources that do not burn as cleanly as ethanol, and often come from foreign lands. Furthermore, ethanol is a prime economic driver here in the state of Indiana. [EPA-HQ-OAR-2015-0111-2503-A1 p.1]

The RFS is doing exactly what it was intended to do. It is increasing the renewable fuel alternatives to petroleum, supporting jobs across the country, especially in struggling rural areas, and ensuring the United States remains a global leader in developing new renewable energy sources while decreasing greenhouse gas emissions. [EPA-HQ-OAR-2015-0111-2503-A1 p.1]

We strongly urge you to return to volume levels outlined in the Energy Independence Security Act (EISA). We respectfully request you reconsider your proposed reduction in the renewable volume obligations and continue to provide the regulatory backing to the most successful renewable fuel program in the history of our nation. The continued stability and health of the rural economy in Indiana and around the country and environmental improvements hinge upon your decision. [EPA-HQ-OAR-2015-0111-2503-A1 p.1]

Energy security is about more than reducing our national dependence on foreign sources of oil: it is about energy diversity. Simply relying on one type of energy resource does not allow flexibility in times of crisis or uncertainty. By investing in renewable biofuels, energy diversity and energy security are maintained. The direct intention of the RFS was to invest in renewable energy that decreases greenhouse gas emissions, while spurring economic growth in the agricultural sector of the nation. [EPA-HQ-OAR-2015-0111-2503-A1 p.2]

When the RFS was enacted, the authors of this policy envisioned renewable fuels, like ethanol, would displace gasoline at an even faster pace than today. Increasing volumes were to be utilized through E10 blends (10 percent ethanol, 90 percent gasoline) while the associated production of flex-fuel vehicles, which can utilize up to 85 percent ethanol, and supporting infrastructure was established. The former has happened; the latter has lagged compared to what was outlined in statute. Congress and EPA laid out a renewable energy plan; agriculture responded, ethanol responded, automotive manufacturers responded. Obligated parties have not met the challenge. [EPA-HQ-OAR-2015-0111-2503-A1 p.2]

We recommend that 2014, 2015 and 2016 RVOs be returned to statutory levels. In combination with existing RINs, there is sufficient capacity in the biofuels industry to produce the necessary volumes laid out in statute. The RFS was designed to support growth in the industry by setting attainable targets while pushing the market forward. Events of the past year have demonstrated that the RIN system is working as intended by driving the market toward more ethanol use, laying the foundation for further immediate growth. We expect the infrastructure to improve even more hastily when the industry and nation receives a clear message from the EPA that future growth is expected. [EPA-HQ-OAR-2015-0111-2503-A1 p.2]

### **Indiana Farm Bureau**

EPA's proposal will severely undermine the goals that were set by Congress to create a more robust renewable fuels industry as well as a pathway to achieving energy independence. [EPA-HQ-OAR-2015-0111-2486-A1 p.4-5]

### **Iowa Farm Bureau Federation (IFBF)**

It is critical that the EPA maintain the blending requirements laid out by Congress to encourage new investments in advanced biofuels. [EPA-HQ-OAR-2015-0111-1717-A1 p. 1]

Most troubling is the flawed methodology that EPA is using to justify a reducing in the blending requirements. The renewable fuels industry has more than enough capacity to produce in excess of the 15 billion gallons of conventional biofuel prescribed for 2015 by the RFS2. There is clearly not a supply limitation. Using the lack of infrastructure as an excuse for setting biofuels levels lower than originally mandated is not following the intent of the law that was passed by Congress. The EPA should not call the difficulties associated with blending higher than 10% a 'blend wall' and then call this a supply issue. This proposed rule lays out a methodology that will never allow biofuels to exceed approximately 10% of the market share. This is directly against the intent of the RFS2 as passed by Congress — which is to push infrastructure investments to increase market access for biofuels well beyond 10%. [EPA-HQ-OAR-2015-0111-1717-A1 p. 2]

In conclusion, IFBF policy supports the RFS2 as passed in the Energy Independence and Security Act of 2007. The methodology for this proposed reduction in renewable blending requirements is not justified and doesn't follow Congressional intent. The RFS2 has already met and surpassed its intended goals thus far and the EPA should continue to follow the volume requirements specified in the law. The RFS is good for farmers, good for the environment, good for jobs and the economy, good for rural communities, and good for consumers at the gas pump. IFBF urges you to maintain the RFS2 as written to ensure that the positives of the RFS2 are not stifled and negated. [EPA-HQ-OAR-2015-0111-1717-A1 p. 2]

### **John Deere**

On behalf of Deere & Company, I appreciate the opportunity to comment on the Proposed Rule establishing Renewable Volume Obligations for 2014-2016 as part of the Renewable Fuel Standard (RFS) Program. We endorse your review and analysis as to the intent of Congress within the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007. In our view, adherence to the intent of these significant statutes should be a foremost consideration in establishing the appropriate Renewable Volume Obligations. [EPA-HQ-OAR-2015-0111-2042-A1 p.1]

As outlined in your Executive Summary, we concur with your assessment that the ‘fundamental objective of the RFS provisions under the Clean Air Act is clear: To increase the use of renewable fuels in the U.S. transportation system every year through at least 2022.’ We also concur with your evaluation that Congress plainly aimed ‘to diversify the country’s fuel supply’ with a goal of ‘increasing the nation’s energy security.’ Perhaps most importantly we agree with your analysis as copied below:

‘In our view, while Congress recognized that supply challenges may exist as evidenced by the various waiver provisions, it did not intend growth in the renewable fuel market to be ultimately prevented by these challenges, including such constraints as the ‘E10 blendwall’ or demand for gasoline or diesel.’ [EPA-HQ-OAR-2015-0111-2042-A1 p.1]

Congress established an aggressive vision for our transportation fuels future. It fully understood that the obligated parties would be reluctant to make changes that align with this vision. Through these statutes, Congress intended to apply appropriate, yet sufficient economic leverage on any party that did not meet its obligations. [EPA-HQ-OAR-2015-0111-2042-A1 p.1]

### **LanzaTech, Inc.**

As the above agencies and departments can attest, technologies such as LanzaTech’s are positioned to accelerate the reduction of U.S. and global manufacturing carbon emissions while helping produce fuels and chemicals with significantly lower GHG compared to fossil fuel alternatives. Transformative renewable fuels like these are exactly what Congress envisioned from the RFS to drive GHG reductions and energy independence, yet that very program may be limiting the U.S. capacity for achieving these goals.

EPA recognizes that Congress granted broad discretion to design and implement a comprehensive renewable fuels program to advance the goals of EISA. EPA constantly reiterates throughout the Proposed Rule the importance of reducing GHG emissions from the transportation sector and enhancing the energy and economic security of the United States by delivering a suite of renewable fuels that reduce and replace the quantity of fossil fuels in transportation fuel, heating oil and jet fuel.

“The fundamental objective of the RFS provisions under the CAA is clear: To increase the use of renewable fuels in the US transportation system every year at least through 2022.”<sup>17</sup>

“Renewable fuels represent an opportunity for the US to move away from fossil fuels toward a set of lower GHG transportation fuels, and a chance for a still developing low GHG technology sector to grow.”<sup>18</sup> [EPA-HQ-OAR-2015-0111-2038-A1 p.8]

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<sup>17</sup> 80 Fed. Reg. at P33101.

<sup>18</sup> *Id.*

### **Mass Comment Campaign sponsored by anonymous 16 (email) - (189)**

I’m writing to ask you to implement a strong Renewable Fuel Standard. [EPA-HQ-OAR-2015-0111-0218-A1 p.1]

Under the Renewable Fuel Standard, America has tripled the production of renewable fuel, driven oil imports down to the lowest level in 20 years, reduced harmful pollution, and created hundreds of thousands of jobs. [EPA-HQ-OAR-2015-0111-0218-A1 p.1]

Please follow Congress's intent and get the RFS back on track. Implement a strong Renewable Fuel Standard that follows the requirements mandated by Congress and fix the flawed methodology that threatens the future of renewable fuel. [EPA-HQ-OAR-2015-0111-0218-A1 p.1]

### **Mass Comment Campaign submitted by DuPont employees (web) - (1)**

I ask that you set the renewable fuel volumes, for 2014 to 2016 and beyond, on an upward trajectory consistent with the volumes that Congress intended. [EPA-HQ-OAR-2015-0111-2825 p.2]

### **Minnesota Soybean Processors (MnSP)**

EPA further states in their proposed notice that one of EPA's objectives is to incentivize and increase competition between fuels serving the Advanced Biofuel class of fuels. At 80 Fed. Reg., 33,110, EPA states that "Congress charged [it] with implementing a program whose explicit goal is increased renewable fuel use over time." However, EPA continues by contending it is seeking to achieve this goal "in a fashion that maximizes flexibility and the power of the marketplace, while at the same time recognizing the complex and disaggregated structure of the fuel production and distribution systems." MnSP disagrees that EPA has the authority to ignore the directives of Congress in favor of EPA "maximizing flexibility" and "increasing competition" and relying on a marketplace that Congress, through their Energy Independence and Security Act is clearly trying to change through its own legislative action. [EPA-HQ-OAR-2015-0111-2505-A1 p.2]

### **Missouri Farm Bureau (MFB)**

Farm Bureau supported the creation of the original RFS as part of the Energy Policy Act of 2005 to encourage the production of ethanol and biodiesel from agricultural feedstocks and their use in the transportation sector. Nearly a decade later, the RFS continues to be vital for driving investment and innovation in biofuel production and product use by oil companies and refiners. For these reasons and others, farmer and rancher voting delegates at our annual meeting last December reaffirmed MFB's support for the federal standard as passed in the Energy Independence and Security Act (EISA) of 2007. [EPA-HQ-OAR-2015-0111-1824-A1 p. 1]

Missouri farmers were among those who answered the call for renewable energy by investing their own money to build ethanol and biodiesel facilities—and did so with the expectation that the biofuel production targets set in EISA would remain in effect. Now is not the time to stall conventional ethanol and biodiesel production and discourage investments in the next generation of biofuels. We urge EPA to reconsider the proposed rule and commit to meeting the RFS2 goals set by Congress. Thank you for the opportunity to comment. [EPA-HQ-OAR-2015-0111-1824-A1 p. 2]

### **National Biodiesel Board**

Throughout its new proposal, EPA recognizes the goals of Congress in setting a mandate to diversify the country's fuel supply and increase renewable fuel production: [EPA-HQ-OAR-2015-0111-1953-A2 p.8]

While EPA's proposed numbers purport to indicate a growth, in reality they lag behind what has been produced, and thereby achieved, in the past and what the renewable fuels industry can potentially supply into the market. As such, while appropriately recognizing Congressional intent, EPA's proposed volumes fall well short of satisfying Congress's appetite for increasing volumes. [EPA-HQ-OAR-2015-0111-1953-A2 p.9]

### **National Chicken Council (NCC)**

At the outset, we provide comments on how the Environmental Protection Agency's (EPA's) administration of the RFS has resulted in a program that departs from the underlying statutory goals of the Energy Independence and Security Act (EISA) of 2007. [EPA-HQ-OAR-2015-0111-1814-A1 p.1]

### **National Farmers Union (NFU)**

EPA should pursue GHG emission reductions at every opportunity to try to mitigate climate change as much as possible. The RFS offers tremendous capacity to reduce GHGs by encouraging the use of transportation fuels that emit fewer GHGs than petroleum-based transportation fuels. EPA asserts that the EISA volume standards will cut GHG emissions by 138 million metric tons by 2022.<sup>6</sup> To achieve these emissions reductions, EPA should implement the biofuel volume standards Congress agreed to in the Energy Independence and Security Act (EISA). The volume standards in the proposed rule must be adjusted because they forego GHG emission reductions in the immediate term and impede future growth by holding investment at bay and validating the unwarranted use of waiver authority. [EPA-HQ-OAR-2015-0111-1657-A1 p. 3]

In addition to the direct climate advantages the volume standards in the EISA would create, the volume standards are important to maintain because farmers and rural communities are enormously important to building climate resiliency. The RFS is an important tool for initiating other essential conversations around climate and agriculture with producers. Farmers will need to consider information on how climate change will impact their operations in order to make decisions that will maintain the security of our food supply. Farmers may also be able to make production decisions that mitigate climate change by reducing or sequestering greenhouse gasses, or that alleviate some of the symptoms of climate change, such as soil enhancement efforts that help with irregular rainfall. If policymakers hope such actions might be adopted by enough farmers to create a positive impact, it would be very helpful to establish trust with farmers and rural communities around climate change by maintaining the EISA's proposed volume standards. That policy stability would allow farmers to participate in climate resiliency in a way that directly adds value to their operations and communities, securing their receptiveness to future conversations around climate. [EPA-HQ-OAR-2015-0111-1657-A1 p. 3-4]

The loss of family farmers presents serious challenges to the economic sustainability of rural communities. As farmers leave and farmland consolidates, businesses and community

institutions lose customers and tax revenue, weaken, and eventually close, causing other institutions and businesses in the community to do the same. Rural residents are left without access to critical services or jobs. To the extent that climate change contributes to this process, it presents a serious environmental justice issue to family farmers and rural residents. The RFS helps keep family farmers farming in two distinct and important ways: it contributes to climate change mitigation, helping family farmers avoid the most costly consequences of climate change, and offers family farmers direct value for helping build climate resiliency by stabilizing prices for biofuel feedstocks and opening investment opportunities in biofuel plants. EPA would best pursue these important goals by adjusting the proposed biofuel volume standards to match the standards in the EISA. [EPA-HQ-OAR-2015-0111-1657-A1 p. 4-5]

EPA's proposed rule contains volume standards for advanced biofuel and total renewable fuel that are lower than the standards agreed to by Congress in the EISA. Though EPA should set both standards at the statutory levels contained in the EISA, EPA offered distinct reasons for lowering each standard. Below, NFU asserts why the statutory volume standards for both categories of biofuel should be implemented in the final rule. [EPA-HQ-OAR-2015-0111-1657-A1 p. 5]

Given the RFS' importance in building climate resiliency and rebuilding rural economies discussed above, it is of critical importance that the volume standards EPA issues match those Congress agreed to in the EISA. This is true of the advanced biofuel volume requirement as well as the total renewable fuel volume standard. Advanced biofuels are especially important to the climate resiliency goals of the RFS because they hold enormous potential for lowering GHG emissions from the transportation sector. While conventional biofuels certainly carry a GHG emissions advantage over transportation fuels derived from fossil sources, and while that advantage continues to grow as new efficiencies in conventional biofuel production are realized, advanced biofuels offer even more GHG emission reductions. [EPA-HQ-OAR-2015-0111-1657-A1 p. 5]

While the advanced biofuels industry has not been able to produce enough renewable fuel to satisfy the volume targets set by Congress in the EISA, lowering volume targets to the level set by EPA in the proposed rule will not give advanced biofuel producers, or their prospective investors, the market certainty needed to bring advanced biofuels manufacturing to the capacity Congress sought when passing the EISA. The branded oil industry wields tremendous power over the transportation fuels offered to the public. EPA, in several instances throughout its preamble to the proposed rule, acknowledges that the branded oil industry has prevented consumers owning FFV vehicles from finding retail outlets to fuel their vehicles with higher biofuel blends, artificially stymying demand for the environmentally superior product advanced biofuel manufacturers help create. Lowering volume standards to the extent embodied in the proposed rule rewards branded oil companies for this behavior and creates additional obstacles to the investment needed to expand these proven advanced biofuel manufacturing technologies to the extent needed to fulfill the volume standards set by Congress. [EPA-HQ-OAR-2015-0111-1657-A1 p. 5]

In order to avoid rewarding branded oil companies for their concerted efforts to undermine the will of Congress and block the economic and environmental benefits the EISA would otherwise achieve, EPA must hold fast to the advanced biofuel volume standards proposed in the EISA. Should EPA determine it to be strictly necessary, the Agency can offer other relief, such as

carryover credits and deficits, to the obligated parties, or at least set the final advanced biofuel volume standards closer to those in the EISA than in the proposed rule. This would assure prospective investors, many of whom are on the very threshold of extending the necessary funds to advanced biofuel manufacturers, that the Administration is committed to attaining the environmental benefits their capital could help achieve. [EPA-HQ-OAR-2015-0111-1657-A1 p. 6]

For these reasons, NFU respectfully asks EPA to issue a final rule implementing volume standards that match those Congress set in the EISA. Those standards will drive investment in advanced biofuel production and rural communities and contribute to climate resiliency. NFU stands ready to offer any support and assistance EPA may find helpful regarding these matters. [EPA-HQ-OAR-2015-0111-1657-A1 p. 8]

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6. <http://www.epa.gov/climatechange/EPAactivities/regulatory-initiatives.html>

### **New Leaf Biofuel, LLC**

Congress was very clear that it intended to grow the advanced biofuels industry over time. This proposal takes us backwards. We urge you, for the sake of the environment, small businesses and common sense, increase the proposal to properly account for the market potential for advanced fuels. [EPA-HQ-OAR-2015-0111-1909-A1, p.3]

### **North Dakota Office of the Governor**

As such, I respectfully request that the EPA not reduce the RFS standards, but rather that they let federal policy created by a bipartisan Congress function as originally intended. [EPA-HQ-OAR-2015-0111-1763-A2 p. 1]

### **Novozymes Americas**

Congress did not intend growth in the renewable fuels market to be prevented by distribution infrastructure challenges, including such constraints as the 'E10 blendwall'. The fact that Congress chose to mandate increasing and substantial amounts of renewable fuel clearly signals that it intended the RFS program to create incentives to increase renewable fuel supplies and overcome limitations in the market. It was clear in 2007 that the volumes blended in 2022 would easily exceed 10 percent ethanol, even when taking into account the change in gasoline demand outlook that has taken place since then. [EPA-HQ-OAR-2015-0111-3277-A1 p.1]

### **Office of the Lt. Governor, Indianapolis, Indiana**

While Congress gave the EPA some discretion to adjust volume requirements, Congress did not contemplate that the EPA would restructure the program in the process. It is imperative that the EPA keep the renewable volume requirements as high as possible to provide our farmers and our biofuels industry with as much market certainty as possible. [EPA-HQ-OAR-2015-0111-2482-A1 p.1]

### **Specialty Equipment Market Association (SEMA)**

SEMA urges the EPA to support legislation in Congress to reform the RFS and eliminate the corn ethanol mandate. [EPA-HQ-OAR-2015-0111-2490-A1, p.1]

The EPA has authority to reduce RFS limits but it is ultimately the U.S. Congress that needs to revise the RFS since lawmakers did not appreciate the law's unintended consequences when it was established in 2005. We urge the EPA to join SEMA in recommending that Congress eliminate the RFS corn ethanol mandate. [EPA-HQ-OAR-2015-0111-2490-A1, p.2]

### **The George Washington University**

These constraints certainly justify EPA's use of its waiver authorities to prescribe lower volume requirements than those listed in the statute. However, because the RFS program is on an unsustainable trajectory, Congress should reevaluate the statutory volume requirements established in the 2007 EISA and consider other approaches that would be more feasible and better for the environment.[EPA-HQ-OAR-2015-0111-1815-A1 p.5]

### **Congress**

Congress bears responsibility for setting unrealistic volume requirements and binding EPA to an unsustainable regulatory approach. As EPA states in its proposed rule: [EPA-HQ-OAR-2015-0111-1815-A1 p.11]

Over the past few years, we have seen analysis concluding that the ambitious statutory targets in the Clean Air Act exceed real world conditions. Despite significant efforts by the U.S. Departments of Agriculture (USDA) and Energy (DOE) to promote the use of renewable fuels, real-world limitations, such as the slower than expected development of the cellulosic biofuel industry, less growth in gasoline use than was expected when Congress enacted these provisions in 2007, and constraints in supplying certain biofuels to consumers, have made the timeline laid out by Congress extremely difficult to achieve. [EPA-HQ-OAR-2015-0111-1815-A1 p.11]

In addition, a wealth of new information has become available on the environmental effect of renewable fuel production since Congress authorized the EISA in 2007. Unfortunately, the literature broadly finds that meeting the volume requirements in the statute or in EPA's regulations may increase greenhouse gas emissions, in addition to polluting waterways. This information is particularly pertinent because Congress in 2007 surely did not envision that its RFS program would cause significant environmental damage. While EPA is constrained in its ability to respond to these unintended consequences, the current Congress is not. [EPA-HQ-OAR-2015-0111-1815-A1 p.11]

Given the evidence gained from implementation of the RFS program, Congress should reevaluate the goals of the program and attempt to determine whether the RFS is meeting its stated goals. [EPA-HQ-OAR-2015-0111-1815-A1 p.11]

## **The Ohio House of Representatives**

Because of these dynamic opportunities, I write to inform you of my support to keep the Renewable Fuel Standard (RFS) at the level originally set by Congress for 2014, 2015, and 2016. [EPA-HQ-OAR-2015-0111-3486-A1, p.1]

## **Trenton Agri Products LLC**

The ethanol industry did its part consistent with the legislative intent of expanding renewable fuels into the US transportation fuel supply. Today, grain based ethanol supply is more than adequately available to meet the mandate requirements laid out by Congress. [EPA-HQ-OAR-2015-0111-1686-A1 p.1]

Congress fully understood, and the law clearly contemplates, that expanding annual mandates would require increasing blend levels of renewable fuels in the US gasoline pool. There was no provision for stopping the mandate requirements when a 10% blend wall was achieved. This is a fictitious notion. The only provision for reductions of the blend rate or mandated volume is when renewable fuel supply cannot be reasonably produced and made available to refiners and marketers of transportation fuels. [EPA-HQ-OAR-2015-0111-1686-A1 p.1]

The Proposed RVO's for 2014-2016 are attempts to match the mandates to this 10% blend rate. This is not consistent with Congressional intent of the RFS. The RVO's for these years should be re-proposed to match the law, as the supply from grain based ethanol is there.[EPA-HQ-OAR-2015-0111-1686-A1 p.1]

## **U.S. Canola Association (USCA)**

The intent of Congress when they established and expanded the RFS program was clearly to increase and promote domestic energy production and U.S. energy independence. This is reflected by the title of the 2007 law – the Energy Independence and Security Act (EISA) - and is supported by numerous statements by legislators during consideration of the bill. [EPA-HQ-OAR-2015-0111-1819-A1 p.3]

## **United States Senate**

Additionally, the proposed rule does not align with prescribed volumes and ignores the original intent of Congress. [EPA-HQ-OAR-2015-0111-3427 p.2]

When signed into law, the RFS was all about creating access to cleaner burning biofuels, and promoting consumer choice. The intent was to have volumes set high enough that it would incentivize fuel stations to install blending infrastructure in order to continuously increase the amount of renewable fuels being used. However, the EPA has turned this around and cited the lack of available refueling infrastructure to justify setting volumes at a lower level. This reasoning flies in the face of Congressional intent, and must be remedied. [EPA-HQ-OAR-2015-0111-3427 p.2]

## **Wisconsin Corn Growers Association (WCGA)**

Even EPA admitted in its announcement the renewable fuel volumes are below the levels set by Congress. It's frustrating to see EPA ignore the clear statutes on renewable volume obligations

and do nothing more than help Big Oil at the expense of American consumers and corn growers. [EPA-HQ-OAR-2015-0111-1830]

**Response:**

Although there is scant legislative history for the Energy Independence and Security Act (EISA) to confirm the facts that were considered by Congress at the time of enactment, we believe that when Congress specified the renewable fuel volume targets that the RFS program was to attain, that it likely was with the understanding that the year-to-year growth reflected in the statutory tables of applicable volumes would be beyond any previously demonstrated ability of the industry to produce, distribute, and consume renewable fuels. For example, the annual average growth reflected in the statutory volumes for the time period between 2009 and 2022 is 1.6 billion gallons per year for advanced biofuel and 1.9 billion gallons per year for total renewable fuel. However, in the period 2001 to 2007 leading up to enactment of EISA, annual average growth rates were far lower: 0.8 billion gallons per year for ethanol, most of which was not advanced biofuel, and 0.07 billion gallons per year for biodiesel. The supply of other renewable fuels during this timeframe was essentially zero. Furthermore, Congress specified the growth of cellulosic biofuel volumes by 2022 of 16 billion gallons, a fuel that at the time of EISA's enactment was only in the research and development phase. They did so based on a promise from such researchers that such volumes could be produced for a little more than \$1 a gallon.<sup>2</sup> In other words, Congress set targets that envisioned growth at a pace that far exceeded historical growth and prioritized that growth as occurring principally in advanced and cellulosic biofuels (contrary to historical growth patterns). It is apparent, therefore, that Congress intended to require changes that would be unlikely to occur absent the new program.

Moreover, it is highly unlikely that Congress expected the very high volumes that it specified in the statute to be reached only through the consumption of E10; indeed the statute does not explicitly require the use of ethanol at all. At the time EISA was passed in 2007, EIA's Annual Energy Outlook for 2007 projected that 17.3 billion gallons of ethanol is the maximum that could be consumed in 2022 if all gasoline contained E10 and there was no E0, E15<sup>3</sup>, or E85.<sup>4</sup> However, 17.3 billion gallons is far less than the 36 billion gallons of renewable fuel that Congress targeted for use in 2022.<sup>5</sup> Thus, if the statutory targets for 2022 were to be achieved, 18.7 billion gallons of renewable fuel would need to be consumed in 2022 either as higher level ethanol blends, or as non-ethanol fuels. Such levels were far beyond the industry's abilities at the time of EISA's enactment, strongly suggesting that Congress expected the RFS program to compel the industry to make dramatic changes in a relatively short period of time.

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<sup>2</sup>Technoeconomic Modeling to Support the EPA Notice of Proposed Rulemaking by Ling Tao and Andy Aden, November 3, 2008 (Docket Number EPA-HQ-OAR-2010-0133-0016).

<sup>3</sup> E15 was not yet authorized when EISA was passed in 2007 and was not included in EIA's Annual Energy Outlook.

<sup>4</sup> Assumes that AEO2007's 2022 demand for gasoline energy was fulfilled entirely by E10. AEO2007 however, projected that considerably less gasoline used in 2022 would be E10. We have converted the projected 2022 gasoline energy demand into an equivalent volume of E10 to determine the maximum volume of ethanol that could have been consumed in 2022, based on the AEO2007, if all gasoline was E10.

<sup>5</sup> Congress specified that a minimum of 1 billion gallons of the 2022 total would be biomass-based diesel, but did not otherwise specify what specific fuel types would comprise the total.

Some commenters stated EPA is going against Congressional intent to increase renewable fuel use if we finalize volumes below the statutory volume mandates. These commenters believe Congress set these mandates at a level that they believe will help incentivize investments such as building out new and existing capacity, installing storage/distribution infrastructure and advancing technology -- all of which will help to grow volumes and achieve the targets within the specified timeframe in the statute. EPA believes that Congress set ambitious volume targets as a mechanism to push renewable fuel volume growth under the RFS program. However, Congress also provided EPA with waiver authority, in part to address the situation where supply of renewable fuel did not match these ambitious target levels. EPA disagrees with commenters that EPA's final volumes are not in alignment with Congressional intent because the final volumes are set to reflect our assessment of the maximum supply available, consistent with the Congressionally-established general waiver authority. The volumes required by this rule are ambitious and will require new investments and a responsive market to be attained.

Congress did not explicitly indicate, in EISA or in any other document associated with the legislations, the sort of changes that may have been expected to occur to reach 36 billion gallons by 2022. Today we know that the changes needed to significantly expand renewable fuel use fall into a select number of areas, including but not limited to:

- Increased use of E15 in model year 2001 and later vehicles
- Increased use of E85 or other higher level ethanol blends in flex-fuel vehicles (FFVs)
- Increased production and/or importation of non-ethanol biofuels (e.g., biodiesel, renewable diesel, renewable gasoline, and butanol) for use in conventional vehicles and engines
- Increased use of biogas in CNG and LNG vehicles
- Increased use of renewable jet fuel and heating oil
- Increased use of cellulosic and other non-food based feedstocks
- Co-development of new technology vehicles and engines optimized for new fuels
- Infrastructure necessary to support delivery, storage and dispensing these fuels will be necessary.

Some commenters stated that the changes in these areas (which were also noted in the NPRM) cannot help to achieve growth in renewable fuel use within the timeframe necessary to help meet the 2015 and 2016 volumes requirements. Some commenters further stated that some of these ideas should not be supported at all, such as increasing imports of biofuels because it goes against Congressional intent to increase energy security through domestic biofuels. EPA believes that we will not see significant changes in every area we highlighted in the timeframe necessary to increase renewable fuel supply to statutory levels by 2016, but we believe that developments in some of these areas have been occurring and will continue to occur, and that such changes will contribute to attaining the volume requirements being finalized for 2016. EPA disagrees with commenters that supporting import of biofuels goes against Congressional intent. The statute clearly allows volumes of imported biofuels to count under the RFS program and an increased diversity of fuels, including those imported from a variety of countries, helps improve energy security. Refer to Section II.D.6 of this final rule for more detailed discussion on imports of renewable fuel.

In the near term we expect that increases in E85 and biodiesel will dominate efforts to increase the use of renewable fuel, with smaller roles played by other avenues (e.g., increased E15 use, CNG and LNG). In the longer term, sustained increases in volume requirements are necessary to provide the certainty of continued growth in a future market that is needed by investors; the development of new technology won't occur unless there is clear market potential, and it requires multiple years to build new production, distribution, and consumption capacity and to develop the marketing effectiveness among consumers that is needed. We believe that the approach we take to setting the standards should be consistent with the goal of ambitiously increasing the use of renewable fuel over time. We believe that the approach we take to setting the standards must be consistent with Congress' clear goal of ambitiously increasing the use of renewable fuel over time. To this end, the approach presented in this action makes use of the statutory waiver authorities only to the degree necessary.

We believe that over time use of both higher level ethanol blends and non-ethanol biofuels can and will increase, consistent with Congress' intent in enacting EPAct and EISA. As stated above, while Congress provided waiver authority to account for supply and other challenges, we do not believe that Congress intended growth in the renewable fuels market to be ultimately stopped by the E10 blendwall or any other particular limitation that may exist in supplying renewable fuels. The fact that Congress set volume targets reflecting increasing and substantial amounts of renewable fuel use clearly signals that it intended the RFS program to create incentives to increase renewable fuel supplies and overcome supply limitations. Notwithstanding these facts, Congress also authorized EPA to adjust statutory volumes as necessary to reflect situations where only partial progress had been made towards eliminating supply limitations, as well as to address situations involving unexpected severe economic or environmental harm resulting from program implementation.

For responses to comments suggesting that the volume requirements under the RFS program should be set in such a way as to minimize imports of renewable fuel, see Section 2.1.

For responses to comments on whether the statutory volume requirements can be reached in 2014, 2015, or 2016, under either the general waiver authority or the cellulosic waiver authority, see Section 2.2.4.

For response to comments on impacts on jobs and local/state economy, see Section 7.7.

### **2.3.2 Power of the Market to Respond to Ambitious Standards**

#### **Comment:**

#### **American Coalition for Ethanol (ACE)**

In previous comments, ACE cited studies by Informa (*Analysis of whether higher prices of RFS RINs affected gasoline prices in 2013. Informa Economics. January 2014*) and Iowa State University (*Impact of increased ethanol mandates on prices at the pump. CARD Policy Brief 14-PB18. January 2014. <http://www.card.iastate.edu/publications/synopsis.aspx?id=1218>*), which concluded RIN prices not only did not increase retail gasoline prices, they led to greater ethanol

use due to lower pump prices for flex fuels like E85. That data continues to be relevant to the RVO discussion for 2015 and 2016. [EPA-HQ-OAR-2015-0111-2543-A2 p. 6]

We urge EPA to trust its own findings as the Agency decides the final RVOs. [EPA-HQ-OAR-2015-0111-2543-A2 p. 7]

A recent report by the National Association of Convenience Stores' Fuels Institute - "*E85-A Market Performance Analysis and Forecast*," contains a study of Minnesota's E85 stations that seems to confirm Midway's strategy. Among other findings, the report showed that discounts greater than 50 cents per gallon generated additional E85 sales. During the period of the study, the only way stations could have offered discounts that high would be if they were either separating and selling RINs themselves, or, buying pre-blended E85 that was discounted to reflect at least some portion of the RIN value. Quoting from the report: [EPA-HQ-OAR-2015-0111-2543-A2 p. 7-8]

*"The profitability of E85 during the summer of 2013 can largely be attributed to the dramatic increase in the value of RINS (renewable identification numbers) that are used to demonstrate compliance with the Renewable Fuel Standard (RFS). (See Figure 26) When the value of RINS increased to a peak of \$1.46 on July 18, 2013, the ability of retailers who were selling E85 to offer a more competitive price and increase overall profitability per gallon likewise increased. Once the RINS values retreated in the fall, E85 margins followed suit and then returned as RINS values climbed in early 2014. Since RINS values increased in the spring of 2013, the NACS-CSX data indicates E85 has delivered an average margin of \$0.497 compared with \$0.144 for regular unleaded."*<sup>10</sup> [EPA-HQ-OAR-2015-0111-2543-A2 p. 8]

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<sup>10</sup> E85-A Market Performance Analysis and Forecast. Fuels Institute. November 12, 2014. <http://fuelsinstitute.org/ResearchArticles/E85AMarketPerformanceAnalysisForecast.pdf>

### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

There will only be one month between EPA's deadline to issue the Final Rule for 2016 and when the rule takes effect, and only seven months from the release of the Proposed Rule. This is obviously insufficient time for the planning, approval, design, permitting, construction and start-up of any large capital projects or a sufficient number of infrastructure projects to have a significant impact on biofuels production and blending at the rack and pump installation at the retail level. [EPA-HQ-OAR-2015-0111-1948-A1 p.21]

### **Butamax Advanced Biofuels, LLC**

In summary, refiners who focus on marketing the mix of fuels implied by the predictable annual increases in RVO's will be able to minimize or eliminate their exposure to RIN costs. Refiners who do not work with their downstream business partners to increase the renewable content of their product will bear an increasing compliance cost. Consumers who are able to purchase E85 will benefit from the use of an increasingly cost effective product; in time this can be expected to stimulate demand for auto companies to grow their offerings of FFVs. Accordingly, RINs are the mechanism which make delivery of the volume targets of RFS achievable but require consistent application of policy to assure that all stakeholders make the long-term commitments required for this to occur. [EPA-HQ-OAR-2015-0111-1938-A2 p. 8-9]

The RIN mechanism is not only critical for supporting E85 growth, it is also essential to enable drop-in biofuels, such as biobutanol, to develop. In a market with RVO's beyond E10 saturation, the RIN price needs to reflect the difference in cost difference between ethanol and gasoline on an energy equivalent basis to stimulate E85 sales. Because the manufacturing cost of drop-in biofuels reflects their higher energy content, the larger number of RINs that they attract is essential in order to recover this higher cost. This will only be effective, however, where RIN prices are appropriate. [EPA-HQ-OAR-2015-0111-1938-A2 p. 11]

### **Clean Air Task Force**

With its proposed 2016 standard, EPA is repeating the mistake that Congress made in 2007: the Agency would require a level of biofuel consumption that is currently unattainable, based on the expectation that by setting a stretch goal it will spur dramatic changes in consumer demand, production technology, and product distribution. [EPA-HQ-OAR-2015-0111-1828-A1 p.10]

### **DuPont**

E85 has lower energy content than E10, which needs to be reflected by its price to make it attractive to consumers. In a paper published by the Center for Agricultural and Rural Development (CARD) at Iowa State University, Bruce Babcock and Sebastien Pouliot showed that pricing E85 low enough to generate fuel cost savings, about a 30% discount relative to gasoline, has the potential to quickly increase ethanol consumption by as much as three billion gallons over the next year or two. Even a smaller, 6% price reduction would enable an additional one billion gallons to be consumed. [EPA-HQ-OAR-2015-0111-1826-A1 p.20]

Babcock and Pouliot's work also found that it is possible to meet the 2014 and 2015 RFS targets through expanded E85 consumption by the existing number of flex-fuel vehicles and stations that sell E85.<sup>16</sup> [EPA-HQ-OAR-2015-0111-1826-A1 p.20]

Importantly, E85 prices in this example did not capture the full discount potential made possible by the RINs, so the actual increase in sales could have been even more substantial. The graph on the left in the chart below shows the potential discount that retailers could have offered if they kept margins constant and took full advantage of the price enabled by the RIN. The retailers/blenders in this case did not fully discount, but rather took the difference as extra margin, something they are not likely to do once this becomes a routine route to market for renewable fuel. [EPA-HQ-OAR-2015-0111-1826-A1 p.21]

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<sup>16</sup> *Price It and They Will Buy: How E85 Can Break the Blend Wall*. Bruce A. Babcock, Sebastien Pouliot. CARD Policy Brief 13-PB 11, August 2013.

### **Fuel Cell and Hydrogen Energy Association (FCHEA)**

Many alternative fuel industry stakeholders have observed that the proposed RFS for 2015 and 2016 was designed to be purposely ambitious as a way to stimulate significant growth in renewable fuels production. [EPA-HQ-OAR-2015-0111-2483-A1 p.1]

As illustrated when EPA released the proposed standards, it opened the door to new options by noting that "other renewable fuels that can be supplied and consumed by vehicles," may also

help to meet these requirements. The agency also repeatedly committed itself to “evaluate new pathways” for alternative fuels. [EPA-HQ-OAR-2015-0111-2483-A1 p.1]

Approving renewable hydrogen as an alternative fuel under the RFS will not only make EPA’s 2015 and 2016 goals more attainable, it would help expedite the proliferation of hydrogen in states already dedicated to building this infrastructure for use in fuel cell electric vehicles (FCEVs). [EPA-HQ-OAR-2015-0111-2483-A1 p.1]

### **Indiana Farm Bureau**

Farm Bureau believes that the current RFS2 program and the Renewable Identification Number (RIN) market are working as intended. The purpose of the RFS2 and the RIN market was to move beyond the 10 percent blend wall by producing a strong incentive for more biofuels to move into our nation’s gasoline supply. [EPA-HQ-OAR-2015-0111-2486-A1 p.3]

Table 1 shows market conditions for E10, E85 and conventional (D6) RINs on July 2 of this year. Currently, the price of the D6 RIN is trading around \$0.45 which allows for an incentive for greater market penetration of E85 as indicated from the \$0.28 total revenue gained from the RIN value. The value of the D6 RIN is being used to cut the price of E85 relative to E10 (\$2.13 vs. \$2.77) and has provided an economic incentive in many parts of the country to get higher than E10 blends into the market. [EPA-HQ-OAR-2015-0111-2486-A1 p.3] [Table 1 can be found on page 3 of EPA-HQ-OAR-2015-0111-2486-A1.]

The fact of the matter is that the RFS2 and the RIN market that it established are working properly and are providing incentives for refiners to offer higher blends of ethanol in the market at prices that are increasingly competitive with conventional gasoline. Looking at the Proposed Rule it appears that EPA is abandoning the RIN market as a mechanism for increasing the production and sale of higher ethanol blends at the precise moment that this mechanism is beginning to work as intended when the RFS2 passed in 2007. [EPA-HQ-OAR-2015-0111-2486-A1 p.3]

### **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

Accept what all the empirical evidence shows—that the current RFS program is a particularly poor mechanism to incent the consumption of higher ethanol blends. EPA offers a theory that higher RIN prices will lower E85 prices, making that fuel more competitive with E10, thereby incenting greater E85 use. But, as a recent study by Christopher Knittel, Ben Meiselman, and James Stock demonstrated, the pass-through of RIN prices to the E85-E10 spread nationwide “is precisely estimated to be zero if one adjusts for seasonality.” Evidence of no or only modest growth in E85 stations since 2012 further confirms the fallacy of EPA’s theory. And the evidence also demonstrates that the parties whom EPA has burdened with RFS obligations are not well situated to eliminate the bottleneck that prevents the value of RINs from being passed through to consumers. [EPA-HQ-OAR-2015-0111-2603-A1, p.1]

Second, EPA’s scenarios for closing that gap ignore empirical realities. EPA primarily relies on RIN prices as a mechanism to subsidize high-ethanol blends, thereby creating incentives for blenders and retailers to provide, and consumers to use, such blends. However, the data show that the value of RINs are not passed through to consumers in the form of a larger spread between E10 and E85 prices. As a recent study by Christopher Knittel, Ben Meiselman, and

James Stock demonstrated, the pass-through of RIN prices to the E85-E10 spread “is precisely estimated to be zero if one adjusts for seasonality.”<sup>7</sup> They conclude that “[i]f the RIN price savings inherent in blends with high biofuels content are not passed on to the consumer, then this key mechanism of the RFS is not functioning properly.” EPA has offered no reason to expect that to change in the next six to eighteen months. [EPA-HQ-OAR-2015-0111-2603-A2, pp.3-4]

## B. EPA Cannot Rely on Significantly Increased E85 Usage to Meet its Mandates.

To fill the understated 840 million gallon gap for 2016 projected in the NPRM, EPA sketched out a variety of compliance scenarios that envision increased E85 usage, including as much as 600 million gallons in 2016. The notion that anywhere near these volumes can be supplied to consumers, beginning just six months from now and only one month after the Final Rule is scheduled to be promulgated, is highly speculative and ignores empirical evidence showing otherwise. Indeed, even after adjusting its own projections for 2015-2016 to account for the NPRM, EIA still concluded that it “does not expect measurable increases in E15 or E85 consumption over the forecast period.”<sup>58</sup> [EPA-HQ-OAR-2015-0111-2603-A2, p.22]

1. The evidence does not support EPA’s theory that RIN prices will incentivize increased E85 usage by subsidizing high-ethanol fuels.

In order to bring about a significant increase in E85 usage, EPA has relied upon the theory that high RIN prices will help to “promote growth in renewable fuel supply.” In particular, EPA has emphasized that “high RIN prices can . . . provide the potential for reductions in the retail selling prices of E85 and E15 if distributors, blenders, and retailers pass the value of those RINs to end users.” Thus, EPA stated its “belie[f] [that] it is possible for the market to reach volumes perhaps as high as 600 million gallons under favorable pricing conditions” in 2016, while also suggesting even 800 million gallons of E85 usage is conceivable. In support of this theory, EPA has offered a conceptual model suggesting that a blender selling RINs for 60 cents each in 2013 could have sold E85 to a fuel retailer for 43 cents less than it would have without the RFS program in place.<sup>62</sup> EPA has also theorized that even if retailers or blenders are profiting from the RIN price savings inherent in high-ethanol blends, rather than passing those savings onto consumers, such profit-taking behavior will eventually run its course and will bring about the infrastructure investments necessary to increase E85 usage. According to EPA: “By increasing the potential profitability of blending renewable fuels, higher RIN prices can incentivize the build out of the infrastructure necessary to blend and distribute renewable fuel blends as parties seek to enter or expand their position within this market.”<sup>63</sup> [EPA-HQ-OAR-2015-0111-2603-A2, pp.22-23]

Unfortunately, however, EPA’s theoretical model is belied by the empirical data. Economists Christopher Knittel, Ben Meiselman, and James Stock recently conducted an econometric analysis used to examine the transmission of RIN prices to national retail E85 fuel prices between January 1, 2013 and March 10, 2015. The economists found that the passthrough of RIN prices to the E85-E10 spread “is precisely estimated to be zero if one adjusts for seasonality. . . .”<sup>64</sup> That is, far from moving the economy closer to achieving the “favorable pricing conditions” that EPA has deemed necessary to result in the usage of 400 to 600 million gallons of E85 in 2016, RIN prices had essentially no measurable effect on the price of E85 relative to E10 in the last two years. In summarizing their findings, Knittel, Meiselman, and Stock cast serious doubt on the notion that high RIN prices can incentivize greater E85 usage: [EPA-HQ-OAR-2015-0111-2603-A2, pp.23-24]

[T]he most intriguing and challenging finding here is the near absence of passthrough of RIN prices to retail E85 prices. While RIN prices might be passed through at some retail outlets at some times, this is not the case on average using national prices. The goal of the RFS program is to expand the use of low-carbon domestic biofuels, and the key economic mechanism to induce consumers to purchase high-renewables blends is the incentives provided by RIN prices. If the RIN price savings inherent in blends with high biofuels content are not passed on to the consumer, then this key mechanism of the RFS is not functioning properly. [EPA-HQ-OAR-2015-0111-2603-A2, p.24]

In setting standards for 2016, EPA must account for this finding and what it suggests about the current RFS program's ability to bring about increased usage of renewable fuels. [EPA-HQ-OAR-2015-0111-2603-A2, p.24]

The bottleneck that prevents the value of RINs from being passed through to consumers resides either with blenders or retailers, or some combination of the two. Although the NPRM tends to speak of blenders and retailers in the same breath,<sup>66</sup> in fact the two types of entities face very different economic incentives. If refiners were truly able to recover the price of RINs by raising the price of the blendstock they sell to blenders, then blenders should have a strong economic incentive to increase E85 sales. Doing so would maximize the ethanol subsidy from RINs and minimize the impact of increased blendstock prices. If reducing wholesale E85 prices would incent greater wholesale E85 sales relative to E10 sales, then a blender could reduce its overall input costs by reducing the volume of blendstock it needed to deliver a blended product. Likewise, if reducing wholesale E85 prices would incent greater wholesale E85 sales, that would increase the number of RINs available for compliance, thereby reducing RIN prices and any RIN cost component impact on gasoline blendstock. Assuming lower E85 prices would meaningfully increase sales, a rational blender with retail operations also would have an incentive to build out infrastructure to increase E85 sales.<sup>67</sup> Indeed, a rational blender would have an incentive to profit-take on existing E85 sales only if it concluded that structural constraints beyond its control limit its ability to increase E85 sales over a reasonable time horizon.<sup>68</sup> [EPA-HQ-OAR-2015-0111-2603-A2, pp.24-25]

In light of the economic incentives facing blenders, fuel retailers are the more likely source of the bottleneck that prevents consumers from benefiting from lower E85 prices. E85 retailers face little competition and thus little downward pricing pressure on E85 prices. Of the 150,000 retail stations nationwide, only about two percent (or about 3,000 stations) offered E85 as of July 2015. Some of these stations may effectively enjoy a monopoly on E85 sales in their area. And, given EPA's own projections that the economy as a whole used less than 200 million gallons of higher ethanol blends in 2013 and 2014, it is likely that many of these E85 stations move little product. In the absence of competition from neighboring stations, these retailers have a strong incentive to pocket the RIN subsidy inherent in E85 rather than pass it through to their few E85 consumers through lower E85 prices. [EPA-HQ-OAR-2015-0111-2603-A2, pp.25-26]

Using the RFS program to change the incentives of fuel retailers is, to say the least, challenging and may well be impossible. The RFS program does not regulate the 150,000 or more mostly independent retail station owners. Between 96 and 99 percent of stations are owned by independent retailers, i.e., retailers unaffiliated with major oil companies.<sup>69</sup> About 70 percent of retail outlets are convenience stores, which make most of their profit from merchandise such as food and beverages, and 58 percent of those are single outlet owners for whom the significant

investment needed to sell E85 would be a major financial risk.<sup>70</sup> Most retail outlets also are not configured to provide an additional product like E85, because those outlets lack proper dispensers or a storage tank to handle it (and may not even have space for such tanks). The notion that retailers will invest tens or even hundreds of thousands of dollars over the next six to eighteen months to offer what will remain a niche product—given the limited numbers of flexfuel vehicles (“FFVs”) and uncertain demand even among FFV owners—is highly speculative. [EPA-HQ-OAR-2015-0111-2603-A2, pp.26-27]

Consider, for instance, E85 station data over the last 30 months of consistently high RIN prices. The data indicate that, even with consistently high RIN prices, infrastructure challenges have remained and likely will remain stubbornly in place for the near term. At the state level, observers often highlight Minnesota as an early adopter of E85, as the state is home to more E85 stations than any other.<sup>73</sup> Yet, even with consistently high RIN prices, Minnesota added only seven E85 stations in 2013, before losing 57 E85 stations in 2014, and another eight during the first five months of 2015.<sup>74</sup> On a national level, while there has been some growth in E85 stations, that growth is much slower than in years past and certainly far slower than what would be needed to meaningfully increase E85 market penetration by 2016. The U.S. Department of Energy’s Alternative Fuels Data Center reported 2,498 public and private stations nationwide as of February 2012; 2,596 stations as of February 2013 (a 3.9 percent increase); 2,709 stations as of May 2014; (a 4.4 percent increase).<sup>75</sup> AFDC reports that there are only 2,944 stations as of July 2015 (a 8.7 percent increase), of which only 2,639 are actually open to the public.<sup>76</sup> That implies an average annual growth rate since 2012 of about 6 percent, less than half the historic annual growth rate.<sup>77</sup> EPA offers no explanation for why 30 months of high RIN prices led to slower growth in E85 stations, let alone why it anticipates the situation changing rapidly over the next six to 18 months to support the significant growth in E85 consumption it assumes in 2016.<sup>78</sup> [EPA-HQ-OAR-2015-0111-2603-A2, pp.27-28]

Thus, there is simply no empirical support for the notion that high RIN prices will lead retailers to pass on RIN price savings to customers in the form of lower E85 prices, especially within the next six to eighteen months. While EPA’s economist hypothesizes that “high per-gallon profit margins [from profit taking] may over time result in new parties entering the E85 wholesale or retail marketplace, and ultimately greater competition and lower E85 fuel prices for customers,” the available evidence does not support that tepid hypothesis.<sup>79</sup> EPA’s apparent strategy is akin to crossing its fingers and hoping that higher RIN costs imposed on the first link in the fuel supply chain (i.e., refiners) will meaningfully impact decision making in the last link of the chain (retail stations). [EPA-HQ-OAR-2015-0111-2603-A2, p. 28]

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<sup>7</sup> Christopher R. Knittel et al., *The Pass-Through of RIN Prices to Wholesale and Retail Fuels under the Renewable Fuel Standard*, 2 (June 2015), available at [http://scholar.harvard.edu/files/stock/files/pass-through\\_of\\_rin\\_prices\\_1.pdf](http://scholar.harvard.edu/files/stock/files/pass-through_of_rin_prices_1.pdf) (attached as Exhibit A). [[See Docket Number EPA-HQ-OAR-2015-0111-2603-A3 for Exhibit A.]]

<sup>58</sup> U.S. Energy Info. Admin., *Short-Term Energy Outlook*, July 2015, at 33, [http://www.eia.gov/forecasts/steo/report/renew\\_co2.cfm](http://www.eia.gov/forecasts/steo/report/renew_co2.cfm).

<sup>62</sup> U.S. EPA, *A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects*, EPA-HQ-OAR-2015-0111-0062 (June 10, 2015).

<sup>63</sup> 80 Fed. Reg. at 33,119; see also *id.* at 33,129 (“sustained high RIN prices create the incentives

needed to spur investment in new technologies and production capacity, a critical need if the market is going to continue expanding in future years according to Congress' intentions.”).

<sup>64</sup> Knittel, et al., *The Pass-Through of RIN Prices to Wholesale and Retail Fuels under the Renewable Fuel Standard*, at 2 (emphases added), available at [http://scholar.harvard.edu/files/stock/files/pass-through\\_of\\_rin\\_prices\\_1.pdf](http://scholar.harvard.edu/files/stock/files/pass-through_of_rin_prices_1.pdf).

<sup>66</sup> See, e.g., NPRM, 80 Fed. Reg. at 33,129 (“High RIN prices can also provide the potential for reductions in the retail selling prices of E85 and E15 if distributors, blenders, and retailers pass the value of those RINs to end users.”).

<sup>67</sup> To the extent blenders do not have such incentives, former Special Assistant to the President for Energy and Environment offers one explanation for this in support of his view that EPA must shift the RFS obligation from refiners to blenders. Specifically, he argues that integrated refiners with large marketing operations “are almost immediately long on RINs at the beginning of every compliance period” and therefore they have “little incentive to participate financially in the expansion of blending infrastructure to allow for higher level blends (E85 and E15) or additional advanced renewable fuels (B5-B20).” Comments of Ronald E. Minsk, EPA-HQ-OAR-2015-0111-1307, at 6-7 (Jul. 27, 2015). Mr. Minsk also observes that placing the obligation on refiners may actually create a disincentive to invest in higher blends or even blend to the blendwall, as “generation of fewer RINs could help them maximize their return on existing blending (E10)” since “meeting the mandate level decreases RIN profits generated from being a RIN-long party.”

<sup>68</sup> To be sure, in such circumstances, a blender may still be forced to pass through the RIN value in wholesale E85 prices because overall competition in the blending markets may already suffice to drive E85 wholesale prices to cost. Of course, this is no help to EPA, since it merely means that the bottleneck resides at the retail level, where retail E85 stations can take profits on the RIN price savings inherent in high-ethanol blends, rather than passing those savings on to consumers.

<sup>69</sup> PMAA letter to Chairman Upton and Ranking Member Pallone, House Committee on Energy and Commerce (May 1, 2015), [http://www.pmaa.org/weeklyreview/attachments/PMAA\\_Rebuttal\\_RFA\\_April\\_2015\\_FINAL%20.pdf](http://www.pmaa.org/weeklyreview/attachments/PMAA_Rebuttal_RFA_April_2015_FINAL%20.pdf); Comments of Monroe Energy LLC and Philadelphia Energy Solutions Refining and Marketing LLC, EPA-HQ-OAR-2013-0479-5631 at 97 (Feb. 6, 2014) (citing exhibit 1, NERA Economic Consulting, *Analysis of RFS2 RIN Markets*, at 28 (Oct. 15, 2013) (“NERA Report”)).

<sup>70</sup> See NACS, *2015 Retail Fuels Report*, at 29 (2015), [http://www.nacsonline.com/YourBusiness/FuelsReports/2015/Documents/2015-NACS-Fuels-Report\\_full.pdf](http://www.nacsonline.com/YourBusiness/FuelsReports/2015/Documents/2015-NACS-Fuels-Report_full.pdf) (“There are 127,588 convenience stores selling fuel in the United States, and these retailers sell an estimated 80% of all the fuel purchased in the country. Overall, 58% of the convenience stores selling fuel are single-store operators—more than 70,000 stores.”); see also NERA Report at 28.

<sup>73</sup> See, e.g., Fuels Institute, *A Market Performance Analysis and Forecast* (2014), [http://www.fuelsinstitute.org/ResearchArticles/E85\\_AMarketPerformanceAnalysisForecast.pdf](http://www.fuelsinstitute.org/ResearchArticles/E85_AMarketPerformanceAnalysisForecast.pdf).

<sup>74</sup> Minn. Dep’t of Commerce, *2015 Minnesota a E85 + Mid-Blends Station Report*, <http://mn.gov/commerce/energy/images/2015-05may-e85.pdf>.

<sup>75</sup> U.S. Dep’t of Energy, *Transportation Energy Data Book*, ch. 6 (31st-33d eds.).

<sup>76</sup> U.S. Dep’t of Energy, *Ethanol Fueling Station Locations*, [http://www.afdc.energy.gov/fuels/ethanol\\_locations.html](http://www.afdc.energy.gov/fuels/ethanol_locations.html) (last visited July 24, 2015).

<sup>77</sup> Fuels Institute, *A Market Performance*, at 33, [http://www.fuelsinstitute.org/ResearchArticles/E85\\_AMarketPerformanceAnalysisForecast.pdf](http://www.fuelsinstitute.org/ResearchArticles/E85_AMarketPerformanceAnalysisForecast.pdf) (reporting AFDC’s historic growth rates as averaging 12.9 percent). The Fuels Institute in this 2014 report placed the number of E85 stations as between 2,600-3,400 stations. The higher figures reflect data provided by the ethanol

industry—i.e., Growth Energy (the reporting 2,804 stations) and the Renewable Fuels Association (then reporting 3,349 stations). See *id.* at 6. The Merchant Refiners Group believes that EPA should continue to rely on the statistics provided by the Department of Energy.

<sup>78</sup> Of course, EPA also ignores the fact that consumer awareness and acceptance of E85 is not simply a function of gasoline prices, or the number of FFVs or service stations. Market penetration of any new fuel, E85 included, will only grow over time and after sustained efforts each year to build consumer confidence in its safety and reliability. Additionally, EPA ignores the fact that projected growth in FFVs is flat, in no small part because subsidies for FFVs under the CAFE standards began to be phased out in 2011, creating a disincentive to produce FFVs and thereby potentially reducing their market penetration. See, e.g., EIA, Annual Energy Audit 2014 Early Release Overview 4 (2013) (“FFVs are necessary to meet the renewable fuels standard (RFS), but the phase-out of corporate average fuel economy (CAFE) credits for their sale, as well as limited demand from consumers, reduces their market penetration.”).

<sup>79</sup> EPA-HQ-OAR-2015-0111-0062 at 26 (emphasis added). Indeed, consider the caveats the same economist places on what EPA may conclude from limited evidence in Iowa: “[The data] further supports EPA’s argument that, if all else remains equal, rising RIN prices may impact the relative pricing of fuel blends containing differing amounts of renewable fuel . . . .” *Id.*

### **National Biodiesel Board**

Indeed, under EPA’s own construct, the proposal is inconsistent. EPA refers to “maximum” achievable volumes for advanced biofuels, but then defines the biomass-based diesel program based on “competition.” These concepts are not compatible, as the idea of a “maximum” requires the inclusion of all viable options and necessitates that nothing is excluded. This is contrary to the idea of “competition.” In fact, the only “competition” being fostered by EPA’s proposal is likely through increased imports in the diesel pool, rather than diversification of the fuel supply overall. This is evidenced by the continuing RIN value drop since EPA’s notice, which indicates that the market believes that RIN supply (production) exceeds RIN demand (RVO levels). As further explained below, there are no economic or policy reasons to have the volumes as low as EPA has proposed. EPA has identified no category of advanced biofuel that would be crowded out by biomass-based diesel, and its proposal is based on an unfounded hypothetical that undermines the intent of Congress (promoting U.S. biofuel production as rapidly as feasible). As EPA itself states, Congress wanted “ambitious” levels, which are clearly not those proposed by EPA for either the biomass-based diesel or advanced biofuel categories. [EPA-HQ-OAR-2015-0111-1953-A2 p.12-13]

### **National Farmers Union (NFU)**

For these reasons, NFU respectfully asks EPA to issue a final rule implementing volume standards that match those Congress set in the EISA. Those standards will drive investment in advanced biofuel production and rural communities and contribute to climate resiliency. NFU stands ready to offer any support and assistance EPA may find helpful regarding these matters. [EPA-HQ-OAR-2015-0111-1657-A1 p. 8]

### **Poet, LLC**

Edgeworth Economics adapted the model of motor fuels markets developed in the September 2014 working paper, “Impact of Ethanol Mandates on Fuel Prices when Ethanol and Gasoline

are Imperfect Substitutes,” by Sébastien Pouliot and Bruce A. Babcock (“P&B 2014”).<sup>1</sup> The purpose of the model is to evaluate the impact of various levels of the RFS biofuels mandate on the prices and quantities of motor fuels consumed and exported. Edgeworth updated the parameters of the P&B 2014 model to reflect conditions for fuels markets in 2014-2016. This memo describes the assumptions (where differing from those described in P&B 2014) and the key results. [EPA-HQ-OAR-2015-0111-2481-A2 p.1]

P&B 2014 describes an open-economy, partial equilibrium model of supply and demand for ethanol, gasoline, and final motor fuels, namely E10 and E85. The model is based on an assumption that E10 and E85 are imperfect substitutes, with RFS compliance for conventional ethanol requirements above the blendwall met either by switching from E10 to additional E85 or the export of gasoline.<sup>2</sup> P&B calibrate their model for 2013, based on data available as of 2014. A key assumption is the shape of the demand curve for E85, which P&B adopt from their earlier research based on the location of FFVs and gas stations that offer E85. P&B assume modest E85 demand when the price of E85 is above the price of E10 (on an energy-adjusted basis), with demand increasing as E85 price nears and surpasses parity, and ultimately reaching a limit of about 1.25 billion gallons. P&B derive this relationship based on a number of important assumptions, including a limit on gas station throughput of 45,000 gallons per month.<sup>3</sup> Note, the model does not account for the existence of banked RINs; therefore compliance with the mandate must be achieved in each year solely through increased biofuel use.<sup>4</sup> [EPA-HQ-OAR-2015-0111-2481-A2 p.1]

Using this model, P&B simulate mandate levels ranging from non-binding (*i.e.*, below the blendwall) up to a maximum after which no further E85 can be procured. P&B conclude that RIN prices on the order of \$1 to \$2 would be sufficient to expand E85 consumption up to the technical limit imposed on the model (approximately 1.25 billion gallons). P&B find that the value of the RINs would manifest as a discount for wholesale ethanol, resulting in E85 prices declining significantly and very little increase in the retail price of E10 (less than 1 percent from baseline levels). P&B conclude that a mandate of about 14.1 billion gallons of conventional ethanol would have been feasible in 2013, and would have resulted in RIN prices within the range of values actually experienced historically with only modest impacts on overall consumer and producer welfare (less than \$200 million annually). [EPA-HQ-OAR-2015-0111-2481-A2 p.1-2]

To calibrate the P&B 2014 model for 2014 through 2016, we updated the authors’ assumptions (described in Table 1 of P&B 2014) using actual data for 2014 and projections for 2015 and 2016 from the same sources, primarily EIA’s *Annual Energy Outlook* (2015 edition).<sup>5</sup> Two key aspects of the model require additional explanation. B&P 2014 do not report generalizable formulas for ethanol supply or E85 demand. For ethanol supply, we assume P&B’s functional form at a corn yield of 170 bushels/acre, which is close to the most recent projections for the 2014/2015 and 2015/2016 crop years of 171 bushels/acre and 167 bushels/acre, respectively (USDA, *Grains and Oilseeds Outlook*, February 20, 2015).<sup>6</sup> For E85 demand, we adopt P&B’s demand curve; however, we assume an expansion of potential E85 consumption at each price point proportional to the increase in the number of E85 stations going forward from 2013. We assume no additional increase related to FFV fleet size. This approach is somewhat conservative, but generally consistent with other research by P&B.<sup>7</sup> Based on data from DOE’s Alternative Fuels Data Center regarding E85 stations, we assume an increase in potential E85 demand at

every price point of 15.6 percent from P&B's 2013 values to 2014, 32.9 percent from 2013 to 2015, and 52.9 percent from 2013 to 2016.<sup>8</sup> We retain other assumptions adopted by P&B related to, for example, elasticity of demand for retail gasoline and export elasticity. [EPA-HQ-OAR-2015-0111-2481-A2 p.2]

The key results at mandate levels higher than the blendwall are the changes in E10/E85 consumption and gasoline exports relative to the baseline quantities (*i.e.*, relative to a scenario with the mandate set below the blendwall), as well as the changes in E10/E85/RIN prices. For comparison, we have reproduced P&B's results for 2013 from P&B 2014 in Table 1. Quantities and prices (except for RIN price) are presented in terms of changes relative to the baseline. As shown here, P&B found that for 2013 a mandate set about 0.5 billion gallons above the blendwall<sup>9</sup> would have resulted in a RIN price of about \$1.51<sup>10</sup>, corresponding to a discount for E85 of about 34 percent off baseline levels. E85 consumption would have risen above baseline levels by about 0.7 billion gallons (the maximum amount of additional E85 that could be delivered and consumed in 2013, based on P&B's assumptions), with only small adjustments in gasoline exports and E10 prices.<sup>11</sup> [EPA-HQ-OAR-2015-0111-2481-A2 p.2] [Table 1 can be found on page 2 of docket number EPA-HQ-OAR-2015-0111-2481-A2.]

Tables 2a-2c show results for 2014, 2015, and 2016 based on our implementation of the P&B model with the additional assumptions described above. For each table, quantities and prices are again presented in terms of changes relative to the baseline, with adjustments shown up to the point where the E85 volumes reach the maximum level that could be delivered and consumed in that year given P&B's assumptions, updated to reflect current projections as discussed above, including the 45,000 gallon-per-month throughput limit per station. [EPA-HQ-OAR-2015-0111-2481-A2 p.3] [Tables 2a-2c can be found on page 4-5 of docket number EPA-HQ-OAR-2015-0111-2481-A2.]

Results for each of these years show qualitatively similar results to those found by P&B for 2013. For 2014, a mandate set at about 0.5 billion gallons above the blendwall<sup>12</sup> would have resulted in an increase of E85 consumption by about 0.6 billion gallons above baseline levels, with RIN prices at about \$0.87. [EPA-HQ-OAR-2015-0111-2481-A2 p.3]

For 2015, a mandate set at about 0.7 billion gallons above the blendwall<sup>13</sup> would result in an increase of E85 consumption by about 0.9 billion gallons above baseline levels, with RIN prices at about \$0.93. [EPA-HQ-OAR-2015-0111-2481-A2 p.3]

For 2016, a mandate set at about 1.2 billion gallons above the blendwall<sup>14</sup> would result in an increase of E85 consumption by about 1.6 billion gallons above baseline levels, with RIN prices at about \$2.02. [EPA-HQ-OAR-2015-0111-2481-A2 p.3]

We prepared a second set of scenarios using an alternate assumption regarding E85 throughput evaluated by P&B in previous published work—specifically, a maximum throughput of 90,000 gallons per month per E85 station, rather than 45,000.<sup>15</sup> Tables 3a-3c show results for 2014, 2015, and 2016. As expected, E85 consumption is substantially higher at comparable RIN prices. For 2014, a mandate set at about 1.2 billion gallons above the blendwall would have resulted in an increase of E85 consumption by about 1.6 billion gallons above baseline levels, with RIN prices at about \$1.99. For 2015, a mandate set at about 1.8 billion gallons above the blendwall would result in an increase of E85 consumption by about 2.4 billion gallons above baseline

levels, with RIN prices at about \$1.90. For 2016, a mandate set at about 1.7 billion gallons above the blendwall would result in an increase of E85 consumption by about 2.4 billion gallons above baseline levels, with RIN prices at about \$1.48. [EPA-HQ-OAR-2015-0111-2481-A2 p.5] [Tables 3a-3c can be found on page 6-8 of docket number EPA-HQ-OAR-2015-0111-2481-A2.]

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<sup>1</sup> P&B 2014 was available at the time of this writing at the website of the Center for Agriculture and Rural Development, Iowa State University (“CARD”):

[www.card.iastate.edu/publications/synopsis.aspx?id=1228](http://www.card.iastate.edu/publications/synopsis.aspx?id=1228).

<sup>2</sup> P&B assume E10 contains 10 percent ethanol and E85 contains 75 percent ethanol.

<sup>3</sup> A recent analysis by Stillwater Associates confirms that a maximum throughput of 45,000 gallons per month is a reasonable and feasible, if conservative, assumption based on existing infrastructure. [“Infrastructure Changes and Cost to Increase RFS Ethanol Volumes through Increased E15 and E85 Sales in 2016,” prepared for Growth Energy by Stillwater Associates LLC, July 2015]

<sup>4</sup> P&B address only the impact of D6 (conventional corn-based ethanol) RINs as an incentive for increased biofuel use. They do not consider the various forms of “advanced” biofuels in their model. This approach essentially treats the difference between the total mandated biofuel quantity and the mandate for “advanced” biofuels as a separate mandate for conventional ethanol. This approach is reasonable when consumption quantities would match mandated volumes in the absence of a standard. To the extent that there is additional production of other biofuels above mandated levels, particularly other forms of ethanol, that could increase the overall availability of ethanol and lower the market price for that type of fuel, leading to greater consumption of E85 than predicted by this model. Such impacts are likely to be small, relative to the other market-based effects measured here.

<sup>5</sup> P&B rely on U.S. International Trade Commission (ITC) data for two assumptions: wholesale gasoline price and net exports of gasoline. This source does not provide projections. We therefore use EIA figures for wholesale gasoline price and assume no change in gasoline exports for 2015 and 2016, relative to 2014 values as reported by the ITC.

<sup>6</sup> This assumption essentially implies that ethanol capacity in 2015 or 2016 will not expand from present values. To the extent ethanol capacity does increase, RFS compliance costs would be lower than measured here.

<sup>7</sup> See, for example, Bruce A. Babcock and Sébastien Pouliot, “Impact of Sales Constraints and Entry on E85 Demand,” CARD Policy Brief 13-PB 12, August 2013.

<sup>8</sup> AFDC reported 2,784 stations at the end of 2014, compared to 2,409 at the end of 2013 (15.6 percent increase). AFDC reported an additional increase of 7.3 percent from 2014 through mid-2015. [[www.afdc.energy.gov/data\\_download](http://www.afdc.energy.gov/data_download)] We assume a total year-over-year increase of 15.0 percent for each of 2015 and 2016.

<sup>9</sup> Based on the EPA’s approach in the NPRM, we calculate the 2013 blendwall to be approximately 13.5 billion gallons. The model results are not particularly sensitive to small differences in total gasoline consumption.

<sup>10</sup> Based on the assumptions adopted in this approach, the model necessarily finds a RIN price of zero when the mandate is set below the blendwall, defined as 10 percent of total motor gasoline consumption. Historically, RIN prices have exceeded zero at times when the mandates have been set at levels below the blendwall, due to real-world complications including a small, residual demand for E0, the forward-looking nature of the RIN market, and uncertainty regarding EPA’s intentions for both future and retroactive policy changes.

<sup>11</sup> Our results differ slightly from P&B 2014 due to our approximation of P&B’s E85 demand curve and ethanol supply curve formulas.

<sup>12</sup> Based on the EPA’s approach in the NPRM and current data from EIA (July 2015 STEO), we calculate the 2014 blendwall to be approximately 13.64 billion gallons.

<sup>13</sup> Based on the EPA’s approach in the NPRM and current data from EIA (July 2015 STEO), we calculate the 2015 blendwall to be approximately 13.90 billion gallons.

<sup>14</sup> Based on the EPA’s approach in the NPRM and current data from EIA (July 2015 STEO), we calculate the 2016 blendwall to be approximately 13.84 billion gallons.

<sup>15</sup> See, for example, Babcock & Pouliot, “Impact of Sales Constraints and Entry on E85 Demand,” CARD Policy Brief 13-PB 12, August 2013. A recent analysis by Stillwater Associates confirms that a maximum throughput of 90,000 gallons per month is a reasonable and feasible, if conservative, assumption based on existing infrastructure with modest expansions. [“Infrastructure Changes and Cost to Increase RFS Ethanol Volumes through Increased E15 and E85 Sales in 2016,” prepared for Growth Energy by Stillwater Associates LLC, July 2015]

### **Renewable Fuels Association (RFA)**

Higher RIN prices in the spring and summer of 2013 led to dramatic growth in E85 consumption. Progressive fuel blenders and marketers purchased ethanol (with RINs attached), blended it to make E85, separated the RINs from the gallons, and sold them to refiners who had chosen to buy RINs rather than physical gallons of ethanol to comply with RFS. [EPA-HQ-OAR-2015-0111-1917-A1 p. 26]

Data from both agencies indicate dramatic growth in E85 sales in 2013, as the discount between E85 and E10 widened and FFV owners responded to lower E85 prices. The data also clearly indicate that E85 sales volumes were well correlated to the movements in RIN prices. That is, as RIN prices increased, there was a concomitant increase in E85 sales. Minnesota Department of Commerce data show that E85 sales in the state nearly tripled between January and August 2013 as RIN prices increased from an average of \$0.13 to an average of \$0.79 (Figure 3).<sup>39</sup> Predictably, E85 sales volumes fell in October and November 2013 as RIN prices declined from their summer highs following the leak of EPA’s original 2014 RVO proposed rule. [EPA-HQ-OAR-2015-0111-1917-A1 p. 26]

Similarly, data from the Iowa Department of Revenue show E85 sales in the state doubled from the first quarter of 2013 to the third quarter of that year, as quarterly average RIN prices also doubled (Figure 4).<sup>40</sup> As RIN prices plunged in the fourth quarter of 2013, E85 consumption also fell off considerably. Gradual recovery of RIN prices in the first three quarters of 2014 was accompanied by gradual increases in E85 consumption. [EPA-HQ-OAR-2015-0111-1917-A1 p. 27]

Given this recognition, it is perplexing that EPA failed in its projection of 2015 and 2016 E85 consumption to account for the demonstrated ability of RINs to drive favorable E85 pricing and expanded usage under various RVO scenarios. [EPA-HQ-OAR-2015-0111-1917-A1 p. 28]

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<sup>39</sup> Minnesota Dept. of Commerce, 2013 Minnesota E85 + Mid-Blends Station Report (viewed January 8, 2014) (hereafter “MNDOC E85 Station Report”), available at <http://mn.gov/commerce/energy/images/E-85-Fuel-Use-Data.pdf>.

<sup>40</sup> Iowa Dept. of Revenue, Motor Fuel Tax Forms and Information: E85 Quarterly Report—Gallons Sold (viewed January 18, 2014), available at <http://www.iowa.gov/tax/forms/motor.html>.  
Minnesota Dept. of Commerce, 2013 Minnesota E85 + Mid-Blends Station Report (viewed January 8,2014) (hereafter “MNDOC E85 Station Report”), available at <http://mn.gov/commerce/energy/images/E-85-Fuel-Use-Data.pdf>. Minnesota Dept. of Commerce, 2013 Minnesota E85 + Mid-Blends Station Report (viewed January 8,2014) (hereafter “MNDOC E85 Station Report”), available at <http://mn.gov/commerce/energy/images/E-85-Fuel-Use-Data.pdf>.

### **Syngeta**

EPA's proposal ignores the ability of E15, E85, mid-level blends (MLBs), and carryover RINs to facilitate compliance with the statutory renewable fuel requirements of 14.4 bg in 2014, and 15.0 bg in both 2015 and 2016. Leaving the RVO at the intended levels would ensure that RIN prices send the necessary signals to expand ethanol consumption above the so-called 'blend wall.' A strong and consistent RIN signal would drive increased demand for E85, E15 and MLBs by allowing marketers and retailers to substantially discount the prices for these fuels relative to gasoline. Durable RIN prices would also drive obligated parties to invest in the infrastructure needed to ensure required levels of biofuels can be distributed in 2015, 2016 and beyond. Increased sales of E85, E15 and MLBs through new and existing pumps could easily bridge the gap between the so called E10 'blend wall' and the statutory requirements. [EPA-HQ-OAR-2015-0111-2493-A1 p.2-3]

### **The Andersons, Inc.**

Leaving the RVO at the intended levels would ensure that RIN prices send the necessary signals to expand ethanol consumption above the so-called 'blend wall.' A strong and consistent RIN signal would drive increased demand for E85, E15 and MLBs by allowing marketers and retailers to substantially discount the prices for these fuels relative to gasoline. Durable RIN prices would also drive obligated parties to invest in the infrastructure needed to ensure required levels of biofuels can be distributed in 2015, 2016 and beyond. Increased sales of E85, E15 and MLBs through new and existing pumps could easily bridge the gap between the E10 'blend wall' and the statutory requirements. [EPA-HQ-OAR-2015-0111-2509-A2 p.3]

### **The Valero Companies**

The RFS RIN system is supposed to increase consumption of renewable fuel by decreasing the price of fuel such as E85 in the market as blenders pass the RIN benefits onto consumers; however, the system fails to pass the RIN benefits to the consumer which has resulted in high prices for fuels such as E85.<sup>41</sup> [EPA-HQ-OAR-2015-0111-2765-A1 p.18]

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<sup>41</sup> Christopher R. Knittel, Ben S. Meiselman, and James H. Stock, *The Pass-Through of RIN Prices to Wholesale and Retail Fuels under the Renewable Fuel Standard*, National Bureau of Economic Research (June 2015), available at: <http://www.nber.org/papers/w21343>. (Page20)

## **Western Plains Energy, LLC (WEP)**

Certainly there are physical constraints in getting this additional volume to consumers in the form of E15 or higher blends. However, Congress's responsibility was to set the obligated volumes, and EPA's responsibility is to hold obligated parties accountable in meeting those volume requirements. It is then up to the free market to decide how those volumes will be attained. Product pricing and RIN values will provide the necessary market forces to see that the obligated volumes are met. Further, the ethanol and agriculture industry is stepping up to invest in excess of \$150 million in higher blend infrastructure over the next two years. By prescribing lower volumes, the EPA is choosing to limit ethanol's use as a transportation fuel to E10 and choosing to create a 'blend wall'. This choice is for the consumer to make, and it does not fall within EPA's waiver authority. [EPA-HQ-OAR-2015-0111-2471-A1 p.3] [EPA-HQ-OAR-2015-0111-2958-A1 p.3]

### **Response:**

Several commenters questioned EPA's authority to reduce the required volumes below the statutory levels. Congress granted EPA broad authority to reduce the advanced and total renewable fuel volume requirements when we reduce the applicable volume of cellulosic biofuel, as well as the authority to reduce the statutory volumes of any renewable fuel if we determine that there is an inadequate domestic supply of renewable fuel or that meeting the standards would result in severe economic or environmental harm (For a further discussion of EPA's waiver authorities see Section II.B of the final rule and Sections 2.2.1 and 2.2.2 of this RTC document). As discussed in Section II.E.5 and II.E.6 of the final rule we do not believe that the statutory volumes can be met for 2014-2016, even with the incentives provided by high RIN prices. We recognize the potential benefits renewable fuels can have on rural communities and GHG reductions, and we believe that significant benefits will occur with the standards we are finalizing which increase volumes each year. EPA does not believe, however, that there will be a sufficient domestic supply of qualifying renewable fuel in 2016 to satisfy the statutory volumes. See Section II.E for a further discussion of our assessment of the available supply of renewable fuels in 2016.

One commenter stated that the proposed volume requirements would be unattainable. We disagree with this assessment. We believe that the RFS standards are intended to spur changes throughout the fuels market, including the production, distribution, and use of renewable fuels, and that they are capable of doing so. Although many other commenters stated that we should simply set the standards at the statutory targets and rely on the free market to figure out how to attain them, we do not believe it would be appropriate to ignore the reality of marketplace constraints. The degree to which ambitious standards are able to affect the supply of renewable fuels is not without limits or constraints. For further discussion of EPA's assessment of the supply of renewable fuel in 2016 see Section II.E of the final rule.

In this final rule EPA has established a number of different volume requirements (total renewable fuel, advanced biofuel, cellulosic biofuel and biomass-based diesel). Each of these standards is justified based on different provisions of the statute, including where appropriate, on different waiver authorities. To establish the volume requirement for total renewable fuel, EPA has used both the cellulosic waiver authority, and the general waiver authority due to inadequate domestic supply. In determining the appropriate volume for this standard we have included all of

the qualifying renewable fuel (including all available supplies of qualifying biodiesel and renewable diesel) that we believe can be supplied to the United States in 2016 (see Section II.E. of the final rule).

For the advanced biofuel standard we have used only the cellulosic waiver authority, and therefore can consider factors other than the available supply in establishing this standard. In so doing we have determined that it is appropriate to require the use of volumes of advanced biofuels that are reasonably attainable (see Section II.F of the final rule).

EPA is not required to establish the biomass-based diesel (BBD) standard at the maximum reasonably achievable level, but rather is directed to establish the required volume at a level that is no less than 1 billion gallons, based on a review of the program to date, coordination with the Departments of Agriculture and Energy, and considering of a number of different, and often competing factors. Our consideration of these factors, and the history of the implementation of the RFS program to date, can be found in Section III of the final rule and Section 3 of this RTC document. As discussed there, we have determined that it is appropriate to set the BBD a level higher than in prior years, but still lower than the volume we anticipate may be needed to comply with the advanced biofuel standard.

One commenter noted that due to the late issuance of the proposed and final standards for 2015 EPA should not assume that the RFS standards can increase the supply of renewable fuel in 2015. EPA generally agrees with this comment. In establishing the required volumes for 2015 we have primarily relied on actual RIN generation and retirement data (for the first 9 months of the year) and have used this data to project the likely supply of biofuel for the last three months of 2015. We have not assumed that the final rule will significantly influence these volumes. For additional responses to comments on the 2015 standards, see Section 2.4.2 and 2.5.2.

Several commenters discussed the ability for high RIN prices to enable the statutory volumes to be met through increased use of E85, E15, and other mid-level ethanol blends. Some presented their own data, or reports authored by others to support their claims. We acknowledge that maintaining the statutory volumes would likely cause a significant increase in the price of RINs. EPA disagrees with the commenters' statement, however, that we have failed to account for the ability of RINs to drive favorable E85 pricing and expand E85 use. High RIN prices can, in a competitive and responsive market, contribute to lower E85 prices at both the wholesale and retail level. These lower E85 prices can in turn result in increased E85 sales if FFV owners respond to these lower prices by purchasing more E85. In reviewing the available data, however, we concluded that both of these impacts are limited. While higher RIN prices can result in lower retail prices of E85, they can alternatively result in increased margins for E85 retailers (as noted in the comment above), or some combination of these impacts. We also note that while higher E85 sales volumes were observed when E85 retail prices were low relative to E10 prices as several commenters highlighted, that the increased sales volumes were nevertheless still limited. For example, estimated E85 sales in 2013 were about 130 million gallons. The data we have reviewed suggests that even RIN prices that far exceeded historical highs would be insufficient to increase E85 sales volumes enough to allow the statutory total renewable fuel volumes to be reached, nor would they be likely to appreciably increase the total available supply of renewable fuel in the United States in 2016 beyond the level that we have finalized.

Conversely, a significantly higher total renewable fuel standard than we are establishing in this final rule would potentially have unreasonable impacts, such as RIN prices that exceed historical

high by a significant margin, impacts on fuel prices, and obligated party non-compliance. For more information see Section II.E of the final rule and EPA memos “An Assessment of the Impact of RIN Prices on the Retail Price of E85” and “Correlating E85 consumption volumes with E85 price.”

Several commenters cited a paper written by Babcock and Pouliot as evidence that high RIN prices could result in increased volume of E85. Some argued that this would allow the statutory volumes to be met. EPA has reviewed the Babcock and Pouliot paper, as well a model presented by a commenter based on this work, and other available information on the potential for E85 sales. We disagree with the commenters’ assessment of the amount of E85 that can be consumed in 2016. EPA concluded that two key assumptions made by Babcock and Pouliot are not supported by the available data; that sales of E85 will increase in a non-linear fashion beyond the point of price parity with E10, and that the full RIN value will be passed on to E85 consumers and reflected in the retail price of E85. A graph presented by one of the commenters based on a modified version of Babcock and Pouliot’s model makes the same unsupported assumption on RIN pass through (For a further discussion on each of these issues see EPA memos “Correlating E85 consumption volumes with E85 price” and “An Assessment of the Impact of RIN Prices on the Retail Price of E85”). A more recent paper published by Babcock and Pouliot in September 2015 projected much lower E85 sales from metro areas, which are expected to account for a significant majority of all E85 sales.<sup>6</sup> This paper projected E85 sales of 250 million gallons if E85 was priced at parity on a cost per mile basis with E10, and 1 billion gallons of E85 if E85 were priced to save drivers 23% on a cost per mile basis (the equivalent of nearly 50% less on a price per gallon basis). These projections still rely on a non-linear relationship between E85 sales and the price ratio at the pump, and we believe projecting that E85 will be priced to save drivers 23% on a cost per mile basis is not a reasonable assumption. For further details of EPA’s assessment of the potential for E85 see Section II.E.ii and II.E.iii of the final rule.

Another commenter cited a study authored by Knittel, Meiselman, and Stock that found that much of the potential impact of higher RIN prices was not passed through to consumers in the retail price of E85, limiting the ability for E85 to expand to satisfy the statutory volumes. As discussed above, our analysis demonstrates that the full value of RINs has not historically been passed through to E85 retail prices, though a portion of it has been passed through. The study cited did not control for the fluctuations in the price of ethanol, a key factor in the price of E85. This may explain why they were unable to see any pass through of RIN value, while the analysis conducted by EPA revealed a partial pass through of the RIN value in the retail price of E85. To the degree that the RIN value is captured by retail station owners as profit, it will provide incentives for expanding the equipment needed to offer E85. To the degree that the RIN value is passed through to the retail price of E85, it will provide incentives for FFVs owners to choose E85 over E10.

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<sup>6</sup> *How Much Ethanol Can Be Consumed in E85*. Bruce A. Babcock, Sebastien Pouliot. CARD Policy Brief 15-BP 54, September 2015.

As discussed in detail in the supporting documents to this rule,<sup>7</sup> EPA disagrees with the claim that there is a systematic difference in the cost of compliance between obligated parties that obtain the RINs necessary for compliance by purchasing and marketing renewable fuels and those that purchase separated RINs. In each case, market data reviewed by EPA generally indicates that the obligated parties recover the cost of the RINs through higher prices received for the petroleum derived fuels they sell. We generally agree that the RFS standards can result in lower retail prices for E85 than would be expected absent the RFS program, however as discussed in the memo “An Assessment of the Impact of RIN Prices on the Retail Price of E85,” we believe this impact will be limited by the lack of competition in the E85 market. As discussed in detail in Section II of the final rule, we do not believe higher RIN prices will be sufficient to enable the statutory volumes to be achieved.

Another commenter noted that studies conducted by EPA and others indicate that high RIN prices have historically not lead to higher retail gasoline (E10) prices. EPA believes this assessment is accurate. All of the studies mentioned, however, are based on historical data. This includes the analyses conducted by EPA. These studies should not be used as evidence that gasoline prices would remain unaffected by extremely high RIN prices, such as those we would expect to see if the RFS standards were established beyond the level of RINs that can be supplied. Importantly, EPA’s assessment of the impact of high RIN prices also found that these high RIN prices can and have resulted in higher diesel fuel prices.

Finally, EPA received a comment requesting the approval of an RFS pathway for hydrogen used in fuel cells as a transportation fuel. This comment is beyond the scope of this rulemaking. The RFS program does not currently include a pathway for the generation of RINs using hydrogen as a transportation fuel, nor has EPA received a petition requesting that we evaluate such a pathway. We therefore think it is very unlikely that the supply of RIN-generating renewable fuels will be impacted by hydrogen used as transportation fuel in 2016.

For responses to comments on the role of carryover RINs in the RFS program and suggestions that they could be used to increase the volume requirements, see Section 6.

## **2.4 Proposed Volumes for Total Renewable Fuel**

### **Comment:**

#### **AL-Corn Clean Fuel**

3. EPA’s proposal destroys the incentive provided by Renewable Identification Number credits (RINs) to expand renewable fuel infrastructure. It also ignores available solutions to the ‘blend wall’ and overlooks a clear path to compliance with 2014-2016 statutory requirements for renewable fuel. [EPA-HQ-OAR-2015-0111-1214-A2 p.3]

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<sup>7</sup> "A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects," Dallas Burkholder, Office of Transportation and Air Quality, US EPA. May 14, 2015, EPA Air Docket EPA-HQ-OAR-2015-0111

EPA's proposal ignores the ability of E15, E85, mid-level blends (MLBs), and carryover RINs to facilitate compliance with the statutory renewable fuel requirements of 14.4 bg in 2014, and 15.0 bg in both 2015 and 2016. Leaving the RVO at the intended levels would ensure that RIN prices send the necessary signals to expand ethanol consumption above the so-called 'blend wall.' A strong and consistent RIN signal would drive increased demand for E85, E15 and MLBs by allowing marketers and retailers to substantially discount the prices for these fuels relative to gasoline. Durable RIN prices would also drive obligated parties to invest in the infrastructure needed to ensure required levels of biofuels can be distributed in 2015, 2016 and beyond. Increased sales of E85, E15 and MLBs through new and existing pumps could easily bridge the gap between the E10 'blend wall' and the statutory requirements. [EPA-HQ-OAR-2015-0111-1214-A2 p.3]

We encourage EPA to revisit its assumptions of how much E85, E15 and MLBs can be reasonably consumed in 2015 and 2016 and examine how the volumes may change under various RIN price scenarios. [EPA-HQ-OAR-2015-0111-1214-A2 p.4]

#### **American Coalition for Ethanol (ACE)**

The very definition of innovation is producing two renewable fuels from one feedstock. If EPA wants the RFS to succeed in truly helping commercialize advanced and cellulosic biofuels, the Agency needs to come to grips with the fact that the primary way to produce advanced and cellulosic biofuels in the U.S. is from existing corn ethanol facilities, and RFS policy conditions need to support that integration and growth. [EPA-HQ-OAR-2015-0111-2543-A2 p. 13]

#### **American Farm Bureau Federation (Farm Bureau)**

The bulk of the total RFS2 renewable fuel volume consists of conventional ethanol. It is primarily at this point that EPA's proposed rule becomes problematic. The proposed total renewable volume, and therefore the proposed implied conventional ethanol mandate, is well below the level mandated by EISA. No one disputes the fact that EPA has the authority to partially waive RFS volume requirements. EPA has specific authorization to partially waive the cellulosic ethanol mandate if sufficient volumes of product are not available to meet the mandate, and EPA has had to use that waiver authority repeatedly over the life of the RFS2. [EPA-HQ-OAR-2015-0111-2355-A1 p. 2]

Note, however, that in the Proposed Rule EPA is waiving the total renewable fuel mandate by a volume that is considerably larger than the amount of the cellulosic waiver. For example, in 2015, EPA proposes waiving 2.89 billion gallons of the cellulosic mandate. Part of this waived volume is made up by a higher Biomass-based Diesel volume so that the total amount of the Advanced Biofuel category that is waived is 2.6 billion gallons. However, the total renewable fuel waiver is not just 2.6 billion gallons; it is 4.2 billion gallons. The additional volume being waived comes out of the implied conventional ethanol mandate. The renewable fuels industry has more than enough capacity to produce in excess of the 15 billion gallons of conventional biofuel prescribed for 2015 by the EISA, so there is clearly not a supply limitation. [EPA-HQ-OAR-2015-0111-2355-A1 p. 2]

Farm Bureau believes that the ethanol blend wall can be overcome. In fact, the means of overcoming it are already in place with the RFS2. RFS2 volume mandates and RIN prices are

working as intended to provide incentives for the production and use of higher ethanol blends. The petroleum industry's unwillingness to offer higher blends must not be taken as evidence that the RFS2 is unworkable. Rather, it is evidence that they are unwilling to cede market share to an alternative fuel. But making space in the market for alternative fuels that contribute to energy independence, environmental improvement, and economic development is exactly the point of RFS2. And it is working. There is thus no need to roll back volume requirements in the Proposed Rule. [EPA-HQ-OAR-2015-0111-2355-A1 p. 5]

### **Badger State Ethanol**

If finalized, EPA's proposal for 2014, 2015 and 2016 RFS requirements would place the key to our energy future firmly back in the hands of the oil industry. By embracing the 'blend wall' concept, the proposal effectively destroys the incentive to expand biofuel production and distribution capacity, and allows oil companies to blend only as much renewable fuel as they are comfortable using. [EPA-HQ-OAR-2015-0111-1201-A2 p. 2]

#### **1. The ethanol industry has demonstrated that it can produce supplies of renewable fuel that are adequate to meet the statutory RFS requirements in 2014-2016.**

In 2014, the U.S. ethanol industry produced 14.3 billion gallons of ethanol and nearly 14.4 billion D6 RIN credits were generated. This occurred even in the absence of any final RFS blending requirements, and production certainly could have been higher if the statutory RFS volumes had been enforced by EPA. Simply put, when ethanol production, ethanol stocks, and RIN stocks are properly considered, there can be no doubt that supplies were adequate in 2014 to meet the statutory requirement of 14.4 billion gallons. Similarly, the ethanol industry's 'run rate' has surpassed 15 billion gallons on numerous occasions in 2015, according to weekly data from the Department of Energy. As such, the statutory RFS levels of 15 billion gallons could be readily met in both 2015 and 2016, especially when ethanol stocks and RIN stocks are also taken into consideration. [EPA-HQ-OAR-2015-0111-1201-A2 p. 2]

According to the U.S. Census Bureau, 836 million gallons of ethanol for fuel use and industrial use were exported from the United States in 2014. Of this amount, 370.2 million gallons of fuel and industrial ethanol exports were undenatured, and thus did not ever generate a RIN. Moreover, 12.5 million gallons of denatured industrial ethanol were exported, and it is unlikely that RINs were ever generated on this product (i.e., because it is not used as transportation fuel, heating oil, or jet fuel). Denatured fuel ethanol exports totaled 452.99 million gallons in 2014 and it is safe to assume the RINs generated on this volume have been, or will be, retired and unavailable for compliance. [EPA-HQ-OAR-2015-0111-1201-A2 p. 3]

Proper accounting of RIN retirements for exported ethanol and non-compliance purposes leads to a significantly higher RVO for 2014. When the errors committed by EPA regarding accounting of RIN retirements for ethanol exports are corrected, EPA's determination of 2014 RINs 'available for compliance' with the 2014 standards should increase to approximately 13.62 million RINs—nearly 400 million RINs above the proposed RVO of 13.25 billion gallons. This significant error has important ramifications for the subsequent years (2015 and 2016) in EPA's proposed rule. [EPA-HQ-OAR-2015-0111-1201-A2 p. 3]

Written comments provided by the Renewable Fuels Association (RFA) provide more detail on this topic. We support the RFA comments and encourage EPA to correct the 2014 RVO as soon as possible. [EPA-HQ-OAR-2015-0111-1201-A2 p. 3]

We encourage EPA to revisit its assumptions of how much E85, E15 and MLBs can be reasonably consumed in 2015 and 2016 and examine how the volumes may change under various RIN price scenarios. [EPA-HQ-OAR-2015-0111-1201-A2 p. 3]

### **Countrymark Cooperative Holding Corporation**

It appears that EPA accounted for the blendwall in setting the 2014 and 2015 proposed standards for non-advanced biofuel or corn-based ethanol. The requirement for 2014 mirrors ethanol consumption of 13.25 billion gallons which equates to 9.7% ethanol in the blend and for 2015, the proposed 13.4 billion gallons of corn-based ethanol would equate to 9.7% ethanol in the blend based on EIA projections. [EPA-HQ-OAR-2015-0111-2264-A1 p. 3]

### **Crimson Renewable Energy LP**

The current RFS proposal for renewable volume obligations (RVO), while an improvement over the proposal announced in 2013, still discourages further investment in advanced biofuels, including biomass-based diesel, by setting a mandate that is substantially lower than what the industry can achieve. [EPA-HQ-OAR-2015-0111-1823-A1 p.1]

### **Farmers Cooperative Company**

I'm here today to speak against the EPA lowering the proposed renewable volumes obligation set by the 2007 Energy Independence and Securities Act.

### **Growth Energy**

Therefore, the final rule should adhere to the statutory volume requirements for renewable fuel, reduced by no more than the proposed cellulosic waiver flow-through, as follows:

- 2014—17.08 bil gal;
- 2015—17.90 bil gal;
- 2016—18.40 bil gal.

These volumes would properly reflect supply regardless of whether EPA correctly interprets the general waiver provision to refer to the amount of renewable fuel available for obligated parties to comply with their volume obligations, or incorrectly interprets it to refer to the amount of blended transportation fuel that can be delivered to vehicles that can use it. [EPA-HQ-OAR-2015-0111-2604-A2 p.3]

Although 2014 is long past and 2015 will be nearly over by the time EPA issues its final rule, imposing volume requirements for those years that are higher than actual net RIN generation levels is statutorily authorized and reasonable under the circumstances. Doing so, in fact, would

serve Congress's intent far better than imposing requirements based on actual net RIN generation during those years, as EPA proposes. [EPA-HQ-OAR-2015-0111-2604-A2 p.56]

### **Highwater Ethanol, LLC**

We have identified a few items below which requires immediate attention on the proposed rule from the U.S EPA in regards to the renewable fuels standards.

4. The total volume of renewable fuel in the form of ethanol that could be supplied to vehicles as either E10 or higher ethanol blends given various constraints was not a limiting factor in the standard-setting process in prior years. The EPA should decouple issues involving advanced biofuel gallons from the total volume of renewable fuel and maximize the current opportunity to use conventional biofuels to immediately drive down GHG emissions in the transportation sector. [EPA-HQ-OAR-2015-0111-2506-A2 p.2]

### **Illinois Farm Bureau**

While Illinois Farm Bureau strongly opposes the agency's proposed RVOs for this year and next year, compared to the last proposal, at least EPA is proposing to place renewable fuel volumes on a slightly upward trajectory. Our recommendation is for the agency to establish a much steeper and easily defensible trajectory for 2015 and 2016 that takes into account the latest estimates on how much motor fuel will be consumed in the United States and allows for the RIN market to work as policymakers intended. [EPA-HQ-OAR-2015-0111-3290-A2 p.4]

### **Independent Fuel Terminal Operators Association (IFTOA)**

Specifically, the Association recommends the following: [EPA-HQ-OAR-2015-0111-1947-A1 p. 8]

1. EPA has correctly recognized current market constraints, and the proposed rulemaking for 2014 and 2015 -- promulgated pursuant to its waiver authorities -- is a reasonable balance between the market restrictions and incentives for increased production and use of renewable fuels. The same approach should be adopted for 2016, and the mandated volumes should not breach the blendwall; [EPA-HQ-OAR-2015-0111-1947-A1 p. 8]

### **Indiana Farm Bureau**

The targets within the RFS2 program have been reduced to 15.93 billion gallons, 2.22 billion gallons below the statutory framework in the RFS2 law. The proposed rule falls further behind statutory mandates in the coming years. [EPA-HQ-OAR-2015-0111-2486-A1 p.1]

### **Iowa Renewable Fuels Association**

The members of IRFA recommend that the EPA discard its convoluted misinterpretation of the "general" waiver authority and maintain the levels for undifferentiated renewable fuel at the levels prescribed by Congress for 2014, 2015, and 2016 (14.4, 15.0, and 15.0 billion gallons respectively). [EPA-HQ-OAR-2015-0111-1957-A2 p. 21]

### **John Deere**

Arguments that consumers are not asking for higher renewable fuel concentrations are understandable. After all, consumers did not initially ask for E10 fuels, nor did they ask for lead-free fuels. Rather, appropriate and reasonable economic incentives needed to be established. Your preamble recognizes this reality. You state that ‘Congress set volume targets reflecting increasing and substantial amounts of renewable fuel use clearly signals that it intended the RFS program to create incentives to increase renewable fuel supplies and overcome supply limitations.’ It remains imperative that renewable volume obligations not be limited due to an artificial barrier associated with ‘lack of customer demand’ and that the incentives contained in the statutes be allowed to drive behaviors. [EPA-HQ-OAR-2015-0111-2042-A1 p.1-2]

### **Kansas Corn Growers Association**

EPA’s proposed RVO level for ethanol will severely damage not only the conventional ethanol industry, but also the up and coming cellulosic ethanol industry. We support both types of renewable, homegrown ethanol, and we are proud to have one of the first operating cellulosic ethanol plants in the nation in Hugoton, Kansas. Simply put, the rise of the cellulosic ethanol industry depends on a strong market for conventional ethanol. [EPA-HQ-OAR-2015-0111-3172-A1 p. 1]

### **Kansas Farm Bureau**

Conventional ethanol – Clearly, EPA has specific authorization to partially waive a portion of the renewable fuels mandate if sufficient volumes are not available, and that waiver authority has been used repeatedly over the life of the RFS2 with cellulosic ethanol; however, we dispute the need to also reduce the volumes of conventional ethanol. According to the US Energy Information Administration, the US produced 14.34 billion gallons of ethanol in 2014 and the renewable fuels industry has more than enough capacity to produce in excess of the 15 billion gallons of conventional biofuel prescribed for 2015 and beyond by the RFS2. [EPA-HQ-OAR-2015-0111-1195-A1 p.1]

### **Marathon Petroleum Company**

The EPA should set the biofuel volumes for 2014, 2015, and 2016 at the levels found in the AFPM/API comments. These volumes were calculated by using actual data and system constraints to determine a feasible solution that utilizes a high level of biofuels. [EPA-HQ-OAR-2015-0111-1932-A1 p. 4]

### **Mass Comment Campaign sponsored by anonymous 13 (web) - (121)**

The EPA's proposal for the renewable volume obligations (RVOs) under the Renewable Fuel Standard (RFS) for 2015 and 2016 fall well below the original targets that were stipulated in the RFS which is the law of the land. [EPA-HQ-OAR-2015-0111-0106 p.1]

While the EPA points out that there isn't adequate infrastructure at the moment to accommodate increasing volumes of ethanol, the EPA ignores two fundamental points. [EPA-HQ-OAR-2015-0111-0106 p.1]

First, its past and proposed backsliding on the RVOs serves to maintain the infrastructure status quo for the petroleum industry. To bring about necessary changes, the EPA must stick with the law and enforce the RFS and the RVO targets. [EPA-HQ-OAR-2015-0111-0106 p.1]

**Mass Comment Campaign sponsored by anonymous 14 (email) - (1339)**

I strongly urge you to reconsider your proposed reduction in the baseline 2015 and 2016 renewable volume obligations. Return them to the levels decided upon by Congress in the Renewable Fuel Standard. [EPA-HQ-OAR-2015-0111-0216-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 5 (web) - (386)**

The EPA's latest proposal for ethanol volumes for 2014, 2015 and 2016 once again shows that the mandate doesn't work. [EPA-HQ-OAR-2015-0111-0128 p.1]

With advanced biofuels, such as cellulosic ethanol, still not commercially viable - and minimal demand for fuel blends with high levels of corn-based ethanol - it is clear that the EPA needs to do everything in its power to lower the ethanol volumes in the final ruling to lessen the burdens caused by the broken RFS. [EPA-HQ-OAR-2015-0111-0128 p.2]

**Mass Comment Campaign sponsored by anonymous 9 (email) - (230)**

I am writing in support of keeping the 2014-2016 Renewable Volume Obligations (RVOs) under the Renewable Fuel Standard (RFS) intact [EPA-HQ-OAR-2015-0111-0212-A1 p.1]

**Mass Comment Campaign sponsored by Adkins Energy LLC (paper) - (120)**

**I am writing in support of keeping the 2014-2016 Renewable Volume Obligations (RVOs) under the Renewable Fuel Standard (RFS) intact.** [EPA-HQ-OAR-2015-0111-2956-A1 p.1]

**If the volumes of biofuel including ethanol blended into the nation's oil supply aren't increased according to the original Renewable Fuel Standard goals, our country will simply continue its dangerous dependence on foreign oil and ensure that dirty fossil fuels continue to pollute our environment.** [EPA-HQ-OAR-2015-0111-2956-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 19 (email) - (4910)**

I urge the EPA to revise its proposed Renewable Fuel Standard volumes further--to the lowest ethanol-blend levels permissible by law. [EPA-HQ-OAR-2015-0111-0221-A1 p.1]

But until that happens, the EPA should limit the policy to the least possible harm by reducing fuel blend standards as much as the law will allow. Demand for high ethanol-blend fuel just isn't there. [EPA-HQ-OAR-2015-0111-0221-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 18 (email) - (7560)**

I write today to voice my strong opposition to the proposed expansion of the biofuels mandate under the Renewable Fuel Standard (RFS). The biofuel mandate should be shelved altogether, or at least reduced to the greatest extent possible. [EPA-HQ-OAR-2015-0111-0220-A1 p.1]

At one time, ethanol may have seemed like a promising alternative fuel. Today, America has plentiful oil and natural gas resources, reducing the need for ethanol. The EPA should take steps to limit or eliminate the RFS, not expand a policy that we now know is harmful and unnecessary. [EPA-HQ-OAR-2015-0111-0220-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 21 (web) - (13)**

As a farmer who is producing corn at below the cost of production, I urge you to significantly increase renewable fuel volumes for 2015 and 2016 and tie it closer to ethanol industry production levels. [EPA-HQ-OAR-2015-0111-0279 p.1]

**Mass Comment Campaign submitted by DuPont employees (web) - (1)**

Biofuels volumes for 2014 to 2016 should be set consistent with the statutory levels specified by Congress putting the U.S. on a path to biofuels volumes significantly higher than a 10% limit. As proposed, the three-year RFS rule fails this test. [EPA-HQ-OAR-2015-0111-2825 p.2]

**Minnesota Bio-Fuels Association (MBA)**

Given the investments that have already been made in biofuel production operations, it is imperative that the EPA provide consistency and certainty with respect to the interpretation and implementation of the RFS. Biofuel producers are prepared to meet and exceed the volume targets; however, they need some certainty as is provided in the RFS. Furthermore, any backsliding with respect to the renewable volume obligations sends a mixed signal to the marketplace. [EPA-HQ-OAR-2015-0111-1936-A1 p.10]

The EPA should abandon its attempt to find the boundaries between adequate and inadequate supplies of biofuels and demand for biofuels and instead enforce and fully implement the RFS. [EPA-HQ-OAR-2015-0111-1936-A1 p.12]

**Minnesota Farm Bureau**

The targets within the RFS2 program have been reduced to 15.93 billion gallons, 2.2 billion gallons below the statutory framework in the RFS2 law. The proposed rule falls even further behind statutory mandates in the coming years. [EPA-HQ-OAR-2015-0111-2263-A1 p. 1]

**Missouri Corn Growers Association (MCGA)**

Furthermore EPA's inconsistent reporting of ethanol volumes blended into gasoline must be corrected. The error with the greatest impact on RVOs may indeed be EPA's inaccurate accounting of ethanol that was exported from the United States. Correctly, EPA recognizes that domestically produced ethanol does indeed reach international markets, helping to fulfill global air quality and sustainability goals. However, EPA has incorrectly included ethanol manufactured for beverage or industrial solvent applications as ethanol intended for fuel markets. EPA reports that a total of 0.846 billion gallons of ethanol was manufactured and subsequently exported for fuel applications. When actually, the 0.400 billion gallons of this total is ethanol that is not suitable for fuel applications and has not generated a RIN. We strongly advise EPA to reconsider the inaccurate practice of considering "all ethanol exports represent D6 ethanol" or

work with the Department of Energy to further breakdown the information on exported ethanol by application. [EPA-HQ-OAR-2015-0111-2507-A2 p. 2]

### **National Chicken Council (NCC)**

It should be noted for the record that those volumes “actually produced and used” – *i.e.*, that were not subject to a final and binding required volume obligation due to EPA missing its prescribed deadline - represent the highest use to date for corn-based ethanol. It further should be noted in analyzing the administration of the RFS that EPA’s missed deadlines did not result in a reduced amount of biofuel available in the market as was predicted by the ethanol industry. In fact, the historic record levels of corn ethanol “actually produced and used” raise the question of whether the RFS is any longer necessary for the development of the corn ethanol industry in the United States? [EPA-HQ-OAR-2015-0111-1814-A1 p.2]

To be clear, despite the biofuel industry’s characterization of EPA’s proposed 2015 and 2016 required volume obligations as reducing ethanol levels based on the benchmark of the volumes provided by the EISA, those proposed volumes actually increase the ethanol mandate beyond its record consumption levels. [EPA-HQ-OAR-2015-0111-1814-A1 p.2]

### **National Farmers Union (NFU)**

The preamble to the proposed rule states, 'we do not believe that it would be consistent with the energy security and greenhouse gas reduction goals of the statute to reduce the applicable volume of renewable fuel set forth in the statute absent a substantial justification for doing so.' Ideally, the total renewable fuel standard would include the full advanced biofuel standard embodied in the EISA. If EPA insists on lowering the advanced biofuel standard, EPA can still achieve many of the goals of the RFS and pave the path to higher advanced biofuel volume standards in the future by keeping the total renewable fuel standard at the EISA level and allowing conventional biofuels to make up the difference. [EPA-HQ-OAR-2015-0111-1657-A1 p. 6]

As discussed above, conventional biofuels emit less GHGs than fossil fuels. GHG emissions reductions can be achieved by allowing conventional biofuels to make up the advanced biofuel volume deficit and keeping the statutory total renewable fuels volume standards in place. It would also push the branded transportation fuel industry to make the adjustments needed to accommodate greater volumes of advanced biofuels, paving the way to secure the superior GHG emission advantages of advanced biofuels in the future. [EPA-HQ-OAR-2015-0111-1657-A1 p. 6-7]

The volume standards in the proposed rule do not match the goals EPA claims to pursue through its execution of the RFS. In the Executive Summary that precedes the Proposed Rule, EPA asserts that the proposed volume standards 'are expected to spur further progress in overcoming current constraints in renewable fuel distribution infrastructure, which in turn is expected to lead to substantial growth over time in the production and use of higher-level ethanol blends and other qualifying renewables.' [EPA-HQ-OAR-2015-0111-1657-A1 p. 7]

Unfortunately, EPA's expectations are mistaken. EPA fails to consider the severe and difficult-to-reverse damage done to the biofuels industry through the inexcusable delays in issuing the 2014 volume standards. In light of this damage, it does not make sense that lower volume targets

than those set forth in the popular, bipartisan statute will lead to growth in production and use of higher-level ethanol blends. The proposed, lower volume standards demonstrate to industry that taking steps to increase consumer choice and pursue worthwhile environmental goals can be avoided, even when mandated by Congress. Instead, holding industry to the proposed targets would demonstrate the Administration's stable, reliable commitment to biofuels and allow the biofuels and transportation fuels industries the certainty required to attract capital investment and build out the infrastructure needed to offer consumers the opportunity to utilize higher-level ethanol blends. It would allow the parties concerned to plan ahead with more reliability than annual determinations, bringing more biofuels into the transportation fuel offerings with less disruption for American consumers. [EPA-HQ-OAR-2015-0111-1657-A1 p. 7-8]

In our view, EPA bought a bogus blend wall problem argument from the oil industry. The oil industry is the source of any real or imagined blend wall problem by virtue of the fact that they have failed to make higher retail ethanol blend options available to the consuming public. They have denied fuel consumers the ability to purchase E85, E30, and E15 blends, and then claimed there is a blend wall problem. EPA's proposed production targets rewards the oil industry for dragging their feet on the retailing of higher-grade ethanol blends. [Docket Number EPA-HQ-OAR-2015-0111-1044, pp. 166-167.]

#### **NUVUFuels, LLC and DENCO II**

I am not an attorney so I won't attempt to define the EPA's legal position in reducing the RVO's below the targets set by congress back in 2007 when the RFS2 was enacted but I certainly question why the EPA is siding with big oil and attempting to match the RVO's with demand or projected demand. [EPA-HQ-OAR-2015-0111-2631-A1 p.1]

In closing, please consider putting the RVO's back on track with an RFS program that is based on available supply and goals to reduce our dependence on foreign oil. [EPA-HQ-OAR-2015-0111-2631-A1 p.1]

#### **Paul Bertels Farms**

To further blame your inability as reason to require a reduction in 2015 volumes is pure hubris. EPA can easily right this error. Return the 2014, 2015 and 2016 renewable volume obligation for conventional ethanol back to the statutory levels of 14.4 billion and 15.0 billion gallon, respectively. [EPA-HQ-OAR-2015-0111-2799-A1 p.2]

#### **Smithfield Foods, Inc.**

On June 10, the EPA published a proposed rule (EPA-HQ-OAR-2015-0111) to establish the 2014, 2015, and 2016 renewable volume obligations (RVO) for the RFS. The EPA proposed to lower the biofuels volumes below the statutory targets 'due to constraints in the fuel market to accommodate increasing volumes of ethanol, along with limits on the availability of non-ethanol renewable fuels.' The proposal would lower the total renewable fuel volume below the statutory guideline from 18.15 billion gallons to 15.93 billion gallons in 2014; 20.5 billion gallons to 16.30 billion gallons in 2015; 22.25 billion gallons to 17.40 billion gallons in 2016.<sup>3</sup> For conventional ethanol, largely derived from corn starch, the implied volume is also below the recommended statutory guideline for 2014, 2015, and 2016. [EPA-HQ-OAR-2015-0111-2041-A1 p.2]

Smithfield appreciates EPA's proposal to reduce the conventional biofuels mandate in 2014, 2015, and 2016, and the acknowledgement in 2013 that the RFS needs to be on 'a more manageable trajectory.'<sup>4</sup> However, while this action is a step in the right direction and may temporarily solve EPA's concerns related to the E10 blendwall, the proposed rule neither immediately nor permanently reduces the corn ethanol mandate to a degree that prevents the devastating impact corn ethanol has on food producers and consumers. EPA is justified in its decision to reduce the RVOs below statutory requirements; however, the proposed RVOs do not go far enough to address short- or long-term problems created by the RFS. Immediate Congressional action is needed to repeal the corn ethanol mandate and return grain markets to a state of normalcy. [EPA-HQ-OAR-2015-0111-2041-A1 p.2-3]

### **South Dakota Corn Growers Association**

Our membership is adamantly opposed to your proposal to reduce the renewable volume obligations (RVO) for "renewable fuel," the category of the RFS for which corn ethanol qualifies, from the statutory levels in 2014, 2015 and 2016. [EPA-HQ-OAR-2015-0111-1811-A1 p.1]

### **Sprague Operating Resources LLC**

We are writing to voice our strong support for increasing the Renewable Fuel Standard (RFS) volumes to be finalized later this year. [EPA-HQ-OAR-2015-0111-1924-A1 p.1]

### **State of Indiana**

Not only do these proposed volume levels hurt my constituents and the residents of this state, Pm also a farm owner in southeastern Indiana. In both of my roles, I see the struggles our farmers face every day. [EPA-HQ-OAR-2015-0111-3347-A1 p.1]

### **The George Washington University**

Statutory Authority

Under the Clean Air Act (CAA), as amended by the Energy Policy Act of 2005 (EPAct) and the Energy Independence and Security Act of 2007 (EISA), EPA sets the annual volume of biofuel required to meet its renewable fuel standard. Section 211(o)(2)(B) of the CAA specifies annual biofuel targets for EPA's RFS; the volume requirements for 2016, both from the statute and EPA's proposed rule, are outlined in the table below. [EPA-HQ-OAR-2015-0111-1815-A1 p.3][The table can be found on p. 3 of Docket number EPA-HQ-OAR-2015-0111-1815-A1]

Note: Cellulosic biofuel and biomass-based biodiesel are nested within the 'advanced biofuel' category, which is itself nested within the 'renewable fuel' category. [EPA-HQ-OAR-2015-0111-1815-A1 p.4]

As can be seen in the above table, EPA's proposed rule increases the overall volume requirements for renewable fuels from 16.55 billion gallons in 2013 to 17.4 billion gallons in 2016. Cellulosic biofuel and biomass-based diesel (biodiesel) are both advanced biofuels which are nested within the 'renewable fuel' category. EPA's proposal would set volume requirements

for these advanced biofuels at 3.4 billion gallons in 2016, a 650 million gallon increase over the last standards promulgated by the agency for 2013. [EPA-HQ-OAR-2015-0111-1815-A1 p.4]

However, these increases fall short of the statutory applicable volumes for 2016 outlined in the table above. For all but one fuel type, EPA proposes to set the volume requirement below the statutory level. [EPA-HQ-OAR-2015-0111-1815-A1 p.4]

The proposed standards for total renewable fuels are 4.85 billion gallons shy of the volume levels specified in the CAA. [EPA-HQ-OAR-2015-0111-1815-A1 p.4]

### **Trenton Agri Products LLC**

The Proposed RVO's for 2014-2016 are attempts to match the mandates to this 10% blend rate. This is not consistent with Congressional intent of the RFS. The RVO's for these years should be re-proposed to match the law, as the supply from grain based ethanol is there.[EPA-HQ-OAR-2015-0111-1686-A1 p.1]

### **White Energy**

The EPA has chosen to change the intent of the RFS based off untruths and roadblocks by some of the participants of the petroleum industry. In the same breath, the EPA wonders why the industry isn't doing more to develop advanced biofuels. What business is going to be able to source capital to invest in the next generation of biofuels if the EPA isn't going to enforce the RFS of today? Changing the RVO based on perceived inadequate domestic supply is a fallacy. Changing the RVO on perceived blend wall counteracts incentive, requirement, and guidance to change the supply infrastructure.

### **Wisconsin BioFuels Association**

The Wisconsin BioFuels Association strongly opposes the proposed Renewable Volume Obligation for corn ethanol of 13.25 billion gallons in 2014, 13.45 billion gallons in 2015, and 14 billion gallons in 2016. These levels are well below the levels set by Congress and are a clear attempt to circumvent the law. [EPA-HQ-OAR-2015-0111-2539-A2 p.1]

We urge the EPA to raise the proposed Renewable Volume Obligation. [EPA-HQ-OAR-2015-0111-2539-A2 p.1]

### **Wisconsin Corn Growers Association (WCGA)**

The WCGA opposes the EPAs proposed Renewable Volume Obligation (RVO) for corn ethanol of 13.25 billion gallons in 2014, 13.45 billion gallons in 2015 and 14.0 billion gallons in 2016. These are below the levels Congress set for corn ethanol at 14.4 billion gallons for 2014, and 15 billion gallons for 2015 and 2016. [EPA-HQ-OAR-2015-0111-1830]

### **Wisconsin Farm Bureau Federation**

The Renewable Fuel Standard (RFS), as passed by Congress, called for 18.15 billion gallons of renewable fuel to be blended in 2014 and in actuality, only 15.93 billion gallons were blended. The EPA has tried to reestablish a new baseline for renewable fuel blending based on 2014's

actual blending numbers because they couldn't provide an appropriate proposal in a timely manner. Instead, the EPA opted for a multi-year proposal approach that is several years late in being delivered. *See table below.* [The table can be found on p. 1 of Docket number EPA-HQ-OAR-2015-0111-1716-A1] [EPA-HQ-OAR-2015-0111-1716-A1 p. 1]

Although the proposal for future Renewable Volume Obligations (RVO) for renewable fuels for 2015 and 2016 shows an increase in blending requirements from 2014's actual numbers, the mandates still fall significantly short of statutory levels within the RFS approved in 2007. [EPA-HQ-OAR-2015-0111-1716-A1 p. 1]

**Response:**

As described in Section II.E.2.i of the final rule, the E10 blendwall is viewed differently by different stakeholders. Some stakeholders, most notably refiners, expressed the belief that the constraints on sales of higher ethanol blends such as E15 and E85 are so substantial, and the time available to address those constraints for 2016 is so limited, that exceeding a pool-wide ethanol content of 10% is either unattainable or could occur only at great cost with corresponding increases in fuel prices and disruption to fuel supplies. Other stakeholders, primarily ethanol proponents, instead argued that substantially higher volumes of E15 and/or E85 can be reached in 2016 with available infrastructure, despite insufficient efforts in the past to expand infrastructure for E15 and E85. These stakeholders generally argued that higher standards would result in higher RIN prices, which in turn would result in greater price discounting for E15 and E85 in comparison to E10 and thus higher sales of those higher level ethanol blends. They further argued that higher RIN prices, even if significant, would not result in higher fuel prices to consumers.

Our view of the E10 blendwall falls between these two viewpoints. We believe that there are real constraints on the ability of the market to exceed a pool-wide ethanol content of 10%. However, these constraints do not have the same significance at all levels above 10% ethanol. Instead, for the state of infrastructure that can be available in 2016, the constraints represent a continuum of mild resistance to growth at the first increments above 10% ethanol and evolve to significant obstacles at higher levels of ethanol. This gradual nature of the impacts of the constraints is due to the fact that small increases in ethanol volumes above 10% are likely to be possible with changes in RIN prices, while larger increases are only possible with changes to infrastructure that cannot occur as quickly. The transition from mild resistance to significant obstacles occurs by degrees rather than all at once, and overcoming the constraints will likely require different solutions over different time periods. It is difficult to identify the precise boundary between volumes that can be achieved with mild difficulty in 2016 and those that likely cannot realistically be achieved over the next year. Ultimately the market will determine the extent to which compliance with the annual standards is achieved through the use of greater volumes of ethanol or other, non-ethanol renewable fuels.

In short, the E10 blendwall is not the barrier that some stakeholders believe it to be, but neither are increases in pool-wide ethanol concentrations above 10% unlimited in the 2016 timeframe as other stakeholders have suggested. Expanded use of E15 and E85 is possible under the influence of the final volume requirement for total renewable fuel that we are setting for 2016, but our

analysis has determined that the volumes of E15 and/or E85 that would be needed to reach the statutory targets are not achievable in 2016.

Another reason that the E10 blendwall is not the barrier that some stakeholders make it out to be is that it is focused solely on ethanol. Many of the comments on both sides of the debate focus on ethanol, but there is nothing in the statute that requires the use of ethanol, and there is no reason that the E10 blendwall by itself should limit the total volumes of renewable fuels. The E10 blendwall may create a challenge toward increasing volumes of ethanol, but growth in other biofuels is not only possible but expected within the capabilities of their markets. It is primarily on the basis of these non-ethanol biofuels that we are able to finalize a total renewable fuel standard that is more than 4 billion gallons beyond the volume of ethanol that can be blended as E10.

Because of the constraints associated with the blendwall, as well as other constraints on ethanol and non-ethanol biofuels as described in Section II.E.1 of the final rule, renewable fuel production capacity is not the only relevant criterion in determining the level of qualifying renewable fuel supply that is achievable in 2016. Indeed, based on a consideration of production capacity alone, significantly higher volume requirements than we are finalizing today would be possible for both biodiesel and ethanol. However, not all of that production could qualify under the RFS program, and stakeholders who took this view generally disregarded the importance and influence of the many constraints on the supply of qualifying renewable fuel volumes. As described in Section II.E.1 of the final rule, these constraints are real and make the statutory targets unattainable in 2016. Moreover, a myopic consideration of only production capacity would increase uncertainty rather than decrease it, as described in Section 2.1.2. Finally, many of the same stakeholders who believed that the statutory targets can be achieved also pointed to the use of carryover RINs in support of their views, effectively agreeing that supply of renewable fuel is insufficient to meet the statutory targets.

One stakeholder suggested that we should maximize the requirement for conventional renewable fuel in order to quickly generate GHG reductions. To begin with, the statute does not provide a volume requirement for conventional renewable fuel. Instead, it established applicable volumes for total renewable fuel, and applicable volumes for advanced biofuel which is nested within the requirement for total renewable fuel. The so-called conventional renewable fuel volume is that portion of total renewable fuel which is not required to be advanced biofuel, though advanced biofuels could be used to meet it. Regardless, increases in volumes of advanced biofuels will provide greater GHG emission reductions than increases in conventional renewable fuels, particularly because much of the current conventional renewable fuel pool is composed of fuel that is grandfathered under §80.1403 and is thus not required to meet the GHG reduction threshold of 20% that is otherwise required under the statute.

In making a determination of the 2016 volume requirement for total renewable fuel under the general waiver authority, we have sought to identify the highest level that is reasonably achievable given a consideration of all factors that affect supply of renewable fuel to the vehicles and engines that can use it. In making a determination of the 2016 volume requirement for advanced biofuel under the cellulosic waiver authority, we have sought to set the volume requirement to reflect reasonably attainable levels. Consistent with the fact that all increases in the statutory targets after 2014 are in advanced biofuel, our intention has been to place an emphasis on increasing the advanced biofuel volume requirement to a level that is reasonably

attainable given the GHG-reduction goals of the RFS program and the superior performance of advanced biofuels in comparison to conventional renewable fuels in achieving GHG reductions.

If we were to place an emphasis on conventional renewable fuel as suggested, it would mean either increasing the total renewable fuel volume requirement higher than the maximum level of supply that we have determined is achievable, or reducing the volume requirement for advanced biofuel below the level that we believe is appropriate. Given that advanced biofuel are required to produce greater GHG reductions than conventional renewable fuel, this approach would run counter to the stakeholder's suggestion as well as counter to the statute's focus on increases in advanced biofuel after 2014.

One stakeholder suggested that growth in the cellulosic biofuel industry depends on a strong market for conventional renewable fuels, implying that the "requirement" for conventional renewable fuel should be increased above the proposed level to this end. As described above, we are setting the 2016 total renewable fuel volume requirement at the highest level that we believe is reasonably achievable. We expect that by doing so, the RFS program will provide the support that the cellulosic biofuel industry is seeking. Furthermore, cellulosic biofuel growth is not dependent on growth in corn ethanol alone. Cellulosic biofuel need not be ethanol, and need not come from the same feedstocks as ethanol. In fact, the vast majority of cellulosic biofuel in 2015 and projected to be available in 2016 is biogas, not ethanol.

For responses to comments on the use of the cellulosic waiver authority, see Section 2.2.1.

For responses to comments on the use of the general waiver authority, see Section 2.2.2.

For responses to comments on whether the statutory volume requirements can be reached in 2014, 2015, or 2016, see Section 2.2.4.

For responses to comments on how the RIN mechanism operates to subsidize the cost of renewable fuels at retail, see Section 2.3.2.

For responses to comments on how 2014 exports of ethanol were calculated in the NPRM, see Section 2.4.1.

For responses to comments on gasoline demand and its role in determining the E10 blendwall, see Section 2.6.1.

For responses to comments suggesting that obligated parties have failed in their statutory responsibilities to invest in the infrastructure needed to expand renewable fuel supply, see Section 2.7.1.

For responses to comments on the ability of the 2016 market to substantially increase sales of E15 and E85, see Sections 2.6.2 and 2.7.1, respectively.

For responses to comments on the role of carryover RINs in the RFS program and suggestions that they could be used to increase the volume requirements, see Section 6.

For responses to comments on the petition process for new RIN-generating pathways, see Section 10.6.3.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

Section 2.2.2.1: Inadequate Domestic Supply

Section 2.3.1: Congressional intent to increase volumes

Section 2.4.2: Proposed Volumes for 2015

Section 2.4.3: Proposed Volumes for 2016

Section 2.6.2: Assumptions of Zero Volumes for E0 and E15

Section 2.8: General comments on proposed advanced biofuel volume requirements

Section 2.9: General comments on proposed total renewable fuel volume requirements

Section 2.9.1: Comments Supporting higher volumes

Section 4.1: General Comments on Cellulosic Biofuels

Section 5.2: EIA projections of gasoline and diesel

Section 7.3: Fuels Industry Impacts (oil refineries, biofuel facilities)

Section 7.6: Energy Security

Section 8: Environmental Impacts of the Proposed Rule

Section 8.2: Climate Change (GHG Impacts)

## **2.4.1 Proposed Total Renewable Fuel Volume for 2014**

### **Comment:**

#### **Abengoa Bioenergy**

EPA's proposed methodology for setting the 2014 and 2015 RVOs based on available RINs generated during the year is arbitrary. The exclusion of consideration of carryover RINs is also arbitrary. As EPA notes, the availability of RINs in 2014 is dependent on settling the 2013 obligations, which the Agency has delayed at the request of obligated parties. EPA cannot use its unconscionable and arbitrary delays as justification for excluding consideration of carryover RINs. Instead, the Agency must set the 2014 and 2015 RVOs based on the full availability of RINs and without setting artificial and unwarranted limits based on purported infrastructure constraints. Otherwise, EPA risks creating a regulatory structure that effectively makes Clean Air Act compliance by Obligated Parties voluntary rather than compulsory. [EPA-HQ-OAR-2015-0111-2474-A1 p.5-6]

The Agency drafted its proposed 2014 volumes, presented in TABLE II.C.1-1 in the proposal, using March 2015 data from EMTS as well as export data from EIA.<sup>8</sup> However, since that time, the availability of RINs for 2012, 2013, 2014, and 2015 shown in EMTS has changed considerably, even as demonstrated by EPA's posting of April 2014 EMTS data to the docket. A one-time snapshot of EMTS data is therefore an inherently inaccurate estimate of the availability of RINs for compliance for 2014 and 2015. [EPA-HQ-OAR-2015-0111-2474-A1 p.13]

EPA excludes consideration of 'RINs retired for reasons other than compliance with the annual standards, as these RINs are not available to obligated parties.' Since the Agency did not post to the docket the March 2015 data it used in calculating the 2014 RIN supply, it is impossible for stakeholders to guess how it arrived at volume corrections. If EPA excludes RINs retired for Enforcement Obligations, Remedial Action - Retirement Pursuant to 80.1431(c), and

Remediation of Invalid RIN Use for Compliance, then it is unjustified. By definition such RINs were retired by obligated parties and were therefore available to them. [EPA-HQ-OAR-2015-0111-2474-A1 p.13]

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<sup>8</sup> Id. at 33122.

### **Advanced Economic Solutions (AES)**

The EPA proposal to reduce the renewable volume obligations (RVOs) below statutory levels during 2014-15 is warranted and appropriate. Without EPA's adjustments, the scheduled increase in the RVOs would result in higher gasoline and diesel fuel prices. Additionally, left unchanged the mandates would create further upward pressure on the primary feedstock used to produce the required biofuels – corn for ethanol and soyoil for biodiesel. [EPA-HQ-OAR-2015-0111-1193-A1 p.1]

EPA Proposed Mandate Levels for 2014 and 2015: AES generally agrees with the EPA proposed RVOs for both 2014 and 2015. [EPA-HQ-OAR-2015-0111-1193-A1 p.1]

The RVOs proposed for 2014 simply reflect the reality of what transpired in 2014. [EPA-HQ-OAR-2015-0111-1193-A1 p.1]

For both years, the proposed overall RVOs are below the statutory levels prescribed in EISA. The 2014 proposed RVO is 2.22 B gallons below the original statutory level [EPA-HQ-OAR-2015-0111-1193-A1 p.1]

These reductions to lower levels than dictated by EISA during 2014 and 2015 are fully justified – for conventional biofuels by the challenge of the blend wall; for advanced biofuels by the combined challenge of a lack of commercial production of cellulosic ethanol, as well as limitations in feedstock (vegoil) availability for biodiesel. The EPA is to be applauded for their astute response to the 2014 and 2015 market limitations. [EPA-HQ-OAR-2015-0111-1193-A1 p.1]

### **AL-Corn Clean Fuel**

2. EPA's proposal grossly underestimates the volume of 2014 RINs that will be available to obligated parties for compliance with 2014 standards.

EPA states that its intent is to base the 2014 RVO requirement on the 'number of RINs supplied in 2014 that are expected to be available for use in complying with the standards.' EPA explains that the number of RINs expected to be available for compliance is determined by:

- 1) Starting with total RINs that were 'generated for renewable fuel produced or imported in 2014 as recorded in the EPA-Moderated Transaction System (EMTS)';
- 2) Subtracting RINs 'that have already been retired for non-compliance reasons';
- 3) Subtracting RINs that 'would be expected to be retired to cover exports of renewable fuels.' [EPA-HQ-OAR-2015-0111-1214-A2 p.2]

According to EPA, this three-step process results in a determination of the ‘net supply’ of RINs that are ‘available for use’ in complying with the 2014 standards. However, EPA mistakenly assumes RINs will be retired for every gallon of ethanol exported in 2014, even though RINs were never generated for nearly half of 2014 ethanol exports. EPA incorrectly subtracts the total volume of 2014 exports from gross RIN generation, when in fact RINs were not generated—and thus cannot be retired—for approximately 370-390 million gallons of exported ethanol that was not ever denatured. The RFS regulations require that ethanol must be denatured in order to generate a RIN and qualify as ‘renewable fuel.’ [EPA-HQ-OAR-2015-0111-1214-A2 p.2]

#### **American Coalition for Ethanol (ACE)**

EPA has made an accounting error by assuming RINs will be retired on all ethanol exports in 2014, approximately 836 million gallons. In fact, nearly 400 million gallons of exported ethanol in 2014 did not generate RINs and therefore should not be subtracted from the calculation of net supply of RINs available for compliance with the 2014 RVO. As a result, net supply of RINs available for compliance in 2014 should be closer to 13.7 billion gallons than the EPA’s estimate of 13.25 billion gallons. [EPA-HQ-OAR-2015-0111-2543-A2 p. 5]

#### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

The Agency must address this uncertainty by finalizing the 2014 percentage standards as indicated on table above and without additional adjustments. [EPA-HQ-OAR-2015-0111-1948-A1 p.17] [Table can be found on page 17 of docket number EPA-HQ-OAR-2015-0111-1948-A1.]

#### **Archer Daniels Midland Company (ADM)**

We believe the export volumes are significantly overstated. EPA assumes that almost all exported volumes generated and retired a RIN. However, not all renewable fuels generate a RIN, and EPA cannot be certain that all reported exports of renewable fuels are eligible under the RFS. According to Department of Commerce data, almost half of the 846 million gallons of ethanol exported in 2014 were undenatured ethanol and never generated a RIN. That correction alone could account for an additional 370 million gallons. Further, a percentage of gallons that went to export would have been consumed domestically if the original 2014 RVO proposal reflected the RFS mandated levels. [EPA-HQ-OAR-2015-0111-2262-A1 p. 5]

#### **Biotechnology Industry Organization**

EPA has not reasonably and persuasively demonstrated that actual 2014 volumes of advanced and total renewable fuels, plus carryover RINs, will be inadequate to meet the 2014 RFS RVOs. [EPA-HQ-OAR-2015-0111-1958-A2 p. 26]

As EPA has said (particularly referring to advanced biofuel volumes), maintaining statutory renewable fuel volumes “will result in reduced GHG emissions from the transportation sector and could also contribute to energy security objectives. We do not believe it is appropriate to forgo such benefits when they are physically achievable.”<sup>102</sup> [EPA-HQ-OAR-2015-0111-1958-A2 p. 26]

the availability of RINs for 2012, 2013, 2014, and 2015 shown in EMTS has changed considerably, even as demonstrated by EPA's posting of April 2014 EMTS data to the docket. A one-time snapshot of EMTS data is therefore an inherently inaccurate estimate of the availability of RINs for compliance for 2014 and 2015. [EPA-HQ-OAR-2015-0111-1958-A2 p. 57]

If EPA excludes RINs retired for Enforcement Obligations, Remedial Action - Retirement Pursuant to 80.1431(c), and Remediation of Invalid RIN Use for Compliance, then it is unjustified. By definition such RINs were retired by obligated parties and were therefore available to them. [EPA-HQ-OAR-2015-0111-1958-A2 p. 57]

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<sup>102</sup> EPA, Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards, 78 Fed. Reg. 9281, 9300 (Feb. 7, 2013) (proposed rule), available at <http://www.gpo.gov/fdsys/pkg/FR-2013-02-07/pdf/2013-02794.pdf> (emphasis added); see also 2013 RFS Final Rule 49794 (maintaining statutory advanced biofuel and total renewable fuel volumes for 2013).

### **Countrymark Cooperative Holding Corporation**

In November 2013, EPA proposed the 2014 Standards for the Renewable Fuels Standard. This rulemaking was never finalized; however, this was CountryMark's planning basis for RFS compliance for 2014. The new proposed 2014 standards are different than those proposed in 2013 as outlined by the Table 1 below. [EPA-HQ-OAR-2015-0111-2264-A1 p. 2]

[The table can be found on p. 3 of Docket number EPA-HQ-OAR-2015-0111-2264-A1]

CountryMark nor any company should be financially penalized because EPA did not set the compliance standards in a timely fashion. **Therefore, we recommend that the 2014 standards remain the same as those proposed in November 2013 which is closer to the intended timeline set by the law.** [EPA-HQ-OAR-2015-0111-2264-A1 p. 3]

**We recommend that the 2014 standards remain the same as those proposed in November 2013. This was the planning case that we used for compliance strategy and is closer to the intended timeline set by the law. Changing the obligation after the fact will penalize CountryMark by over \$1 million.** [EPA-HQ-OAR-2015-0111-2264-A1 p.8]

### **DuPont**

In addition to carryover RINs, the 2014 and 2015 volumes should account for some portion of exports that would have been blended in the U.S. fuel supply if EPA had set the RVO's as the statute requires. According to the Energy Information Administration (EIA) monthly supply data through December 2014, U.S. exports of fuel ethanol in 2014 reached their second-highest level at a total of 826 million gallons. This level was second only to the 1.2 billion gallons exported during 2011 and 33% more than exports of fuel ethanol in 2013. Given this data, the U.S. exported approximately 205 million gallons of ethanol in 2014 that should be accounted for in the RVO. A similar projection for 2015 exports should be accounted for in the 2015 RVO. [EPA-HQ-OAR-2015-0111-1826-A1 p.17]

Given the quantity of carryover RINs and the volume of exports for 2014 and 2015, DuPont recommends that EPA set the 2014 Total Renewable Fuel Volume at 16.433 billion gallons and

the 2015 Total Renewable Fuel Volume at a value higher than 17.606 billion gallons depending on the cellulosic ethanol RVO. [EPA-HQ-OAR-2015-0111-1826-A1 p.17]

### **East Kansas Agri-Energy, LLC (EKAE)**

We are located in Garnett Kansas, a rural community of about 3,000 people. I am here today to support keeping 2014 Renewable Volume Obligation (RVO) as required as part of the Renewable Fuel Standard and hope you consider my comments when making your determination. [EPA-HQ-OAR-2015-0111-2607-A2 p.1]

### **Governor of Iowa, et al.**

Further, we understand that the ethanol industry's "run rate" has surpassed 15 billion gallons on numerous occasions in 2015, according to the Department of Energy. As such, the statutory RFS levels of 15 billion gallons could be readily met in both 2015 and 2016, especially when ethanol stocks and RIN stocks are also taken into consideration. In addition, properly accounting of RIN retirements for exported ethanol and non-compliance purposes would lead to a significantly higher RVO for 2014. When the errors committed by EPA regarding accounting of RIN retirements for ethanol exports are corrected, EPA's determination of 2014 RINs "available for compliance" with the 2014 standards should increase to approximately 13.62 billion RINs—nearly 400 million RINs above the proposed RVO of 13.25 billion gallons. This significant error has important ramifications for the subsequent years (2015 and 2016) in EPA's proposed rule. The gradually increasing RFS levels remain an important part of diversifying our nation's transportation fuels, reducing carbon emissions, and lowering fuel costs at the pump. [EPA-HQ-OAR-2015-0111-1915-A1 p.1-2]

### **Growth Energy**

EPA miscalculated the actual net D6 RIN generation in 2014.<sup>350</sup> Specifically, as the Renewable Fuels Association has pointed out, EPA erroneously assumed that a D6 RIN was generated on all 846 mil gal of exported ethanol and that all of those RINs would be retired and unavailable for compliance, when in fact much of that volume did not generate a RIN, including 370 mil gal of un-denatured ethanol.<sup>351</sup> EPA seems to have recently acknowledged that it erred in this regard.<sup>352</sup> Because EPA subtracted the entire volume of exported ethanol from the volume of produced and imported ethanol to determine net D6 RIN generation for 2014,<sup>353</sup> correcting this error would increase 2014 net D6 RIN generation by at least 370 mil, and would raise total 2014 net RIN generation to 16.3 bil.<sup>354</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.60]

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<sup>350</sup> See POET Comment on EPA's Proposed 2014-2016 Standards for the Renewable Fuel Standard Program, EPA-HQ-OAR-2015-0111, at 23 (July 27, 2015) ("POET July 27 Comments").

<sup>351</sup> See Renewable Fuels Association, *2014 U.S. Ethanol Exports and Imports, Statistical Summary*, at 1 (2015) ("Denatured ethanol for fuel use accounted for 54% of total exports in 2014, while undenatured ethanol for fuel use made up 43%. Denatured and undenatured ethanol for other industrial use totaled 3%."), at <http://www.ethanolrfa.org/page/-/rfa-association-site/studies/2014%20U.S.%20Export-Import%20Report.pdf?nocdn=1>.

<sup>352</sup> Memorandum from David Korotney to EPA Air Docket EPA-HQ-OAR-2015-0111-1219,

“Calculation of ethanol export estimates for 2014” (July 24, 2015).

<sup>353</sup> 2014 RIN Supply, EPA-HQ-OAR-2015-0111-0004.

<sup>354</sup> 16.3 = 15.93 + 0.37.

### **Illinois Farm Bureau**

The targets within the RFS2 program have been reduced to 15.93 billion gallons, 2.22 billion gallons below the statutory framework in the RFS2 law. [EPA-HQ-OAR-2015-0111-3290-A2 p.1]

### **Iowa Corn Growers Association (ICGA)**

“Because 2014 is “history,” EPA proposed using its own EMTS (the agency’s system of monitoring RINs transactions) for determining the “RVOs that already happened” for 2014. Sounds easy, right? Using our own experience with the massively complex EMTS, and working with clients who are expert RIN traders, we have found a number of substantial potential errors in the figures published by EPA on May 29, 2015. Two of the largest are as follows: Exported ethanol is of two types, denatured and un-denatured. The first has its generated RINs retired before export, and the second does not generate a RIN at all (it is like drinking ethanol, and must have Treasury Department permits and inspection). EPA does not seem to make this distinction, which means that their export RINs number of 0.846 billion gallons in line e (see chart below) should be only 0.466 million gallons.

### **Iowa Renewable Fuels Association**

Iowa Confirms: The “Not Exported” RINs [EPA-HQ-OAR-2015-0111-1957-A2 p. 5]

At the Kansas City field hearing, EPA heard testimony regarding an error in the “net supply” of RINs available for use in complying with the 2014 standard.<sup>18</sup> Given the Agency’s intent to set the 2014 standard based on the amount of RINs supplied in 2014 and available for use, this error directly and materially impacts the proposed RFS level for 2014. The error arises from the mistaken assumption that RINs were generated for all gallons of fuel ethanol exported, and therefore, those RINs must be retired. [EPA-HQ-OAR-2015-0111-1957-A2 p. 5]

Upon learning of this error at Kansas City, IRFA polled its members to see if, in fact, any had produced undenatured fuel ethanol for export in 2014 and had not generated RINs (as the regulations require). A large number of Iowa ethanol producers confirmed that fact.<sup>19</sup> They produced fuel ethanol for export in 2014. For certain export markets, the fuel ethanol was undenatured, meaning these plants never generated RINs on those gallons. Therefore, there are no RINs on these gallons that need to be subtracted out of the available supply for 2014. [EPA-HQ-OAR-2015-0111-1957-A2 p. 5]

Nearly 400 million more RINs were produced in 2014 and available for compliance by obligated parties than was assumed by EPA. IRFA encourages the EPA to correct this error and to, at a minimum, increase the 2014 RFS level by the corresponding amount. [EPA-HQ-OAR-2015-0111-1957-A2 p. 5]

<sup>18</sup> Cooper, Geoff. “EPA Hearing on 2014–2016 RFS Proposal.” *Renewable Fuels Association* 25 Jun 2015 [http://ethanolrfa.3cdn.net/7b561fd0026e2097a7\\_uem6bnzre.pdf](http://ethanolrfa.3cdn.net/7b561fd0026e2097a7_uem6bnzre.pdf)

<sup>19</sup> Various emails communications between IRFA and member plants.

### **Paul Bertels Farms**

A detailed analysis of the proposal also shows that the Agency used a faulty assumption in determining 2014 actual volumes produced or accruing RINs. EPA states “since EIA does not distinguish exports by D code, we assumed based on past practice that all ethanol exports represent D6 ethanol... We expect any errors introduced by this assumption will be very small.” Closer examination of industry practices would have indicated that un-denatured ethanol does not generate RINs. Assuming these gallons had RINs and subsequently reducing the total volume produced led you to reduce the net supply of D6 RINs by almost 400 million gallons. [EPA-HQ-OAR-2015-0111-2799-A1 p.1-2]

### **Poet, LLC**

EPA states that it is proposing to base the 2014 RVOs on the “number of RINs supplied in 2014 that are *expected to be available* for use in complying with the standards.”<sup>92</sup> The NOPR further states that “Because 2014 has passed, the final rule cannot alter” 2014 volumes of renewable fuel.<sup>93</sup> However, EPA fails to recognize that the 2014 RVO can significantly impact RIN prices that can spur investment now, and the large volume of banked RINs. And certainly banked RINs are “available for use.”

At a minimum, the 2014 Base Renewable target should be *increased* by the volume of D6 RINs retired due to exports, which can be readily accommodated by a modest draw-down from the RIN bank. In other words, at a minimum, EPA should add back in export volumes that EPA deducted when setting the 2014 target. Exported D6 volumes would have been used domestically had EPA timely set the 2014 Base Renewable target to incentivize the increased use of ethanol blends above E10 (such as E85 and E15). [EPA-HQ-OAR-2015-0111-2481-A1 p.22]

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<sup>92</sup> NOPR at 33,121 (emphasis added).

<sup>93</sup> NOPR at 33,105.

### **Renewable Fuels Association (RFA)**

EPA incorrectly subtracts the total volume of 2014 exports from gross RIN generation, when in fact RINs were not generated—and thus cannot be retired—for a minimum of 370 million gallons of exported ethanol (and a maximum of 393 million gallons). The RFS regulations require that ethanol must be denatured in order to generate a RIN and qualify as “renewable fuel.”<sup>22</sup> Further, exporters of undenatured ethanol do not incur an exporter RVO because they are not exporting “renewable fuel” as defined by 40 CFR 80.1401. [EPA-HQ-OAR-2015-0111-1917-A1 p. 17]

The EMTS web site shows total D6 RIN generation of 14,354 million RINs, compared to 14,345 million RINs shown in the docket worksheet.<sup>23</sup> Further, it is unclear what RIN retirements may be included in the category labeled as “corrections” in the docket worksheet. The docket worksheet shows 249 million RINs being unavailable due to “corrections,” yet the EMTS web

site shows just 14.2 million D6 RINs in the “RIN generation error corrections” category. [EPA-HQ-OAR-2015-0111-1917-A1 p. 18]

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<sup>22</sup> The definition for “renewable fuel” in 40 CFR 80.1401 specifies that “Ethanol covered by this definition shall be denatured as required and defined in 27 CFR parts 19 through 21.”

<sup>23</sup> EPA. RFS2 EMTS Informational Data. <http://www.epa.gov/otaq/fuels/rfsdata/2014emts.htm>, viewed 7/18/2015.

EPA. RFS2 EMTS Informational Data. <http://www.epa.gov/otaq/fuels/rfsdata/2014emts.htm>, viewed 7/18/2015.

EPA. RFS2 EMTS Informational Data. <http://www.epa.gov/otaq/fuels/rfsdata/2014emts.htm>, viewed 7/18/2015.

### **Syngeta**

In 2014, the U.S. ethanol industry produced 14.3 billion gallons of ethanol and nearly 14.4 billion D6 FUN credits were generated. This occurred even in the absence of any final RFS blending requirements, and production certainly could have been higher if the statutory RFS volumes had been enforced by EPA. Simply put, when ethanol production, ethanol stocks, and RIN stocks are properly considered, there can be no doubt that supplies were adequate in 2014 to meet the statutory requirement of 14.4 billion gallons. [EPA-HQ-OAR-2015-0111-2493-A1 p.2]

### **The Andersons, Inc.**

The calculated method EPA used to determine the 2014 RVO was flawed in that there was a deduction of all exported ethanol from the total 2014 ethanol blended, in spite of the fact that the 386 million gallons of undenatured ethanol that was exported will not retire RINS because RINS are never generated in the first place for undenatured ethanol shipments. [EPA-HQ-OAR-2015-0111-2275-A2 p. 3]

### **Response:**

As described in Section II.C of the final rule, some stakeholders indicated that they believed we had erred in assuming that all exported ethanol was denatured in the U.S., and had RINs generated for it prior to export. Based on these comments and further investigation into the manner in which the Census Bureau data are collected, we believe that the Census Bureau survey data are likely to be more reliable than we previously believed with regards to whether exported batches were denatured or undenatured. That is, we believe the Census Bureau data provides the best information available on the amount of denatured versus undenatured ethanol that was exported in 2014. Therefore, the volume of undenatured ethanol the Census Bureau reported as exported in 2014 should not be subtracted from the total number of RINs generated for fuel ethanol in 2014 for purposes of calculating the available supply of renewable fuel for 2014. We have made this correction to the calculation of 2014 supply by only subtracting the approximately 460 million gallons of exported denatured ethanol from those generated in 2014, rather than the full volume of about 810 million gallons of denatured and undenatured ethanol exported.

Some stakeholders indicated that the data available in EMTS regarding 2014 RIN generation and retirements has changed since the time that EPA did its calculations of 2014 RIN supply for the NPRM. This is true. More specifically, data on RIN retirements for circumstances other than

for compliance (such as errors in RIN generation and remediation of invalid RINs) is periodically updated to reflect new information. This process can cause the estimate of RIN supply for 2014 to change slightly throughout 2015. For the purposes of this final rule, we have used more recent information from EMTS than was used for the NPRM, resulting in a very small change to the estimates of 2014 supply and thus the 2014 volume requirements. However, we cannot guarantee that additional changes will not be made to the record of RIN retirements for 2014 after this final rule is released.

One stakeholder said that it would be inappropriate to exclude from the overall supply of 2014 RINs any RINs that were retired to address remedial actions in connection with an enforcement obligation. We disagree. 2014 is over and there is no ability to generate any more 2014 RINs. Therefore, any RINs removed from the market for any reason other than for demonstrating compliance either with the applicable percentage standards or with an exporter's RVO are by definition not available for use in demonstrating compliance with the applicable percentage standards or with an exporter's RVO. RINs retired to address a remedial action in connection with an enforcement obligation are intended to correct for some violation of the regulations that would otherwise lead to more RINs being available for compliance than the renewable fuel actually used in the U.S. as transportation fuel, heating oil, or jet fuel. By subtracting RINs from the total number of RINs generated those RINs retired to address remedial actions in connection with an enforcement obligation, we ensure that the pool of RINs available for compliance accurately represents renewable fuel used in the U.S. as transportation fuel, heating oil, or jet fuel.

Some obligated parties argued that their operations for 2014 vis-a-vis acquisition of RINs were based on the standards that were proposed in the November 29, 2013 NPRM, and that it would be inappropriate for EPA to set final applicable percentage standards for 2014 now that are more stringent than those proposed in November 2013. Other obligated parties claimed that they had used the applicable 2013 percentage standards for this purpose, as they were the only standards that were in the regulations in 2014, and likewise argued that the EPA should set the final percentage standards for 2014 no higher than the 2013 percentage standards. We disagree. Obligated parties have always been aware that the final volume requirements can differ from those proposed, and moreover the November 2013 NPRM explicitly provided both a range of possible volume requirements as well as an indication that the final volume requirements could include a modification of those ranges. More importantly, we are setting the applicable volume requirements for 2014 at levels consistent with the number of RINs generated in 2014 that are available for compliance. Thus we expect the total number of RINs available for compliance to be the same, or nearly so, as the volume requirements that we are setting for 2014 in this final rule. While it is true that the 2014 RINs available for compliance may not currently be distributed among obligated parties according to their individual compliance obligations, they are nevertheless available for compliance, and obligated parties can buy and sell RINs in order to ensure compliance. Obligated parties can also carry a deficit into 2015 if they did not carry a deficit in 2014, permitting a longer time period over which they can make arrangements to acquire RINs from those parties who have more than they need. This process is exactly how the RIN system was designed to operate when originally established in 2007.

Some parties argued that all RINs retired to address exports of renewable fuels should be counted as being available for compliance, and thus should not be subtracted from the pool of

RINs generated in 2014. Parties taking this position argued that, had the 2014 standards been in place by the statutory deadline of November 30, 2013, at least some of the RINs retired for exports would instead have been used for compliance purposes. We disagree. While it is theoretically possible that qualifying renewable fuel that was exported in 2014 might instead have been used in the U.S. had the applicable standards been in place, it would nevertheless be inappropriate to identify exported renewable fuel as being available for compliance now since the standards that we set now cannot cause a change in 2014 exports.

Some stakeholders argued that we had arbitrarily reduced the 2014 volume requirements below the statutory targets by arbitrarily excluding consideration of carryover RINs. We disagree. We considered whether it was appropriate to increase the 2014 volume requirements above renewable fuel supply in 2014 by intentionally drawing down the bank of carryover RINs, and determined that it would not be appropriate to do so. For responses to comments on the role of carryover RINs in the RFS program and suggestions that they could be used to increase the volume requirements, see Section 6.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

- Section 2.2: Statutory Authorities for Reducing Volume Targets
- Section 2.2.2.1: Inadequate Domestic Supply
- Section 2.4.2: Proposed Volumes for 2015
- Section 3.2.1: Availability of Feedstocks
- Section 4.1: General Comments on Cellulosic Biofuels
- Section 7.2: Agricultural Impacts (food, animal feed, crops, feedstock)
- Section 7.5: Retail Fuel Prices
- Section 7.6: Energy Security
- Section 10.2.2: Statutory Deadlines

## **2.4.2 Proposed Total Renewable Fuel Volume for 2015**

### **Comment:**

#### **Advanced Economic Solutions (AES)**

The EPA proposal to reduce the renewable volume obligations (RVOs) below statutory levels during 2014-15 is warranted and appropriate. Without EPA's adjustments, the scheduled increase in the RVOs would result in higher gasoline and diesel fuel prices. Additionally, left unchanged the mandates would create further upward pressure on the primary feedstock used to produce the required biofuels – corn for ethanol and soyoil for biodiesel. [EPA-HQ-OAR-2015-0111-1193-A1 p.1]

EPA Proposed Mandate Levels for 2014 and 2015: AES generally agrees with the EPA proposed RVOs for both 2014 and 2015. [EPA-HQ-OAR-2015-0111-1193-A1 p.1]

The proposed RVOs for 2015 are in line with YTD production levels, and are only modestly different than the actual amount of biofuel produced for each category during 2014. [EPA-HQ-OAR-2015-0111-1193-A1 p.1]

For both years, the proposed overall RVOs are below the statutory levels prescribed in EISA. The 2015 proposed RVO is 4.20 B gallons below the original statutory level [EPA-HQ-OAR-2015-0111-1193-A1 p.1]

These reductions to lower levels than dictated by EISA during 2014 and 2015 are fully justified – for conventional biofuels by the challenge of the blend wall; for advanced biofuels by the combined challenge of a lack of commercial production of cellulosic ethanol, as well as limitations in feedstock (vegoil) availability for biodiesel. The EPA is to be applauded for their astute response to the 2014 and 2015 market limitations. [EPA-HQ-OAR-2015-0111-1193-A1 p.1]

### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

**The Agency must address this uncertainty by finalizing the 2014 percentage standards as indicated on table above and without additional adjustments.** [EPA-HQ-OAR-2015-0111-1948-A1 p.17] [Table can be found on page 17 of docket number EPA-HQ-OAR-2015-0111-1948-A1.]

As the rule is not expected to be finalized until November 30, 2015, obligated parties will not be able to significantly change their compliance strategies for 2015. As such, **EPA should finalize the same percentage standards that were published in the Proposed Rule.** This is an equitable method for doing so, since it will give obligated parties a chance to comply. The proposal represents the best information available for obligated parties to use when developing compliance strategies for 2015. [EPA-HQ-OAR-2015-0111-1948-A1 p.18]

### **Biotechnology Industry Organization**

EPA is similarly unjustified in proposing to set the 2015 RVOs according to “what actually happens” in 2015 and in consideration of “constraints imposed by the ability of vehicles and engines to use renewable fuels, particularly ethanol.”<sup>196</sup> EPA has not attempted an adequate analysis of the availability of such vehicles or the availability of RINs in 2015 sufficient to justify such a claim. EPA should fully consider setting the 2015 and 2016 RVOs at the statutory volumes, or adequately justify why it cannot do so, and must set volumes at the maximum numbers achievable. [EPA-HQ-OAR-2015-0111-1958-A2 p. 59]

The agency is proposing to allow obligated parties to establish the market for renewable fuels for a second year in a row “absent a rulemaking,”<sup>200</sup> which will create a situation where “actual supply in 2015 may be no different than it was in 2014.”<sup>201</sup> [EPA-HQ-OAR-2015-0111-1958-A2 p. 60]

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<sup>196</sup> Proposed Rule 33122.

<sup>200</sup> *Id.* at 33131.

<sup>201</sup> *Id.* at 33122.

### **Growth Energy**

Apart from the E10 blendwall, however, EPA did not attempt to quantify the effect of any of these apparent restrictions. EPA proposed to base the 2014 renewable fuel volume requirement

on the actual net RIN generation for that year.<sup>61</sup> EPA determined its proposed renewable fuel volume requirements for 2015 and 2016 by attempting to predict how much growth of fuels other than E10 “is within reach of a responsive market” based on past levels.<sup>62</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.11]

### **Illinois Farm Bureau**

The proposed rule falls further behind statutory mandates in the coming years. The proposed target for 2015 is 4.2 billion gallons below the obligation. [EPA-HQ-OAR-2015-0111-3290-A2 p.1]

### **Linn & Associates**

The 2015 proposal in particular does not follow the spirit and certainly not the letter of the RFS legislation. The 13.4 billion gallon proposal for 2014 for the first time represents a concrete step backward when compared to the enacted 2013 proposal of 13.8 billion gallons of corn-based fuels. This can best be demonstrated by the debasement of the D6 RIN market, which fell by half in the hours following the proposal release. [See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 252-253.]

### **National Chicken Council (NCC)**

The 2015 implied volume for conventional corn ethanol represents an increase over the 2014 record level of consumption of 1.1 percent, despite a reduction in total corn supply (production, carry over and imports) of 0.9 percent. This proposed level is, to use EPA’s phrase, “ambitious.” Combined with the effects of the nine percent rate of growth in ethanol exports so far in 2015 (following 33 percent growth in 2014), NCC recommends that the 2015 required volume obligations be reduced so that the corn ethanol implied volume remains set at the 2014 levels. [EPA-HQ-OAR-2015-0111-1814-A1 p.8]

### **National Sorghum Producers**

National Sorghum Producers encourages EPA to enforce congressional will and raise 2015 blending requirements to the level set forth by the Energy Independence and Security Act and the renewable fuel standard.

### **Phillips 66 Company**

EPA needs to finalize the 2015 standards as proposed (with the exception of biomass-based diesel discussed below). The 2015 final rule will not be published until very close to the end of the year. Currently, the recently issued proposal is the only guidance on which obligated parties have to base their compliance planning and strategies on. Changing the provisions retroactively for 2015, as has been done for 2014, would once again result in a negative impact to obligated parties and must be avoided. [EPA-HQ-OAR-2015-0111-2039-A1 p.2]

### **Response:**

Some obligated parties argued that their operations for 2015 vis-a-vis acquisition of RINs were based on the standards that were proposed in the June 10, 2015 NPRM, and that it would be

inappropriate for EPA to set final applicable percentage standards for 2015 now that are more stringent than those proposed in that NPRM. We disagree. Obligated parties have always been aware that the final volume requirements can differ from those proposed, and moreover the NPRM indicated that the final 2015 volume requirements could be higher or lower than those proposed based on comments from stakeholders:

"Since we recognize that these proposed volumes represent our proposed judgment as to the maximum amount of renewable fuel that can be supplied in 2015, and commenters may have information that supports a different assessment, we request comment on whether higher or lower volume requirements for advanced biofuel and total renewable fuel for 2015 would be more appropriate."  
(80 FR 33122)

More importantly, we are setting the applicable volume requirements for 2015 at levels consistent with the number of RINs generated in 2015 that are available for compliance, based on data of actual supply through September and an estimate of actual supply for the remaining months of the year. Thus we expect the total number of RINs available for compliance to be the same, or very nearly so, as the volume requirements that we are setting for 2015 in this final rule. While it is true that the 2015 RINs available for compliance may not be distributed among obligated parties according to their individual compliance obligations, they are nevertheless available for compliance, and obligated parties can buy and sell RINs in order to ensure compliance. Obligated parties can also carry a deficit into 2016 if they did not carry a deficit in 2015, permitting a longer time period over which they can make arrangements to acquire RINs from those parties who have more than they need. This process is exactly how the RIN system was designed to operate when originally established in 2007.

One stakeholder suggested that the portion of the total renewable fuel requirement for 2015 that is not required to be advanced biofuel (what is typically referred to as conventional renewable fuel, though it could be met with advanced biofuel) should be set at the same level as the 2014 volume requirement for conventional renewable fuel. This stakeholder argued that the proposed 2015 level for conventional renewable fuel was too ambitious based on alleged reductions in total corn supply and increased ethanol exports. However, in this final rule we are setting the volume requirements for 2015 based on actual supply, not on a projection of what may be achievable as we did in the NPRM. Therefore, the supply of RINs representing conventional renewable fuel in 2015 will be the same, or very nearly so, as the volume requirements that we are setting for 2015 in this final rule.

For responses to comments on whether the statutory volume requirements can be reached in 2014, 2015, or 2016, see Section 2.2.4.

For responses to comments on the role of carryover RINs in the RFS program and suggestions that they could be used to increase the volume requirements, see Section 6.

For responses to comments on the consumption capacity of vehicles to use E15 and E85, see Sections 2.6.2 and 2.7.1.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

Section 2.3.1: Congressional Intent to Increase Volumes  
Section 2.7.1: Achievable Volumes of E85 Consumption  
Section 3.2.1: Availability of Feedstocks  
Section 4.1: General Comments on Cellulosic Biofuels  
Section 7.5: Retail Fuel Prices

### **2.4.3 Proposed Total Renewable Fuel Volume for 2016**

#### **Comment:**

#### **Advanced Economic Solutions (AES)**

However the proposed level of the RVOs during 2016 would create sizable market challenges, and should be reduced. [EPA-HQ-OAR-2015-0111-1193-A1 p.1]

EPA Proposed Mandate Levels for 2016: AES believes the proposed mandate levels for 2016 are beyond levels that can be met without causing meaningful market disruptions.

#### *Conventional Biofuel Proposed RVOs:*

The proposed “carve-out” for conventional biofuels during 2016 would total 14.0 B gallons<sup>[2]</sup>. This would equate to 10.4% of the EIA’s estimate 2016 motor gasoline consumption (135 B gallons).<sup>[3]</sup> This would exceed the “10% blend wall” (10% of 135 B gallons or 13.5 B gallons) by 500 mm gallons – more than any previous conventional biofuel RVO has ever exceeded the blend wall.

The ability of the market to meet a conventional biofuel requirements during 2016 that exceeds the 10% blend wall is unclear. An inventory of D6 RINs would certainly help meet the challenge, at least in 2016. However over the remainder of the life of the EISA, consistently facing an RVO for conventional biofuels that exceeds the 10% blend wall may cause disruptions in RIN prices (and ultimately gasoline prices) that the market is ill-equipped to handle. [EPA-HQ-OAR-2015-0111-1193-A1 p.2]

AES also recommends that EPA reduce the conventional biofuel RVO for 2016 to the 13.5 B gallons. [EPA-HQ-OAR-2015-0111-1193-A1 p.3]

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<sup>[2]</sup> Calculated as the difference between the proposed total biofuel RVO (17.4 B gallons) minus the proposed advanced biofuel RVO (3.4 B gallons)

<sup>[3]</sup> EIA Short-term Energy Outlook, April 2015

#### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

EPA should set the 2016 Total Renewable Fuel standard at 16.30 billion gallons.<sup>38</sup> This volume is based on ethanol usage at 9.7% for E10 (13.404)<sup>39</sup> plus 2.9 billion gallons of advanced biofuel ethanol equivalent RINs which includes 0.074 billion gallons of sugar cane ethanol as a proxy to 100 million gallons of E85 use.<sup>40</sup> [EPA-HQ-OAR-2015-0111-1948-A1 p.25]

<sup>38</sup> 13.404 ethanol in E10 + 2.9 advanced = 16.304

<sup>39</sup> EIA's May 2015 STEO projection for gasoline in 2016 = 8.99 million b/d, or 138.19 billion gallons.  $0.097 * 138.19 = 13.404$ .

<sup>40</sup> 100 million gallons of E85 = 74 million gallons of ethanol.

There will only be one month between EPA's deadline to issue the Final Rule for 2016 and the end of 2015, and only seven months from the release of the Proposed Rule to the end of the year. Even if obligated parties could rely on the Proposed Rule (which is problematic for many reasons, and perhaps more so in this rulemaking given the previous proposal and withdrawal of the 2014 RFS rule) this is obviously insufficient lead time for the planning, approval, design, permitting, construction and start-up of any large capital projects. In addition, this schedule does not provide enough time for a sufficient number of infrastructure projects to have a significant impact on biofuels production and blending at the rack and pump installation at the retail level. [EPA-HQ-OAR-2015-0111-1948-A1 p.26]

### **Wisconsin Farm Bureau Federation**

WFBF opposes the EPA's proposed reduction in the amount of renewable fuels that must be blended into the nation's gasoline supply. This decision will cripple conventional ethanol production and make it more challenging for further advancements of biofuels. [EPA-HQ-OAR-2015-0111-1716-A1 p. 1]

### **Archer Daniels Midland Company (ADM)**

As ethanol producers, traders and marketers, we believe that the original goals of the RFS are reasonable and within reach, but the RVO proposal greatly undermines these goals. Therefore, we urge EPA to reconsider its RVO proposal and to set ethanol volumes in line with the volumes spelled out in the federal statute. [EPA-HQ-OAR-2015-0111-2262-A1 p. 4]

### **Butamax Advanced Biofuels, LLC**

EPA should as much as possible minimize waivers that lessen the statutory volumes. This maximizes conformance with legislative intent while providing stakeholders with the strongest possible confidence as they plan their long-term commercial, investment and compliance strategies. [EPA-HQ-OAR-2015-0111-1938-A2 p. 4]

### **Chevron**

Regarding 2016, the proposed volumes of renewable fuel for 2016 will very likely exceed the blendwall limit. We recommend that EPA use the same methodology for 2016 as proposed for 2015 and keep the volume standards below the blendwall limit. [EPA-HQ-OAR-2015-0111-1911-A1 p. 2]

### **Colorado Corn Growers Association**

I have deep concerns, though, and stress that the Colorado Corn Growers Association adamantly recommends the EPA return to the statutory volumes contained within the Energy Independence Security Act (EISA). [EPA-HQ-OAR-2015-0111-2334-A1 p.1]

Again, the Colorado Corn Growers Association requests that the EPA reconsider its proposed reduction to the RVOs and continue to provide the regulatory backing to the RFS the most successful renewable fuels program in history. [EPA-HQ-OAR-2015-0111-2334-A1 p.2]

### **Commonwealth Agri-Energy, LLC**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 189.]

The EPA needs to understand that consumers deserve a choice at the pump. Ethanol is cheaper, cleaner burning, renewable, American made. The EPA should maintain the statutory requirements of the RFS.

### **Conestoga Energy Partners Holding**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 247-249.]

I'm here today, obviously, to say please keep the original RFS2 RVO standards and blending obligations. It's been one of the most successful programs, Government programs in the last 20 years. I've seen it, what it's done to rural America by -- I farm as well. And proven by the reduction in direct payments to producers, it has vitalized rural America.

I'd ask that you restore the 2016 and forward RVO blending requirements back to the original RFS law because it's working.

### **Cornelius Seed Corn Company**

As you finalize the EPA's Renewable Fuel Standard rule for 2015, please make consider increasing the level of ethanol to the level set by Congress. [EPA-HQ-OAR-2015-0111-3247-A1 p.1]

### **Countrymark Cooperative Holding Corporation**

CountryMark does not agree with the increased ethanol and biomass-based diesel standards that are proposed for 2016. EPA should consider reducing both the renewable mandate to reflect the blendwall at 9.7% of the gasoline pool as ethanol. [EPA-HQ-OAR-2015-0111-2264-A1 p.8]

### **DuPont**

DuPont does not believe that EPA has proposed the Total Renewable Fuel volumes at a level that will drive obligated parties to blend additional biofuel and make the necessary investments in infrastructure to accommodate the additional volumes. [EPA-HQ-OAR-2015-0111-1826-A1 p.22]

### **ERI Solutions**

If the EPA is really concerned about higher ethanol blends, why are current EPA employees trying to patent E20 and higher ethanol blends? It doesn't make sense. I ask that you consider the

truth, leave the renewable fuel standard in place, dispose of the crippling agendas of others, the misinformed puppets that you've heard some of today, and leave this powerful industry that's trying to oppose the RFS out of the equation.

### **Farm Credit Services of America**

As a lead lender to all types of agricultural producers, we are very sensitive to how the success of this industry ripples through and impacts other segments. But, predictability is the central issue required for project success, and shifts in government policies – or even the threat of shifts – are problematic. The proposed rule, if finalized without revising the RVO levels to match the targets established by Congress, will cause severe economic consequences to agriculture producers and will diminish future investment in renewable fuels. Specifically, the RVO levels, as proposed, would significantly reduce corn demand, prices, and farm sector profits, which would lead to declines in land values and increased Federal expenditures on Farm Program costs. [EPA-HQ-OAR-2015-0111-2491-A1 p.1]

The need for greater certainty is important in achieving our nation's long term environmental and domestic energy objectives for investors, producers and consumers. This proposed rule undermines these goals. We ask that you modify the rule to reflect the congressionally established levels called for by the RFS. [EPA-HQ-OAR-2015-0111-2491-A1 p.1]

### **Growth Energy**

Apart from the E10 blendwall, however, EPA did not attempt to quantify the effect of any of these apparent restrictions. EPA proposed to base the 2014 renewable fuel volume requirement on the actual net RIN generation for that year.<sup>61</sup> EPA determined its proposed renewable fuel volume requirements for 2015 and 2016 by attempting to predict how much growth of fuels other than E10 “is within reach of a responsive market” based on past levels.<sup>62</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.11]

EPA explains that, under its proposal for 2016, after accounting for the required volume of non-ethanol cellulosic biofuel and BBD, and for the maximum amount of ethanol that can be consumed as E10 (i.e., the E10 blendwall), an additional 0.84 bil RINs would be needed to reach the renewable fuel volume of 17.40 bil. Because, as explained above,<sup>323</sup> the statutory renewable fuel volume requirement after flowing through the proposed cellulosic waiver is 1 bil higher than EPA's proposed requirement—18.40 bil—this same calculation would mean that an additional 1.84 bil RINs would be needed to reach the statutory requirement after the cellulosic waiver flow-through. Even the most conservative path outlined above could achieve that level, and other paths could far exceed it. [EPA-HQ-OAR-2015-0111-2604-A2 p.54]

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<sup>323</sup> *Supra* p.31.

### **Fremont Industries**

I just wanted to speak briefly in support of maintaining the current standard and increased use of ethanol.

### **Governors' Biofuels Coalition**

We urge you to more aggressively grow the volume obligation levels within the *Renewable Fuel Standard 2014, 2015, 2016* (No. EPA-HQ-OAR-2015-0111, 40 CFR Part 80), than the proposed levels within the recent rule. [EPA-HQ-OAR-2015-0111-2489-A1 p.1]

### **Governor of Iowa, et al.**

Stakeholders continue to express significant concerns about the EPA's reliance on outdated data and the lack of recent data utilized in compiling the EPA's proposal on RFS volume obligations. The State of Iowa asks the EPA, Office of Management and Budget, and White House officials to analyze data and information provided in the below referenced studies to refine and increase the volume obligation levels: [EPA-HQ-OAR-2015-0111-1915-A2 p.1] [List of referenced studies can be found on pages 1-2 of docket number EPA-HQ-OAR-2015-0111-1915-A2]

### **Illinois Department of Agriculture**

The State of Illinois believes that reducing the RFS benchmarks previously established by the USEPA will be detrimental to the country and Illinois. [EPA-HQ-OAR-2015-0111-0260-A1 p.1]

### **Illinois Farm Bureau**

By 2016 the proposed volume requirement is 4.85 billion gallons below the standard. [EPA-HQ-OAR-2015-0111-3290-A2 p.1]

### **Indiana Ethanol Producers Association**

The importance of renewable fuels to Indiana is self-evident, putting the proposed RVO reductions proposed by the EPA in startling context: the proposed reduction for 2016 is greater than the entire annual ethanol production in our state. [EPA-HQ-OAR-2015-0111-3485-A1, p.1]

### **Indiana Farm Bureau**

By 2016 the proposed volume requirement is 4.85 billion gallons below the standard. [EPA-HQ-OAR-2015-0111-2486-A1 p.1]

### **John Deere**

Relative to conventional biofuels, we remain concerned about the proposed reduction in 2016 volumes. By lowering volumes from 15 billion to 14 billion gallons, the proposal signals that EPA does not intend to abide by the intent and the law of the applicable standards. By proposing volumes close to the 'blend-wall' EPA gives credence to what we regard as an artificial and avoidable constraint. There are multiple options that could be advanced if your agency commits to overcoming this constraint. These options include but are not limited to infrastructure investments, pricing and marketing tactics to promote growth in E85 volumes, and/or investments in wholesale distribution that would result in greater access to E15. [EPA-HQ-OAR-2015-0111-2042-A1 p.2]

The biofuel industry requires an emphatic message that EPA will not allow actual or perceived supply constraints to prevent continued growth in renewable fuels consumption. We believe EPA incorrectly interprets Congress' intent when it proposes to apply the statutory 'inadequate domestic supply' waiver-authority to distribution constraints. Even if EPA's interpretation of the

waiver authority is correct, its exercise is not required - especially when doing so jeopardizes the fundamental signal that must be sent to the market. As such, we ask that EPA stand by the statutory volume of 15 billion gallons of conventional biofuel in 2016. [EPA-HQ-OAR-2015-0111-2042-A1 p.2]

It is clear that specific and targeted adjustments to the Total Renewable Fuel volumes are justified. Cellulosic biofuel production has yet to achieve volumes that would support the statutory levels. We also understand the case for a balance in the 2014 and 2015 volumes since the time needed to substantially impact action has largely passed. However, just as Congress clearly intended, volumes for 2016 and beyond must be aggressive enough to compel the industry to take actions necessary to meet the needs of the future. [EPA-HQ-OAR-2015-0111-2042-A1 p.2]

### **Kansas Corn Growers Association**

We see no reason for EPA to lower the ethanol levels in the Renewable Fuels Standard and we are asking that the corn ethanol levels in the RFS for the 2014-2016 period remain as they are written in the law. [EPA-HQ-OAR-2015-0111-3172-A1 p. 1]

### **Leifmark LLC**

From the perspective of a cellulosic ethanol technology provider, it's essential that the corn ethanol industry is healthy for cellulosic to take off to the volumes proposed in RFS2. The supply chain starts with U.S. farms. RFS2, as Congress intended, is based on the simple premise that higher ethanol blends such as E15, E30 and E85 will become commonplace as U.S. fuel retail stations. [EPA-HQ-OAR-2015-0111-1955-A2 p. 2]

### **Marathon Petroleum Company**

We disagree with the volumes proposed by the agency for 2016. After stating that the E10 blendwall is real and a barrier to blending biofuels, the agency purposely is proposing volumes that push the country beyond the E10 blendwall. We find the logic inconsistent. [EPA-HQ-OAR-2015-0111-1932-A1 p. 4]

### **Marine Retailers Association of the Americas (MRAA)**

With Congress taking little action of the matter, we respectfully ask the EPA to lower the Final Ruling ethanol volumes proposed for 2105 and 2016. [EPA-HQ-OAR-2015-0111-1949-A1 p.1]

### **Maryland Grain Producers Association**

I'm here today to express our support for ethanol production, a robust renewable fuel standard, and to explain Maryland's efforts to expand the infrastructure for higher blends.

And that's why in 2007, when the renewable fuel standard was passed, Congress understood that there would be opposition. That's why they passed the law, and they put specific quantities in the law, and they put EPA in charge. So what has gone wrong? Today, we have ample ethanol infrastructure. We have low feedstock prices, and our barrier to success is the EPA. On behalf of Maryland's grain industry, I would like to express that this is unacceptable. It's outside your legal authority, and we ask you to restore the RVO to the statutory limits.

**Mass Comment Campaign sponsored by anonymous 24 (postcard) - (207)**

Yet, the EPA has proposed REDUCING the amount of ethanol that will be blended next year. [EPA-HQ-OAR-2015-0111-2563-A1 p.1]

Stand up with your favorite driver and tell the EPA that you want our sport, our cars and our environment to continue to benefit from ethanol. [EPA-HQ-OAR-2015-0111-2563-A1 p.1]

I oppose your decision to reduce the use of corn ethanol volumes in the Renewable Fuel Standard. [EPA-HQ-OAR-2015-0111-2563-A1 p.2]

Please reverse your decision and leave the corn ethanol level where it currently is in the Renewable Fuel Standard statute. [EPA-HQ-OAR-2015-0111-2563-A1 p.2]

**Mass Comment Campaign sponsored by anonymous 25 (email) - (11)**

EPA's proposed drastic cuts in the RVO amounts will have a devastating financial impact on rural economies as well as stopping further investments in ethanol businesses throughout the nation. When the RFS was established it was known and intended that ethanol blends would need to exceed 10% but oil companies are doing everything they can to control their monopoly on the nation's fuel supply. With this flawed proposal, EPA is fundamentally dismissing the law and the intent of how the RFS should work under the 2005 and 2007 RFS as enacted. For all the above reasons we again implore that EPA restore the RVO to the statutory volume amounts. [EPA-HQ-OAR-2015-0111-2567-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 26 (web) - (11)**

Reducing the RFS will diminish the infrastructure developments and investments that are making biofuels available to consumers. Pick American made biofuels instead of foreign oil by continuing a robust RFS! [EPA-HQ-OAR-2015-0111-2826 p.1]

**Mass Comment Campaign sponsored by anonymous 27 (paper) - (120)**

At the same time Missouri farmers struggle to put in a crop, the EPA deals another blow by continuing to propose reductions to the Renewable Fuel Standard (RFS) volume obligations. This move is unacceptable. [EPA-HQ-OAR-2015-0111-2959-A1 p.1]

Now is not the time to move backward when it comes to developing alternatives to fossil fuels and foreign oil. We must move forward. Continuing to implement the RFS at the intended levels is vital to increasing our energy independence, improving the environment and supporting American agriculture. [EPA-HQ-OAR-2015-0111-2959-A1 p.1]

Please reconsider the proposed rule and show your support for a cleaner, locally refined future. [EPA-HQ-OAR-2015-0111-2959-A1 p.1]

**Mass Comment Campaign sponsored by Indiana Corn Growers Association and Indiana Soybean Alliance (email) - (304)**

Your decision to reduce corn ethanol levels harms both the rural economy and the environment which it is your mission to protect. I strongly urge you to reconsider your proposed reduction in

the baseline 2015 and 2016 renewable volume obligations. Return them to the levels decided upon by Congress in the RFS. My farm, my family and my community depend on your making the right decision. [EPA-HQ-OAR-2015-0111-3387-A1 p.1]

**Mass Comment Campaign sponsored by Minnesota Corn Growers Association - (784)**

As an American who drives a car, breathes the air and would like choices at the pump, I am writing to urge the Environmental Protection Agency (EPA) to leave the Renewable Fuel Standard alone. [EPA-HQ-OAR-2015-0111-2570-A2 p.1]

If EPA implements its proposal to slash the RFS and reduce the amount of cleaner-burning ethanol blended in our fuel supply below what Congress originally called for, all of this progress is threatened. I don't want to see our country's energy policy go backward, but that's exactly what would happen if EPA is allowed to roll back the RFS. [EPA-HQ-OAR-2015-0111-2570-A2 p.1]

Americans want homegrown, cleaner-burning alternatives at the pump. They're not buying into the mythical 'blend wall' excuse that the oil companies try and shove down our throats when it comes to ethanol and the RFS. [EPA-HQ-OAR-2015-0111-2570-A2 p.1]

Now is the time for the EPA to listen to Americans, not Big Oil companies. Implement the RFS as Congress originally intended. It's working for all Americans. [EPA-HQ-OAR-2015-0111-2570-A2 p.1]

I am writing to urge the Environmental Protection Agency (EPA) to leave the 2014, 2015, and 2016 Renewable Volume Obligations at the levels originally proposed by Congress in the groundbreaking energy legislation known as the Renewable Fuel Standard (RFS). [EPA-HQ-OAR-2015-0111-2961-A1 p.1]

Minnesota farmers are proud to have played a leading role in growing corn used for ethanol that cleans our air and offers numerous other environmental and economic benefits. I ask that you allow us to continue moving America's energy policy forward and not mess with the RFS. [EPA-HQ-OAR-2015-0111-2961-A1 p.1]

**Mass Comment Campaign sponsored by National Corn Growers Association (NCGA) - (24,661)**

EPA: Please maintain the renewable volume obligation levels indicated in statute for 2015 and 2016. The continued health of the rural economy and the nation's environmental improvements hinge upon this decision. [EPA-HQ-OAR-2015-0111-2564-A1 p.1]

I oppose your decision to reduce the use of ethanol volumes in the Renewable Fuel Standard. [EPA-HQ-OAR-2015-0111-2565-A1 p.1]

Keep the Renewable Fuel Standard intact and on track--don't mess with the statute. Our farms, families and communities depend on your making the right decision. [EPA-HQ-OAR-2015-0111-2565-A1 p.1]

I strongly oppose the proposed reduction in the baseline renewable volume obligations for the Renewable Fuels Standard. Return them to the levels decided upon by Congress in the Renewable Fuel Standard. Our farms, our families, our state and my community depend on your

support of clean air, renewable energy and domestic jobs with American corn ethanol. [EPA-HQ-OAR-2015-0111-2566-A1 p.1]

As your constituent, I ask you to support the Renewable Fuel Standard. Tell the EPA: Don't reduce the 2014 RFS corn ethanol renewable volume obligations. [EPA-HQ-OAR-2015-0111-2824-A2 p.1]

I support American Ethanol. I strongly oppose your reduction of corn ethanol volumes in the Renewable Fuel Standard. [EPA-HQ-OAR-2015-0111-3291-A1]

Reconsider your proposal return the renewable volume obligations to the statute passed by Congress and signed by the president in 2007. My farm, my family and my community depend on this decision. Don't mess with the RFS. [EPA-HQ-OAR-2015-0111-3470-A1 p.1]

Please reconsider your damaging proposal to cut the use of corn ethanol in the Renewable Fuel Standard in 2014. [EPA-HQ-OAR-2015-0111-3475-A1 p.1]

Please, think again and keep the RFS for corn ethanol where it is. Changing it is simply not worth the economic and environmental damage. [EPA-HQ-OAR-2015-0111-3475-A1 p.1]

I write to urge you to express your concern regarding the Environmental Protection Agency's authority to adjust the 2014, 2015 and 2016 Renewable Volume Obligations (RVOs) under the Renewable Fuel Standard (RFS). Reducing the amount of renewable fuel blended into gasoline could hurt rural economies, jeopardize American jobs, raise prices at the pump and deter investment in biofuels and biofuel infrastructure. [EPA-HQ-OAR-2015-0111-3476-A1 p.1]

We request that you urge the Agency to stay the course and support this important piece of transformational energy policy. Please ask EPA to reconsider its proposed reduction in the 2014 renewable volume obligations and maintain levels indicated in the statute for 2015 and 2016. [EPA-HQ-OAR-2015-0111-3476-A1 p.1]

#### **Mass Comment Campaign sponsored by Nebraska Corn Board (paper) - (1856)**

Please maintain the renewable volume obligation levels indicated in statute for 2015 and 2016. [EPA-HQ-OAR-2015-0111-3388-A1 p.1]

The Renewable Fuels Standard (RFS) was one of the most successful energy policies ever enacted in the U.S. [EPA-HQ-OAR-2015-0111-3388-A1 p.2]

#### **Mass Comment Campaign sponsored by KeepAmericaFishing (web) - (5403)**

As a recreational fisherman, I am displeased with the recently released ethanol volumes that were proposed for this year and 2016 in compliance with the Renewable Fuel Standard. I ask that you please consider lowering these significantly in light of the safety concerns associated with using ethanol. [EPA-HQ-OAR-2015-0111-2050-A1 p.1]

Please reevaluate the volumes of ethanol you have proposed for 2015 and 2016 and reduce the requirements to levels that are mindful of consumer safety. [EPA-HQ-OAR-2015-0111-2050-A3 p.1]

### **Michigan Corn Growers Association**

On behalf of more than 1,400 members of our association, I ask that the EPA act to restore the renewable volume obligations for each year to the statutory amount. The RVO should not be limited by petroleum industry market agreements or their lack of desire to install infrastructure.

### **Minnesota Bio-Fuels Association (MBA)**

In the matter involving conventional renewable biofuel, there is no need for the EPA to exercise any judgment with respect to the RVO because the production capacity is available, infrastructure can handle E15 and the full implementation of the RFS for 2015 and 2016 with respect to conventional biofuels will provide the certainty the industry seeks as it expands the production of advanced biofuels. Complying with and enforcing the RFS will assist in efforts to further reduce GHG emissions. [EPA-HQ-OAR-2015-0111-1936-A1 p.7]

### **Minnesota Corn Research and Promotion Council**

The Minnesota Corn Growers are also playing a leading role in growing the availability of mid-level ethanol blends in our State. Soon over 30 stations will be dispensing E15 through flex-fuel pumps, and we have 300 stations that carry ethanol blends, giving the consumers a real choice at the pump. I've seen firsthand that the blend wall is a myth. If you have the infrastructure to deliver homegrown biofuels, consumers will buy them. If EPA slashes the RFS and fails to implement the law as Congress originally intended, it will be a major step backward to our country's energy policy. We've made too much progress on renewable fuels, especially in Minnesota, to go in the wrong direction. The United States should be taking a lead in using more clean, renewable, and homegrown sources of energy. Instead, we're talking about cutting the RFS, the result of which would be a continued, but unsustainable reliance on fossil fuels.

### **Minnesota State Senate**

As you move forward in developing a final rule, I hope you will consider the impact such a rule will have on the farmers, investors and workers who count on their jobs at ethanol production facilities around the country. I would also ask that you return the RFS to a program based on supply of renewable fuel and ambitious goals to reduce our dangerous dependence on foreign oil and not let the program be held captive by the oil industry and its unwillingness to allow higher ethanol blends into the marketplace. [EPA-HQ-OAR-2015-0111-3284-A1 p.2-3]

### **Missouri Corn Merchandising Council**

When it comes to a market for our corn, ethanol is a big deal, and this decision is also a big deal. In the State of Missouri alone, the RFS drives \$6.3 billion in annual economic output. It supports 43,000 jobs, \$1.5 billion in wages, and cultivates over \$474 million in taxes.

I mentioned before that ethanol is a big deal when it comes to our market for our corn. As a member of the Merchandising Council, we are constantly analyzing our markets and where our dollars should be invested to increase corn demand. This analysis is why we continue to invest in ethanol, from consumer education to helping retailers install equipment. We were excited when the USDA announced \$100 million in funding for ethanol infrastructure. We have already decided to commit \$1 million to that effort in the State of Missouri. Given this historic

investment in infrastructure, it would be unthinkable for EPA not to move back to the statutory numbers by November. Fifteen billion gallons of corn-based ethanol by 2015 is what everyone agreed to in 2007. Corn farmers have stuck by our agreement, and EPA and big oil must do the same.

### **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

As discussed above, EPA's decision to set volume requirements right at the boundary of adequate and inadequate supply, and to estimate adequate supply without accounting for the uncertainty inherent in its projections, create a significant risk that its waiver will be insufficient to ensure "adequate domestic supply." That risk is magnified in 2016 because EPA has proposed to mandate the usage of 840 million gallons of renewable fuel in excess of the amount that the economy was on pace to use when the NPRM issued. [EPA-HQ-OAR-2015-0111-2603-A2, pp.17-18]

EPA's projections are flawed in two key respects. First, EPA significantly overestimated the amount of ethanol the economy was on pace to blend with gasoline.<sup>48</sup> Once that error is rectified, it is clear EPA created nearly a 1.1 billion gallon gap between its mandate and the amount of renewable fuel that the economy was on pace to use when the NPRM issued. Second, at least half of the compliance scenarios set forth by EPA involve a massive increase in the volume of high-ethanol blends used in 2016. EPA reasons that the economy will be capable of significantly increasing usage of high-ethanol blends based on the theory that revenue from high RIN prices will trickle down to consumers in the form of competitively-priced E85, which consumers will then have reason to purchase.<sup>50</sup> The latest empirical data, however, indicate that this theory is not borne out in reality. The value of RINs has not been passed through to consumers nationwide in the form of competitively-priced E85, and the market has not significantly expanded E85 infrastructure in response to more than two and a half years of high RIN prices. EPA has no basis for expecting any material change to occur in these respects within the next six to eighteen months. [EPA-HQ-OAR-2015-0111-2603-A2, p.18]

As a result, in order to satisfy EPA's proposed mandates, the economy will need to produce biomass-based diesel at or near levels that EPA has described as merely "theoretical[]." EPA must adjust its volume requirements for 2016 in light of this empirical evidence and real-world constraints. [EPA-HQ-OAR-2015-0111-2603-A2, p.19]

In sum, EPA not only has decided to push the very boundary between adequate and inadequate supply, but has then adopted unrealistic and overly optimistic projections of where that boundaries lies. It is incumbent upon EPA to address all of these trends directly and to adjust the size of its renewable mandates for 2016 accordingly. [EPA-HQ-OAR-2015-0111-2603-A2, p.39]

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<sup>48</sup> See, e.g., Scott Irwin & Darrel Good, Dep't of Agric. & Consumer Econ., University of Illinois at Urbana-Champaign, Implementing the RFS with a 'Push' Strategy: What Happens after 2016?, farmdoc daily (5):112, June 17, 2015, available at <http://farmdocdaily.illinois.edu/pdf/fdd170615.pdf>.

<sup>50</sup> See NPRM, 80 Fed. Reg. at 33,128 ("We recognize that the market would need to compel E85 prices to be increasingly favorable relative to E10 in order to provide the incentive for FFV owners to purchase E85, but this is exactly how a fully functional market will react to standards

designed to drive growth in renewable fuel as Congress intended. Thus we believe it is possible for the market to reach volumes perhaps as high as 600 million gallons under favorable pricing Conditions.”).

Making matters still worse, for 2016 EPA has presented overly optimistic projections of renewable fuel production and usage—projections that leave no breathing room and cannot be squared with the sources of data EPA has relied upon or with production and usage levels so far in 2015. First, the NPRM underestimated the size of the gap between the amount of renewable fuel that EPA proposed to mandate in transportation fuels in 2016 and the amount it assumed the economy was actually on pace to supply in transportation fuels in 2016. [EPA-HQ-OAR-2015-0111-2603-A2, p.3]

### **Monsanto**

I am writing in response to your proposal to reduce the use of ethanol in the Renewable Fuel Standard. As you are aware, there are many great efforts both publically and privately focused on driving renewable energy growth. We recognize and commend the continued multi-U.S. government agency strategy to advance the technical and societal benefits from ethanol use. This critical ethanol work across EPA, Department of Energy, USDA, Department of Defense, Department of Commerce and Department of Health & Human Services represents a significant, long-term commitment to energy diversification and improved clean air. [EPA-HQ-OAR-2015-0111-1945-A1 p.1]

I strongly urge you to reconsider your proposed reduction in the baseline 2015 and 2016 renewable volume obligations, returning these targets to the levels decided upon by Congress in the RFS. [EPA-HQ-OAR-2015-0111-1945-A1 p.1]

### **National Biodiesel Board**

While EPA focuses on biomass-based diesel being “nested” within the advanced biofuel requirement, it does not assess whether keeping the total renewable fuel volume at a certain level also could provide additional incentives to produce more biomass-based diesel or advanced biofuels. As discussed above, increasing D4s reduces gasoline blend wall pressure. EPA also should consider the extent to which increasing volumes of D6 RINs are coming in from non-gasoline pool sources (and thereby potentially competing with advanced biofuels), and consider the appropriate volume for the total renewable fuel standard at the true available supply. [EPA-HQ-OAR-2015-0111-1953-A2 p.131]

### **National Chicken Council (NCC)**

Combined with the trend toward ethanol exports, an implied volume of 14 billion gallons of conventional corn ethanol in 2016 under the RFS would almost certainly exceed the 15 billion gallon limit on ethanol production envisioned in the EISA statute. Therefore, NCC recommends a significant reduction in the 2016 required volume obligations sufficient to bring the conventional corn ethanol volume below the 10 percent blend wall. [EPA-HQ-OAR-2015-0111-1814-A1 p.8]

### **National Corn-to-Ethanol Research Center (NCERC at SIUE)**

The RFS has played a pivotal role in reducing oil imports to the lowest levels since the 1980s, while lowering gas prices, improving air quality, and strengthening the economic health of rural America. Without question, the RFS is providing meaningful benefits to the American public each and every day, and is among the most successful energy policies this nation has ever adopted. For these reasons, we are adamantly opposed to the proposal to reduce the 2014-2016 renewable volume obligation (RVOs) for renewable fuel from the levels envisioned by Congress. We simply do not understand why EPA is proposing to abandon a program that has undoubtedly delivered on its promise. [EPA-HQ-OAR-2015-0111-1226-A2 p.1]

As a result of the forward-looking nature of the RFS, our business and others in the sector are poised to make even more significant contributions to our nation's energy security in the future. Today, we are investing in the research and development activities that will lead us to improved efficiency in first generation biofuels and accelerated commercialization of the next generation of bioenergy feedstocks and renewable fuels. Waiving the 2014-2016 RVOs, as proposed, would jeopardize our past and future investments, and put at risk the enormous benefits that the recent agricultural and bioenergy renaissance has brought to rural communities and the entire nation. [EPA-HQ-OAR-2015-0111-1226-A2 p.2]

### **National Farmers Union (NFU)**

The preamble to the proposed rule acknowledges the need for longer-term certainty than annual volume targets allow, asserting that as the reason for offering the 2016 volume standards now along with the 2014 and 2015 volume standards. Ignoring the fact that the 2016 volume standard will hardly be issued before 2016, EPA's attempt to offer certainty for the biofuels industry is far less effective than establishing a habit of properly deferring to the volume standards in the EISA. [EPA-HQ-OAR-2015-0111-1657-A1 p. 8]

As discussed above, NFU asserts that the proposed advanced biofuel volume standards EPA sets forth in the proposed rule are too low. However, even if EPA refuses to raise the proposed advanced biofuel targets in the final rule, EPA must not lower the total renewable fuel proposed volume standards to the extent it would in the proposed rule. EPA maintains the ability to encourage much of the change needed in retail consumer transportation fuel infrastructure by holding fast to the volume standards set forth in the EISA, creating sufficient certainty for advanced biofuel manufacturers even if the volume standards for advanced biofuels are ultimately lowered. [EPA-HQ-OAR-2015-0111-1657-A1 p. 6]

### **National Restaurant Association**

While we also appreciate the EPA using its waiver authority to lower the RFS targets from the statutory requirements, we believe this proposal does not go far enough to relieve the pressure created by the mandate. Therefore, we urge the EPA to further decrease the corn ethanol volumes in the final rule. [EPA-HQ-OAR-2015-0111-2267-A1 p. 2]

For these reasons, we urge the EPA to lower the corn ethanol mandate to the lowest possible level. [EPA-HQ-OAR-2015-0111-2267-A1 p. 4]

### **Nestle**

While we believe EPA has acted prudently in reducing mandates below statutory levels, we would point out that the proposed 2016 mandates would actually require that ethanol comprise a higher percentage of the nation's projected fuel supply in that year than will be the case for 2015, and a percentage that exceeds the blend wall. For 2016, the proposed corn ethanol target would equate to about 10.2% of projected gasoline supplies. [EPA-HQ-OAR-2015-0111-1918-A1 p.2]

**North Dakota Corn Growers Association (NDCGA), et al.**

Please restore the RVOs to statute. Reducing the RVOs at this time will destroy the benefits that have been accomplished towards cleaner air and energy independence. [EPA-HQ-OAR-2015-0111-2541-A2 p.1]

I am asking that the EPA does not reduce the RVOs in the RFS at this time. We have plentiful carry-out of corn from USA production, farmers who have invested to grow more bushels to meet our demands, and invested in breeding and educational programs to improve the environment that these corn acres are grown. Reducing the RVOs will cause economic harm to farmers, patrons of farm supply and elevator cooperatives, and the economy of rural America where good paying jobs are provided at ethanol plants. We continue to invest check off dollars to meet a growing demand of corn and corn products at affordable prices – don't stop a good thing that is working. [EPA-HQ-OAR-2015-0111-2541-A2 p.2]

By enacting sound public policy, ethanol will continue to meet consumer demand of a quality product at an affordable price. That's why today we ask you to reconsider recent actions and be bold leaders in setting higher volume obligations. Doing so will also be a "win/win" for our nation overall, as has been the case in my state. [EPA-HQ-OAR-2015-0111-2541-A3 p.2-3] [EPA-HQ-OAR-2015-0111-1004 p.184]

**North Dakota Grain Growers Association**

I write on behalf of the North Dakota Grain Growers Association (NDGGA) to request that EPA reconsider its action to reduce the corn-based blended ethanol volumes and restore the blended ethanol volumes to the previous levels. This would mean that NDGGA supports a volume of corn-based ethanol of 15 billion gallons for 2015 and 15 billion gallons in 2016 instead of EPA's proposed reductions. [EPA-HQ-OAR-2015-0111-1656-A1 p.1]

After years of success in expanding the ethanol industry because of the RFS, we must not move backward. We must capitalize on the current momentum and continue to invest in the future development and commercial scale production of next generation biofuels. The EPA's proposed reduction in corn-based ethanol volumes will slow any further innovation, investment and growth in a successful and thriving industry that supports farmers, plant workers, and entire rural communities. [EPA-HQ-OAR-2015-0111-1656-A1 p.2]

**Office of the Lt. Governor, Indianapolis, Indiana**

I am deeply concerned about the proposed renewable volume requirements for 2014, 2015, and 2016, and I urge you to move quickly on setting the requirements and keep the requirements as high as possible so that Hoosier farmers and biofuel industry participants will have certainty and stability going forward. [EPA-HQ-OAR-2015-0111-2482-A1 p.2]

## **Poet, LLC**

EPA requests comment on whether it “would be appropriate to *only* waive volumes of advanced biofuel and total renewable fuel under the cellulosic waiver authority for 2016” without waiving volumes under the general waiver authority.<sup>118</sup> POET’s answer to this question is “yes.” [EPA-HQ-OAR-2015-0111-2481-A1 p.31]

If EPA passes through the cellulosic production shortfall, the RFS can be put on a path to success through 2022 (the last year of statutorily-specified volumes), as indicated in Figure 2 below. As indicated in this figure, the Base Renewable RVO can and should be strengthened to the 15 billion gallon statutory level by 2016 (where it remains thereafter). [EPA-HQ-OAR-2015-0111-2481-A1 p.31]

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<sup>118</sup> NOPR at 33,123 (emphasis added).

Notably, EPA’s proposed Base Renewable RVO levels would not recover to the 2013 level until 2016.<sup>4</sup> This grossly undermines infrastructure investments and is contrary to Congress’ intent that volumes increase every year. [EPA-HQ-OAR-2015-0111-2481-A1 p.5]

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<sup>4</sup> EPA set the 2013 Base Renewable RVO at 13.8 billion gallons. See EPA final rule, *Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards*, 78 Fed. Reg. 49,794, 49,795-97 (August 15, 2013). By comparison, the NOPR’s proposed Base Renewable RVOs for 2014 and 2015 are 13.25 and 13.40 billion gallons, respectively.

## **Rider, Allen**

Rather than reducing the biofuel blending requirements established under the EISA of 2007, EPA should maintain and enforce the congressionally established renewable fuel volume targets and thereby stimulate innovation and move our nation to a stronger position in the global energy economy. And while we're reaping the economic and security benefits of a strong biofuel sector, we can also further reduce emissions of greenhouse gases and toxic pollutions resulting from petroleum fuel usage.

## **San Diego Regional Clean Cities Coalition**

Reducing the advanced biofuel and total renewable fuel standards for 2016 and 2017 will hinder the growth of the California biofuels market. [EPA-HQ-OAR-2015-0111-1719-A1 p. 1]

## **South Dakota Corn Growers Association**

Therefore we respectfully urge the EPA to return the volume obligations and methodology set forth by law under the RFS. [EPA-HQ-OAR-2015-0111-0269-A1 p. 2] [EPA-HQ-OAR-2015-0111-1043, p. 261]

## **State of Nebraska**

I disagree with the conclusion of the EPA that this timeline is extremely difficult to achieve and therefore volume requirements should be lowered, The RFS is an appropriate, achievable and ambitious target which must be maintained. [EPA-HQ-OAR-2015-0111-1810-A1 p.1]

### **State of South Dakota**

I am writing in support of maintaining the Federal Renewable Fuel Standard (RFS) as written in statute. The proposed agency standards for 2014, 2015, and 2016 fall far short of the statutory volume levels Congress felt were appropriate when the law was enacted. Lowering the RFS volume levels, particularly for ethanol, will hurt the renewable fuels industry and our agriculture economy. [EPA-HQ-OAR-2015-0111-1919-A1 p.1]

Our country needs more renewable fuels, not less. Please increase the proposed renewable fuels volume standards. [EPA-HQ-OAR-2015-0111-1919-A1 p.1]

### **Syngeta**

Similarly, the ethanol industry's 'run rate' has surpassed 15 billion gallons on numerous occasions in 2015, according to weekly data from the Department of Energy. As such, the statutory RFS levels of 15 billion gallons could be readily met in both 2015 and 2016, especially when ethanol stocks and RIN stocks are also taken into consideration. The limitation is not the ethanol industries capacity to produce but rather the oil industries willingness to provide choice to consumer via higher ethanol blends like E15, E85 and mid-level blends [EPA-HQ-OAR-2015-0111-2493-A1 p.2]

### **The Funding Farm**

I am advocating for maintain the current Renewable Volume Obligations (RVO's) as a required part of the Renewable Fuel Standard (RFS). [EPA-HQ-OAR-2015-0111-2812-A1 p. 2]

### **Wisconsin Farm Bureau Federation**

WFBF opposes the EPA's proposed reduction in the amount of renewable fuels that must be blended into the nation's gasoline supply. This decision will cripple conventional ethanol production and make it more challenging for further advancements of biofuels. [EPA-HQ-OAR-2015-0111-1716-A1 p. 1]

### **Response:**

Comments on the proposed volume requirement for total renewable fuel in 2016 generally fell into two camps: those that supported maintaining the statutory target for total renewable fuel of 22.25 billion gallons or the implied statutory target for conventional renewable fuel of 15 billion gallons, and those that supported the levels that EPA proposed or lower. Those supporting a higher level than we proposed provided several suggestions for how the volume requirement could be increased. For instance, one stakeholder suggested that we should consider the extent to which conventional renewable fuel other than ethanol could help to increase the volume requirement for total renewable fuel. As described in Sections II.E.3 and II.E.4 of the final rule, we have determined that some non-ethanol renewable fuels could be supplied in 2016, from both domestic and foreign sources. BBD in excess of the volume requirement for BBD could also be

used to help meet that portion of the total renewable fuel volume requirement that is not required to be advanced biofuel.

As described in Section 2.2.4, some stakeholders suggested that setting the 2016 volume requirement for total renewable fuel at the statutory target would increase certainty for renewable fuel producers and others in the market, and that as a result they would invest in expanded production and infrastructure. We disagree. Based on our assessment of achievable volumes, setting the volume requirements at the statutory targets would result in substantial shortfalls in supply of renewable fuel, which we believe would result in outcomes that would undermine the RFS program. These outcomes could include significant noncompliance, subsequent waiver of the original volume requirements, and a drawdown of the carryover RIN bank to zero with the attendant reduction in the ability of obligated parties to address unforeseen circumstances. Such outcomes would reduce rather than increase the certainty needed for long-term investment in and growth of renewable fuel volumes compared to our final standards that require significant growth in total renewable fuel in comparison to 2015.

Similarly, some stakeholders argued that the proposed volume requirements would undercut the market with severe economic consequences. They alleged that there would be a reduction in investments, demand for corn, and farm sector profits, which would consequently lead to declines in land values and increases in federal support to farmers. We disagree. These comments tended to focus on reductions from the statutory volumes that have not, and can not be achieved, rather than the growth in renewable fuel volumes relative to previous years. Not only will the final 2016 volume requirements increase the certainty of sustainably aggressive growth, but those final volume requirements are in fact significantly higher than the volume requirements and actual supply in all previous years. As a result of the final volume requirements, supply must expand, and with it opportunities for growth in the renewable fuel market.

One stakeholder said that the cellulosic biofuel industry will only expand if the RFS program continues to support the corn-ethanol industry. While it is true that some pathways for production of cellulosic biofuel involve processing cellulosic feedstocks at corn-ethanol facilities, we believe that the primary incentive for the cellulosic biofuel industry to expand is the volume requirement that we establish for cellulosic biofuel. Moreover, we are setting the total renewable fuel volumes requirement at the maximum level of reasonably achievable supply. It would be inappropriate to set the volume requirement for total renewable fuel at a level higher than what is reasonably achievable for the purposes of providing additional support to the cellulosic biofuel industry, as we believe that the market would not be able to supply the needed volumes in that case.

While we have reduced the volumes of advanced biodiesel and total renewable fuel below the statutory targets for 2014, 2015, and 2016, the required volumes nevertheless represent substantial growth over this time period. As described in Sections II.E.5 and II.F of the final rule, the final volume requirements for 2016 in particular will require the market to supply more renewable fuel than at any time in the past, and greater than would have been supplied in the absence of the RFS program. As a result, the final volume requirements we are setting for 2016 are technology-forcing in the sense of requiring and expecting the market to invest, innovate, and expand to increase the supply of qualifying renewable fuels above historical levels. The final volume requirements do not, as some stakeholders asserted, result in a reduction in the demand for renewable fuel, but instead will produce a significant increase in comparison to 2015. The

final volume requirements for 2016 will provide an opportunity for all current renewable fuel producers to expand production.

Stakeholders who believed that the 2016 volume requirement for total renewable fuel should be lower than we proposed typically said that the E10 blendwall could not or should not be crossed. Several stakeholders, including the American Fuel & Petrochemical Manufacturers and American Petroleum Institute, suggested that the total renewable fuel volume requirement for 2016 should be set at 16.3 billion gallons. We disagree. Not only would this level be significantly below actual supply in 2015, but it would be far less than the market is capable of achieving. As described in responses to comments in Section 2.6, there is no reason that the market cannot achieve a pool-wide gasoline ethanol content above 10%, contrary to the assumption made by these stakeholders. Moreover, these stakeholders assumed that only 1.8 billion gallons of biodiesel/renewable diesel could be made available in 2016. While this is consistent with the proposed BBD volume requirement for 2016, in the NPRM we discussed the expectation that volumes of BBD above the 1.8 billion gallon requirement would be supplied to meet the advanced biofuel standard. More importantly, as described in Section II.E.3 of the final rule, we have determined that supply of biodiesel/renewable diesel could be considerably higher than 1.8 billion gallons.

One stakeholder pointed to information indicating that the value of RINs has not been passed through to consumers nationwide in the form of competitively-priced E85. As described in Section II.E.2.ii of the final rule, the full value of RINs has indeed not been passed through to the retail price of E85, although some of the RIN value has passed through to retail. Also, the market has only made moderate increases in E85 infrastructure in the last several years. However, sustained high RIN prices will have the longer-term effect of providing the incentive for retail station owners to invest in E85 infrastructure. For 2016, we have assumed that the market can make progress in expanding E85 infrastructure, but we agree that that progress is unlikely to be more than the largest expansion rate which occurred in 2010.

Many stakeholders, regardless of their views on whether the E10 blendwall can or should be a consideration in the determination of applicable volume requirements, made the implicit assumption in their comments that the total volume of ethanol that would be used was identical to the volume of non-advanced (i.e. conventional) renewable fuel that would be necessary. Not only is this assumption incorrect, but it oversimplifies the true nature of the standards and the process of determining appropriate levels for those standards. While the portion of the 2016 cellulosic biofuel standard that we expect to be ethanol is only 20 million gallons, significantly larger volumes of ethanol may be used to meet the advanced biofuel volume requirement. It is also likely that a portion of the renewable fuel pool that is not required to be advanced biofuel will be non-ethanol as evidenced by production and imports of conventional biodiesel and renewable diesel in the past. Thus it is inappropriate and misleading to assume that the conventional renewable fuel volume is identical to the volume of the ethanol that would be required in 2016, and the conventional renewable fuel volume should not be used to determine how the market will respond vis-a-vis the blendwall.

One stakeholder suggested that we use the same methodology for determining the 2016 volume requirements as we did for 2015. We disagree. This final rule is being released after 11 months of the year has passed. The final standards that we set for 2015 cannot affect supply that occurred over the previous 11 months, and there is virtually no lead time available to impact

renewable fuel use in the remaining one month. Thus we believe that the basic approach we have taken in this final rule to establishing 2014 requirements should also be applied to 2015, with differences only to account for there being an incomplete data set for 2015. The situation for 2016 is fundamentally different in that the standards we set in this action will have an opportunity to influence the market for all of 2016. Setting the standards for 2016 at actual supply would not only require waiting until 2016 had passed, but would also be inconsistent with statutory intent that the standards we set drive growth in renewable fuel use.

One stakeholder said that current EPA employees are trying to patent E20 and higher ethanol blends. There are no patents for E20 or other ethanol blends higher than E10. E15 has been approved for use in all 2001 and later model year light duty vehicles, and ethanol blends higher than E15 can be used in flex-fueled vehicles (FFVs). There are no patent-related legal restrictions on who may produce any blend of gasoline and ethanol.

One stakeholder representing obligated parties said that there is insufficient time to start and complete any large capital projects that could produce renewable fuel in 2016, and similarly insufficient time to start and complete any infrastructure projects. The final volume requirements for 2016 are not based on the assumption of any specific new renewable fuel production capacity being installed, but recognize that the market is continuing to expand not only production capacity of various types of renewable fuels, but also the infrastructure necessary to support them. The final standards reflect only those changes in infrastructure that we believe can be made by the end of 2016.

For responses to comments on the uncertainty created by reductions in the statutory targets, see Section 2.1.1.

For responses to comments on whether the statutory volume requirements can be reached in 2014, 2015, or 2016, under either the general waiver authority or the cellulosic waiver authority, see Section 2.2.4.

For responses to comments on how the RIN mechanism operates to subsidize the cost of renewable fuels at retail, see Section 2.3.2.

For responses to comments stating that the E10 blendwall is not a constraint, or has been fabricated by the refining industry, see Section 2.4.

For responses to comments suggesting that the E10 blendwall can be addressed by increasing the requirement volumes of BBD, see Section 2.5.

For responses to comments suggesting that the ethanol content of the gasoline pool should be kept below 10%, see Section 2.6.

For responses to comments on the ability of the 2016 market to substantially increase sales of E15 and E85, see Sections 2.6.2 and 2.7.1, respectively.

For responses to comments suggesting that obligated parties have failed in their statutory responsibilities to invest in the infrastructure needed to expand renewable fuel supply, see Section 2.7.1.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

- Section 2.2: Statutory Authorities for Reducing Volume Targets
- Section 2.2.2: General Waiver Authority
- Section 2.2.2.1: Inadequate Domestic Supply
- Section 2.2.2.2: Severe Economic Harm
- Section 2.3: Proposed Approach to Determining Volume Requirements
- Section 2.3.1: Congressional Intent to Increase Volumes
- Section 2.4.1: Proposed Total Renewable Fuel Volume for 2014
- Section 2.4.2: Proposed Total Renewable Fuel Volume for 2015
- Section 2.7.2: Impacts on Advanced Biodiesel Production and Imports
- Section 2.7.4: Impacts on Imports of Sugarcane Ethanol
- Section 3.3.1: Balance between Supporting the BBD Industry and Ensuring Opportunities for Other Advanced to Grow
- Section 4.1: General Comments on Cellulosic Biofuels
- Section 7.1: General Comments on Economic Impacts
- Section 7.2: Agricultural Impacts (food, animal feed, crops, feedstock)
- Section 7.4: Impact on RINs
- Section 7.5: Retail Fuel Prices
- Section 7.6: Energy Security
- Section 7.7: Impact on Jobs and Local/State Economy
- Section 8: Environmental Impacts of the Proposed Rule
- Section 8.2: Climate Change (GHG Impacts)
- Section 10.1: Outlook for 2017 and beyond
- Section 10.6.5: Other information and ideas to overcome current challenges

## **2.5 Proposed Volumes for Advanced Biofuel**

### **Comment:**

#### **Algae Biomass Organization (ABO)**

EPA's proposed RVOs for 2014-2016 represent a significant improvement over the prior notice of proposed rulemaking released in November 2013. EPA's November 2013 proposal to dramatically lower advanced biofuel volumes, combined with the Agency's inability to set standards in a timely fashion, ongoing delays in approving new fuel pathways and arbitrary restrictions on biofuels not completely produced within a single location, have crippled investment in advanced biofuels over the past 18 months. Once finalized, the 2014-2016 RVOs will provide a first step toward restoring the investment climate for advanced biofuels and providing market confidence for algae-based and other advanced biofuels in the years to come. [EPA-HQ-OAR-2015-0111-1951-A1, p.1]

#### **Darling Ingredients Inc.**

The second consideration put forward on why Biomass Based Diesel volumes should be limited is that if the BBD is dictated then there would be no incentive for the development of Cellulosic

and other Advanced Fuels. Darling agrees with the EPA's conclusion. The BBD mandate should not represent all of the Advanced Fuel mandate. However, this goal can be met and there can be an incentive for other Advanced Biofuels. EPA could increase the BBD AND increase Advanced Biofuels volume. That is the reason that Darling is suggesting that Advanced Biofuels should be increased above the levels proposed by the EPA for 2016 and 2017. The EPA in the Proposed Rule establishes that it anticipates 200 million gallons of Cellulosic in 2016 and provides for 500 million gallons of Unspecified Advanced in 2016. Darling proposes to increase Advanced Biofuels by 350 million RIN's in 2016 which would mean an increase of 200 million gallons of BBD (resulting in approximately 310 million RIN's) and the same incentive for development of Cellulosic would exist as the EPA has in its Current Proposed Rule. The same logic applies for Darling's suggested 2017 Advanced Biofuel goal of 4.25 billion RIN's; note the Darling proposal for 2017 Advanced RIN's slightly increases the available bucket for undifferentiated advanced in compliance with the aspirational spirit of spurring advanced biofuel production. [EPA-HQ-OAR-2015-0111-1929-A1 p.9]

### **National Biodiesel Board**

Each gallon of biomass-based diesel used for compliance with the biomass-based diesel mandate also meets the advanced biofuel volume and the overall renewable fuel volume requirements. It offsets the importation of fossil fuels, but also can be used to offset use and imports of at least 1.5 gallons of ethanol, given the equivalence values provided by EPA for biodiesel and renewable diesel fuels. Thus, through basic arithmetic, *the higher* EPA sets the biomass-based diesel standard the less ethanol it can expect to be drawn into the gasoline pool. Conversely, *the lower* the Agency sets the biomass-based diesel standard then the more ethanol (including more sugarcane ethanol, which is a significant source of advanced biofuel) can be expected to come into the Nation's gasoline pool to, as EPA alleges, contribute to the so-called ethanol blend wall. EPA uses the so-called ethanol blend wall to support reduced advanced biofuel and total renewable fuel volumes in the first instance. Then, EPA is choosing to further limit growth in the biomass-based diesel category to give obligated parties flexibility in complying to lower costs. But, Congress sought to break through any such limitations and, in any event, gave EPA a tool to address purported limitations on increasing renewable fuel use in the gasoline market by increasing the biomass-based diesel program after 2012. The answer to EPA's concerns is not to keep biomass-based diesel down and reduce the advanced biofuel program based on what EPA considers to be reasonable in the market, but to continue to aggressively push the industry forward. If there are such relevant limitations, then EPA was required, as outlined by Congress, to increase the biomass-based diesel volumes. [EPA-HQ-OAR-2015-0111-1953-A2 p.33]

### **National Biodiesel Board**

Although EPA attempts to somewhat mask the issue by referring to legal and practical constraints in the gasoline market for increasing ethanol use, the so-called ethanol blend wall continues to permeate through EPA's new proposal. It does not, however, alleviate EPA's obligations to ensure the statutory volumes for advanced biofuels are met. EPA looks to its waiver authority to address the concerns raised regarding the ethanol blend wall. But, Congress provided a mechanism for EPA to address this concern, *within the statutory structure and without reducing the volumes*. That is, increasing the biomass-based diesel volume requirement in lieu of requiring "[i]ncreased production and/or importation of ethanol, primarily advanced ethanol." 80 Fed. Reg. at 33,118. [EPA-HQ-OAR-2015-0111-1953-A2 p.33]

## **National Farmers Union (NFU)**

The preamble to the proposed rule states, 'we do not believe that it would be consistent with the energy security and greenhouse gas reduction goals of the statute to reduce the applicable volume of renewable fuel set forth in the statute absent a substantial justification for doing so.' Ideally, the total renewable fuel standard would include the full advanced biofuel standard embodied in the EISA. If EPA insists on lowering the advanced biofuel standard, EPA can still achieve many of the goals of the RFS and pave the path to higher advanced biofuel volume standards in the future by keeping the total renewable fuel standard at the EISA level and allowing conventional biofuels to make up the difference. [EPA-HQ-OAR-2015-0111-1657-A1 p. 6]

As discussed above, conventional biofuels emit less GHGs than fossil fuels. GHG emissions reductions can be achieved by allowing conventional biofuels to make up the advanced biofuel volume deficit and keeping the statutory total renewable fuels volume standards in place. It would also push the branded transportation fuel industry to make the adjustments needed to accommodate greater volumes of advanced biofuels, paving the way to secure the superior GHG emission advantages of advanced biofuels in the future. [EPA-HQ-OAR-2015-0111-1657-A1 p. 6-7]

The volume standards in the proposed rule do not match the goals EPA claims to pursue through its execution of the RFS. In the Executive Summary that precedes the Proposed Rule, EPA asserts that the proposed volume standards 'are expected to spur further progress in overcoming current constraints in renewable fuel distribution infrastructure, which in turn is expected to lead to substantial growth over time in the production and use of higher-level ethanol blends and other qualifying renewables.' [EPA-HQ-OAR-2015-0111-1657-A1 p. 7]

Unfortunately, EPA's expectations are mistaken. EPA fails to consider the severe and difficult-to-reverse damage done to the biofuels industry through the inexcusable delays in issuing the 2014 volume standards. In light of this damage, it does not make sense that lower volume targets than those set forth in the popular, bipartisan statute will lead to growth in production and use of higher-level ethanol blends. The proposed, lower volume standards demonstrate to industry that taking steps to increase consumer choice and pursue worthwhile environmental goals can be avoided, even when mandated by Congress. Instead, holding industry to the proposed targets would demonstrate the Administration's stable, reliable commitment to biofuels and allow the biofuels and transportation fuels industries the certainty required to attract capital investment and build out the infrastructure needed to offer consumers the opportunity to utilize higher-level ethanol blends. It would allow the parties concerned to plan ahead with more reliability than annual determinations, bringing more biofuels into the transportation fuel offerings with less disruption for American consumers. [EPA-HQ-OAR-2015-0111-1657-A1 p. 7-8]

## **The George Washington University**

The proposed targets for advanced biofuel (a category which includes both cellulosic biofuel and biodiesel) are 3.85 billion gallons short of the statutory volume levels. [EPA-HQ-OAR-2015-0111-1815-A1 p.4]

**Response:**

As described in Sections II.B.5, II.C, II.D, and II.F of the final rule, we have determined that the statutory targets for advanced biofuel cannot be reached in 2014, 2015, or 2016 with advanced biofuel supplied in those years, and that as a result they must be reduced. In making this determination, we also evaluated the current bank of carryover RINs and determined that it would not be appropriate to intentionally draw down the carryover RIN bank in order to increase the volume requirements in any of the three years above the level of supply that can be reached with wet gallons of advanced biofuel. Furthermore, even if we were to have done so, there would not have been sufficient carryover advanced biofuel RINs to allow the statutory targets to be achieved for all three years. For additional responses to comments on our consideration of carryover RINs, see Section II.H. of the final rule and Section 6 of this RTC document.

Several stakeholders suggested that the BBD volume requirement, and/or the portion of the advanced biofuel volume requirement that is assumed to be met with BBD, should be increased for the express purpose of addressing the E10 blendwall. These stakeholders argued that, since BBD is neither ethanol nor is used in the gasoline pool, it is not limited by the E10 blendwall nor by gasoline demand. By increasing the volume of BBD, they argued, pressure to exceed the E10 blendwall would be reduced. While BBD volumes are not directly affected by the E10 blendwall, we do not believe that required volumes of BBD should be increased for the express purposes of reducing pressure on the E10 blendwall. Indeed, the fact that BBD is independent of the E10 blendwall means that we can and should consider increases in BBD separately from increases in ethanol. This is what we have done in determining not just the advanced biofuel, but also the total renewable fuel volume requirements. Our approach to determining the volume requirement for total renewable fuel includes both a consideration of the supply of ethanol that can be achieved given the potential for increases in the use of E15 and/or E85 and the supply of biodiesel and renewable diesel that can be achieved. The simultaneous consideration of both of these factors is most consistent with statutory intent to increase volumes, and thus there is no need to consider more narrowly how increased use of BBD might impact exceedances of the E10 blendwall. We note that opportunities will exist in 2016 for BBD volumes in excess of the final BBD volume requirement to be used to meet the final advanced biofuel as well as the total renewable fuel volume requirements. Indeed such excess volumes of BBD may be needed if other advanced biofuels cannot be supplied cost-competitively in sufficient volumes. In fact, we have set the advanced biofuel volume requirement under the expectation that additional biodiesel and renewable diesel will be available in excess of the BBD volume requirement.

One stakeholder suggested that the 2016 volume requirement for advanced biofuel be increased from the proposed level of 3.4 billion gallons to 3.75 billion gallons, while simultaneously increasing the BBD volume requirement from the proposed level of 1.8 billion gallons to 2.0 billion gallons. As discussed in Sections II.E.3 and II.F of the final rule, we have considered potential increases in the proposed levels in light of new information, higher than expected use of biodiesel and renewable diesel in 2015 and a consideration of information provided by stakeholders on the various opportunities and constraints associated with biodiesel and renewable diesel in 2016. We have determined that increases in the volume requirements for both advanced biofuel and BBD in comparison to the proposed levels are warranted, for the reasons described in the final rule.

One stakeholder said that the proposed volumes for conventional renewable fuel in 2014, 2015, and 2016 would be inconsistent with the statute's intent that the volume requirements increase every year. This stakeholder based their statement on the fact that the volume requirements for 2013 allowed for the use of 13.8 billion gallons of conventional renewable fuel. In response, we note first that there is no volume requirement in the statute for conventional renewable fuel. Rather, conventional renewable fuels are those renewable fuels that are permitted to fill the gap between the total renewable fuel and advanced biofuel volume requirements. Volumes of advanced biofuel in excess of the advanced biofuel volume requirement can be used to fill this gap as well as volumes of conventional renewable fuels. Second, we note that actual supply of conventional renewable fuel in 2013 fell far short of filling this gap, reaching only 12.8 billion gallons instead of the 13.8 billion gallons cited by this stakeholder. In comparison to actual 2013 supply of conventional renewable fuel, the proposed allowance for up to 13.25 and 13.4 billion gallons of conventional renewable fuel for 2014 and 2015, respectively, would have in fact represented increases. For the final rule, the allowance for conventional fuels is even greater, at 13.61 and 14.05 billion gallons for 2014 and 2015, respectively. However, most importantly, as described in Sections II.C and II.D of the final rule, we are setting the volume requirements for 2014 and 2015 at the level of actual supply, and we believe that this is both reasonable and consistent with the statute. The standards we set in today's final rule cannot affect supply in 2014 or most of 2015, and as described in Section 6 we do not believe it would be appropriate to intentionally reduce the bank of carryover RINs in order to increase the volume requirements in 2014 and 2015 above the level of actual supply.

For responses to comments on the use of the cellulosic waiver authority alone to reduce volumes of advanced biofuel and total renewable fuel, see Section 2.2.1.

For responses to comments on whether the statutory volume requirements can be reached in 2014, 2015, or 2016, under either the general waiver authority or the cellulosic waiver authority, see Section 2.2.4.

For responses to comments on the ability of the 2016 market to increase sales of E15, see Section 2.6.2 and 2.7.1.

For responses to comments on the consideration of opportunities for other advanced biofuels when determining the required volume of BBD, see Section 3.3.1.

### **2.5.1 Proposed Advanced Biofuel Volume for 2014**

#### **Comment:**

#### **Abengoa Bioenergy**

EPA's proposed methodology for setting the 2014 and 2015 RVOs based on available RINs generated during the year is arbitrary. The exclusion of consideration of carryover RINs is also arbitrary. As EPA notes, the availability of RINs in 2014 is dependent on settling the 2013 obligations, which the Agency has delayed at the request of obligated parties. EPA cannot use its unconscionable and arbitrary delays as justification for excluding consideration of carryover RINs. Instead, the Agency must set the 2014 and 2015 RVOs based on the full availability of

RINs and without setting artificial and unwarranted limits based on purported infrastructure constraints. Otherwise, EPA risks creating a regulatory structure that effectively makes Clean Air Act compliance by Obligated Parties voluntary rather than compulsory. [EPA-HQ-OAR-2015-0111-2474-A1 p.5-6]

The Agency drafted its proposed 2014 volumes, presented in TABLE II.C.1-1 in the proposal, using March 2015 data from EMTS as well as export data from EIA.<sup>8</sup> However, since that time, the availability of RINs for 2012, 2013, 2014, and 2015 shown in EMTS has changed considerably, even as demonstrated by EPA's posting of April 2014 EMTS data to the docket. A one-time snapshot of EMTS data is therefore an inherently inaccurate estimate of the availability of RINs for compliance for 2014 and 2015. [EPA-HQ-OAR-2015-0111-2474-A1 p.13]

EPA excludes consideration of ‘RINs retired for reasons other than compliance with the annual standards, as these RINs are not available to obligated parties.’ Since the Agency did not post to the docket the March 2015 data it used in calculating the 2014 RIN supply, it is impossible for stakeholders to guess how it arrived at volume corrections. If EPA excludes RINs retired for Enforcement Obligations, Remedial Action - Retirement Pursuant to 80.1431(c), and Remediation of Invalid RIN Use for Compliance, then it is unjustified. By definition such RINs were retired by obligated parties and were therefore available to them. [EPA-HQ-OAR-2015-0111-2474-A1 p.13]

The export data reported by EIA (and relied upon by EPA) come from U.S. Census Bureau data. According to the Census Bureau, 836 million gallons of ethanol for fuel use and industrial use were exported from the United States in 2014. Of this amount, 370.2 million gallons of fuel and industrial ethanol exports were undenatured and would not have generated a RIN. The RFS regulations require that ethanol be denatured in order to qualify as renewable fuel and generate RINs. Exporters of undenatured ethanol do not incur an exporter RVO because they are not exporting renewable fuel as defined by 40 CFR 80.1401. [EPA-HQ-OAR-2015-0111-2474-A1 p.13]

EPA estimates that 83 million gallons of biomass-based diesel were exported in 2014, representing the maximum amount estimated by EIA. However, similar to ethanol exports there is no reason to believe that every gallon carried a RIN. In 2012, EIA reports that 128 million gallons of biomass-based diesel were exported; yet, only 69.4 million RINs were separated from exported fuel (representing 46.3 million gallons). For 2012, EIA estimates 196 million gallons were exported; yet only 159 million RINs were reported separated from exported fuel (representing 106 million gallons). EPA is likely overestimating biodiesel exports by a factor of two (2). Denatured fuel ethanol exports totaled 453 million gallons in 2014. To date, 236.7 million 2014 vintage D6 RINs have been reported as exports. [EPA-HQ-OAR-2015-0111-2474-A1 p.14]

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<sup>8</sup> Id. at 33122.

## **Biotechnology Industry Organization**

EPA has not reasonably and persuasively demonstrated that actual 2014 volumes of advanced and total renewable fuels, plus carryover RINs, will be inadequate to meet the 2014 RFS RVOs. [EPA-HQ-OAR-2015-0111-1958-A2 p. 26]

As EPA has said (particularly referring to advanced biofuel volumes), maintaining statutory renewable fuel volumes “will result in reduced GHG emissions from the transportation sector and could also contribute to energy security objectives. We do not believe it is appropriate to forgo such benefits when they are physically achievable.”<sup>102</sup> [EPA-HQ-OAR-2015-0111-1958-A2 p. 26]

The availability of RINs for 2012, 2013, 2014, and 2015 shown in EMTS has changed considerably, even as demonstrated by EPA’s posting of April 2014 EMTS data to the docket. A one-time snapshot of EMTS data is therefore an inherently inaccurate estimate of the availability of RINs for compliance for 2014 and 2015. [EPA-HQ-OAR-2015-0111-1958-A2 p. 57]

If EPA excludes RINs retired for Enforcement Obligations, Remedial Action - Retirement Pursuant to 80.1431(c), and Remediation of Invalid RIN Use for Compliance, then it is unjustified. By definition such RINs were retired by obligated parties and were therefore available to them. [EPA-HQ-OAR-2015-0111-1958-A2 p. 57]

EPA estimates that 83 million gallons of biomass-based diesel were exported in 2014, representing the maximum amount estimated by EIA. However, similar to ethanol exports there is no reason to believe that every gallon carried a RIN. In 2012, EIA reports that 128 million gallons of biomass-based diesel were exported; yet, only 69.4 million RINs were separated from exported fuel (representing 46.3 million gallons). For 2012, EIA estimates 196 million gallons were exported; yet only 159 million RINs were reported separated from exported fuel (representing 106 million gallons). EPA is likely overestimating biodiesel exports by a factor of two (2). [EPA-HQ-OAR-2015-0111-1958-A2 p. 58]

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<sup>102</sup> EPA, Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards, 78 Fed. Reg. 9281, 9300 (Feb. 7, 2013) (proposed rule), available at <http://www.gpo.gov/fdsys/pkg/FR-2013-02-07/pdf/2013-02794.pdf> (emphasis added); see also 2013 RFS Final Rule 49794 (maintaining statutory advanced biofuel and total renewable fuel volumes for 2013).

## **California Biodiesel Alliance (CBA)**

2014

For 2014, the EPA proposed to use its waiver authority to reduce the 3.75 billion statutory mandate set by Congress for the advanced category, and rather, set the advanced and biomass-based diesel based on “available RIN supply.” CBA disagrees with this approach for the reasons spelled out in the NBB comments (Inappropriate use of waiver authority, EPA’s lack of consideration of the prior-year RINS, improper consideration of “RIN supply” as opposed to “actual production,” etc.) [EPA-HQ-OAR-2015-0111-1910-A1, pp.1-2]

## **Countrymark Cooperative Holding Corporation**

In November 2013, EPA proposed the 2014 Standards for the Renewable Fuels Standard. This rulemaking was never finalized; however, this was CountryMark's planning basis for RFS compliance for 2014. The new proposed 2014 standards are different than those proposed in 2013 as outlined by the Table 1 below. [EPA-HQ-OAR-2015-0111-2264-A1 p. 2]

[The table can be found on p. 3 of Docket number EPA-HQ-OAR-2015-0111-2264-A1]

CountryMark nor any company should be financially penalized because EPA did not set the compliance standards in a timely fashion. **Therefore, we recommend that the 2014 standards remain the same as those proposed in November 2013 which is closer to the intended timeline set by the law.** [EPA-HQ-OAR-2015-0111-2264-A1 p. 3]

## **Crimson Renewable Energy LP**

Based on the *actual production* of biomass-based diesel, EPA should set the 2014 biomass-based diesel RVO at 1.8 billion and should hold the statutory volume for advanced at 3.75 billion. [EPA-HQ-OAR-2015-0111-1823-A1 p.1]

## **Iowa Corn Growers Association (ICGA)**

Furthermore, the EMTS reveals that 0.336 million gallons of imported biodiesel were disqualified from getting D4 RINS and were instead given D6 RINS, due to low GHG scores for their particular LCA pathway. Both of these "oversights" lead to a much larger total D6 RIN RVO for 2014!" [EPA-HQ-OAR-2015-0111-1820-A1 p. 3]

## **Kansas Soybean Association**

As a soybean farmer from Melvern Ks, I want to express my view that EPA should support more aggressive, but achievable, Renewable Fuel Standard (RFS) volume targets for biodiesel. [EPA-HQ-OAR-2015-0111-2340 p.1]

## **National Biodiesel Board**

Because of RIN banking plenty of prior-year RINs exist for compliance with 2014 requirements and can roll forward and flood subsequent year requirements. Therefore, standards for the past must affect the past or they will certainly do so in the present and the future. Thus, EPA does not provide a reasoned explanation why it cannot meet its obligation and follow its prior precedent from 2009/2010 to "ensure" the 3.75 billion gallon requirement for advanced biofuel is met. [EPA-HQ-OAR-2015-0111-1953-A2 p.16]

Given the carryover RINs and the production that occurred in 2014 (despite EPA's delay), there would be a minimal impact on future volume requirements for advanced biofuels if EPA enforced the full 2014 statutory volume for advanced biofuel. At most any deficit carryover into 2015 would be approximately 121 million RINs, representing a mere 78 million biomass-based diesel gallons (6.5 million gallons a month). This is an additional volume easily met by the industry. [EPA-HQ-OAR-2015-0111-1953-A2 p.17]

It may be appropriate to consider these corrections as they may not technically represent gallons of fuel. EPA, on the other hand, notes 82 million “corrections” for advanced biofuels (EPA-HQ-OAR-2015-0111-0004). However, other retirements do not reflect lack of “supply.” Rather, they represent a decision to utilize those gallons for other purposes or other actions by the fuel owners, such as spills and remedial actions. EPA should incentivize parties to protect against such actions and focus on ensuring those fuels are used as transportation fuel, jet fuel or heating oil. As such, there is no justification to reduce the amount of fuel “supply” by these types of “corrections.” Nor does EPA provide any justification for making such “corrections.” [EPA-HQ-OAR-2015-0111-1953-A2 p.18-19]

For similar reasons, EPA should not consider exports to lower the “supply” in setting the standards for 2014. It is improper to count exports to reduce estimated “supply.” [EPA-HQ-OAR-2015-0111-1953-A2 p.19]

EPA does not provide adequate explanation why export estimates from the Energy Information Administration are proper. Not all gallons of renewable fuel are RFS2 eligible, and EPA recognized renewable fuel designated for export need not have RINs. 75 Fed. Reg. 14,670, 14,715 (Mar. 16, 2010); 79 Fed. Reg. 42,078, 42,102 (July 18, 2014). It cannot be certain that the EIA-reported exports are RFS2 fuels.<sup>20</sup> Even if EPA can properly reduce “supply” based on exports, which it cannot, the amount of RINs separated based on exports is more appropriate to use. EPA identifies approximately 108.57 million RINs as having been separated based on export. This better represents the RFS2 fuel that is no longer in the *domestic* supply since the producer (or purchaser) targeted the RFS2 eligible fuel for use outside the United States. [EPA-HQ-OAR-2015-0111-1953-A2 p.19]

Rather than set the volume at 1.7 billion gallons in 2014 based on production, EPA proposes a biomass-based diesel volume of 1.63 billion gallons based on “RIN Supply.” As explained above, NBB believes that EPA must set the volume at actual production of gallons, not based on “RIN Supply” for compliance. [EPA-HQ-OAR-2015-0111-1953-A2 p.22]

### **Phillips 66 Company**

There is an increase in each category RVO percentage versus the proposal issued in 2013, with the exception of the total renewable. Theoretically, for obligated parties that used the 2013 published percentages to guide their renewable purchases and blending, they will now be short D3, D4, and D5 RINs if the new proposed percentages are finalized. [EPA-HQ-OAR-2015-0111-2039-A1 p.2]

### **Renewable Energy Group, Inc. (REG)**

REG believes that EPA’s method of calculating the number of RINs supplied in 2014 for biomass-based diesel is not accurate. Rather than set the volume at 1.7 billion gallons in 2014 based on production, EPA proposes a biomass-based diesel volume of 1.63 billion gallons based on “RIN Supply.” EPA has proposed to define “supply” as “the number of BBD RINs that were available for compliance in 2014.” “Supply would thus include RINs that were generated for renewable fuel produced or imported in 2014 as recorded in EMTS, minus any RINs that have already been retired or would be expected to be retired to cover exports of renewable fuels or for any other purpose other than compliance.” REG believes that EPA must set the volume at actual

production, not based on “RIN Supply” for compliance. The volume for 2014, then, should be at least 1.8 billion gallons to account for the additional renewable diesel production (2.7 B RINs/1.5 EV = 1.8 B). This number already accounts for “corrections” based on invalid RINs or volume errors, but NBB does not believe further reductions are necessary to reflect other RIN retirements, including exports. [EPA-HQ-OAR-2015-0111-1952-A1 p.4]

### **Response:**

One stakeholder said that, according to EMTS, some imported volumes of biodiesel in 2014 were disqualified from being advanced biofuel due to low GHG benefits and instead were categorized as conventional renewable fuel. This stakeholder referred to this categorization as an "oversight." We are not aware of any information in EMTS, or any other source, that indicates any miscategorization of imported biodiesel. We have used information from EMTS on RINs generated in 2014, including those generated for imports, along with adjustments to account for RINs removed from circulation due to events such as spills and fuels not used as transportation fuel, to determine the RINs available for compliance in 2014. The stakeholder making this comment provided no information indicating an error in these calculations.

Several stakeholders argued that producers never generated RINs for some biodiesel that was exported, and thus all biodiesel exports should not have been subtracted from the number of biodiesel RINs generated in 2014 in assessing the 2014 domestic supply of biodiesel. However, we do not believe that the discrepancies between EMTS and EIA data on biodiesel exports can credibly be used to assess the volume of exported biodiesel for which RINs were not generated. As a preliminary matter, we note that the discrepancy between EMTS data on biodiesel RINs separated for biodiesel intended for export and EIA data on biodiesel exports is much smaller for 2014 than it was for previous years - the difference is only 10 million gallons. More importantly, publically reported data from EMTS includes RIN separations for exported biodiesel, but does not report RIN retirements for biodiesel exported in 2014. Since exporters can receive biodiesel without assigned RINs and can retire RINs to address exports of renewable fuel using RINs acquired on the open RIN market, the number of RINs separated from biodiesel as recorded in EMTS is likely to underestimate the actual number of RINs retired for exports. We also note that almost all biodiesel that is produced in the U.S. qualifies for RIN generation, unlike the situation for ethanol where RINs may be generated for denatured ethanol, but not for undenatured ethanol. Finally, since October of 2014 renewable fuel exporters have been required to retire RINs for all exported renewable fuel within 30 days of the exportation. As a result, we were able to compare RINs retired for exports that occurred in 2015 (not merely RINs separated from exported renewable fuel) to renewable fuel exports as reported by the International Trade Commission (ITC). We determined that exports as recorded in EMTS are nearly identical to exports as recorded by ITC. In sum, we conclude that there is imperfect data with respect to the number of RINs generated and retired for biodiesel that is exported. However, we believe it is likely that RINs were generated and then retired for most of the exported biodiesel. Commenters did not suggest a more accurate means of assessing the situation than our proposed approach of assuming that RINs were generated and retired for all biodiesel exports reported by EIA. While there is some uncertainty in our estimate of RINs retired for biodiesel exports, we do not expect that any error would be significant.

Several stakeholders said that the volume requirement in 2014 should be based on actual production of renewable fuel in 2014, without accounting for exports or for any reduction in the

number of RINs available for compliance due to such circumstances as exports, spills, invalid RINs generation, remedial actions in connection with an enforcement actions, etc. We disagree. Only qualifying volumes of renewable fuel can be considered in setting the applicable renewable fuel volumes, and RINs retired for such circumstances as exports, spills, etc. no longer qualify as a means of compliance under the RFS program. As described more fully in Section II.C of the final rule, we are setting the volume requirements for 2014 at the level of supply, where supply means renewable fuels used in the U.S. as transportation fuel, heating oil, or jet fuel. Some renewable fuel (particularly renewable diesel) that was produced in 2014, and for which RINs were generated, was either not used in the U.S. in 2014 and thus is not available for compliance with the volume requirements under the regulations (e.g. foreign-produced renewable fuel that was never imported into the U.S.), or the RINs associated with that renewable fuel were invalid for a variety of reasons. In such cases, it is appropriate to subtract such RINs from the total number of RINs generated to ensure that we have accurately determined the number of RINs available for compliance. Setting the 2014 volume requirements above the level of actual qualifying supply would not change the fact that some 2014 RINs were retired because they were not used as transportation fuel, heating oil, or jet fuel in the U.S. and are thus not available for compliance. Also, there is no reason to believe that setting the 2014 volume requirements above the level of actual supply would provide additional incentive for regulated parties to avoid circumstances in the future that lead to RIN retirements for renewable fuel not used as transportation fuel, heating oil, or jet fuel in the U.S.

For responses to comments on whether the statutory volume requirements can be reached in 2014, 2015, or 2016, see Section 2.2.4.

For additional responses to comments on the determination of the 2014 volume requirements, see Section 2.4.1.

For responses to comments on the role of carryover RINs in the RFS program and suggestions that they could be used to increase the volume requirements, see Section 6. See also “Estimating Carryover RINs Available for Use in 2014,” Dallas Burkholder, Office of Transportation and Air Quality, US EPA. November 2015. EPA Air Docket EPA-HQ-OAR-2015-0111.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

|                 |  |
|-----------------|--|
| Section 2.2     | Statutory Authorities for Reducing Volume Targets    |
| Section 2.2.2.1 | Inadequate Domestic Supply                           |
| Section 2.5.2   | Proposed Advanced Biofuel Volume for 2015            |
| Section 2.5.3   | Proposed Advanced Biofuel Volume for 2016            |
| Section 2.3     | Proposed Approach to Determining Volume Requirements |
| Section 2.7.2   | Impacts on Advanced Biodiesel Production and Imports |
| Section 3.2.3   | Imports of BBD                                       |
| Section 5       | Proposed Percentage Standards                        |
| Section 8.2     | Climate Change (GHG Impacts)                         |
| Section 10.2.2  | Statutory Deadlines                                  |
| Section 10.6.3  | RIN-Generating Pathway Approvals                     |

## 2.5.2 Proposed Advanced Biofuel Volume for 2015

### Comment:

#### Abengoa Bioenergy

‘If this reduction had not occurred in 2014, total advanced biofuel volumes could have been above 3.00 billion gallons.’ The Agency is proposing to allow obligated parties to establish the market for renewable fuels for a second year in a row ‘absent a rulemaking,’ which will create a situation where ‘actual supply in 2015 may be no different than it was in 2014.’ [EPA-HQ-OAR-2015-0111-2474-A1 p.15]

#### Advanced Biofuels Association (ABFA)

We are encouraged with both the 2015 and 2016 proposed numbers as they send a strong signal of support for the advanced and cellulosic sector, and we believe these are achievable targets given the new plants and the addition of biogas production facilities coming on line. [EPA-HQ-OAR-2015-0111-2498-A1 p.11] **American Council on Renewable Energy (ACORE)**

USEPA’s proposed 2014 RVO for advanced biofuel is reasonable and should slightly increase its 2015 RVO to 2.95 million gallons and its 2016 RVO to 3.5 million gallons to take into account the higher production of cellulosic ethanol. [EPA-HQ-OAR-2015-0111-1926-A1 p.14]

#### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

As the rule is not expected to be finalized until November 30, 2015, obligated parties will not be able to significantly change their compliance strategies for 2015. As such, **EPA should finalize the same percentage standards that were published in the Proposed Rule.** This is an equitable method for doing so, since it will give obligated parties a chance to comply. The proposal represents the best information available for obligated parties to use when developing compliance strategies for 2015. [EPA-HQ-OAR-2015-0111-1948-A1 p.18] **Biotechnology Industry Organization**

EPA is similarly unjustified in proposing to set the 2015 RVOs according to “what actually happens” in 2015 and in consideration of “constraints imposed by the ability of vehicles and engines to use renewable fuels, particularly ethanol.”<sup>196</sup> EPA has not attempted an adequate analysis of the availability of such vehicles or the availability of RINs in 2015 sufficient to justify such a claim. EPA should fully consider setting the 2015 and 2016 RVOs at the statutory volumes, or adequately justify why it cannot do so, and must set volumes at the maximum numbers achievable. [EPA-HQ-OAR-2015-0111-1958-A2 p. 59]

The agency is proposing to allow obligated parties to establish the market for renewable fuels for a second year in a row “absent a rulemaking,”<sup>200</sup> which will create a situation where “actual supply in 2015 may be no different than it was in 2014.”<sup>201</sup> [EPA-HQ-OAR-2015-0111-1958-A2 p. 60]

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<sup>196</sup> Proposed Rule 33122.

<sup>200</sup> *Id.* at 33131.

<sup>201</sup> *Id.* at 33122.

## Clean Air Task Force

CATF supports EPA's proposal to reduce the 2015 and 2016 advanced biofuel RVOs by close to the full amount that it plans to reduce the cellulosic RVOs.<sup>3</sup> [EPA-HQ-OAR-2015-0111-1828-A1 p.2]

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<sup>3</sup> EPA has proposed to reduce the RVOs for cellulosic and advanced biofuels by 2.9 billion gallons and 2.6 billion gallons, respectively. In the 2016, the proposed reductions come to 4.04 billion gallons (cellulosic) and 3.85 billion gallons (advanced).

## Growth Energy

For 2015, EPA proposed to set the renewable fuel requirement 370 mil gal above the proposed 2014 level. "Much of the increase from 2014"—about 220 mil gal—"would result from the increase in the advanced biofuel standard of 2.90 billion gallons" (compared to 2.68 bil gal for 2014).<sup>63</sup> Thus, EPA's 2015 proposal implies that conventional renewable fuels would grow by 150 mil gal from 2014, to 13.4 bil gal, instead of to the statutorily implied level of 15.0 bil gal. EPA declared that this growth "is possible" because in 2014 renewable fuel grew by 390 mil gal.<sup>64</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.11]

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## International Council on Clean Transportation (ICCT)

While we believe that the decision to use this waiver is correct, we believe that given limits on availability of non-cellulosic advanced biofuels and advanced biofuel feedstocks that it would be appropriate for the EPA to utilize its full waiver authority to reduce advanced biofuel volumes further than currently proposed, by the same amount as the reduction in the cellulosic volume. Given the proposed cellulosic volume mandate, this would result in a requirement for 2.606 and 3.206 billion gallons of advanced biofuel in 2015 and 2016, respectively, compared to the proposal for 2.9 and 3.4 billion gallons in 2015 and 2016.

Making these adjustments to the advanced mandate would reduce the likelihood of the following situations: increases to BBD production much larger than intended by EPA, resulting in very large impacts on the US vegetable oil market; and very high demand for limited supplies of Brazilian sugarcane ethanol, bidding up the price to little environmental benefit. [EPA-HQ-OAR-2015-0111-1923-A1 p.8] **National Biodiesel Board**

EPA makes clear in its discussion of biomass-based diesel that its advanced biofuel volume is not based on *maximum achievable volumes* but on EPA's view of the level that provides a "competitive" market. [EPA-HQ-OAR-2015-0111-1953-A2 p.112]

To consider the maximum amount, then, EPA must consider what the industry could achieve. Although since the RFS2, the largest amount of sugarcane ethanol imports reported by EMTS has been 603 million gallons, more are possible. In addition, other, non-ethanol advanced biofuels continue to grow, and there has been continued research into co-processing to produce transportation fuel (D5). [EPA-HQ-OAR-2015-0111-1953-A2 p.113-114]

## **North Dakota Ethanol Council**

We are also concerned that the proposed 2.9 billion gallon 2015 RVO for advanced biofuels will incent imported sugarcane-based ethanol due to the instability of the biodiesel production credit and its impact on biodiesel production. Shortfalls in biodiesel production will likely be met by imported advanced biofuels driven by inflated RIN values improperly incentivizing imported ethanol into a market that has yet to properly address market expansion. We believe all ethanol market expansion should be met with conventional and other nationally produced products. [EPA-HQ-OAR-2015-0111-1927-A1 p. 2]

## **Phillips 66 Company**

EPA needs to finalize the 2015 standards as proposed (with the exception of biomass-based diesel discussed below). The 2015 final rule will not be published until very close to the end of the year. Currently, the recently issued proposal is the only guidance on which obligated parties have to base their compliance planning and strategies on. Changing the provisions retroactively for 2015, as has been done for 2014, would once again result in a negative impact to obligated parties and must be avoided. [EPA-HQ-OAR-2015-0111-2039-A1 p.2]

## **Response:**

One stakeholder said that EPA had not conducted an adequate analysis of constraints associated with use of renewable fuels in vehicles or engines, and had not conducted an adequate analysis of the availability of RINs in 2015. For the proposed 2015 volume requirements, Section II.C.2 of the NPRM discussed a number of constraints that made significant growth from 2014 very difficult. Most importantly, we noted in the NPRM that the release of the proposed volume requirements was occurring after about half of 2015 had passed, reducing the ability of those proposed volume requirements to influence the market.

Although we proposed 2015 volume requirements based on projections of what we believed was achievable, we are establishing the final 2015 advanced biofuel volume requirement based on actual supply in 2015, using data available through September and a projection of what will be supplied in the remaining months of the year. Given that this final rule is being released after nearly the full year has passed, the final advanced biofuel volume requirement for 2015 will have essentially no ability to influence actual supply in 2015. Moreover, actual supply in 2015 will fall far short of the statutory targets for 2015 based on actual supply through September. While we have determined that it would not be appropriate to intentionally draw down the bank of carryover RINs in order to increase the volume requirements for 2015, even if we were to do so the statutory target for advanced biofuel for 2015 could not be met.

One stakeholder believed that the proposed volume requirement for advanced biofuel for 2015 was too high, and suggested that we use the full amount of reduction in advanced biofuel that is permitted under the cellulosic waiver authority to avoid increases in biodiesel and sugarcane ethanol due to their impacts on food markets. In the context of the NPRM, this would have resulted in a 2015 volume requirement for advanced biofuel of 2.606 billion gallons, a level below what we believed at that time was achievable. In the context of this final rule, this approach would result in a 2015 volume requirement for advanced biofuel of 2.623 billion gallons. However, we do not believe this approach would be appropriate as it would mean that

the volume requirement for 2015 would be below the actual supply of advanced biofuel in 2015, which we have estimated at 2.88 billion gallons.

One stakeholder claimed that our proposed 2015 advanced biofuel volume requirement of 2.90 billion gallons was not based on maximum achievable volumes, but was instead based on a level that would provide for a competitive market. We believe that this stakeholder was confusing factors considered in setting the advanced biofuel standard with factors considered in setting the BBD standard. Our consideration of competition was not a factor in the determination of the advanced biofuel volume requirement, but rather in the contribution that the BBD volume requirement would make to advanced biofuel:

"At the same time, the increase in the required BBD volume that we are proposing still leaves a substantial volume under the advanced biofuel standard open for competition among all qualifying advanced biofuels" (80 FR 33102)

This stakeholder further argued that competition was not a valid consideration in the determination of reductions in advanced biofuel, but that the maximum achievable volume is the only valid consideration. We disagree. While we are reducing volumes of total renewable fuel under both the cellulosic and the general waiver authority, we are reducing volumes of advanced biofuel under the cellulosic waiver authority only. As a result, the applicable criteria for reducing advanced biofuel differ from those used to reduce total renewable fuel. For total renewable fuel, we are using the statutory criterion of inadequate domestic supply. However, under the cellulosic waiver authority there are no specific criteria given in the statute for the conditions under which reductions may be made. For 2015, we are setting the volume requirement for advanced biofuel at the level of actual supply, as discussed more fully in Section II.D of the final rule. Thus for 2015, there was no need to consider specific criteria for reductions in the statutory targets. For 2016, however, we have taken into consideration a broad set of factors in determining the appropriate reduction in advanced biofuel using the cellulosic waiver authority. These factors include not only the various constraints described in Section II.E.1 of the final rule, but also the additional benefits associated with advanced biofuels, uncertainty in imports, and existing patterns of feedstock consumption for competing uses. In this context, competition could be a valid consideration if it promoted the overall goals of the RFS program.

For further discussion of considerations of competition in the determination of the BBD volume requirements, see Section 3.3.1.

For responses to comments on our projections of cellulosic biofuel, see Section 4.

For responses to comments indicating that EPA should finalize the same 2015 percentage standards as proposed in the NPRM, see Section 2.4.2.

For responses to comments on whether the statutory volume requirements can be reached in 2014, 2015, or 2016, see Section 2.2.4.

For responses to comments related to imports of sugarcane ethanol, see Section 2.7.4.

For responses to comments on the role of carryover RINs in the RFS program and suggestions that they could be used to increase the volume requirements, see Section 6.

For responses to comments on the relative role of domestic versus imported renewable fuels in meeting the volume requirements under the RFS program, see Section 2.1.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

|                 |  |
|-----------------|--|
| Section 2.2     | Statutory Authorities for Reducing Volume Targets                  |
| Section 2.2.2.1 | Inadequate Domestic Supply   |
| Section 2.2.3   | Combining Authorities for Reductions in Advanced Biofuel and Total |
| Section 2.4.1   | Proposed Total Renewable Fuel Volume for 2014                      |
| Section 2.4.3   | Proposed Total Renewable Fuel Volume for 2016                      |
| Section 2.5.1   | Proposed Advanced Biofuel Volume for 2014                          |
| Section 2.5.3   | Proposed Advanced Biofuel Volume for 2016                          |
| Section 2.7.5   | Impacts on Imports of Conventional Biodiesel                       |
| Section 3.2.3   | Imports of BBD   |
| Section 3.2.5   | Federal Tax Credit for Biodiesel                                   |
| Section 7.2     | Agricultural Impacts (food, animal feed, crops, feedstock)         |
| Section 7.4     | Impact on RINs   |
| Section 8       | Environmental Impacts of the Proposed Rule                         |
| Section 10.6.8  | Biointermediates   |

### **2.5.3 Proposed Advanced Biofuel Volume for 2016**

#### **Comment:**

##### **Advanced Biofuels Association (ABFA)**

We are encouraged with both the 2015 and 2016 proposed numbers as they send a strong signal of support for the advanced and cellulosic sector, and we believe these are achievable targets given the new plants and the addition of biogas production facilities coming on line. [EPA-HQ-OAR-2015-0111-2498-A1 p.11]

##### **Advanced Economic Solutions (AES)**

*Advanced and Biodiesel Proposed RVOs:* The proposed advanced biofuel RVO during 2016 has significant consequences for biodiesel feedstock requirements. EPA should consider reducing the 2016 advanced biofuel RVO to the level proposed for 2015 (2.90 B gallons). [EPA-HQ-OAR-2015-0111-1193-A1 p.2]

Excluding the carve-out for cellulosic biofuels (.206 B gallons), a total of 3.194 B gallons of advanced biofuels would be required during 2016. Given the challenge of the 10% blend wall, AES assumes nearly all of the advanced biofuel RVO would be met with increased biodiesel utilization. Converting to biodiesel “wet” gallons[1], an advanced RVO (beyond cellulosic biofuel) of 3.194 B gallons would equate nearly 2.1 B gallons of biodiesel to be utilized during 2016. This would represent a 14% increase from projected 2015 biodiesel usage. [EPA-HQ-OAR-2015-0111-1193-A1 p.2]

AES recommends that the EPA reduce their proposed 2016 advanced biofuel RVO to 2.90 B gallons, the same level as the 2015 proposed level. [EPA-HQ-OAR-2015-0111-1193-A1 p.3]

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[1] Utilizing a conversion of 1.537 wet gallons to ethanol-equivalent gallons (same as 2014)

#### **American Council on Renewable Energy (ACORE)**

USEPA's proposed 2014 RVO for advanced biofuel is reasonable and should slightly increase its 2015 RVO to 2.95 million gallons and its 2016 RVO to 3.5 million gallons to take into account the higher production of cellulosic ethanol. [EPA-HQ-OAR-2015-0111-1926-A1 p.14]

#### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

**EPA presents several potential scenarios totaling 3.4 billion gallons in the Proposed Rule, but as discussed above, these scenarios use unprecedented volume assumptions. These volumes cannot be expected to be achieved in light of supply constraints for 2016, and EPA should finalize a lower advanced biofuel volume standard for 2016.**

**Our recommended forecast of advanced biofuel volumes available in 2016 is summarized in the table below. The advanced biofuel volume standard for 2016 should be set at 2.9 billion gallons.** [EPA-HQ-OAR-2015-0111-1948-A1 p.24]

#### **Biotechnology Industry Organization**

EPA's proposed rule will destroy incentives to invest in development of advanced and cellulosic biofuels by eliminating both incentives for new methods of compliance beyond E10 and the profits of conventional biofuel producers who are most likely to be first-adopters of the technology.<sup>128</sup> As Matt Merritt, a spokesman for POET, put it, "Anything you do to hurt the profitability of the grain ethanol producers is going to hinder their ability to invest in this new technology as well."<sup>129</sup> [EPA-HQ-OAR-2015-0111-1958-A2 p. 38]

2. EPA should set the 2015 and 2016 RVOs for advanced and overall RVOs at the **full statutory volumes**. EPA has not met its burden to reduce the volumes. [EPA-HQ-OAR-2015-0111-1958-A2 p. 61]

#### **Brazilian Sugarcane Industry Association (UNICA)**

UNICA further urges EPA to consider raising the volumes of advanced biofuels and total renewable fuels to ensure that sugarcane ethanol can continue to play such an important role in fostering compliance. As will be discussed in more detail below,<sup>34</sup> currently, sugar cane ethanol-derived D-5 RINs compete with biodiesel D-4 RINs for these two fuel categories, and biodiesel has enjoyed a tax credit which does not exist for sugarcane ethanol as well as a higher EV. If EPA reduces the volumes for advanced biofuels and total renewable fuels by too great a volume, it may make it considerably more difficult for sugarcane ethanol to compete for those lower volumes, adversely impacting imports and the utility of sugarcane ethanol as a key piece of the RFS2 program. EPA should take this differential treatment into consideration. [EPA-HQ-OAR-2015-0111-2495-A1 p.14]

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<sup>34</sup> See *infra* at Section IV.

### **Butamax Advanced Biofuels, LLC**

EPA should as much as possible minimize waivers that lessen the statutory volumes. This maximizes conformance with legislative intent while providing stakeholders with the strongest possible confidence as they plan their long-term commercial, investment and compliance strategies. [EPA-HQ-OAR-2015-0111-1938-A2 p. 4]

### **California Dairy Campaign**

We do however support the development and expansion of advanced biofuels. We are concerned that a reduction in the advanced biofuels mandate will increase risk and discourage investment in new technologies and production facilities. [EPA-HQ-OAR-2015-0111-1816-A1 p.1]

Although we object to using corn to produce ethanol, we do support the development of advanced biofuels using other methods. [EPA-HQ-OAR-2015-0111-1816-A1 p.2]

### **Canola Council of Canada**

2. EPA Should Continue to Support Expansion of Biofuel Use Under the RFS2 Program.

The Canola Council agrees with EPA that it should ensure continued growth in the use of renewable fuels in the United States. In particular, EPA has previously stated that “it would not be consistent with the energy security and greenhouse gas reduction goals of the statute to reduce the applicable volume of advanced biofuel set forth in the statute if there are sufficient volumes of advanced biofuels available, even if those volumes do not include the amount of cellulosic biofuel that Congress may have desired.”<sup>9</sup> EPA also previously found greater increases in the biomass-based diesel volume requirement would better ensure that the statutory volumes are met.<sup>10</sup> The Canola Council believes that the canola industry can continue to provide significant and growing contributions to the program, and help ensure the required volumes are met. [EPA-HQ-OAR-2015-0111-2484-A1 p.3-4]

### **Clean Air Task Force**

CATF supports EPA’s proposal to reduce the 2015 and 2016 advanced biofuel RVOs by close to the full amount that it plans to reduce the cellulosic RVOs.<sup>3</sup> [EPA-HQ-OAR-2015-0111-1828-A1 p.2]

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<sup>3</sup> EPA has proposed to reduce the RVOs for cellulosic and advanced biofuels by 2.9 billion gallons and 2.6 billion gallons, respectively. In the 2016, the proposed reductions come to 4.04 billion gallons (cellulosic) and 3.85 billion gallons (advanced).

## **Cool Planet Energy Systems**

We also would like to compliment the EPA in providing clear support for Advanced biofuels that is separate from the D6 corn ethanol pool. We support the proposing of 2.9 and 3.4 billion gallons for 2015 and 2016. [EPA-HQ-OAR-2015-0111-2572 p. 1]

## **Darling Ingredients Inc.**

The second consideration put forward on why Biomass Based Diesel volumes should be limited is that if the BBD is dictated then there would be no incentive for the development of Cellulosic and other Advanced Fuels. Darling agrees with the EPA's conclusion. The BBD mandate should not represent all of the Advanced Fuel mandate. However, this goal can be met and there can be an incentive for other Advanced Biofuels. EPA could increase the BBD AND increase Advanced Biofuels volume. That is the reason that Darling is suggesting that Advanced Biofuels should be increased above the levels proposed by the EPA for 2016 and 2017. The EPA in the Proposed Rule establishes that it anticipates 200 million gallons of Cellulosic in 2016 and provides for 500 million gallons of Unspecified Advanced in 2016. Darling proposes to increase Advanced Biofuels by 350 million RIN's in 2016 which would mean an increase of 200 million gallons of BBD (resulting in approximately 310 million RIN's) and the same incentive for development of Cellulosic would exist as the EPA has in its Current Proposed Rule. The same logic applies for Darling's suggested 2017 Advanced Biofuel goal of 4.25 billion RIN's; note the Darling proposal for 2017 Advanced RIN's slightly increases the available bucket for undifferentiated advanced in compliance with the aspirational spirit of spurring advanced biofuel production. [EPA-HQ-OAR-2015-0111-1929-A1 p.9]

## **Growth Energy**

In EPA's view, because the proposed 2016 advanced biofuel and renewable fuel volume requirements "represent significant increases from 2014, ... it would be unreasonable to expect the market to supply more than the proposed volumes."<sup>67</sup> But EPA offered no analysis of whether more could be supplied to consumers. Instead, it tried to determine whether these modest proposed increases are "achievable."<sup>68</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.11]

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<sup>67</sup> *Id.* at 33,126.

<sup>68</sup> *Id.*

## **Growth Energy**

Turning to 2016, EPA observed that because obligated parties "will have the full compliance year to respond to the standards [EPA] set[s] for 2016, ... the supply of renewable fuels to vehicles can grow more dramatically in 2016 than in 2015."<sup>65</sup> Specifically, EPA proposed to grow total renewable fuel in 2016 by 1.1 bil gal, 500 mil gal of which would come from growth under the advanced volume requirement, "while the remainder (the non-advanced portion)" would grow by 600 mil gal, to 14.0 bil gal, instead of to the statutorily implied level of 15.0 bil gal.<sup>66</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.11]

## **Imperium Renewables and Renewable Biofuels**

We also strongly support the advanced biofuels volume request our national trade association, the National Biodiesel Board (NBB), is asking for in their comments. There are statutory volumetric obligations for the advanced biofuels category, and these numbers should be adhered to when there is sufficient capacity and fuel to achieve those mandates. We encourage the EPA to ensure that it has considered all possible sources of eligible advanced biofuels when establishing the final advanced biofuels RVO. [EPA-HQ-OAR-2015-0111-2043-A1 p.4]

We believe these facts indicate that the statutory volumes for 2016 can be met, and warrant EPA proposing far higher advanced biofuels volumes, which will accommodate these other fuels, increasing volumes of imported BBD, and provide growth space for the domestic BBD industry. [EPA-HQ-OAR-2015-0111-2043-A1 p.4]

Accordingly, we recommend that the EPA increase the 2016 advanced biofuels volume requirement to at least 4 billion gallons. [EPA-HQ-OAR-2015-0111-2043-A1 p.5]

We look forward to the opportunity to discuss this request with you in the coming weeks, and urge the EPA to promulgate the final rule — with higher volumes — as soon as possible under the Administrative Procedures Act. [EPA-HQ-OAR-2015-0111-2043-A1 p.5]

## **Indiana Farm Bureau**

Another key concern of the Indiana Farm Bureau is what the future might hold. This proposal would halt new investments in cellulosic biofuels and introduce detrimental ambiguity in a market that is still developing. Indiana Farm Bureau strongly urges EPA to stay the course with the RFS2 as defined in the 2007 EISA. Without question, this decision, if finalized, will have tremendous consequences for the agricultural sector, for our nation's energy policy and for the intended regulatory framework and goals of the RFS2. The commitment to advanced biofuels is critical in order to achieve the 36 billion gallon goal of renewable fuel sold in the marketplace by 2022. Indiana Farm Bureau remains optimistic that the advanced biofuel provisions can succeed in diversifying the RFS2. From 2007 through the second quarter of 2011, over \$2.4 billion was invested in advanced biofuel companies by venture capitalists alone. It is important that these investments from the private sector be fully implemented and that incentives for continued research and development remain fully in place. Past R&D work in the sector has resulted in increasing product yields with lower input costs. The goals set forth by the RFS2 have been and remain an important catalyst for this type of cutting edge work; and it is important to the long-term health of both the economy and the environment that this work continues. [EPA-HQ-OAR-2015-0111-2486-A1 p.2-3]

## **International Council on Clean Transportation (ICCT)**

While we believe that the decision to use this waiver is correct, we believe that given limits on availability of non-cellulosic advanced biofuels and advanced biofuel feedstocks that it would be appropriate for the EPA to utilize its full waiver authority to reduce advanced biofuel volumes further than currently proposed, by the same amount as the reduction in the cellulosic volume. Given the proposed cellulosic volume mandate, this would result in a requirement for 2.606 and 3.206 billion gallons of advanced biofuel in 2015 and 2016, respectively, compared to the proposal for 2.9 and 3.4 billion gallons in 2015 and 2016.

Making these adjustments to the advanced mandate would reduce the likelihood of the following situations: increases to BBD production much larger than intended by EPA, resulting in very large impacts on the US vegetable oil market; and very high demand for limited supplies of Brazilian sugarcane ethanol, bidding up the price to little environmental benefit. [EPA-HQ-OAR-2015-0111-1923-A1 p.8]

### **Iowa Soybean Association**

The Iowa Soybean Association, representing 40,000 Iowa soybean farmers, strongly encourages you to increase the proposed US EPA Renewable Fuels Standard volume obligation levels. Rural Iowa, and indeed rural America, need the predictability of an increasing commitment to biofuels to allow continued investments in renewable fuels. These investments add value to farm products, provide strong jobs in rural areas, reduce emissions and give consumers lower cost alternatives at the fuel pump. [EPA-HQ-OAR-2015-0111-3424 p.1]

### **John Deere**

Liquid transportation fuels of the future must be lower-carbon in content. In addition, evidence is growing that higher-octane attributes will be required to achieve the mileage and emission goals for gasoline-powered vehicles. Renewable fuels provide solutions for both of these critical needs. Keeping higher volume requirements in place will help guarantee the proper economic leverage – providing support for those who make investments supportive of these needs and consequences for those who do not.

### **Kansas Farm Bureau**

Advanced Biofuels – While cellulosic biofuels must still prove themselves a major source of renewable fuel, technologies continue to advance and high-paying jobs are being created throughout the U.S. A case in point is the Abengoa Bioenergy Biomass plant in Hugoton, Kansas, scheduled to come on line later this year. This 25 million gallon biomass-to-ethanol bio-refinery will convert excess corn stover (cellulosic biomass) into ethanol. Additionally, the residue of the refining process will be combusted along with more biomass material to produce 18 megawatts of electricity, making the entire facility energy efficient and environmentally friendly. The plant's economic impact will be significant because when fully operational, it is expected to provide 78 rural jobs and contribute an additional \$5 million to the local economy each year through the purchase of corn stover. EPA's proposed reductions from RFS2 targets sends a message of uncertainty that may erode investor confidence, curtail future investment and limit the advancements and innovation needed to make advanced biofuels a reality in the U.S. [EPA-HQ-OAR-2015-0111-1195-A1 p.2]

### **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

D. EPA Has Relied on Flawed Estimates of Other Biofuels Production in Projecting Compliance Scenarios for 2016.

While EPA has focused primarily on the role of E85 and biomass-based diesel in filling the underestimated 840-million gallon renewable gap for 2016, EPA has also assumed in most scenarios that the economy will consume several hundred million gallons of other advanced and conventional biofuels. EPA has claimed that the estimated consumption ranges for these other

biofuels in its scenarios are generally consistent with ranges achieved over the last several years. However, other data relied upon by EPA suggest those ranges may be too high. [EPA-HQ-OAR-2015-0111-2603-A2, p.36]

Thirteen of EPA's sixteen scenarios for 2016 assume the economy will consume 125 million or more physical gallons of conventional biodiesel, and all but five of those scenarios assume that the economy will consume 250 million gallons. EPA stated in the NPRM that 250 million gallons of conventional (D6) biodiesel is only "slightly higher" than the 225 million gallons imported in 2014. EPA apparently derived 2014 levels from data showing the economy imported 53 million gallons of conventional biodiesel and 151 million gallons of conventional renewable diesel. Yet the data call that story into question. Specifically, a document entitled "2014 RIN Supply" reflects a 146 million gallon "correction" to the reported 151 million gallons of conventional renewable diesel imported in 2014.<sup>101</sup> That correction results in only 5 million of the reported 151 million physical gallons of conventional renewable diesel being available for compliance. A similar pattern appears upon review of a separate document entitled "2013 RIN Supply."<sup>102</sup> Specifically, that document reflects a 63 million gallon "correction" to the reported 116 million gallons of conventional renewable diesel imported in 2013. That correction results in only 53 million of the reported 116 million physical gallons being available for compliance. EPA should explain why it appears not to have used "corrected" figures to derive estimates of the amount of conventional diesel available for compliance in 2016. [EPA-HQ-OAR-2015-0111-2603-A2, pp.36-37]

In any event, EPA's assumption that usage of that biofuel will increase in 2016 is in tension with its observation that consumption levels for each biofuel in its sixteen scenarios depends on the level of consumption of other biofuels in those scenarios. [EPA-HQ-OAR-2015-0111-2603-A2, p.37]

Adopting mandates that encourage use of biofuels with questionable environmental properties—such as palm-based diesel—makes little sense and, indeed, is contrary to the statutory purpose of the RFS program. [EPA-HQ-OAR-2015-0111-2603-A2, pp.37-38]

In 13 of its 16 compliance scenarios, EPA has also assumed that usage of "other nonethanol advanced" biofuels will be between 50 and 100 million gallons, an assumption that is based "on the range of volumes achieved over the last several years." Yet 2014 RIN supply data reveal that "other non-ethanol advanced" biofuels contributed only 53 million gallons in 2014, a very steep decline from the 93 million gallons made available for compliance in 2013.<sup>106</sup> EPA has failed to explain the basis for its assumption that use of these biofuels will now grow by up to 89 percent from 2014 levels. Nor has EPA addressed the fact that, through the first six months of 2015, production is only about 16.9 million ethanol equivalent gallons.<sup>107</sup> Even if one arbitrarily assumed double that growth over the remaining six months of 2015, "other nonethanol advanced" biofuels would contribute only about 50.7 million ethanol-equivalent gallons, representing a decline from 2014 levels. [EPA-HQ-OAR-2015-0111-2603-A2, p.38]

Finally, eleven of sixteen of EPA's compliance scenarios assume the economy will consume between 102 million and 433 million gallons of sugarcane ethanol in 2016. As EPA observed, imports fell from 435 million gallons in 2013 to 64 million gallons in 2014, a trend expected to continue in 2015 now that the economy has reached the E10 blendwall and the Brazilian government has granted an expected increase in the required ethanol content of gasoline from 25

percent to 27.5 percent. [EPA-HQ-OAR-2015-0111-2603-A2, p.38]

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<sup>101</sup> EPA, 2014 RIN Supply, Supporting & Related Material, EPA-HQ-OAR-2015-0111-0004 (June 10, 2015).

<sup>102</sup> EPA, 2013 RIN Supply, Supporting & Related Material, EPA-HQ-OAR-2015-0111-0003 (June 10, 2015).

<sup>106</sup> EPA-HQ-OAR-2015-0111-0004.

<sup>107</sup> U.S. EPA, 2015 RFS2 Data, <http://www.epa.gov/otaq/fuels/rfsdata/2015emts.htm>.

In Order to Satisfy EPA’s Proposed Mandates, Biomass-Based Diesel Consumption Would Need to Increase to Levels That EPA Has Said Are Merely “Theoretically” Possible.

EPA purported to set the biomass-based diesel mandate at 1.8 billion physical gallons in 2016, about 200 million physical gallons more than were available for compliance a mere six months ago. But the effective biomass-based diesel mandate proposed for 2016 is actually much higher. Even if E85 consumption were to grow robustly over the next six months so that the market has the capacity to use 100-200 million gallons in 2016, Table II.D.2-2 suggests that the market still must also use approximately 2.0-2.1 billion physical gallons of biomass-based diesel in order to achieve the proposed mandates. There is a substantial risk that the market will come up short in meeting EPA’s goal. Moreover, by imposing standards that require biomass-based diesel production to be pushed to the limits of what is practicable and then beyond those limits, EPA will cause significant volatility in RIN prices. Accordingly, EPA must revise its advanced and total renewable mandates downward to more realistic levels. [EPA-HQ-OAR-2015-0111-2603-A2, p.31]

1. EPA effectively proposed to mandate consumption of biomass-based diesel at levels at or near what EPA describes merely as “theoretically possible”

According to EPA, the market made available for compliance about 1.63 billion physical gallons of biomass-based diesel last year, slightly more than the 1.55 billion physical gallons made available in 2013. Thus, to meet EPA’s effective mandate for biomass-based diesel of about 2.0-2.1 billion gallons over the next six to eighteen months, the economy would need to increase the number of physical gallons available for consumption by about 20 to 29 percent compared to last year. Yet year-over-year production through the first six months of 2015 has increased only by 16 million physical gallons, or 2 percent compared to this time last year.<sup>86</sup> [EPA-HQ-OAR-2015-0111-2603-A2, pp.31-32]

The notion that the biomass-based diesel production can reach about 2.0-2.1 billion physical gallons in 2016 also is in tension with EPA’s previous acknowledgement that structural impediments prevent the industry from quickly and materially increasing domestic production, which amounted to only 1.46 billion of the 1.63 billion gallons available for compliance in 2014. EPA should have concluded from that earlier analysis—which EPA relied upon for its exercise of waiver authority—that it is unrealistic to achieve biomass-based diesel production of 2.0-2.1 billion gallons within six to eighteen months. Instead, EPA relied on its calculation that more than 2.7 billion gallons of capacity has been registered at one time or another under the RFS program. But the mere existence of capacity that at one time has been registered says very little about the market’s actual ability to increase domestic production over the next six to eighteen

months to make an additional 322 million gallons or more available.<sup>89</sup> [EPA-HQ-OAR-2015-0111-2603-A2, p.32]

Indeed, EPA acknowledged that such increased biomass-based diesel production may not be practically achievable. In its own words, EPA was “not able to say whether [2.131 billion physical gallons] of BBD is one that the market could be expected to achieve in 2016, notwithstanding our belief that such volumes are theoretically possible.” If EPA believes producing 2.131 billion physical gallons in 2016 is only theoretically possible, what basis has it to believe other targets between 1.952 and 2.065 billion gallons (i.e., the remaining portion of the range posited in the event E85 consumption reaches 100-200 million gallons) are actually possible? EPA must revise its advanced and total renewable requirements to levels that can actually be achieved with some reasonable degree of certainty. [EPA-HQ-OAR-2015-0111-2603-A2, p.33]

2. EPA has ignored additional factors that could constrain the economy’s ability to consume biomass-based diesel at the levels needed to meet the proposed mandates.

Not only has EPA set an effective biomass-based diesel mandate at a level that by its own admission is only theoretically possible, and not necessarily achievable in practice, it has also ignored important market risks that may make its effective mandate impracticable. For example, EPA has ignored the possibility that diesel consumption will outstrip EIA projections for 2016. If total diesel usage projections turn out to be too low, then more physical gallons of biomass-based diesel will be needed to achieve the same fractional advanced and total renewable requirements. Yet its proposed mandates, based upon current EIA gas and diesel projections, already push biomass-based diesel production to levels that are only theoretically achievable. EPA appears not to have considered this possibility in setting advanced and total requirements. It should adjust mandates to provide more breathing room to meet the requirements with production in 2016. [EPA-HQ-OAR-2015-0111-2603-A2, pp.33-34]

EPA also has understated the role biomass-based diesel may have to play in filling the renewable gap by assuming the market will produce 206 million gallons of cellulosic biofuel. If EPA projections of cellulosic production miss the mark, then even with robust E85 growth, biomass-based diesel markets may have to make closer to 2.2-2.3 billion gallons available for compliance. This scenario is in fact likely given EPA’s terribly poor track record in projecting cellulosic production—it has been off by millions of gallons in each of the last several years.<sup>94</sup> [EPA-HQ-OAR-2015-0111-2603-A2, p.34]

### **National Biodiesel Board**

EPA provides no real analysis to support its assertion that there is inadequate domestic supply requiring a reduction in the statutory volumes for advanced biofuels. EPA’s assessment of the “inability of the market to reach statutory volumes,” which is the rationale for the entire proposal, is based on the *total renewable fuel standard requirement*. [EPA-HQ-OAR-2015-0111-1953-A2 p.107]

Although NBB disagrees with EPA’s view of total renewable fuel, EPA does not indicate whether the separate and specific advanced biofuel category could be met. It is impossible for the public to meaningfully comment on the proposed advanced biofuel volumes without

understanding the support for the proposed 2.9 and 3.4 billion gallon requirements. [EPA-HQ-OAR-2015-0111-1953-A2 p.107]

EPA does not explain why it cannot provide for greater increases in advanced biofuels in line with the increases sought by Congress. Indeed, EPA recognizes that “Congress envisioned the majority of growth over time to come from advanced biofuels...” [EPA-HQ-OAR-2015-0111-1953-A2 p.110]

While NBB does not dispute that the industry could meet 3.40 billion gallons, EPA’s assessment unduly restricts the possible scenarios, as it only assesses whether the proposed 3.4 billion gallons could be met, not other volumes. To identify “maximum achievable” supply, EPA was required to do more. At a minimum, EPA should have compared various additional increases and higher possible levels. [EPA-HQ-OAR-2015-0111-1953-A2 p.115]

EPA incorrectly states that these fuels should “compete” with established fuels. Rather, EPA should consider the maximum available supply to account for the possible volumes from these additional fuels. EPA failed to do so, and, thus, we do not have access to sufficient information to assess the true potential supply from these sources. Nonetheless, NBB agrees that EPA must account for them and must also provide, consistent with Congressional intent to set ambitious goals and drive production, additional volumes above those amounts. [EPA-HQ-OAR-2015-0111-1953-A2 p.120]

It is simply arbitrary to penalize the entire advanced biofuel industry due to a perceived blend wall limitation that affects only ethanol. As outlined for 2015, there is more than available supply of at least 4 billion gallons of advanced biofuels. Anything less than a 4 billion gallon requirement would be unreasonable. More can be available. [EPA-HQ-OAR-2015-0111-1953-A2 p.120]

### **National Farmers Union (NFU)**

The preamble to the proposed rule acknowledges the need for longer-term certainty than annual volume targets allow, asserting that as the reason for offering the 2016 volume standards now along with the 2014 and 2015 volume standards. Ignoring the fact that the 2016 volume standard will hardly be issued before 2016, EPA's attempt to offer certainty for the biofuels industry is far less effective than establishing a habit of properly deferring to the volume standards in the EISA. [EPA-HQ-OAR-2015-0111-1657-A1 p. 8]

While the advanced biofuels industry has not been able to produce enough renewable fuel to satisfy the volume targets set by Congress in the EISA, lowering volume targets to the level set by EPA in the proposed rule will not give advanced biofuel producers, or their prospective investors, the market certainty needed to bring advanced biofuels manufacturing to the capacity Congress sought when passing the EISA. The branded oil industry wields tremendous power over the transportation fuels offered to the public. EPA, in several instances throughout its preamble to the proposed rule, acknowledges that the branded oil industry has prevented consumers owning FFV vehicles from finding retail outlets to fuel their vehicles with higher biofuel blends, artificially stymying demand for the environmentally superior product advanced biofuel manufacturers help create. Lowering volume standards to the extent embodied in the proposed rule rewards branded oil companies for this behavior and creates additional obstacles to

the investment needed to expand these proven advanced biofuel manufacturing technologies to the extent needed to fulfill the volume standards set by Congress. [EPA-HQ-OAR-2015-0111-1657-A1 p. 5]

Finally, if EPA will not allow conventional biofuels to compensate for the reduction to the advanced biofuel volume standard, EPA must not lower the total renewable fuel volume standard any more than the amount the advanced biofuel standard is reduced. [EPA-HQ-OAR-2015-0111-1657-A1 p. 6]

### **National Renderers Association (NRA)**

For advanced biofuel, NRA urges EPA to adopt *minimum* of 3.2 billion RINS for the 2014 and 2015 RFS, and 4 billion RINS (on an ethanol-equivalent basis) for 2016. Production capacity exists to easily meet these volumes, and lower RFS levels would be unreasonable. [EPA-HQ-OAR-2015-0111-2496-A1 p.2]

### **Newport Biodiesel**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 207.]

First and foremost, EPA should recognize and emphasize that the primary objective of the RFS is to reduce greenhouse gas emissions through the use of advanced biofuels. This is stated clearly in the executive summary of the proposed rule, and it should be the driving force behind the final volumes proposed.

### **San Diego Regional Clean Cities Coalition**

Reducing the advanced biofuel and total renewable fuel standards for 2016 and 2017 will hinder the growth of the California biofuels market. [EPA-HQ-OAR-2015-0111-1719-A1 p. 1]

### **Smithfield Foods, Inc.**

Smithfield supports the development and use of advanced and cellulosic biofuels which do not use food crops as feedstocks. Indeed, Smithfield is engaged in projects to develop renewable energy from a variety of sources, and we encourage efforts to diversify American energy sources and reduce greenhouse gas emissions in a cost-effective manner. [EPA-HQ-OAR-2015-0111-2041-A1 p.1-2]

### **Union of Concerned Scientists**

In evaluating EPA's proposal, we recognize and commend the EPA's proposal to limit the growth of the non-cellulosic (food-based) advanced biofuel mandate between 2015 and 2016 to 480 million gallons. The proposed 2016 advanced biofuel mandate of 3.4 billion gallons, of which approximately 200 Mgal are cellulosic, still exceeds by approximately 200 Mgal the level associated with the statutory minimum. This discretionary enlargement is not warranted by the available feedstocks and thus for 2016, if the cellulosic mandate remains at 200 Mgal, the advanced and renewable mandates should be reduced by 4.05 Bgal rather than 3.85 Bgal as proposed. [EPA-HQ-OAR-2015-0111-2260-A1 p.5]

Given current sources of non-cellulosic advanced biofuel, we do not believe available biofuels support a discretionary enlargement at this time. In particular, because limitations on fuel dispensing infrastructure constrain the use of advanced ethanol, BBD is likely to be the source of marginal compliance for the renewable fuel mandates as is reflected in Table II.D.2—2. As discussed above in the context of BBD, consideration of available feedstocks suggest that there is inadequate supply of low carbon sources of BBD that are consistent with the goals of section 211 (o)(2)(B)(ii) to merit a discretionary enlargement of the renewable fuel mandate. [EPA-HQ-OAR-2015-0111-2260-A1 p.4-5]

While reducing the advanced mandate might not seem to support aggressive growth in advanced biofuels, it is important to recognize that the minimum statutory levels are already very aggressive. The minimum statutory level for non-cellulosic advanced biofuel is scheduled to grow at 500 Mgal a year for 2017, 2018 and 2019 reaching 4.5 Bgal in 2019. If this is met primarily with BBD it would support as much as 3 Bgal of BBD, a very large and rapid expansion from current levels. Even in the absence of any discretionary enlargement, this rate of growth is very aggressive considering the sources of non-cellulosic advanced biofuels that are likely to be available in this timeframe. [EPA-HQ-OAR-2015-0111-2260-A1 p.5]

By setting forth clear criteria to evaluate future discretionary enlargement, considering feedstock availability among other factors, EPA will increase forward guidance to the marketplace and reduce policy uncertainty. Moreover, a focus on feedstock availability will clarify the importance of investment in fuels for which feedstocks are abundant, primarily cellulosic biofuels, and avoid unsustainable capacity buildup in BBD production capacity that outstrips feedstock availability. [EPA-HQ-OAR-2015-0111-2260-A1 p.5]

**Response:**

Some stakeholders said that the proposed reduction in the 2016 volume requirement for total renewable fuel would eliminate profits for conventional biofuel producers, and that this would in turn destroy incentives to invest in the development of advanced biofuels. We disagree. First, the final 2016 volume requirement for total renewable fuel includes an opportunity for substantial growth in conventional renewable fuel in comparison to 2015, thereby creating opportunities for increased profits. Second, although in some cases conventional renewable fuel producers are also participating in development of advanced biofuels, this is not universally true. Many companies are focused primarily or only on advanced biofuels. Since we are finalizing a 2016 volume requirement for advanced biofuel that is significantly higher than in any previous year, all companies seeking to produce advanced biofuels will have significantly expanded opportunities to participate in the market.

A number of stakeholders said that they believed a higher volume requirement was possible for advanced biofuel in 2016 than we had proposed. For this final rule, we have considered these comments and other information available to us, and have determined that the final volume requirement for 2016 advanced biofuel should be increased from the proposed level of 3.4 billion gallons to 3.61 billion gallons.

A number of stakeholders recommended that the 2016 volume requirement for advanced biofuel be set at the same level as proposed for 2015: 2.90 billion gallons. Many of these stakeholders

based their views on perceived limitations on feedstocks available for producing biodiesel, and/or on their view that the RFS program should not be creating incentives to import sugarcane ethanol. In general, as described in Section II.E.3.i of the final rule, we believe that sufficient feedstocks are available to allow production and import of 3.61 billion gallons of advanced biofuel in 2016. For further responses to comments on the impacts of the advanced biofuel volume requirement on soybean oil and other feedstocks used in the production of biodiesel and renewable diesel, see Section 3.2.1. With regard to the consideration of imports of sugarcane ethanol, see Sections 2.1 and 2.7.4.

In addition to those stakeholders who said that we should set the 2016 volume requirement for advanced biofuel at 2.9 billion gallons, several other stakeholders said more generally that the proposed volume requirement of 3.4 billion gallons was too high, and suggested that we use the full amount of reduction in advanced biofuel that is permitted under the cellulosic waiver authority. In the context of the NPRM, this would have resulted in a 2016 volume requirement for advanced biofuel of 3.206 billion gallons, a level below what we believed at that time was achievable. In the context of this final rule, this approach would result in a 2016 volume requirement for advanced biofuel of 3.23 billion gallons. While we are able to take into account factors beyond availability of qualifying fuel in determining the volume requirement for advanced biofuel, we have considered comments received (as discussed elsewhere in this section, Section 2.2.1 of this RTC document, and the final rule), and believe that the considerations that commenters have asserted, favoring a lower advanced biofuel volume requirement, do not outweigh the benefits of requiring the use of reasonably attainable volumes of low GHG-emitting advanced biofuels. As described in Section II.F of the final rule, our intention is to place an emphasis on setting the 2016 advanced biofuel volume requirement at a level that is reasonably attainable taking into account uncertainties related to such factors as production, import, distribution, and consumption of these fuels. While one stakeholder suggested that reducing the advanced biofuel volume requirement would reduce the likelihood of inordinately high BBD production and inordinately high imports of sugarcane ethanol, we do not believe that the volume requirements we are setting will have such results. As described in Section II.G of the final rule, there are a variety of ways in which the market could respond to the final volume requirements. As discussed there, the highest level of sugarcane ethanol shown in Table II.G-2 is 495 million gallons, a level that is less than the highest level of sugarcane ethanol imports that has occurred in the past (680 million gallons in 2006). Similarly, the highest level of BBD shown in Table II.G-2 of the preamble is about 2.2 billion gallons. While this is towards the high end of what we think the market could choose for satisfying the advanced biofuel requirement, we do not believe that this volume is likely to create significant impacts on the U.S. vegetable oil market as suggested by this stakeholder since it is close to the level that we used in determining the 2016 volume requirement for advanced biofuel. Moreover, the variety of possible ways that the market could respond to the final 2016 volume requirement for advanced biofuel as shown in Table II.G-2 demonstrates that it is reasonably attainable. For further discussion of impacts on agricultural commodities, see Section 7.2.

Another stakeholder expressed concern that the proposed volume requirement for advanced biofuel in 2016 would require volumes of BBD that cannot be achieved, pointing out that production capacity is not by itself a sufficient basis for determining the volume that can actually be supplied in 2016. As described in Section 2.4, consideration of production capacity alone is indeed not sufficient. There are also practical and timing constraints associated with diverting

feedstocks from current uses to the production of BBD, and constraints associated with the market's ability to supply BBD to the engines that use it. We have elaborated on these constraints in Section II.E.3 of the final rule. It is by considering these constraints that we have determined that the levels of BBD supply suggested by the National Biodiesel Board and some other biodiesel proponents are not achievable in 2016. Nevertheless, we do believe that supply of advanced biodiesel and renewable diesel in 2016 can be higher than supply in 2015, and we have projected that 2.1 billion gallons is reasonably attainable in the context of determining the advanced biofuel volume requirement for 2016. This is about 370 million gallons higher than the projected supply of BBD in 2015. Not only is this increase less than the increase that occurred in 2013, but there may also be some imports of advanced biodiesel from countries such as Argentina which can also contribute to the supply of BBD.

One stakeholder contended that we proposed levels of advanced biofuel and total renewable fuel that we deemed achievable without determining whether they were the maximum achievable. In fact the NPRM stated our intent to propose volumes that, if finalized, would be the maximum that can reasonably be achieved:

"We are proposing to use the waiver authorities to derive applicable volumes that reflect the maximum volumes that can reasonably be expected to be produced and consumed. Thus, while the standards that we set must be achievable, we believe that they must also reflect the power of the market to respond to the standards we set to drive positive change in renewable fuel production and use." (80 FR 33104)

However, we went on to say that this determination would require considerable judgment:

"This is a very challenging task not only in light of the myriad complexities of the fuels market and how individual aspects of the industry might change in the future, but also because we cannot precisely predict how the market will respond to the volume-driving provisions of the RFS program. Thus the determination of the maximum achievable volumes is one that we believe necessarily involves considerable exercise of judgment." (80 FR 33105)

The NPRM did point out that the proposed 2016 volume requirements would be significantly higher than in any previous year, and that the market would need to respond by increasing domestic production and/or imports of renewable fuel, by significantly expanding the infrastructure for distributing and consuming that renewable fuel, and by improving the relative pricing of renewable fuels and conventional transportation fuels at the retail level to ensure that they are attractive to consumers. Given the imprecise nature of the projection of volumes that are achievable, it was our judgment in the NPRM that the proposed volume requirements were the maximum that could reasonably be achieved. Moreover, the presentation of a number of different scenarios for how the market could respond to the proposed volumes, and the associated discussion of the levels of each type and source of renewable fuel that were possible but in some cases unlikely, was designed to give stakeholders a better understanding for why we believed that the proposed volumes were the maximum achievable.<sup>8</sup>

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<sup>8</sup> See discussion in Section II.D.2 of the NPRM.

In this final rule we have expanded the discussion for why we believe that the final volume requirements meet the statutory criteria under the applicable waiver authorities. We have also clarified our use of the applicable waiver authorities. In short, we are reducing volumes of total renewable fuel under both the cellulosic and the general waiver authority, and we are reducing volumes of advanced biofuel under the cellulosic waiver authority only. As a result, the criteria we have used to reduce advanced biofuel differ from those used to reduce total renewable fuel. The general waiver authority is available based on a finding of inadequate domestic supply or severe economic or environmental harm. We believe that any waiver using the general waiver authority would appropriately be limited to relieving the condition that gives rise to the authority. Thus we are reducing the volume requirement for total renewable fuel to the degree needed to remove the inadequacy of supply. The expanded discussion of our assessment of total renewable fuel supply in 2016 can be found in Section II.E of the preamble.

By contrast, under the cellulosic waiver authority there are no specific criteria given in the statute for the conditions under which reductions may be made. Thus in determining the appropriate reductions in advanced biofuel using the cellulosic waiver authority, we have taken into consideration the GHG reduction benefits associated with advanced biofuels and issues related to their availability, including uncertainty in imports and existing patterns of feedstock consumption for competing uses. In this context, the final 2016 volumes of advanced biofuel that we are setting in today's rule are based on an assessment of levels that are reasonably attainable given a consideration of these factors. The expanded discussion of our assessment of advanced biofuel supply in 2016 can be found in Section II.F of the final rule.

One stakeholder who stated that the proposed 2016 volume requirements were too high argued that EPA had underestimated the gap between the proposed volume requirements and the volumes that the economy was on pace to supply in 2016. In fact the NPRM did not specify the volume that the economy was on pace to supply in 2016. We did project what we believed the market could achieve by the end of 2015 given that the year was half over at the time of the release of the NPRM, and then we went on to include additional increases in supply that we estimated could be achieved in 2016. Our 2016 estimates of achievable supply were based on an assessment of how the market would respond to the volume requirements we set, a process that we acknowledged was imprecise and required significant judgment.

This stakeholder also suggested that the range of possible volumes for other advanced biofuel that was provided in a list of scenarios in Table II.D.2-2 of the NPRM might be too high based on other data referenced in the NPRM. However, the stakeholder did not specify what inconsistencies with other data in the NPRM they were referring to. The scenarios provided in the NPRM were not meant as projections of exactly how the market would respond but rather provided a range of possibilities. Also, we stated our belief that under the influence of the RFS program, there would be an incentive for the market to increase supplies of other advanced biofuels beyond the levels that have been achieved in the past.

This stakeholder correctly pointed out that the range of conventional biodiesel volumes included in the scenarios listed in Table II.D.2-2 of the NPRM as possible ways that the market could respond to the proposed 2016 advanced and total volume requirements was larger than the actual supply of conventional biodiesel in 2014. The range of volumes in the NPRM scenarios table was based on the number of RINs generated in the past for conventional biodiesel and renewable diesel before corrections were made to account for such events as spills, enforcement actions,

and fuel used in non-transportation activities. The NPRM described the range of conventional biodiesel volumes as being based on the volumes actually imported in 2014. While an accurate description of the source of the conventional biodiesel volumes used in Table II.D.2-2 of the NPRM, this approach ignored the subsequent corrections that reduced the number of RINs actually available for compliance. Even so, under the influence of higher volume requirements, regulated parties would have greater incentive to avoid the circumstances that led to these corrections, and thus the number of RINs generated may be achievable

One stakeholder said that EPA had not sufficiently described why the statutory target for advanced biofuel cannot be reached in 2016. In the NPRM we did point out that more than 70% of the additional ethanol-equivalent volumes that would be needed to reach both the total renewable fuel and advanced biofuel statutory targets would need to be advanced biofuel, and discussed the impracticability of attaining those volumes. However, we agree that it is appropriate to elaborate on the limitations in the supply of advanced biofuel that have led us to conclude that the statutory target for advanced biofuel cannot be reached in 2016. A more detailed discussion of our assessment of the inability of the market to reach the statutory target for advanced biofuel in 2016 is provided in Section II.B.5 of the final rule. For additional responses to comments on whether the statutory volume targets can be reached in 2014, 2015, or 2016, under either the general waiver authority or the cellulosic waiver authority, see Section 2.2.4.

One stakeholder said that it would be inappropriate to require advanced biofuels other than cellulosic biofuel and BBD to compete with BBD within the context of the advanced biofuel volume requirement. Instead, they argued, EPA must consider the maximum achievable levels of these "other" advanced biofuels, and add them to BBD and cellulosic biofuel to determine the advanced biofuel volume requirement. As discussed in Sections II.B and II.F of the final rule, we are using the cellulosic waiver authority to reduce volumes of advanced biofuel, and when using that authority we are not required by the statute to determine the maximum achievable level of advanced biofuel. Using the cellulosic waiver authority we have broad discretion to determine whether to reduce volumes by an equal or lesser amount than the reduction in the cellulosic biofuel applicable volume. As discussed in the preamble to the final rule, we have determined that it would be appropriate to set the volume requirement for advanced biofuel in 2016 to require use of reasonably attainable volumes, taking into consideration such factors as uncertainty in imports and existing patterns of feedstock consumption for competing uses, etc. We have set the BBD applicable volume at a lower level than the advanced biofuel volume requirement and, indeed, at a lower level than we believe BBD will be used for purposes of compliance with the advanced biofuel requirement. We believe that this is desirable as described in Section III of the final rule and in Section 3 of this RTC document, to provide an opportunity for competition among different types and sources of advanced biofuel. Incentivizing production of an array of advanced biofuels could lead to reduced compliance costs as well as to the longer-term goal of helping the market to diversify and expand. For additional responses to comments about competition within the advanced biofuel volume requirement, see Section 3.3.1.

One stakeholder said that the blendwall should not affect the determination of the volume requirement for advanced biofuel, and that a volume requirement less than 4 billion gallons would be unreasonable given available supply of advanced biofuel. We explain in the final rule

the basis for our assumption regarding sugarcane ethanol imports for purposes of deriving the final advanced biofuel applicable volume. The estimate was based on reasonable expectations, based in part on historic data and trends. We did not reduce this estimate due to consideration of E10 blendwall constraints, as we believe these volumes are reasonably attainable and that it furthers the objectives of the Act to establish the advanced biofuel requirement at a level that requires use of reasonably attainable volumes. Our assessment of advanced biofuel in 2016 focused not only on reasonably attainable supply of imported sugarcane ethanol, but also on advanced biodiesel and renewable diesel, and other advanced biofuels. In this context we took into consideration levels that are practically attainable in 2016 given necessary changes such as, for instance, the need to divert feedstocks from their current uses to the production of additional biodiesel. Based on this assessment, we do not believe that 4 billion gallons of advanced biofuel is achievable in 2016. However, we have increased the final 2016 volume requirement for advanced biofuel to 3.61 billion gallons, from the 3.4 billion gallons that we proposed. Further discussion of our assessment of advanced biofuel can be found in Section II.F of the final rule.

One stakeholder pointed to the 2016 statutory targets for advanced biofuel and cellulosic biofuel, and noted that the difference between them is 3.00 billion gallons. Under the assumption that Congress intended the non-cellulosic portion of the 2016 advanced biofuel volume requirement to be no higher than 3.00 billion gallons, they suggested that we reduce the 2016 advanced biofuel volume requirement to 3.2 billion gallons to reflect the proposed cellulosic biofuel volume requirement of (about) 200 million gallons and the volume of non-cellulosic advanced biofuel (3.00 billion gallons) that Congress apparently intended. We disagree with this approach. We believe it would be inappropriate to treat the non-cellulosic portion of advanced biofuel as a statutory target in itself. The statute provides EPA with broad discretion under CAA 211(o)(7)(D) to lower volumes by the same or a lesser amount than the reduction in the cellulosic biofuel applicable volume, and we believe, for reasons described in the final rule, that it is appropriate and would best further the objectives of the Act to set the advanced biofuel requirement such that reasonably attainable volumes of advanced biofuel will be used. We believe that there are sufficient feedstocks, production capacity, and infrastructure to reasonably attain a total advanced biofuel volume of 3.61 billion gallons as described more fully in Section II.F of the final rule.

A number of stakeholders expressed a concern that the proposed volume requirements for advanced biofuel would eliminate the incentive to invest in development of new technologies. On the contrary, the proposed volume requirements would have provided for growth in advanced biofuels without causing the market uncertainty associated with standards which cannot be attained. Further, we have updated our assessments and evaluated additional information provided by stakeholders since release of the NPRM and have determined that the final volume requirement for advanced biofuel in 2016 can be somewhat higher than the proposed level while still being reasonably attainable. The result is substantial growth in advanced biofuels in 2016 that can only be achieved if the market responds as expected with increased production and addresses the various supply constraints.

The National Biodiesel Board said that a 2016 volume requirement for advanced biofuel of between 5.16 and 6.30 billion gallons could be justified, and that any advanced biofuel volume

requirement less than 4 billion gallons would be unreasonable.<sup>9</sup> We disagree. While our analysis has concluded that 2.5 billion gallons of biodiesel and renewable diesel (both advanced and conventional) is the maximum that can reasonably be supplied in 2016, we have concluded that 2.1 billion gallons of advanced biodiesel and advanced renewable diesel is the volume that is reasonably attainable in 2016.<sup>10</sup> This is lower than NBB's assumption of about 2.7 billion gallons of BBD, which was based solely on their assessment of production capacity and their views that there are no constraints associated with feedstocks or infrastructure. As described in detail in Section II.E.3 of the final rule, we have determined that there are numerous constraints that make 2.7 billion gallons of BBD unreasonable to assume for purposes of setting the advanced biofuel volume requirement for 2016. Further, we disagree with NBB's estimates of the volumes of imported BBD and sugarcane ethanol in 2016, which are inconsistent with historical levels. As discussed in more detail in Sections 3.2.3 and 2.7.4, respectively, all imports have been highly uncertain, and we cannot project with confidence the volumes of imported advanced biofuels that will be available in 2016. The volumes of imported advanced biofuels assumed by NBB are, in contrast, at the upper limits of either what has been imported historically, or what could be imported theoretically under a confluence of optimum circumstances.

One stakeholder said that the EPA should use the criteria given in CAA 211(o)(2)(B)(ii) when making a determination of the appropriate 2016 volume requirement for advanced biofuel under the cellulosic waiver authority. The statute does not specify any factors that we may or must consider when exercising the cellulosic waiver authority. EPA may elect to consider any of the factors listed in CAA 211(o)(2)(B)(ii), or which may be suggested by commenters or identified by EPA, as EPA deems appropriate. As described in Section II.F of the final rule, we have considered several factors in the determination of the 2016 volume requirement for advanced biofuel, including uncertainties related to such factors as production, import, distribution and likely consumption of these fuels, as well as the added GHG emission reductions from advanced biofuels.

For responses to comments on the uncertainty created by reductions in the statutory targets, see Section 2.1.1.

For responses to comments on the relative role of domestic versus imported renewable fuels in meeting the volume requirements under the RFS program, see Section 2.1

For responses to comments on whether the statutory volume requirements can be reached in 2014, 2015, or 2016, under either the general waiver authority or the cellulosic waiver authority, see Section 2.2.4.

For responses to comments stating that production capacity should be the basis of the volume requirements, see Section 2.4.

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<sup>9</sup> Based on the table in Section IX.D.2.d, page 121 of NBB's comments.

<sup>10</sup> As described in Section III.D of the final rule, we have not set the BBD volume requirement at 2.1 billion gallons because, while we believe that this level is attainable, we believe it is appropriate and will further the objectives of the Act to provide opportunities for non-BBD advanced biofuels to grow.

For responses to comments suggesting that obligated parties have failed in their statutory responsibilities to invest in the infrastructure needed to expand renewable fuel supply, see Section 2.7.1.

For responses to comments related to imports of sugarcane ethanol, see Section 2.7.4.

For responses to comments on the impacts of the proposed advanced biofuel volume requirement on soybean oil, see Section 3.2.1.

For responses to comments on volumes of cellulosic biofuel projected to be available in 2016, see Section 4.2.1.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

|                 |   |
|-----------------|---|
| Section 2.2     | Statutory Authorities for Reducing Volume Targets   |
| Section 2.2.2.1 | Inadequate Domestic Supply  |
| Section 2.2.3   | Combining Authorities for Reductions in Advanced Biofuel and Total Renewable Fuel                 |
| Section 2.3     | Proposed approach to determining volume requirements  |
| Section 2.3.1   | Congressional intent to increase volumes  |
| Section 2.4.1   | Proposed Total Renewable Fuel Volume for 2014   |
| Section 2.4.2   | Proposed Total Renewable Fuel Volume for 2015   |
| Section 2.4.3   | Proposed Total Renewable Fuel Volume for 2016   |
| Section 2.5.1   | Proposed Advanced Biofuel Volume for 2014   |
| Section 2.5.2   | Proposed Advanced Biofuel Volume for 2015   |
| Section 2.6.1   | E10 blendwall and demand for gasoline   |
| Section 2.7.2   | Impacts on advanced biodiesel production and imports  |
| Section 3.2     | Factors Affecting Supply and Consumption  |
| Section 3.2.2   | Production Capacity   |
| Section 3.2.3   | Imports of BBD  |
| Section 3.3.1   | Balance between supporting the BBD industry and ensuring opportunities for other advanced to grow |
| Section 3.4.1   | Advanced biofuel as the driver for BBD demand   |
| Section 3.4.2   | Increases in BBD displace other advanced, not diesel  |
| Section 4       | Proposed Cellulosic Biofuel Standards   |
| Section 6       | Treatment of Carryover RINs   |
| Section 7.1     | General Comments on Economic Impacts  |
| Section 7.2     | Agricultural Impacts (food, animal feed, crops, feedstock)  |
| Section 7.3     | Fuels Industry Impacts (oil refineries, biofuel facilities)                                       |
| Section 7.4     | Impact on RINs  |
| Section 7.5     | Retail Fuel Prices  |
| Section 7.7     | Impact on Jobs and Local/State Economy  |
| Section 7.8     | Cost to Consumers   |
| Section 8       | Environmental Impacts of the Proposed Rule  |
| Section 8.2     | Climate Change (GHG Impacts)  |
| Section 10.6.4  | Ethanol impacts on engines  |
| Section 10.6.5  | Other information and ideas to overcome current challenges  |

## **2.6 Ethanol Consumption**

### **Comment:**

#### **American Motorcyclist Association**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 182.]

The EPA proposal would increase the amount of ethanol from all sources in the nation's fuel supply to 17.4 billion gallons in 2016, up from 15.93 billion gallons in 2014. Those increases would come despite the EPA's acknowledgment that the market cannot absorb these higher ethanol production rates.

#### **Americans for Prosperity**

EPA's lower blending requirements are an admission that the RFS is out of touch with economic realities. Increases in fuel economy and persistent sluggish economic conditions have led to lower levels of fuel demand than expected. Moreover, many vehicles currently on the road are not designed or equipped to handle the higher levels of ethanol consumption that the RFS mandate seeks to impose.

In short, the blend requirement amounts to a subsidy for the ethanol industry, a subsidy underwritten by American motorists at the fuel pump.

#### **Archer Daniels Midland Company (ADM)**

In fact, both the U.S. Department of Energy and the U.S. Energy Information Administration (EIA) have stated in their respective 2016 outlooks that the effect of the RVO proposal will result in a 9.9% ethanol share of the total gasoline pool. EIA specifically states that it 'does not expect measurable increases in E15 or E85 consumption over the forecast period. The proposed RFS targets are expected to encourage imports of Brazilian sugarcane ethanol...' This outlook has already been confirmed by the marketplace where D6 RIN prices continue to be depressed, and imports of Brazilian sugarcane ethanol continue to increase. [EPA-HQ-OAR-2015-0111-2262-A1 p. 4]

#### **Atlantic Drywall**

As a New Hampshire general contractor, small business owner and outdoor sports and boating enthusiast, I am writing to voice concern about increasing levels of ethanol content in gasoline in the proposed Renewable Fuel Standard (RFS) for 2014, 2015 and 2016 and request that the EPA set the final ethanol mandate under the RFS to no more than 9.7 percent of gasoline demand. [EPA-HQ-OAR-2015-0111-1658-A1 p. 1]

I believe Congress should fix the RFS through legislation, but in the meantime, please set the final ethanol mandate to no more than 9.7 percent of gasoline demand. [EPA-HQ-OAR-2015-0111-1658-A1 p. 1]

## **Board of Commissioners, Mercer County**

The EPA has proposed Renewable Fuel Standards (RFS) for 2014, 2015 and 2016. Unfortunately, the EPA is attempting to force high-ethanol fuel blends into the market and potentially putting American consumers, their vehicles and our economy at risk. As an elected official from rural Pennsylvania, I am concerned about the negative impact these new standards will have on my constituents. Therefore, I am writing today to request that the EPA lower the ethanol standard, and to set the final ethanol mandate under the RFS to no more than 9.7 percent of gasoline demand. [EPA-HQ-OAR-2015-0111-1223-A1 p.1]

## **Clean Air Task Force**

A reduction in the implied corn ethanol mandate creates headroom under the E10 blend wall for environmentally superior types of ethanol, including cellulosic ethanol, that fall within EISA's "advanced biofuel" category. [EPA-HQ-OAR-2015-0111-1828-A1 p.8]

## **Commonwealth of Pennsylvania**

*Specific concerns regarding the use of incentives to expand use of ethanol*

Like many, I am generally skeptical about government intervention in a marketplace to support a specific class of product. While there may be situations where such an action is appropriate, it should be temporary. This is true even when, as mentioned above, the market intervention is being done for a legitimate policy goal. [EPA-HQ-OAR-2015-0111-1933-A1 p.2]

With a decade of incentives and market mandates, cellulosic biofuel, biomass-based diesel, advanced biofuel remain uncompetitive and demand for them remains anemic. As an elected official, I have heard from constituents who are unhappy with the expanded use of ethanol, but I have not heard from constituents who are seeking expanded access to these types of fuels. This seems to be an indication that efforts to induce adoption of these fuels will continue to not be successful. [EPA-HQ-OAR-2015-0111-1933-A1 p.2]

## **Crawford County**

Therefore, I am writing today to request that the EPA lower the ethanol standard, and to set the final ethanol mandate under the RFS to no more than 9.7 percent of gasoline demand. [EPA-HQ-OAR-2015-0111-1666-A1 p. 2]

## **DENCO II**

As detailed above DENCO II has done our part as an organization in making the RFS work. At DENCO it we have done our part in making sure there is adequate supply of conventional ethanol for the E10 fuel supply. We have produced advanced biofuels to help fill that portion of the RFS. We are evaluating new technologies to eventually produce cellulosic gallons at our facility. And, we have done our part to increase consumer awareness and use of higher level ethanol blends through investment and a commitment to the fuel. This type of response to the RFS has been replicated in ethanol production facilities across the nation. When the RFS was established in 2005 and expanded in 2007 the renewable fuels industry responded to the legislation and made the investment to build out an entire industry and increased our national

ethanol production to the levels Congress intended. Our industry as a whole has also made substantial investments in E85 and mid-level blend infrastructure and development. [EPA-HQ-OAR-2015-0111-1216-A2 p.2] [The table can be found on p. 2 of Docket number EPA-HQ-OAR-2015-0111-1216-A2]

### **Greenville-Reynolds Development Corporation**

Unfortunately, the EPA is attempting to force high-ethanol fuel blends into the market and potentially putting American consumers, their vehicles and our economy at risk. As an economic development corporation, Greenville-Reynolds Development Corporation, from rural Pennsylvania, we are concerned about the negative impact these new standards will have on the local economy. Therefore, I am writing today to request that the EPA lower the ethanol standard, and to set the final ethanol mandate under the RFS to no more than 9.7 percent of gasoline demand. [EPA-HQ-OAR-2015-0111-3453-A1 p. 1]

### **Growth Energy**

When computing 2014 net D6 RIN generation, EPA erroneously assumed that a D6 RIN was generated on all 846 mil gal of exported ethanol and that all of those RINs would be retired and unavailable for compliance, when in fact much of that volume did not generate a RIN, including hundreds of millions of gallons of un-denatured ethanol. Thus, EPA not only got 2014 wrong, but also understated the market's already-proven generation capacity by hundreds of millions of RINs per year, an error that affects its proposal for 2015 and 2016 as well. [EPA-HQ-OAR-2015-0111-2604-A2 p.3]

### **Kane Ranch, LLC**

The existing standard has already had the unintended consequence of raising the cost to agriculture business, such as mine, and I am concerned that the proposed stands will only continue to raise costs. Therefore, I am asking that the EPA set the final fuel mandate under the RFS for 2015-2016 to no more than 9.7 percent of gasoline demand.[EPA-HQ-OAR-2015-0111-1660-A1]

As a rancher and a good steward of the land I am an avid protector of the environment and understand the importance of renewable energy. However, the current RFS is not the ideal course of action. The best long term solution is for Congress to fix the RFS through legislation, but, in the meantime please set the final ethanol mandate as I previously stated at 9.7 percent. [EPA-HQ-OAR-2015-0111-1660-A1]

### **Mass Comment Campaign sponsored by Adkins Energy LLC (paper) - (120)**

Ethanol production accounts for nearly 400,000 American jobs, improves air quality, saves consumers money at the pump and reduces our dangerous dependence on foreign oil. [EPA-HQ-OAR-2015-0111-2956-A1 p.1]

**Mass Comment Campaign sponsored by American Motorcyclist Association (AMA) (web) - (29,379)**

The EPA proposal would increase the amount of ethanol from all sources in the nation's fuel supply to 17.4 billion gallons in 2016, up from 15.93 billion gallons in 2014. [EPA-HQ-OAR-2015-0111-2049-A1 p.1]

Those increases would come despite the EPA's acknowledgement that the market cannot absorb these higher ethanol production rates. In a regulatory announcement released Aug. 6, 2013, 'EPA Finalizes Renewable Fuel Standards,' the agency stated that it 'does not currently foresee a scenario in which the market could consume enough ethanol sold in blends greater than E10.' [EPA-HQ-OAR-2015-0111-2049-A1 p.1]

And in announcing its new targets for ethanol in May, the EPA acknowledged that 'Due to constraints in the fuel market to accommodate increasing volumes of ethanol, along with limits on the availability of non-ethanol renewable fuels, the volume targets specified by Congress in the Clean Air Act for 2014, 2015 and 2016 cannot be achieved.' [EPA-HQ-OAR-2015-0111-2049-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 10 (email) - (297)**

As an investor that works closely with ethanol plants, I know the statutory requirements can be met through a combination of gasoline consumption in the form of E10, increased use of higher ethanol blends such as E15 and E85, carry-over RINs and increased biodiesel use. There is no need for EPA to move backward with its proposed volumes for 2015 and 2016. [EPA-HQ-OAR-2015-0111-0213-A1 p.1]

When the RFS was established, it always envisioned ethanol blends above 10 percent – even with a projected increase in gasoline consumption—but oil companies are doing everything they can to maintain their stranglehold on the nation's fuel supply. [EPA-HQ-OAR-2015-0111-0213-A1 p.1]

**Mass Comment Campaign sponsored by POET Biorefining 1 (paper) - (692)**

You are allowing the lack of investment by oil companies in ethanol distribution infrastructure impact our investment in ethanol production capacity. The gallons of ethanol mandated in the RFS is the only way oil companies will sell high than 10% ethanol blends and the EPA should not be changing the law to reward their behavior and limit competition. [EPA-HQ-OAR-2015-0111-2963-A1, p.10]

**Mass Comment Campaign submitted by recreational boat owners (email) - (17697)**

I am also very concerned that not enough has been done to prevent the mis-fueling of my boat with the higher ethanol blends. The mis-fueling mitigation plans currently available, little more than one sticker on fuel pumps, do not provide sufficient protection against my inadvertently using the wrong gasoline in my boat. [EPA-HQ-OAR-2015-0111-1475-A1 p.1]

## **Mass Comment Campaign sponsored by Lincoln Energy LLC (paper) - (9)**

The EPA has doubled down on its proposal to slash the 2014-2016 Renewable Fuel Standard (RFS) levels for ethanol, and time is running out to convince the Administration to reverse course! [EPA-HQ-OAR-2015-0111-3471-A1 p.1]

### **Michigan Boating Industries Association**

It is imperative we keep E10 and E0 available in Michigan and across the country. The widespread damage this E15 can cause is simply unacceptable. [EPA-HQ-OAR-2015-0111-3448-A1 p.1]

### **National Taxpayers Union (NTU)**

The RVO levels established by the proposed rule continue to impose a significant cost to consumers? they should be brought into line with demand and avoid increasing ethanol content in the fuel supply. [EPA-HQ-OAR-2015-0111-3279-A1 p.2]

### **NH Energy Forum**

As a New Hampshire State Representative for Rockingham County's 13th District, a former automotive technician and small business owner, as well as a motorcycle enthusiast, I am writing to voice concern about increasing levels of ethanol content in gasoline in the proposed Renewable Fuel Standard (RFS) for 2014, 2015 and 2016 and request that the EPA set the final ethanol mandate under the RFS to no more than 9.7 percent of gasoline demand. The proposed standards ask for an increasing amount of ethanol to be blended into gasoline and this will damage engines, big and small, across the country. [EPA-HQ-OAR-2015-0111-0280-A1 p.1]

I believe Congress should fix the RFS through legislation, but in the meantime, please set the final ethanol mandate to no more than 9.7 percent of gasoline demand. [EPA-HQ-OAR-2015-0111-0280-A1 p.1]

As a New Hampshire State Representative who focuses on issues regarding the elderly community, I am writing to voice concern about increasing levels of ethanol content in the proposed Renewable Fuel Standard (RFS) for 2014, 2015 and 2016. The proposed standards are flawed, as they recommend an increasing amount of ethanol to be blended into fuels such as E15 and E85, for which there is no significant consumer demand, and which could cause economic hardship to American consumers through potential engine damage and higher food costs. [EPA-HQ-OAR-2015-0111-0281-A1 p.1]

I believe the best long-term solution is for Congress to fix the RFS through legislation, but in the meantime, please set the final ethanol mandate to no more than 9.7 percent of gasoline demand. [EPA-HQ-OAR-2015-0111-0281-A1 p.1]

As a state representative from New Hampshire, college student and future workforce member, I am writing to voice concern about increasing levels of ethanol content in the proposed Renewable Fuel Standard (RFS) for 2014, 2015 and 2016. This could result in higher costs for young adults and new college graduates from potential engine damage and higher food prices-

costs that many would have great difficulty bearing in today's economy. [EPA-HQ-OAR-2015-0111-0282-A1 p.1]

I believe the best long-term solution is for Congress to fix the RFS through legislation, but in the meantime, you can help by reevaluating the proposed RFS and setting the final ethanol mandate to no more than 9.7 percent of gasoline demand. [EPA-HQ-OAR-2015-0111-0282-A1 p.1]

### **Office of Commissioners, Lawrence County, Pennsylvania**

Unfortunately, the EPA is attempting to force high-ethanol fuel blends into the market and potentially putting American consumers, their vehicles and our economy at risk. As a Commissioner from rural Pennsylvania, I am concerned about the negative impact these new standards will have on my constituents and the local economy. Therefore, I am writing today to request that the EPA lower the ethanol standard, and to set the final ethanol mandate under the RFS to no more than 9.7 percent of gasoline demand. [EPA-HQ-OAR-2015-0111-3458-A1 p. 1]

### **Pennsylvania Off-Highway Vehicle Association**

I am writing on behalf of the corporate, club, and personal members of the Pennsylvania Off-Highway Vehicle Association (PaOHV). We represent the hundreds of thousands of folks across Pennsylvania who enjoy riding motorcycles, dirt-bikes and all terrain vehicles, and who are gravely concerned about the expanding use of ethanol fuels in America. And in particular, the EPA's recently released Renewable Volume Obligations (RVO) which calls for yet another increase in the amount of ethanol diluting our already tainted fuel supplies in order to comply with the Renewable Fuel Standard (RFS). [EPA-HQ-OAR-2015-0111-1941-A1 p.1]

### **Senate of Pennsylvania**

Enclosed I have listed just a few of my concerns, while asking the EPA to set the final ethanol mandates at no more than 9.7 percent of gasoline demand. [EPA-HQ-OAR-2015-0111-3447-A1 p. 1]

### **Shell Oil Products US**

The number of RINs available for compliance depends on consumption of renewable fuels in the U.S. transportation system (not the production of biofuels). Consumer choice and supply infrastructure are essential factors.

Therefore, the supply of gasoline and diesel fuel for US consumption is limited by the consumption of renewable fuels in US transportation fuels. [EPA-HQ-OAR-2015-0111-2716-A2 p.2]

As the RFS2 mandates exceed the ability of the U.S. transportation system to consume the renewable fuel (due to vehicle and retail infrastructure compatibility issues), RINs will be in short supply, which to maintain compliance with the law, will in turn limit supplies of gasoline and diesel for U.S. consumption. [EPA-HQ-OAR-2015-0111-2716-A2 p.3]

### **Small Refinery Owners Coalition**

For all of the reasons described above, we urge EPA to reduce the proposed 2014-2016 volumes to 2012 levels to avoid the chance of inadvertently crossing the E10 blendwall and causing further harm to small refineries. EPA's basis for raising volumes to and above the E10 blendwall ignores the disproportionate risk for small refineries and is wholly unsupported by the conclusions in the Burkholder Report. [EPA-HQ-OAR-2015-0111-2339-A1 p. 21]

### **Sonoma Cycle**

As a small business owner in a rural community which relies on small engine equipment, I am writing to voice my concern about the increasing levels of ethanol content in gasoline, and request that the EPA set the final ethanol mandate under the Renewable Fuel Standard (RFS) for 2014, 2015 and 2016 to no more than 9.7 percent of gasoline demand. [EPA-HQ-OAR-2015-0111-1930-A1 p.1]

Setting the final mandate to no more than 9.7 percent of gasoline demand will help to ensure that fuel such as E10 and E0 will continue to be readily available to small businesses such as mine. [EPA-HQ-OAR-2015-0111-1930-A1 p.1]

Congress should fix the RFS through legislation, but in the meantime, please set the final ethanol mandate to no more than 9.7 percent of gasoline demand to protect businesses such as mine. [EPA-HQ-OAR-2015-0111-1930-A1 p.1]

### **Tenaska Commodities, LLC**

Furthermore, what is even more frustrating, is EPA's constant referral to the 'E10 Blendwall.' [EPA-HQ-OAR-2015-0111-0503-A1]

It's true that only cars manufactured after 2001 can safely burn E15, and that some automakers do not warrant their cars for E11 and higher blends, but what you are missing is the fact that refiners are not forced to blend ethanol over E10. In fact, the industry could blend E7 if they want, so long as they utilize the nesting effect of RFS2. For example, if a refiner wished to blend 100 million gallons less of ethanol, all they would have to do is blend 667,000 more gallons of biodiesel above their RVO. The additional D4 RINS would nest and fulfill the D6 shortfall. Refiners want the cheaper oxygenate blendstock for gasoline up to E10, but do not want to lose market share on anything above that. This is why the EPA should be pushing to solve the 'blendwall' issue by promoting more biodiesel blending. [EPA-HQ-OAR-2015-0111-0503-A1]

### **The George Washington University**

Ethanol faces a different set of obstacles. While the US has the capacity and ability to either import or produce more ethanol, more ethanol cannot feasibly be blended into gasoline. Legally, only flex fuel vehicles (FFVs) can use fuel with ethanol concentrations greater than 15%, and these vehicles only constitute about 6% of all light-duty cars and trucks. Practically, non-flex-fuel vehicles cannot use fuel with ethanol concentrations greater than 10%, which is termed the 'blendwall.' While the authorizing statute requires more ethanol to be blended into transportation fuel each year until 2022, the only way this is possible is if demand for gasoline increases significantly in the near term. As explained in a later section of this comment, this creates a

ceiling on the practical growth of ethanol as a transportation fuel. In its proposal, EPA is very cognizant of the fact the blendwall makes it infeasible to significantly increase the volume requirements for ethanol. [EPA-HQ-OAR-2015-0111-1815-A1 p.5]

### **Vets for Energy**

I am concerned about the increasing levels of ethanol blended into our gasoline and am writing to request that the EPA set the final ethanol mandate under the Renewable Fuel Standard (RFS) for 2014, 2015 and 2016 to no more than 9.7 percent of gasoline demand. The proposed standards ask for an increasing amount of ethanol to be blended for fuel, such as E15 and E85, for which there is no significant consumer demand while trying to eliminate ethanol-free fuels (e.g., EO) for which consumers have shown a substantial demand. Furthermore, higher ethanol levels could potentially lead to engine damage for cars and small engines and higher food costs, creating economic hardship for veterans and their families. [EPA-HQ-OAR-2015-0111-2473-A1, p.1]

I believe the best course of action, in the long-term, is for Congress to fix the RFS through legislation, but in the meantime, please set the final ethanol mandate to no more than 9.7 percent of gasoline demand. [EPA-HQ-OAR-2015-0111-2473-A1, p.1]

### **Western Plains Energy, LLC (WEP)**

Certainly there are physical constraints in getting this additional volume to consumers in the form of E15 or higher blends. However, Congress's responsibility was to set the obligated volumes, and EPA's responsibility is to hold obligated parties accountability in meeting those volume requirements. It is then up to the free market to decide how those volumes will be attained. Product pricing and RIN values will provide the necessary motive market forces to see that the obligated volumes are met. Further, the ethanol and agriculture industry is stepping up to invest in excess of \$150 million in higher blend infrastructure over the next two years. By prescribing lower volumes, the EPA is choosing to limit ethanol's use as a transportation fuel to E10 and choosing to create a 'blend wall'. This choice is for the consumer to make, and it does not fall within EPA's waiver authority. [EPA-HQ-OAR-2015-0111-0283-A1 p.2]

The mission of the Environmental Protection Agency is to 'protect human health and the environment.' Gasoline is a fuel that is made up of 10's or even maybe 100's of different chemicals that are blended together to create a fuel. The constituent concentrations of the fuel constantly vary depending on the refinery feedstock availabilities, and it contains known carcinogens. Ethanol on the other hand contains one chemical...ethanol. Ethanol that can be consumed by humans and causes minimal damage if spilled in the environment, and ethanol that burns cleaner and more completely than gasoline. So again, I find myself confused as to why the EPA chooses to limit the use of ethanol in fuel when it is very simple to understand the environmental value of ethanol over gasoline. Is the EPA losing sight of its core mission? [EPA-HQ-OAR-2015-0111-0283-A1 p.2]

### **Wisconsin BioFuels Association**

This EPA proposed action supports the petroleum industry's disproven 'blend wall' myth. Ethanol consumption continues to grow while more and more vehicles are warranted to use higher-level ethanol blends. 62 percent of 2015 model cars are warranted to run on E15 and there are more

retailers than ever adding blender pumps to offer higher-level ethanol blends. It is absurd to suggest we've reached a saturation point of ethanol. [EPA-HQ-OAR-2015-0111-2539-A2 p.1]

**Response:**

Stakeholders who were obligated parties, petroleum marketers and retailers, livestock owners, or engine owners typically said that the proposed volumes for total renewable fuel were too high. These stakeholders pointed to expected high costs, adverse impacts on vehicles or engines, or a general inability of the market to supply the proposed volumes. Some went further, saying that non-compliance would occur and would lead to substantial monetary penalties, or that refiners would be forced to reduce supply of gasoline and diesel to the domestic market in order to reduce their obligation to acquire RINs. Many treated the constraints associated with the E10 blendwall as representing a firm barrier that could not or should not be crossed.

A number of stakeholders, particularly refiners, argued that the 2016 volume requirements should be set in such a way that the poolwide ethanol content will be no higher than 9.7%. They based their preferred approach on the premise that E15 and E85 cannot contribute meaningfully to higher ethanol consumption, and that there is ongoing demand for E0 (gasoline containing no ethanol) at a level of at least 3% of the total gasoline pool. We do not find their arguments that the poolwide ethanol content cannot be higher than 10% to be compelling. While we agree that use of E15 and E85 is very unlikely to be sufficient to enable the market to achieve the statutory target for total renewable fuel in 2016, they can collectively contribute a couple hundred million gallons to the total volume of ethanol supplied in 2016.<sup>11</sup> The final 2016 volume requirement for total renewable fuel creates the opportunity for the market to exceed a poolwide ethanol concentration of greater than 10% without forcing the use of E15 and/or E85 in vehicles and engines for which they were not designed as a number of stakeholders feared.

More importantly, we do not believe that recent supply of E0 is on the order of 3% of the gasoline pool as claimed by these stakeholders. They based this position on data from EIA on the wholesale supply of non-ethanol conventional gasoline from refineries, importers, and blenders, corrected to account for exports and stock changes. We investigated the EIA data on which the comments were based, and concluded that it is not an appropriate basis for determining the amount of E0 actually sold at retail, and thus cannot be used to estimate likely E0 sales. While the EIA data at issue does take into account the production of E10 by large terminals from E0 supplied by refiners, it does not account for E10 produced downstream at smaller facilities, truck blending, and blending at retail. Given that there are a number of states that require the supply of E0 at the wholesale level explicitly to permit downstream blending with ethanol, the EIA estimates of E0 supply referenced by the commenters overestimate the potential demand for E0 at retail.

Just as importantly, one of the ways that the RFS program can increase the supply of renewable fuels in the United States is by incentivizing the market to continue to transition from E0 to E10 and other higher level ethanol blends. It is mainly in the context of gasoline use in recreational marine engines that we believe the greatest challenge exists in moving away from E0. Because such engines are used in a water environment there is a greater potential for water contamination

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<sup>11</sup> Based on the discussion in Section II.E.2.vi of the final rule, and similar discussion of scenarios in Section II.G of the final rule.

of the fuel. For gasoline that contains ethanol, the water is more likely to separate from the gasoline and cause engine damage. As a result, some recreational marine engine owners seek out E0. As described in Section II.E.2.iv of the final rule, we believe that we should take into consideration the ongoing preference for some E0 in this context. However, our estimate of E0 used in recreational marine engines is far less than the 3% estimate provided by refiners. In combination with achievable volumes of E15 and E85, our estimate of the need for some E0 would still result in a poolwide ethanol content higher than 10%; based on a number of scenarios we analyzed for how the market might respond to the standards we set, we estimate that the poolwide ethanol content could be between 10.07% and 10.18%. Information and data provided by stakeholders did not provide a compelling reason why a poolwide ethanol content higher than 10% is not achievable in 2016.

It is highly unlikely that Congress expected the very high volumes that it specified in the statute to be reached while maintaining a gasoline poolwide ethanol content of less than 10%. At the time EISA was passed in 2007, EIA's Annual Energy Outlook for 2007 projected that 17.3 billion gallons of ethanol is the maximum that could be consumed in 2022 if all gasoline contained E10 and there was no E0, E15, or E85.<sup>12</sup> However, 17.3 billion gallons is far less than the 36 billion gallons of renewable fuel that Congress targeted for use in 2022.<sup>13</sup> Thus, if the statutory targets for 2022 were to be achieved, 18.7 billion gallons of renewable fuel would need to be consumed in 2022 either as higher level ethanol blends (E15 and/or E85), or as non-ethanol fuels. Such levels were far beyond the industry's abilities at the time of EISA's enactment, strongly suggesting that Congress expected the RFS program to drive dramatic industry changes in a relatively short period of time.

One stakeholder quoted the final rulemaking setting the 2013 standards as follows:

"...EPA does not currently foresee a scenario in which the market could consume enough ethanol sold in blends greater than E10..." (78 FR 49823)

This statement was referring to the ability of the market to reach the statutory targets in 2014. Consistent with this 2013 statement, actual supply in 2014 fell far short of the statutory targets, in part due to the constraints associated with E15 and E85. This same situation exists for 2016: use of E15 and E85 will not be sufficient to enable the market to achieve the statutory target for total renewable fuel in 2016. However, as discussed earlier, higher ethanol blends can help the market to exceed a poolwide ethanol content of 10%. For additional responses to comments on whether the statutory volume requirements can be reached in 2014, 2015, or 2016, under either the general waiver authority or the cellulosic waiver authority, see Section 2.2.4.

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<sup>12</sup> Assumes that AEO2007's 2022 demand for gasoline energy was fulfilled entirely by E10. AEO2007 however, projected that considerably less gasoline used in 2022 would be E10. We have converted the projected 2022 gasoline energy demand into an equivalent volume of E10 to determine the maximum volume of ethanol that could have been consumed in 2022, based on the AEO2007, if all gasoline was E10. Note also that E15 had not been approved for use in 2007.

<sup>13</sup> Congress specified that a minimum of 1 billion gallons of the 2022 total would be biomass-based diesel, but did not otherwise specify what specific fuel types would comprise the total. For example, although Congress envisioned substantial growth in cellulosic biofuels, that fuel category is defined by reference to the feedstock used and the GHG reductions obtained; finished cellulosic biofuels could include such diverse products as ethanol, renewable gasoline, naphtha, compressed natural gas, or electricity

While there is no reason that the poolwide ethanol content of gasoline cannot exceed 10%, we do not believe that the volumes of higher ethanol blends such as E15 and E85 will be significantly higher in 2016 than in 2015. In the NPRM, we developed a number of scenarios under which the poolwide ethanol concentration varied between 10.05% and 10.28%. In this final rule we have similarly developed a number of scenarios, but based on an updated assessment of achievable volumes of E15 and E85, along with an updated consideration of E0, the volume scenarios now include a range of ethanol concentration of between 10.07% and 10.18%. While we acknowledge that the market may ultimately choose a poolwide ethanol concentration higher or lower than this range, the final standards will create the incentive for the market to increase supply of ethanol over 2014 and 2015 levels.

A number of refiners said that the supply of gasoline and diesel for domestic consumption is limited by the consumption of renewable fuels, and that a shortfall in the consumption of renewable fuels will result in a shortfall in RINs in comparison to the RFS volume requirements, forcing refiners to limit supplies of gasoline and diesel for domestic consumption in order to reduce their RFS compliance obligations. This, in turn, would result in overall shortfalls in transportation fuel and increases in retail prices. We believe that such circumstances are highly unlikely for the period addressed in this rulemaking. First, it is inaccurate for refiners to claim that the consumption of renewable fuels is wholly outside of their control. As described in Section 2.7.1, refiners are not without tools and opportunities to increase the volume of renewable fuels used. Second, the competitive nature of the fuels market would not permit the overall supply of gasoline and diesel to decrease below demand. If any one refiner made a decision to reduce its own supply of gasoline and diesel to the domestic market, another refiner would increase its supply to take advantage of the opportunity to expand market share. Third, we have established the volume requirements at levels that can reasonably be achieved by a responsive market. As a result, we do not believe that shortfalls in renewable fuel use in comparison to the volume requirements are likely.

One stakeholder cited a memorandum from Dallas Burkholder to the docket, arguing that it does not provide support for increases in the total renewable fuel volume requirements that would result in a poolwide ethanol concentration in gasoline higher than 10%, and that small refineries will be disproportionately affected by the proposed volumes.<sup>14</sup> The Burkholder memorandum was not cited or used in the NPRM as the basis for the proposed volumes of total renewable fuel or our determination that a poolwide ethanol concentration higher than 10% was possible in 2016. Indeed the Burkholder memorandum does not address the prospective conditions under which ethanol volumes above the blendwall may be possible. Instead, in the NPRM we based our intent to set the volume requirement for total renewable fuel at a level that would provide incentives for the market to exceed the blendwall on the opportunities for increased use of higher ethanol blends. These opportunities include those that already exist - the number of vehicles capable of operating on higher ethanol blend and the number of stations offering them - as well as changes in both infrastructure and relative pricing that can occur in 2016. We have elaborated on these opportunities in Section II.E.2 of the final rule. For responses to other comments on the impacts that the proposed volumes may have on refiners generally or small refineries specifically, see Sections 7.3 and 10.7 respectively.

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<sup>14</sup> “A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects,” memorandum from Dallas Burkholder to EPA Docket EPA-HQ-OAR-2015-0111, May 14, 2015.

One stakeholder said that the proposed volume requirement for advanced biofuel would encourage imports of sugarcane ethanol, and that these ethanol imports would displace corn-ethanol because the proposed volume requirement for total renewable fuel would not result in an increase in ethanol overall. As discussed in Section 2.1, we must consider the contribution that imports of renewable fuel can make to the use of renewable fuel in transportation fuel in the U.S. We discussed in Section II.D.2 of the NPRM how imports of sugarcane ethanol could be lower or higher than recently historical levels, and in Section II.F of the final rule we provide additional discussion of this issue. However, we disagree with the contention that imports of sugarcane ethanol will necessarily displace corn-ethanol. The final 2016 volume requirements will create opportunities for increases in the total volume of ethanol used in the U.S. in comparison to 2015. While we cannot predict how the market will choose to meet the significant growth in renewable fuel between 2015 and 2016, there will be opportunities for both increases in imports of sugarcane ethanol imports in comparison to 2015, and increases in domestic production of corn-ethanol in comparison to 2015.

One stakeholder pointed out that any reduction in the implied conventional renewable fuel volume requirement creates additional opportunities for use of environmentally superior (in terms of GHG emissions) advanced ethanol, including cellulosic ethanol. While true insofar as conventional renewable fuel is currently predominately ethanol, our assessment was intended to achieve the overall goal of increasing volumes of both advanced biofuel and total renewable fuel. We did not reduce the volume requirement for total renewable fuel as a means for increasing opportunities for advanced biofuel, since doing so would mean less volume of renewable fuel overall, and this would be inconsistent with the statute's goal of increasing volumes.

One stakeholder said that the environmental value of ethanol (in terms of all types of combustion emissions and impacts due to spills) is greater than that of gasoline, and that as a result it is not reasonable for EPA to make reductions in the volume requirements that reduce the amount of ethanol used. EPA has a responsibility under CAA 211(o) to ensure that the use of renewable fuel increases over time. Since we are not reducing the volume of total renewable fuel based on severe harm to the environment as permitted under the general waiver authority, and no regulated party has petitioned EPA for making reductions based on severe harm to the environment, consideration of such environmental factors is outside the scope of what can be considered in exercising our general waiver authority on the basis of inadequate domestic supply. Furthermore, as discussed in Section 8, there are a number of environmental consequences associated with ethanol that may run counter to the stakeholder's claims.

For responses to comments stating that the E10 blendwall is not a constraint, or has been fabricated by the refining industry, see Section 2.4.

For responses to comments on how exports of ethanol were calculated in the NPRM, see Section 2.4.1.

For responses to comments suggesting that the E10 blendwall can be addressed by increasing the requirement volumes of BBD, see Section 2.5.

For responses to comments on the use of higher ethanol blends in boats, see Section 2.6.2.

For responses to comments on demand for E0, see Section 2.6.2.

For responses to comments suggesting that obligated parties have failed in their statutory responsibilities to invest in the infrastructure needed to expand renewable fuel supply, see Section 2.7.1.

For responses to comments on the role of carryover RINs in the RFS program and suggestions that they could be used to increase the volume requirements, see Section 6.

For responses to comments on the economic impacts of the volume requirements, see Section 7.

For responses to comments on the impacts of different ethanol blends on engines, see Section 10.6.4.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

|                 |   |
|-----------------|---|
| Section 2.2     | Statutory Authorities for Reducing Volume Targets                           |
| Section 2.2.2.1 | Inadequate Domestic Supply  |
| Section 2.2.4   | Inability of the Market to Reach Statutory Volumes                          |
| Section 2.3.1   | Congressional Intent to Increase Volumes                                    |
| Section 2.6.1   | E10 Blendwall and Demand for Gasoline                                       |
| Section 2.7.3   | Impacts on Corn Ethanol   |
| Section 2.7.4   | Impacts on Imports of Sugarcane Ethanol                                     |
| Section 3       | Proposed National Volume Requirement for Biomass-Based Diesel for 2014-2017 |
| Section 6       | Treatment of Carryover RINs   |
| Section 7.2     | Agricultural Impacts (food, animal feed, crops, feedstock)                  |
| Section 7.3     | Fuels Industry Impacts (oil refineries, biofuel facilities)                 |
| Section 7.4     | Impact on RINs  |
| Section 7.5     | Retail Fuel Prices  |
| Section 7.6     | Energy Security   |
| Section 7.7     | Impact on Jobs and Local/State Economy                                      |
| Section 7.8     | Cost to Consumers   |
| Section 10.6.1  | Legislative changes   |
| Section 10.6.5  | Other Information and Ideas to Overcome Current Challenges                  |
| Section 10.7    | Small Refineries and Small Refiners   |

## **2.6.1 E10 Blendwall and Demand for Gasoline**

### **Comment:**

#### **American Farm Bureau Federation (Farm Bureau)**

##### The RFS2 Program and The Ethanol Blend Wall

Farm Bureau believes that the current RFS2 program and the Renewable Identification Number (RIN) market are working as intended. The purpose of the RFS2 and the RIN market was to move beyond the 10 percent blend wall by producing a strong incentive for more biofuels to move into our nation's gasoline supply. [EPA-HQ-OAR-2015-0111-2355-A1 p. 4

Table 1 shows market conditions for E10, E85 and conventional (D6) RINs on July 2 of this year. Currently, the price of the D6 RIN is trading around \$0.45 which allows for an incentive for greater market penetration of E85 as indicated from the \$0.28 total revenue gained from the RIN value. The value of the D6 RIN is being used to cut the price of E85 relative to E10 (\$2.13 vs. \$2.77) and has provided an economic incentive in many parts of the country to get higher than E10 blends into the market. [EPA-HQ-OAR-2015-0111-2355-A1 p. 4]

[Table 1 can be found on p. 4 of Docket number EPA-HQ-OAR-2015-0111-2355-A1]

The fact of the matter is that the RFS2 and the RIN market that it established are working properly and are providing incentives for refiners to offer higher blends of ethanol in the market at prices that are increasingly competitive with conventional gasoline. Looking at the Proposed Rule it appears that EPA is abandoning the RIN market as a mechanism for increasing the production and sale of higher ethanol blends at the precise moment that this mechanism is beginning to work as intended when the RFS2 passed in 2007. [EPA-HQ-OAR-2015-0111-2355-A1 p. 4-5]

In the Proposed Rule EPA pointed to the “ethanol blend wall” as a reason for reducing the RFS targets for proposed volume requirements. However, EPA has issued provisions allowing for the blending of up to 15 percent ethanol in gasoline for vehicles produced after model year 2001. Vehicles approved for E15 constitute approximately 75 percent of the miles driven in the U.S. today. However, to date, there has been very little adoption of this product because gasoline stations are unwilling to put in pumps for this restricted market. [EPA-HQ-OAR-2015-0111-2355-A1 p. 5]

### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

The fact that limited data are available to project the future demand for E0, E15, and E85 increases uncertainty as to exactly where the blendwall lies, and this uncertainty justifies setting a conservative target that avoids the chance of inadvertently crossing the blendwall. [EPA-HQ-OAR-2015-0111-1948-A1 p.8]

Its lowest annual value was about 4.5 billion gallons, or 3 percent of gasoline demand in 2012. The 3 percent E0 demand was present even though there was a strong incentive to blend ethanol to the 10-percent saturation point to build carryover RINs for future compliance when statutory renewable fuel mandates increased beyond the blendwall. We focus on this low point to derive our recommendation for the 9.7 percent guidance. That low point indicated only 97 percent of the gasoline may have been blended with ethanol, and with E10 being almost the only blend used, it implies the entire gasoline pool could only have about 9.7 percent ethanol. [EPA-HQ-OAR-2015-0111-1948-A1 p.8]

The E15 Misfueling Mitigation Regulation states “No person shall produce a fuel designated as E10 by blending ethanol and gasoline in a manner designed to produce a fuel that contains less than 9.0 or more than 10.0 volume percent ethanol.”<sup>14</sup> As a result, blenders likely will target E10 at less than 10 percent ethanol to avoid potential errors introduced by equipment and laboratory accuracy as well as variability in ethanol denaturant content given that any ethanol blend found to have greater than 10.0 percent will result in a Clean Air Act violation if it is not labeled as E15. In the past, blenders would target 10% ethanol without concern for the inherent variability,

knowing that the resulting blend should be below 10.49% where rounding convention would result in that being considered a 10% blend under EPA regulations. [EPA-HQ-OAR-2015-0111-1948-A1 p.10]

API and AFPM support EPA's exercise of the general waiver authority to reduce the volumes of renewable fuel for 2014, 2015, and 2016 as a necessary step to address the E10 blendwall. As articulated in our original comment submission, E85 and E15 are not solutions to the E10 blendwall due to compatibility limitations of both the vehicle fleet and refueling infrastructure, in addition to a lack of consumer demand. [EPA-HQ-OAR-2015-0111-3526-A2 p. 1] [EPA-HQ-OAR-2015-0111-1044 pp.20.21]

AFPM and API remain concerned that the proposed volumes for 2016 exceed the E10 blendwall based on unsupported estimates that E85 demand will dramatically increase. Should this presumed demand increase fail to materialize, the 2016 volume proposal could begin to trigger the negative economic consequences of the ethanol blendwall.<sup>13</sup> EPA should not base any assumptions of E85 or E15 demand increases on comments from parties that have provided inaccurate information or unsubstantiated assertions.[EPA-HQ-OAR-2015-0111-3526-A2 p. 3-4] [EPA-HQ-OAR-2015-0111-1044 p.21]

EPA correctly points out in the Proposed Rule that members of the renewable fuel industry are free to invest in infrastructure to offer higher level blends of ethanol<sup>14</sup> – it is after all, their product that they are trying to force on consumers. Indeed, if members of the ethanol industry truly believed that the only market impediment to greater consumption of E15 and E85 were a lack of fueling pumps, they should be willing to invest in retail fueling stations so that they could reap the rewards of alleged unmet consumer demand for higher ethanol blends. [EPA-HQ-OAR-2015-0111-3526-A2 p. 4]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-0143, p. 22.]

The AFPM has proposed a 9.7 percent cap on ethanol in gasoline because it is the minimum EPA action necessary to retain a supply of pure gasoline for some engines, account for historical differences between EPA projections of gasoline demand and actual demand, and promote liquidity in the renewable identification number market.

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<sup>13</sup> NERA Economic Consulting, Economic Impacts Resulting from Implementation of the RFS2 Program (2015)

<sup>14</sup> 40 CFR § 80.1504.

### **American Motorcyclist Association**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 182-184.]

The practical effect of the EPA's action is that the ethanol production will exceed the blend wall. That means more E15 and less E10 on the market. Moreover, the proposed rule calls for the expansion of use of renewable fuels to meet the 2016 standards by providing grants to retail owners and locating stations offering E15, E85 closest to higher populations of vehicles that can

use those fuels and developing contractual mechanisms to ensure favorable pricing of E15 and E85 at retail compared to E10 to boost sales volumes. In other words, the EPA is proposing Federal grants and price controls to increase the amount of the higher than E10 ethanol-blended fuels into the marketplace. The AMA strongly disagrees with this approach.

Most importantly, the proposed rule mentions the likelihood of misfueling only once. The rule states, 'In June of 2011, the EPA finalized regulations to prevent misfueling of vehicles, engines, and equipment not covered by the partial waiver decisions.' This is the same misfueling mitigation plan that initially mandated a 4-gallon minimum fuel purchase to address the concerns raised by the AMA. It eventually was revised in 2013 to the current plan following our complaints. Yet it is still easily misunderstood, misapplied, or ignored by State governments and producers, distributors, and inventors. Indeed, the EPA has made it illegal for motorcycles and ATVs users to use E15 fuel and yet seems to have little interest in the misfueling issue. It seems the EPA's proposed rule does not consider the concerns of motorcyclists and ATV owners despite knowing that none of the estimated 22 million motorcycles and ATVs in use in the United States is approved to use E15 or higher ethanol blends.

#### **American Sportfishing Association (ASA)**

There is an urgent need to balance the drive towards energy efficiency and independence with the reality of the blend wall, i.e., that gas consumption has declined because Americans are driving less and they are driving more fuel efficient vehicles. [EPA-HQ-OAR-2015-0111-0424-A1 p.1]

#### **Biotechnology Industry Organization**

There is no technological, legal, or practical “wall” to widespread consumption of gasoline with more than ten percent ethanol. Gasoline with ethanol content above ten percent exists, as do millions of cars that can run on it. And other non-ethanol biofuels are available that can be used to satisfy RFS requirements. [EPA-HQ-OAR-2015-0111-1958-A2 p. 48]

#### **Butamax Advanced Biofuels, LLC**

Further, the statutory volume targets and 2007 gasoline volume projections suggested that E10 saturation would occur by 2013. Thus, it was clearly understood by all that the intent of the legislation was to drive ethanol penetration to levels well beyond E10. [EPA-HQ-OAR-2015-0111-1938-A2 p. 3]

The estimated date for the US gasoline market to reach E10 saturation moved forward by only a year since 2007 and even this change has been evident from the beginning [EPA-HQ-OAR-2015-0111-1938-A2 p. 3]

#### **CHS, Inc.**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 172-174.]

Regarding your blending proposal, let me say up front that CHS supports a stronger renewable fuel standard. We support the RFS because it supports American farmers and because it is setting

the U.S. renewables industry on a path to economic viability. The RFS has proven vital to the rural economy. Ethanol production supports the price of corn, and accounts for nearly 400,000 jobs in rural America. Ethanol also provides CHS additional market opportunity to add domestic and global value to our farmer owners. We also believe ethanol will continue to serve as a key component of our global energy platform as an excellent, cost-effective oxygenate and octane booster for our refined fuels. Ethanol is a key part of the supply chain for both agriculture and petroleum, and the RFS is needed to ensure it remains that way. CHS supports the flexibilities that have been built into the RFS, such as those that allow the EPA to consider the fluctuation in actual consumption and production levels. We believe the annual blending requirements should be set with a focus on long-term impacts on the economy rather than short-term crop and market conditions.

We urge all parties affected by the RFS to work together on an advocacy plan that recognizes both the usefulness of ethanol as well as the realities and challenges of the nation's transportation fuel infrastructure.

### **Clean Air Task Force**

As part of the process for setting RVOs for 2014-2015-2016, EPA is appropriately and necessarily taking into account the E10 blend wall, a set of “[p]ractical and legal constraints on the supply of ethanol blends to the vehicles that can use them.” [EPA-HQ-OAR-2015-0111-1828-A1 p.3]

### **Colorado Corn Growers Association**

When the RFS was enacted, the authors of this policy actually envisioned renewable fuel (primarily ethanol) displacing gasoline at an even faster pace than it is today. Increasing volumes were to be utilized through E10 blends while the concomitant production of flex-fuel vehicles and supporting infrastructure was established. The former has happened; the latter has disappointingly lagged compared to what was outlined in the statute. Congress and the EPA laid out a renewable energy plan; agriculture responded, ethanol responded, autos responded. Obligated parties have not complied. [EPA-HQ-OAR-2015-0111-2334-A1 p.1]

### **Dakota Spirit AgEnergy**

When the RFS was established, it always envisioned ethanol blends above 10 percent — even with a projected increase in gasoline consumption—but oil companies are doing everything they can to maintain their stranglehold on our nation's fuel supply.

With this flawed proposal, EPA is fundamentally changing how the RFS works by putting the burden of fuel distribution on biofuel producers rather than branded oil, which controls more than 50 percent of the convenience stores in this country through branding agreements and ownership. [EPA-HQ-OAR-2015-0111-2057-A1 p.2]

### **Governor of Iowa, et al.**

Regarding ethanol, the recent EPA proposal falls far short. The agency seems to contradict recent findings from EPA’s Office of Transportation and Air Quality on the ability of the Renewable Identification Number (RIN) market to grow the consumption and use of biofuels. That study by

the EPA states, “...the RIN market seems to be functioning generally as expected; providing an incentive for the continued growth of renewable fuels in the transportation fuel market without causing overall increases to the retail price of transportation fuel.” We strongly believe that the EPA is not responding to an infrastructure shortage for higher ethanol blends with this proposal, but rather the EPA is creating such a shortage. A strong RFS provides the incentive for retailers to offer higher ethanol blends to consumers. By reducing the RFS volume obligation levels, the EPA reduces that incentive. When consumers have true choices at the pump, the “blend wall” will crumble. [EPA-HQ-OAR-2015-0111-1915-A1 p.1]

### **Governors’ Biofuels Coalition**

In EPA’s most recent announcement, the agency claims that “[t]he Clean Air Act provides EPA with the authority to reduce the volume requirements from their statutory requirements ...” This is a significant change in the interpretation of the statute and it lends credibility to the myth of an E10 “blend wall.” This interpretation is a major barrier to greater use of renewable fuels if EPA sets 2016 volumes for total renewable fuels at only 9.63 percent of the total transportation fuel supply. The proposed levels also overlook significant state and federal investments in renewable fuel infrastructure, including the USDA’s Biofuels Infrastructure Program that will add \$100 million to infrastructure development and improved consumer access. [EPA-HQ-OAR-2015-0111-2489-A1 p.1]

EPA has set blending levels for 2016 above current levels, largely because of rising gasoline use predicted through 2016. According to EPA, the standards are “ambitious but within reach.” However, a target that hovers barely above production is certainly not “ambitious” and stifles any notion by investors that the United States is a welcoming growth market for renewable fuels. Congress passed the RFS with the intent of – among other things – attracting significant investment to rural economies and diversifying our transportation fuel supply. So far, the RFS has done just that in Iowa, Missouri, and many other states. But the chilling effect of delays and policy uncertainty has already caused the industry to lose \$13.7 billion in investments, mostly in advanced biofuels.<sup>1</sup> The proposed rule will prevent further investments. [EPA-HQ-OAR-2015-0111-2489-A1 p.1]

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<sup>1</sup> “Estimating Chilled Investment for Advanced Biofuels Due to RFS Uncertainty,” Bio-Economic Research Associates. U.S. Economic Impact of Advanced Biofuels Production: Perspectives to 2030. Washington, DC: bio-era, Feb. 2009

### **Growth Energy**

- The Department of Energy’s latest projections for nationwide gasoline consumption imply a higher E10 blendwall in 2015 and 2016 than EPA’s proposal assumes. [EPA-HQ-OAR-2015-0111-2604-A2 p.3]

To do this, EPA began with the E10 blendwall. Relying on gasoline projections by the Energy Information Administration (“EIA”) issued in May 2015, EPA projected the E10 blendwall at 13.78 bil gal for 2015 and 13.69 bil gal for 2016.<sup>69</sup> Although “the E10 blendwall is a function of several factors, some legal, and some market-driven,” EPA stated that it “believe[s] that [the market] can respond to the standards we set to drive the use of higher ethanol blends, the E10

blendwall notwithstanding.”<sup>70</sup> EPA’s 2016 proposed renewable fuel volume would require 0.84 bil gal of renewable fuel above the E10 blendwall, after accounting for non-ethanol cellulosic biofuel and the required level of BBD.<sup>71</sup> EPA identified several “options ... to the market to fulfill the need for 0.84 billion gallons,” including increasing BBD beyond the proposed standard, increasing importation of sugarcane ethanol, and increasing corn ethanol.<sup>72</sup> However, EPA concluded that “[e]fforts to increase the use of ethanol beyond the blendwall is primarily a function of the volume of E85 that is consumed, since volumes of E15 are likely to continue to be small in 2016.”<sup>73</sup> Admitting that it “cannot ... predict how the market will choose to meet [the proposed] requirements,” EPA presented “a range of possibilities” using the various market options it identified, all based on 100-600 mil gal of E85.<sup>74</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.11-12]

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<sup>69</sup> *Id.* at 33,115, Table II.A.5-1.

<sup>70</sup> *Id.* at 33,126.

<sup>71</sup> *Id.* at 33,127.

<sup>72</sup> *Id.*

<sup>73</sup> *Id.* at 33,126.

<sup>74</sup> *Id.* at 33,127.

### **Harrods Creek Boat Owners Association**

Although the EPAs proposed ethanol volumes are lower than the law, the EPAs proposed standard for 2016 would break through the blend wall, the point at which the volume exceeds the 10 percent limit known as E10 that is found in most gasoline. [EPA-HQ-OAR-2015-0111-1841]

### **Highwater Ethanol, LLC**

We have identified a few items below which requires immediate attention on the proposed rule from the U.S EPA in regards to the renewable fuels standards.

6. The notion of an E10 blend wall must be eliminated from EPA baseline calculations because it is focused on the past rather than the present and into the future. The FFV fleet alone has a total consumption capacity of approximately 14 billion gallons. And the non- FFVs which can use E15 have a total consumption capacity of at least 18.5 billion gallons. Therefore the total consumption capacity is at least 32.5 billion gallons annually. The EPA should focus on full implementation of the RFS with respect to the renewable volume obligations while considering some additional ramp up time for the production of advanced biofuels. [EPA-HQ-OAR-2015-0111-2506-A2 p.3]

### **Hinman Trucking**

The blendwall and its harmful impacts must be prevented from causing further damage to our industry. EPA could use the waiver authority to waive the RFS completely or at the very least decrease the blending volumes. I as a trucker and owner of a trucking company request that you do so. [EPA-HQ-OAR-2015-0111-1659-A1 p. 1]

## **HollyFrontier Corporation**

Regarding the proposed 2016 volumes however, we are concerned that ethanol volume will exceed the E10 blendwall. Based on the Energy Information Agency's May 2015 forecast, published shortly prior to EPA's Notice of Proposed Rulemaking (NPRM) for renewable fuel volumes for 2014, 2015 and 2016, we estimate the proposed mandate of 14 billion gallons ethanol' equates to approximately 10.16% of projected gasoline demand. HollyFrontier does not support any proposal that surpasses the [10 blendwall, the maximum amount that our nation's automobile fleet can safely consume. [EPA-HQ-OAR-2015-0111-2257-A1 p.1-2]

## **Illinois Farm Bureau**

### **What happened to the mechanism built into the RFS to incentive use of renewable fuels to break through the 'blend wall?'**

Illinois Farm Bureau believes that the current RFS2 program and the Renewable Identification Number (RIN) market are working as intended. The purpose of the RFS2 and the RIN market was to move beyond 10 percent blends by producing an economic incentive for more biofuels to move into our nation's gasoline supply. [EPA-HQ-OAR-2015-0111-3290-A2 p.2]

Table 1 shows market conditions for E10, E85 and conventional (D6) RINs on July 2 of this year. Currently, the price of the D6 RIN is trading around \$0.45 which allows for an incentive for greater market penetration of E85 as indicated from the \$0.28 total revenue gained from the RIN value. The value of the D6 RIN is being used to cut the price of E85 relative to E10 (\$2.13 vs. \$2.77) and has provided an economic incentive in many parts of the country to get higher than E10 blends into the market. [EPA-HQ-OAR-2015-0111-3290-A2 p.2] [Table 1 can be found on p. 2-3 of Docket number EPA-HQ-OAR-2015-0111-3290-A2]

The fact of the matter is that the RFS2 and the RIN market that it established are working properly and are providing incentives for refiners to offer higher blends of ethanol in the market at prices that are increasingly competitive with conventional gasoline. Looking at the proposed rule it appears that EPA is unceremoniously discarding the RIN market as a means for increasing the production and sale of higher ethanol blends – strangely at the time this mechanism is beginning to work as Congress intended when the RFS2 was enacted eight years ago. [EPA-HQ-OAR-2015-0111-3290-A2 p.3]

Illinois Farm Bureau believes that the ethanol blend wall can be overcome with tools already at EPA's disposal. RFS2 volume mandates and RIN prices are working as intended to provide incentives for the production and use of higher ethanol blends. The petroleum industry's absolute unwillingness to offer higher blends should not force the agency to conclude that the RFS2 is unworkable. It's simply evidence that the industry is purely looking out for its own interests. There is simply no need to roll back volume requirements in the proposed rule. [EPA-HQ-OAR-2015-0111-3290-A2 p.3]

## **Independent Fuel Terminal Operators Association (IFTOA)**

Finally, in subsequent years, EPA plans to adopt a much more aggressive approach and to try to compel significant changes in the market to accommodate much greater volumetric mandates. While some may argue that this approach is consistent with the general statutory goal

-- to continually increase the use of renewable fuels -- it is not consistent with the statutory structure created for the RFS Program. [EPA-HQ-OAR-2015-0111-1947-A1 p. 2]

### **Iowa Farm Bureau Federation (IFBF)**

Most troubling is the flawed methodology that EPA is using to justify a reducing in the blending requirements. The renewable fuels industry has more than enough capacity to produce in excess of the 15 billion gallons of conventional biofuel prescribed for 2015 by the RFS2. There is clearly not a supply limitation. Using the lack of infrastructure as an excuse for setting biofuels levels lower than originally mandated is not following the intent of the law that was passed by Congress. The EPA should not call the difficulties associated with blending higher than 10% a 'blend wall' and then call this a supply issue. This proposed rule lays out a methodology that will never allow biofuels to exceed approximately 10% of the market share. This is directly against the intent of the RFS2 as passed by Congress — which is to push infrastructure investments to increase market access for biofuels well beyond 10%. [EPA-HQ-OAR-2015-0111-1717-A1 p. 2]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-0143, p. 109.]

Unfortunately, the EPA is now using the lack of infrastructure as an excuse for setting biofuels levels lower than originally mandated. The EPA should not call the difficulties associated with blending higher than 10 percent a blend wall and then call that a supply issue.

### **Kansas Department of Agriculture (KDA)**

KDA recognizes the need for additional access to infrastructure in the form of distribution systems and fuel pumps in order for the ethanol industry to be competitive with unleaded gasoline. Through a partnership with the Kansas Corn Commission, Renew Kansas, ICM, Kansas Grain Sorghum Commission, and the United Sorghum Checkoff Program, KDA has submitted a USDA Biofuels Infrastructure Partnership grant to double the number of blender pumps in the state. [EPA-HQ-OAR-2015-0111-1196-A1 p.1]

### **Little Sioux Corn Processors**

The EPA has a decision to make on the RFS. It can side with the Oil industry and its inherent 90% mandate by capping the required ethanol inclusion in our gasoline supply at 10% or it can stand up for American jobs, farmers, and clean energy innovation. With this cap, innovation and investment in our industry will die and the dramatic strides our industry has made in efficiency will skid to a halt. There has been a tremendous amount of capital invested in transportation services, technical expertise, and other support industries. Thousands of jobs are at risk and the perceived level of certainty of the law is lost if the EPA continues its present course. The law was designed to push the barrier. It was not designed to be comfortable for the obligated party. It was designed to allow market access and give the obligated party a mechanism to control their fate in the marketplace. [EPA-HQ-OAR-2015-0111-1664-A1]

**Mass Comment Campaign sponsored by American Motorcyclist Association (AMA) (web) - (29,379)**

The practical effect of the EPA's action is that ethanol production will exceed the 'blendwall,' the point at which no more ethanol can be mixed into the nation's fuel supply without resulting in blends higher than 10 percent. That means more E15 and less E10 on the market. [EPA-HQ-OAR-2015-0111-2049-A1 p.2]

Moreover, the proposed rule calls for stakeholders to overcome market barriers to expand the use of renewable fuels to meet the 2016 standards by:

- 'Increasing the number of retail stations offering E15 and E85 through direct installation of new equipment or providing grants to retail owners, and locating stations offering E15/E85 closest to higher populations of vehicles that can use those fuels' and
- 'Developing contractual mechanisms to ensure favorable pricing of E15 and E85 at retail compared to E10 to boost sales volumes'

In other words, the EPA is proposing federal grants and price controls to increase amount of the higher-than E10 ethanol blended fuels into the marketplace. [EPA-HQ-OAR-2015-0111-2049-A1 p.2]

The AMA strongly disagrees with this approach. Instead, the market should dictate demand and let the consumer choose the proper fuel for each vehicle. [EPA-HQ-OAR-2015-0111-2049-A1 p.2]

Most importantly, the proposed rule mentions the likelihood of inadvertent misfueling only once. The rule states: '...in June of 2011, the EPA finalized regulations to prevent misfueling of vehicles, engines, and equipment not covered by the partial waiver decisions.' This is the same misfueling mitigation plan that initially mandated a 4-gallon minimum fuel purchase to address the concerns raised by the AMA. It was eventually revised in 2013 to the current plan following our complaints, yet it is still easily misunderstood, misapplied or ignored by state governments and producers, distributors and vendors. [EPA-HQ-OAR-2015-0111-2049-A1 p.2]

With the misunderstood and unenforced misfueling plan and the proliferation of E15 in the marketplace, especially through blender pumps, motorcyclists and ATV riders face an increased risk of unknowingly fueling their vehicles with a blend higher than the federally approved E10. [EPA-HQ-OAR-2015-0111-2049-A1 p.3]

Indeed, the EPA has made it illegal for motorcyclists and ATV users to use E15 fuel and yet seems to have little interest in the misfueling issue. It seems the EPA's proposed rule does not consider the concerns of motorcyclists and ATV owners despite knowing that none of the estimated 22 million motorcycles and ATVs in use in the United States is approved to use E15 or higher ethanol blends. [EPA-HQ-OAR-2015-0111-2049-A1 p.3]

**Mass Comment Campaign sponsored by anonymous 12 (email) - (560)**

As a producer, I know the statutory requirements can be met through a combination of gasoline consumption in the form of E10, increased use of higher ethanol blends such as E15 and E85,

carry-over RINs and increased biodiesel use. There is no need for EPA to move backward with its proposed volumes for 2015 and 2016. [EPA-HQ-OAR-2015-0111-0215-A1 p.1]

When the RFS was established, it always envisioned ethanol blends above 10 percent – even with a projected increase in gasoline consumption—but oil companies are doing everything they can to maintain their stranglehold on our nation’s fuel supply. [EPA-HQ-OAR-2015-0111-0215-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 13 (web) - (121)**

Congress intended for the share of biofuels in transportation fuel to increase annually. Instead, the explicit calls for increases have been blocked by a fictitious 'blend wall' that was devised by the oil industry to artificially keep biofuel supply in transportation fuel capped at 10 percent. [EPA-HQ-OAR-2015-0111-0106 p.1]

**Mass Comment Campaign sponsored by anonymous 26 (web) - (11)**

It has been proven that when higher blends of ethanol are available at retail locations, sales of ethanol increase dramatically. The Renewable Fuels Standard (RFS) effectively promotes access for biofuels and diminishes the stranglehold that the petroleum industry has on the market. There is no blend wall because the demand for E-15, E-30, E-85 is strong and further infrastructure development and access to the market has yet to be fully utilized. [EPA-HQ-OAR-2015-0111-2826 p.1]

**Mass Comment Campaign sponsored by anonymous 4 (web) - (786)**

Mandates to increase the percentage of biofuels - such as corn-based ethanol - into gasoline will cause consumers to make more trips to the pump because ethanol contains 33 percent less energy than pure gasoline. Data compiled by the U.S. Department of Energy found that compared to vehicles running on 100 percent gasoline, those that contain 10 percent ethanol - E 10 - typically go three to four percent fewer miles. Mileage continues to decline when cars are filled with gasoline containing 15 percent ethanol or higher. What this means is that drivers are being forced to buy a product that's forces them to spend more over time. [EPA-HQ-OAR-2015-0111-0127 p.1]

**Mass Comment Campaign sponsored by anonymous 5 (web) - (386)**

Ethanol mandates require refiners to blend impossible amounts of ethanol into gasoline - amounts that the current gasoline supply cannot safely accommodate and for which there is not enough expected demand. Despite this, refiners face up to \$32,500 in fines per day if they fail to comply with the RFS. Critically, EPA's proposed standard for 2016 would break through the 'blend wall,' the point at which RFS volume exceeds the volume that can be practically blended into gasoline and diesel fuel. Continuing forward with the standards as written would have far-reaching consequences such as inevitable compliance fines, excess supply and an eventual slow-down in domestic energy production. [EPA-HQ-OAR-2015-0111-0128 p.1]

**Mass Comment Campaign sponsored by anonymous 6 (web) - (391)**

Although the EPA's proposed ethanol volumes are lower than the law, the EPA's proposed standard for 2016 would break through the 'blend wall,' the point at which the volume exceeds the 10 percent limit known as E10 that is found in most gasoline. [EPA-HQ-OAR-2015-0111-0129 p.1]

Nearly 95 percent of vehicles on the road today, as well as lawn equipment, motorcycles, boats and other small engines, are not designed or warrantied to use fuel that exceeds E10. In fact, it is illegal to use a fuel that exceeds E10 in all small engines and in vehicles built before model year 2001. [EPA-HQ-OAR-2015-0111-0129 p.1]

But the EPA's proposal also erodes consumer choice in what fuel they put in their tanks. While motorcyclists and boaters seek out pure gasoline, the agency's proposal assumes consumption of that type of fuel will drop - even as recent data shows demand soaring. [EPA-HQ-OAR-2015-0111-0129 p.1]

In place of ethanol-free gasoline, the EPA wrongly assumes that more and more drivers will use E85. [EPA-HQ-OAR-2015-0111-0129 p.1]

The market, not a mandate, should drive which fuels are available to drivers at the local gasoline station. The EPA should lower the volumes for its final ruling to reflect reality of what drivers really want and what engines really need - instead of what the corn lobby demands. [EPA-HQ-OAR-2015-0111-0129 p.1]

**Mass Comment Campaign sponsored by Denco II. Absolute Energy. L.L.C. (paper) - (633)**

As an investor that works closely with the Absolute Energy, L.L.C. plant, I know the statutory requirements can be met through a combination of gasoline consumption in the form of E10, increased use of higher ethanol blends such as E15 and E85, carry-over RINs and increased biodiesel use. There is no need for EPA to move backward with its proposed volumes for 2015 and 2016. [EPA-HQ-OAR-2015-0111-0207-A1 p.2]

When the RFS was established, it always envisioned ethanol blends above 10 percent — even with a projected increase in gasoline consumption—but oil companies are doing everything they can to maintain their stranglehold on the nation's fuel supply. [EPA-HQ-OAR-2015-0111-0207-A1 p.2]

**Mass Comment Campaign submitted by investors in Golden Grain Energy LLC. (paper) - (327)**

As an informed investor, I know the requirements initially spelled out in The RFS can be met through E10, increased use of E15 and E85, carry-over. RINs, and increased biodiesel use. There is no need for the EPA to move backward with its proposed volumes for 2015 and 2016, and the only ones to benefit would be the oil companies strangling the nation's fuel supply. [EPA-HQ-OAR-2015-0111-2559-A1 p.1]

### **Michigan Boating Industries Association**

I am writing to voice my concern about the increasing levels of ethanol content in gasoline and request that the EPA set the final ethanol mandate under the Renewable Fuel Standard (RFS) for 2014, 2015 and 2016 to no more than 9.7 percent of gasoline demand. The proposed standards ask for an increasing amount of ethanol to be blended into gasoline which is already damaging to boat and marine engines. Setting the final mandate to no more than 9.7 percent of gasoline demand will help to ensure that fuel such as E10 and E0 will continue to be readily available. [EPA-HQ-OAR-2015-0111-3448-A1 p.1]

Congress should fix the RFS through legislation, but in the meantime, please set the final ethanol mandate to no more than 9.7 percent of gasoline demand to protect businesses and jobs in Michigan. [EPA-HQ-OAR-2015-0111-3448-A1 p.2]

### **Minnesota Bio-Fuels Association (MBA)**

EPA must decouple the notion of specific volume requirements set forth in the RFS from the total national gasoline consumption for the next several years. Congress was explicit in its call for increasing amounts of renewable biofuel to displace finite, carbon intensive fossil fuel. Thus, the focus of the EPA ought to be directed toward the automobile manufactures and other stakeholders who do, or can, play a greater role in using and making higher volumes of biofuels available in the marketplace. [EPA-HQ-OAR-2015-0111-1936-A1 p.6]

The notion of an E10 blendwall, however, must be eliminated from EPA nomenclature and baseline calculations because it is focused on the past rather than the present and into the future. [EPA-HQ-OAR-2015-0111-1936-A1 p.9-10]

Rather than use E10 as the basis for the 'blendwall' (footnote 7, FR at 33102) and segment the transportation fuel market between FFVs and non-FFVs, the EPA should aggregate the total fuel consumption capacity. Thus, according to EIA, as cited by the EPA (FR at 33128), the FFV fleet alone has a total consumption capacity of approximately 14 billion gallons. And the non-FFVs which can use E15 have a total consumption capacity of at least 18.5 billion gallons. Therefore the total consumption capacity is at least 32.5 billion gallons annually. [EPA-HQ-OAR-2015-0111-1936-A1 p.10]

### **Minnesota Corn Growers Association (MCGA)**

EPA's proposed RVO numbers fall in line with the fictional 10 percent blend wall and well below actual ethanol production. The blend wall is a myth created by the oil industry. The "Big Five" oil companies use rigid franchise and branding agreements, restrictive supply contracts, outlandish labeling requirements, punitive penalties and other heavy-handed tactics to discourage retail fuel stations from selling higher ethanol blends like E15 and E85. [EPA-HQ-OAR-2015-0111-1920-A1, p.1]

Unbranded or independent fueling stations are four to six more times likely to offer E85 than one of the "Big Five" oil brands. Independent stations are over 40 times more likely to offer E15. [EPA-HQ-OAR-2015-0111-1920-A1, p.1]

The American ethanol industry and the corn farmers who support it are more than capable of producing enough ethanol to far exceed the oil industry's fictional 10 percent blend wall. Here in Minnesota, we're already well beyond the make-believe blend wall. According to the Energy Information Administration, ethanol made up 12.2 percent of the Minnesota fuel supply in 2013. [EPA-HQ-OAR-2015-0111-1920-A1, p.1]

Not only do Minnesotans have access to nearly 300 stations that offer E85, they also can fill up with E15 at 30 stations. Since the Fall of 2013, a broad coalition that includes MCGA has invested in ethanol infrastructure and helped install more than 120 flex-fuel pumps throughout the state. These pumps give consumers the choice of filling up with regular unleaded, E15, E30 or E85. [EPA-HQ-OAR-2015-0111-1920-A1, p.1]

That's real consumer choice. Many of the retailers with flex-fuel pumps often report that drivers choose E15 if given the option because it's less expensive, better for air quality and approved for use in all vehicles manufactured in 2001 or after. [EPA-HQ-OAR-2015-0111-1920-A1, p.1]

Minnesota's recent success in dispelling the myth of the blend wall follows a tradition of being a pioneer in the ethanol industry. We were the first state to blend 10 percent ethanol in our supply. This decision helped clean the air in the Twin Cities metro area and brought the region back into attainment status with the EPA. [EPA-HQ-OAR-2015-0111-1920-A1, pp.1-2]

### **Minnesota Soybean Processors (MnSP)**

MnSP believes that EPA has failed to differentiate renewable fuels as to those serving the gasoline market and those serving the distillate (diesel) market. Because of this lack of differentiation we believe EPA is using the so-called ethanol blend wall as an opportunity to incorrectly pressure the biodiesel RVO downwards from what the biodiesel industry can easily produce and distribute. Ethanol, both conventional, cellulosic and sugarcane, serve as replacements to the gasoline pool; biodiesel serves as a diesel/fuel oil replacement. While oil and water are both liquids, they are both different and cannot replace each other. Simply put, ethanol won't function in a diesel engine nor will diesel function in a gasoline engine. [EPA-HQ-OAR-2015-0111-2505-A1 p.2]

### **Minnesota State Senate**

When the RFS was established, it always envisioned ethanol blends above 10 percent, but oil companies are doing everything they can to maintain their stranglehold on the nation's fuel supply. [EPA-HQ-OAR-2015-0111-3284-A1 p.2]

With this flawed proposal, EPA is fundamentally changing how the RFS works by putting the burden of fuel distribution on biofuel producers rather than branded oil, which controls more than 50 percent of the convenience stores in this country through branding agreements and ownership. [EPA-HQ-OAR-2015-0111-3284-A1 p.2]

### **Missouri Corn Growers Association (MCGA)**

We find that the methodology used to develop the proposal is flawed and goes against the law. If finalized, EPA's current proposal would cement the oil industry's ability to keep biofuels out of the market place. By embracing the "blend wall" concept, the EPA removes any incentive for the

oil industry to expand biofuel production and distribution capacity and effectively turns the RFS into a cap on biofuel production and use. The oil industry has had from 2007 to 2015 to install infrastructure to bring higher blends into the marketplace. Their intentional opposition to doing so is a blatant attempt to circumvent the law and should not be allowed as an excuse for a “blend wall.” [EPA-HQ-OAR-2015-0111-2507-A2 p. 1]

### **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

2. EPA’s assumption that it has a responsibility to move the E10 blendwall by pushing increased use of E85 is incorrect and misreads Congressional intent.

As described below, EPA further erred by setting volume requirements intended to “drive growth” of conventional ethanol, which, according to the NPRM, “Congress intended.” Given the context in which Congress passed the Renewable Fuel Standard, that is decidedly incorrect. The statutory volumes set for 2016 imply a conventional ethanol mandate of only 67 percent of the total renewable fuel volume target—in contrast to the NPRM’s implied ethanol mandate of about 80 percent of the total renewable mandate. Moreover, Congress never contemplated that its volume mandates would require the economy to breach the E10 blendwall through the use of conventional ethanol. By comparing the statutory mandates to the 2007 EIA projections of gasoline consumption that Congress used to set them, one sees that Congress’ goals for conventional ethanol relative to gasoline use were about 9.4 percent in 2014, 9.6 percent in 2015; and 9.5 percent in 2016. These percentages provide an important historical counter-weight to EPA’s suggestion that Congress expressly intended EPA to drive the use of conventional ethanol past the E10 blendwall with high-ethanol blends, such as E85. Congress instead envisioned a cellulosic fuels revolution that never materialized, along with steadily increasing gasoline consumption that has since retreated. [EPA-HQ-OAR-2015-0111-2603-A2, pp.16-17]

However, the NPRM significantly understated the [0.84 billion gallon] gap. Estimates using the same data sources used by EPA indicate that, in fact, the gap is likely closer to 1.1 billion gallons. EPA’s understatement is due to it significantly overestimating the amount of ethanol the economy was on pace to consume as E10. [EPA-HQ-OAR-2015-0111-2603-A2, p.20]

In projecting that the economy will consume 13.69 billion gallons of ethanol as E10 in 2016, EPA appears to have used EIA’s May 2015 Short-Term Energy Outlook (“STEO”) data for total gasoline consumption and multiplied that figure by about 9.96 percent, presumably to account for the E10 blendwall.<sup>52</sup> Yet, as economists Scott Irwin and Darrel Good have observed, that very same EIA data projected the economy was then on pace to consume only 13.46 billion gallons of ethanol in total (i.e., including E15 and E85) in 2016—about 230 million gallons fewer than EPA projections of ethanol in E10 alone.<sup>53</sup> That is because EIA expected ethanol to represent only 9.78 percent (not 9.96 percent) of gasoline consumption in 2016.<sup>54</sup> [EPA-HQ-OAR-2015-0111-2603-A2, p.20]

According to Irwin and Good, the 9.78 percent ethanol inclusion rate in EIA’s May 2015 STEO reflected continued use of E0 gasoline.<sup>55</sup> In the NPRM, EPA projected that “the use of E0 . . . would only reduce the total volume of ethanol that can be consumed by about 13 million gallons out of the 13.69 billion gallons we estimated above.” But the data then available to EPA showed that E0 use is much greater. And the data are consistent with historical trends. In their comments

to the current NPRM, the American Petroleum Institute (“API”) and the American Fuel & Petrochemical Manufacturers (“AFPM”) review EIA historical data on E0 demand, and discover that demand averaged 6.5 billion gallons per year—or 5 percent of annual gasoline demand—between 2012 and 2014. Demand for E0 hit its lowest in 2012, at only 3 percent of gasoline demand. Taking that level as a conservative reference point, they argue that the 2016 mandate should reflect total ethanol consumption equal to 9.7 percent of gasoline consumption, plus an additional 100 million gallons of E85. This conservative recommendation reflecting the impact of E0 on ethanol consumption is roughly in line with EIA’s May 2015 STEO projection of a 9.78 percent ethanol inclusion rate for 2016. [EPA-HQ-OAR-2015-0111-2603-A2, p.21]

Had EPA accounted for EIA’s lower ethanol inclusion rate, it would have realized that the gap between EPA’s mandate and the amount of renewable fuel that the economy was then on pace to use was not merely 840 million gallons, but nearly 1.1 billion gallons.<sup>57</sup> [EPA-HQ-OAR-2015-0111-2603-A2, p.22]

### **National Association of Truck Stop Operators (NATSO)**

#### III. NATSO Supports EPA’s Exercise of its Waiver Authority

NATSO believes that EPA’s Proposal wisely takes advantage of the Agency’s statutory authority to avoid the blend wall. The blend wall represents the point at which there is an insufficient supply of renewable fuel that can be delivered to consumers. If the RFS’s volume obligations exceed the volume of renewable fuels that the market can absorb, the market will hit the blend wall. This would lead to a significant increase in the price of fuel, caused by a shortage of Renewable Identification Numbers (“RINs”), which are used to ensure compliance with the RFS’s volume obligations. If the market reaches the blend wall, there will not be enough RINs to allow obligated parties to satisfy their volume obligations under the RFS. This will result in significantly elevated prices for RINs that are available. Some obligated parties could fail to acquire sufficient RINs and face fines from EPA. Others would take steps to reduce their obligations under the Program (such as reducing or exporting production).

All of these situations will add costs to fuel production and, as happens in every industry, these costs will be passed down to retailers and ultimately will be absorbed by consumers. [EPA-HQ-OAR-2015-0111-2478-A1 p.4]

### **National Chicken Council (NCC)**

The statutory levels were set in 2007 based on projections of fuel demand at the time according to the Energy Information Agency’s (EIA) Annual Energy Outlook. That forecast projected motor gasoline use at a level much higher than actually occurred. In fact, 2007 proved to be the peak of motor gasoline use in the United States and demand has decreased since then due to long term trend factors such as increased mileage efficiency and the demographics of the driving age population. According to the 2007 Annual Energy Outlook, motor gasoline use was projected to be 150 billion gallons in 2014 and 152 billion gallons in 2015. But according to the EIA’s Short Term Energy Outlook of June 2015, actual motor gasoline use in 2014 was 132 billion gallons and is forecast to be 133 billion gallons in 2015, effectively lowering the blend wall by a significant volume. [EPA-HQ-OAR-2015-0111-1814-A1 p.2]

### **National Corn Growers Association (NCGA)**

EPA should take into account the fact that recent EIA gasoline demand projections have exhibited a strong and consistent downward bias when later compared to actual demand data. [EPA-HQ-OAR-2015-0111-1939-A1 p.4]

### **National Corn-to-Ethanol Research Center (NCERC at SIUE)**

If finalized, EPA's proposal for 2014-2016 RFS requirements would place the key to our energy future firmly back in the hands of the oil industry. By embracing the "blend wall" concept, the proposal effectively destroys the incentive to expand biofuel production and distribution capacity, and allows oil companies to blend only as much renewable fuel as they are comfortable using. The proposed rule would stifle innovation and fundamentally alter the future course of the RFS program. Therefore, we are strongly encouraging EPA to reconsider its proposal. We recommend setting the 2014-2016 requirements for renewable fuel at the levels intended by Congress. [EPA-HQ-OAR-2015-0111-1226-A2 p.1]

### **National Taxpayers Union (NTU)**

In the regulatory announcement, the EPA purports to be using its waiver authority in order to address "[l]imitations in the volume of ethanol that can be consumed given practical constraints on the supply of higher ethanol blends to the vehicles that can use them." Given this consideration, it is unclear why the EPA would propose a 2016 RVO that exceeds the E10 blend wall. The EPA seems to be operating under the assumption that there will be a dramatic increase in consumption of higher ethanol blends of gasoline such as E15 or E85, despite no evidence supporting an imminent, sudden surge. [EPA-HQ-OAR-2015-0111-3279-A1 p.1]

### **Nebraska Unicameral Legislature**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 111.]

But the blend wall is actually existent only because we do not have the cooperation of the oil industry in allowing the different blends to be under the canopy. And I know they talk a lot about the independent stations that are out there that can do whatever they want. But in reality, if they do not follow what the franchisees' agreement is, they will jerk their name off the canopy. And so there is a blend wall, and that's only occurred because of the oil industry's reluctance to blend more fuel.

### **Nestle**

With respect to the 2015 and 2016 mandates, we agree with EPA that both availability of cellulosic biofuels and the E10 blendwall must be taken into account. It would make little sense for EPA to announce the cellulosic mandate embodied in the Clean Air Act, since this would represent many multiples of the actual supply of cellulosic biofuels that will be available under any realistic scenario. [EPA-HQ-OAR-2015-0111-1918-A1 p.2]

Similarly, the E10 blendwall represents a real constraint that, contrary to the protests of the ethanol industry, cannot and should not be ignored. It is not necessary to invoke conspiracy

theories – as ethanol advocates have sometimes done – in order to explain why the blendwall is an issue. First, total gasoline usage is less than anticipated in 2007 when the current RFS numbers were approved by Congress. One would think this was a good thing. However, it seems to be a problem for the ethanol industry, which insists that the original numbers should be enforced regardless of what has occurred in the real world of automotive fuel demand in the intervening years. [EPA-HQ-OAR-2015-0111-1918-A1 p.2]

### **Novozymes Americas**

The proposed rule depends on the artificial “blend wall” – an invention of the oil industry. The ethanol industry has always met the production levels required in the RFS and – as Missouri Governor Jay Nixon promised at the Kansas City hearing – American farmers and ethanol producers will meet it again. The only cap on supply to consumers is the oil industries’ willful disregard of its obligations. [EPA-HQ-OAR-2015-0111-3277-A1 p.3]

### **Petroleum Marketers Association of America (PMAA)**

PMAA is cautiously optimistic that the proposed levels will forestall breaching the ethanol blend wall, though we are concerned that 2016 the mandate may need to be readjusted given the overall drop in national gasoline consumption - a trend that is expected to continue into the foreseeable future. [EPA-HQ-OAR-2015-0111-1197-A1 p.1]

### **Phillips 66 Company**

EPA should reduce the 2016 volume requirements to a level that does not exceed the E10 blend wall. [EPA-HQ-OAR-2015-0111-2039-A1 p.6]

### **Poet, LLC**

Experts have found that “EPA could potentially increase the 2015 and 2016 ethanol mandates fairly substantially in the final rulemaking based solely on updated usage projections” (e.g., better estimates of gasoline use).<sup>87</sup> [EPA-HQ-OAR-2015-0111-2481-A1 p.21]

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<sup>87</sup> Irwin and Good, *The EPA's Proposed Ethanol Mandates for 2014, 2015, and 2016: Is There a 'Push' or Not?*, supra, at 4-5.

### **Renewable Fuels Association (RFA)**

Still, even if the E10 “blend wall” was a legitimate and allowable criterion for setting the annual RVO for renewable fuel, the proposal’s estimates of the E10 saturation point in 2015 and 2016 are far too low. [EPA-HQ-OAR-2015-0111-1917-A1 p. 21]

However, EIA’s gasoline demand projections for 2015 and 2016 have been revised upward in the most recent available (July 2015) STEO. In other words, the so-called “blend wall” continues to shift upward. We strongly encourage EPA to adopt the latest STEO gasoline demand figures, as well as some allowance for upward revision, for the final rule. [EPA-HQ-OAR-2015-0111-1917-A1 p. 21]

We believe EPA's 2015 and 2016 RVO calculations should account for the demonstrated downward bias of EIA's gasoline projections. We believe EPA should adjust the estimate of 2015 and 2016 gasoline demand by the same percentage that actual 2014 gasoline demand exceeded the STEO projection in the corresponding 2014 and 2013 month of the most current STEO projection available at the time EPA prepares the final rule. [EPA-HQ-OAR-2015-0111-1917-A1 p. 22]

By adopting the oil industry's "blend wall" concept, EPA's proposal—if finalized—would allow obligated parties to comply simply by blending E10 in both 2015 and 2016. Thus, the proposal destabilizes the RIN mechanism and eliminates the means of driving investment in expanded renewable fuel production and distribution infrastructure. [EPA-HQ-OAR-2015-0111-1917-A1 p. 24-25]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-0143, p. 35.]

In fact, oil companies don't have to change anything they're doing as a result of this proposal. Oil companies could very easily meet their 2015 obligations simply by blending E10 and their 2016 obligations by blending E10 and turning in a handful of surplus RINs, which will be in ample supply.

**Rider, Allen**

Further, it is time to stop using the constraining term 'E10 blend wall.' The future for higher-blend ethanol is bright.

**Tenaska Commodities, LLC**

If all diesel in the US was blended with 10% bio, we could have a 5.5 billion gal bio market. Surely the EPA knows that obligated parties indeed have options, even if the RVOs were left at the original statutory levels. [EPA-HQ-OAR-2015-0111-0503-A1]

**The Andersons, Inc.**

By embracing the 'blend wall' concept, the proposal effectively destroys the incentive to expand biofuel production and distribution capacity, and allows oil companies to blend only as much renewable fuel as they are comfortable using. The proposed rule would stifle innovation and fundamentally alter the future course of the RFS program. [EPA-HQ-OAR-2015-0111-2509-A2 p.1]

The resulting understatement of 2014 actual ethanol blending and its carry forward effects on EPA's estimates for 2015 and 2016 blending requirements will have the effect of leaving the RVO significantly below the so called Blend Wall. If it was the EPA's intent to stretch the Blend Wall beyond 10% but keep it to a manageable level, you failed in that attempt. [EPA-HQ-OAR-2015-0111-2275-A2 p. 3]

Proof that the Proposed Rule will not achieve the intended stretch of the Blend Wall can be readily seen in the price action of RINS immediately after the NPRM announcement. RIN prices

plunged to half of the value they held prior to the announcement and have only recovered modestly in the last couple weeks.

Earlier I mentioned that we are a large marketer of E85 in the US. We blend ethanol with natural gasoline at each of our plants and deliver directly to retailers. Because we are the blender of record, we detach the RINS and sell them to Obligated Parties. The value of the RIN is deducted from our ethanol price so that we are able to offer E85 at a competitive price that is fully discounted. Yesterday our price of E85 direct to Retailers for less than \$1.25 per gallon. Prior to the announcement, we were offering E85 at less than \$.95 per gallon. All of the price change is due to the decline in RIN values. The decline in RIN prices has affected how competitively our price offering is relative to gasoline. Expanding E85 sales is one achievable path around at least expanding the Blend Wall beyond 10%. [EPA-HQ-OAR-2015-0111-2275-A2 p. 3]

### **The Boat Owners Association of The United States (BOATU.S.)**

We are also concerned with the likely increase in the number of blender pumps at gas stations. We understand that a certain amount of residual E15 remains in blender pump fuel hoses if a previous customer selected it. This again raises the chance that amounts of ethanol higher than 10% will be put into a boat's engine and the boat owner will suffer its costly negative consequences. Additional consideration should be giving to mis-fueling mitigation plans so as to not unduly burden boat owners and protect marine engines. [EPA-HQ-OAR-2015-0111-2265-A1 p. 2]

### **The George Washington University**

#### **Gasoline Demand**

In addition, despite the fact that a purpose of the RFS program is to reduce gasoline consumption, domestic demand for gasoline has not kept pace with Congress's and EPA's expectations. While Congress and EPA expected gasoline consumption to continue increasing, actual demand dropped from a high of 3.389 million barrels of gasoline in 2007, when the EISA was passed, to 3.25 million in 2014.<sup>25</sup>

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<sup>25</sup> U.S. Energy Information Administration. "Petroleum & Other Liquids: U.S. Product Supplied of Finished Motor Gasoline." Accessed July 22, 2014.  
<http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MGFUPUS1&f=A>

#### **Response:**

The E10 blendwall is the volume of ethanol that could be consumed if all gasoline contained 10% ethanol, and there was no E0 nor any fuels containing more than 10% ethanol, such as E15 or E85. The blendwall is one convenient way of measuring the ability of the market to expand the use of renewable fuel because, of all ethanol blends, E10 enjoys some benefits that other ethanol blends do not: Virtually all vehicles and engines and retail stations are compatible with and warranted for E10, and the distribution infrastructure has expanded to distribute it nationwide. Thus increasing the use of ethanol in gasoline is more straightforward and more easily accomplished as volumes of E10 increase, and becomes less straightforward and less

easily accomplished as the E10 blendwall is exceeded and further ethanol consumption increases must occur in the form of increased volumes of E15 and/or E85.

Comments on the E10 blendwall fell into two primary groups, neither of which reflects EPA's views. Refiners and others opposed to the expansion of ethanol use typically pointed to the E10 blendwall as a barrier that could not or should not be crossed. In contrast, proponents of ethanol typically claimed that there are no limits to growth in ethanol use in 2016 if EPA set the volume requirements high enough. Neither of these perspectives reflect both the capabilities and limitations of the marketplace.

The E10 blendwall is not, as some stakeholders said or implied, an insurmountable barrier. As described more fully in Section 2.4, while we believe that there are real constraints on the ability of the market to exceed a pool-wide ethanol content of 10%, these constraints can be overcome over time. Levels of ethanol somewhat higher than the E10 blendwall can occur in the short term, including in 2016, while more dramatic levels above the E10 blendwall will require longer periods of time. Recognizing these real-world constraints while still ensuring growth in renewable fuel volumes does not "place the key to our energy future firmly back in the hands of the oil industry" as one stakeholder claimed.

Some stakeholders said that EPA has treated the E10 blendwall as a barrier to growth in the RFS program. This is not the case. While we recognize that growth in ethanol volumes beyond the E10 blendwall may be more challenging than growth in ethanol volumes up to the E10 blendwall, they are not impossible. Indeed, the final 2016 volume requirement will create opportunities for the market to exceed the E10 blendwall as described in Section II.G of the final rule. More importantly, the RFS program is not limited to ethanol. The final 2016 volume requirement for total renewable fuel is about 4 billion gallons beyond the E10 blendwall, and we expect the market will respond with both increases in E15/E85 and increases in non-ethanol renewable fuels.

The amount of ethanol associated with the E10 blendwall is driven by the total demand for gasoline, and thus ethanol consumption will tend to increase if gasoline consumption increases and ethanol consumption will tend to decrease if gasoline consumption decreases. In the NPRM we used a projection of 2016 gasoline demand from the May 2015 version of EIA's Short-Term Energy Outlook (STEO), as this was the most recent version available at that time. A number of stakeholders said that we should use more recent projections of 2016 gasoline demand. For this final rule we have used the October 2015 version of the STEO.

One stakeholder said that the projected volume of ethanol used in E10 in Table II.D.2-1 of the NPRM (13.69 billion gallons) did not reflect the actual volume of ethanol projected by EIA to be used in 2016. We did not use EIA's projection of ethanol consumption from the May, 2015 version of its Short-Term Energy Outlook (STEO) because the RFS program is intended to drive growth in the use of renewable fuels, not to set the 2016 volumes on the basis of EIA's projection of ethanol consumption. The 13.69 billion gallon volume from the NPRM was based on the assumption that all gasoline in 2016 would be E10, and that there would be no E0, E15, or E85. In other words, the 13.69 billion gallon estimate represented the E10 blendwall, and was only used as a benchmark for determining potentially higher volumes of ethanol that would need to be used as E15 or E85. The 13.69 billion gallon estimate was derived from EIA's estimate of total

gasoline energy (not volume) demand in 2016, based on the May, 2015 STEO's projection of total gasoline consumption and the volume of ethanol included in that gasoline.

In response to our proposed intention to use gasoline projections from EIA, several stakeholders indicated that EIA's projections of gasoline demand have historically tended to be lower than actual demand. They requested that we make an adjustment to EIA's projections to ensure that they are as accurate as possible. We investigated this issue and determined that by and large EIA's projections of gasoline demand have not, in fact, been lower than actual demand. As described in a memorandum to the docket, projected gasoline demand has more often been higher than actual demand, though the errors in demand projections were highly variable.<sup>15</sup> Even so, we do not believe it would be appropriate for EPA to make adjustments to EIA projections to account for potential over- or underestimation of projected gasoline demand. EIA staff are the experts in the analyses required for these particular projections, and EPA does not have the data or expertise necessary to make changes to them.

Regarding the ethanol content of E10, one stakeholder cited a new regulatory requirement which appears to place a cap of 10.0% on the ethanol content of every batch of E10 to address potential vehicle misfueling with E15. Prior to this new regulation, all references to the ethanol content of gasoline cited 10% rather than 10.0%, providing blenders with some flexibility (i.e. 10.49% ethanol would be considered to be the same as 10% ethanol). The stakeholder raising this issue argued that the new regulatory requirement would compel blenders to change their operations to ensure that they will always be below 10.0%, effectively resulting in an ethanol content of E10 below 10.0%.

We addressed this issue in a proposal published in 2013. In that proposal we said:

“At the same time, we did not intend to change the definition of E10 in a way that impacts the rounding of test results for ethanol concentrations. If a manufacturer blends in a way designed to result in a gasoline-ethanol fuel containing no more than 10.0 vol% ethanol, but compliance testing indicates a concentration of 10.4 vol%, we will still round down the test result in accordance with procedures in section 80.9.”

As a result, blenders will have the same flexibility as they have always had in producing E10, and thus E10 can continue to be considered to be composed of 10.0% denatured ethanol and 90% gasoline, as we proposed in the NPRM.

One stakeholder took issue with our intentions to be aggressive in increasing the volume requirements in 2016 and beyond, saying that doing so would not be consistent with the statutory structure. Instead, this stakeholder argued that EPA should take a more neutral approach to setting future volume requirements that takes into account the blendwall, limitations in production of advanced and cellulosic biofuels, automobile manufacturers' warranty restrictions, and distribution infrastructure limitations. However, the various constraints that this stakeholder listed as being important to consider in determining the appropriate volume requirements are in fact some of the very constraints that we described in the NPRM as forming the basis for our

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<sup>15</sup> "Analysis of historical errors in projections of gasoline and distillate demand from EIA," David Korotney, memorandum to EPA docket EPA-HQ-OAR-2015-0111.

proposal to reduce the volume requirements below the statutory targets. As to use of the words ‘neutral’ versus “aggressive,” we note that the intent of the statute is to increase the use of renewable fuels, and even when we make use of the available waiver authorities to reduce the volumes below the statutory targets we must reduce them only to the degree necessary to fulfill our responsibilities under those waiver authorities taking into consideration the various constraints. We noted in the NPRM that this process was imprecise:

"...we cannot precisely predict how the market will respond to the volume-driving provisions of the RFS program. Thus the determination of the maximum achievable volumes is one that we believe necessarily involves considerable exercise of judgment. To this end, we are proposing “maximum achievable” volumes of advanced biofuel and total renewable fuel in this package that reflect our judgment as to where the boundary between adequate domestic supply and inadequate domestic supply might fall, particularly for 2015 and 2016." (80 FR 33105)

The proposed total renewable fuel volume requirements, as well as the final requirements based on updated information and analyses, are designed to require use of the maximum reasonably achievable volumes. We believe setting volumes at this level can be considered “aggressive” in that they are intended to provide the incentive for the market to considerably grow in its ability to supply renewable fuels. This is exactly the result that Congress intended. This stakeholder provided no data or analysis to indicate that there would be "great economic harm to consumers and the economy" as a result of the proposed volume requirements as they contended in their comments, and likewise did not provide numerical suggestions regarding the levels that it deemed to be more "neutral" than those we proposed.

One stakeholder pointed out that the volumetric energy content of ethanol is lower than that of pure gasoline, and that as a result a gallon of E10 will propel a vehicle fewer miles than a gallon of pure gasoline. While this is true, and the impact becomes more pronounced at higher concentrations of ethanol in gasoline, it is not necessarily the case that this effect will cost vehicle owners more as this stakeholder contended. Rather, the net impact on the cost to drivers depends on a variety of factors that affect retail fuel prices, including the price of crude oil, the price of ethanol, and the value of the RIN, among other things. For additional responses to comment on retail fuel prices, see Section 7.5.

One stakeholder said that the EPA should "decouple" the statutory targets for renewable fuel from total demand for gasoline, since the statutory targets were designed to increase every year without explicitly being tied to overall gasoline demand. While we agree that the statute did not explicitly mention overall gasoline demand, the statute does provide waiver authorities that permit the statutory targets to be reduced under certain circumstances. We have determined that since the overall demand for gasoline determines the level of the blendwall, and since supply of ethanol to vehicles at levels above the blendwall is increasingly difficult as the volume of ethanol increases, that total demand for gasoline is a relevant consideration in the determination of the maximum volumes of total renewable fuel that are reasonably achievable.

One stakeholder said that EPA was using the E10 blendwall as an opportunity to limit increases in biodiesel. However, the stakeholder did not specify anything in the NPRM stating or implying this. On the contrary, the NPRM explicitly discussed the levels of biodiesel and

renewable diesel that were possible in terms of production capacity, availability of feedstocks, and constraints associated with diesel engine warranties and cold weather operation.<sup>16</sup> Consideration in the NPRM and this final rule of potential biodiesel supply is independent of the E10 blendwall. For responses to comments suggesting that the E10 blendwall can be addressed by increasing the required volumes of BBD, see Section 2.5.

One stakeholder argued that it was Congress's intention that the total volume of ethanol would not exceed the blendwall even if the statutory targets were achieved. This stakeholder made the implicit assumption that all conventional (non-advanced) renewable fuel would be ethanol, and that all advanced biofuels would be non-ethanol. However, as described in Section 2.4.3, it is inappropriate and misleading to assume that the conventional renewable fuel volume is identical to the volume of the ethanol that would be required in 2016. More importantly, as described more fully in Section 2.6, it is highly unlikely that Congress expected the very high volumes that it specified in the statute to be reached while maintaining a gasoline pool-wide ethanol content of less than 10%. It is true that Congress expected the largest increases in renewable fuel after 2015 to result from increases in cellulosic biofuel. While those large increases in cellulosic biofuel have not materialized, we believe that it is nevertheless appropriate to set standards that the market is capable of achieving and which result in growth over previous years, even if those standards cause the E10 blendwall to be exceeded. Nevertheless, we have taken into consideration factors that constrain the ability of the market to exceed the blendwall when determining the maximum volumes that are reasonably achievable.

For responses to comments on whether constraints associated with infrastructure can be considered to contribute to "inadequate domestic supply" under the general waiver authority, see Section 2.2.2.1.

For responses to comments on how the RIN mechanism operates to subsidize the cost of renewable fuels at retail, see Section 2.3.2.

For responses to comments stating that production capacity should be the basis of the volume requirements, see Section 2.4.

For responses to comments on the demand for E0 in the past, see Section 2.6.

For responses to comments suggesting that the ethanol content of the gasoline pool should be kept below 10%, or that the proposed volume requirements would ensure that the ethanol content would remain below 10%, see Section 2.6.

For responses to comments on USDA's Biofuel Infrastructure Partnership, see Section 2.6.2.

For responses to comments on misfueling at retail, see Section 2.6.2.

For responses to comments on the use of higher ethanol blends in boats, see Section 2.6.2.

For responses to comments on the ability of the 2016 market to substantially increase sales of E15 and E85, see Sections 2.6.2 and 2.7.1, respectively.

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<sup>16</sup> For instance, see page 33128 of the NPRM (80 FR 33100, June 10, 2015)

For responses to comments suggesting that obligated parties have failed in their statutory responsibilities to invest in the infrastructure needed to expand renewable fuel supply, see Section 2.7.1.

For responses to comments on whether the NPRM was promoting price controls at retail and forcing consumer to purchase E15 and/or E85, see Section 2.7.1.

For responses to comments suggesting that the proposed volumes would result in shortfalls in RINs, monetary penalties for non-compliance, and shortfalls in gasoline and diesel, see Sections 2.6 and 7.

For responses to comments on the role of carryover RINs in the RFS program and suggestions that they could be used to increase the volume requirements, see Section 6.

For responses to comments on the relationship between the standards and RIN prices, see Section 7.4.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

|                |   |
|----------------|---|
| Section 2.2.2  | General Waiver Authority  |
| Section 2.3    | Proposed Approach to Determining Volume Requirements                        |
| Section 2.3.1  | Congressional Intent to Increase Volumes                                    |
| Section 2.4.1  | Proposed Total Renewable Fuel Volume for 2014                               |
| Section 2.4.2  | Proposed Total Renewable Fuel Volume for 2015                               |
| Section 2.4.3  | Proposed Total Renewable Fuel Volume for 2016                               |
| Section 2.7.3  | Impacts on Corn Ethanol   |
| Section 3      | Proposed National Volume Requirement for Biomass-Based Diesel for 2014-2017 |
| Section 6      | Treatment of Carryover RINs   |
| Section 7.1    | General Comments on Economic Impacts  |
| Section 7.5    | Retail Fuel Prices  |
| Section 7.6    | Energy Security   |
| Section 7.7    | Impact on Jobs and Local/State Economy                                      |
| Section 7.8    | Cost to Consumers   |
| Section 10.6.1 | Legislative Changes   |
| Section 10.6.4 | Ethanol Impacts on Engines  |
| Section 10.6.5 | Other Information and Ideas to Overcome Current Challenges                  |

## **2.6.2 Assumptions of Zero Volumes for E0 and E15**

### **Comment:**

#### **American Automobile Association (AAA)**

In recent years, we have communicated our concerns to the administration, Congress and regulators regarding the RFS's heavy reliance on one particular blend of fuel, E15. Our concern

was primarily related to the relatively few number of vehicles warrantied to operate on a fuel with an ethanol content higher than 10 percent, and the high potential for consumers to inadvertently misfuel their vehicles thereby voiding the vehicle's warranty. AAA continues to believe that E15 is not ready for primetime - the proper protections have yet to be met to prevent misfueling and more consumer engagement and awareness is needed as E15 continues to enter the marketplace.

The average vehicle is expected to be on the road for 11.4 years, and the majority of vehicles in the legacy fleet were not designed to run on blends higher than 10 percent ethanol. Although automakers are increasing the availability of vehicles warrantied to run on E15, a recent AAA analysis shows that the number of vehicles capable of running on E15 is just more than 10 percent. Without the appropriate consumer safeguards being put in place, as the availability of higher blends of ethanol enter the market, AAA asserts that many motorists are being put at risk of misfueling their vehicle. The percentage of ethanol blended into the fuel supply is often a highly politicized topic and AAA does not oppose the use of ethanol or the RFS. Ethanol blends can provide motorists with additional refueling options at the pump that promote energy security and independence and supports jobs. We recognize these benefits, but strongly believe that these fuels should be incorporated into the market in a manner that does not put consumers and their vehicles at risk.

Also, as noted in a number of other public comments AAA submitted to the EPA, we believe that the current measures being taken to prevent misfueling are insufficient. Simply labeling a fuel distribution nozzle and/or pump puts the average driver at unnecessary and unacceptable risk. History has shown that labels are not enough to prevent misfueling, and we ask that additional steps be taken to ensure the consumer is adequately protected. For example, utilizing technology in a manner that makes misfueling nearly impossible, and/or completely redesigning the pump and nozzle to be compatible only with vehicles capable of running on higher blends of ethanol would help mitigate the risk. Taking either of the abovementioned steps will be imperative, as higher blends of ethanol and other alternative fuels are considered for sale. [EPA-HQ-OAR-2015-0111-2037-A1 p.1-2]

#### **American Coalition for Ethanol (ACE)**

EPA has estimated E15 sales nationally were only 40 million gallons in 2014. While EPA's memorandum outlining that projection was well-reasoned and mathematically correct, it failed to take into consideration historical ethanol marketing realities and how retail fuel markets actually function. [EPA-HQ-OAR-2015-0111-2543-A2 p. 11]

This year, a few days prior to EPA's release of the proposed 2014, 2015, and 2016 RVOs, the National Renewable Energy Laboratory (NREL) released a much more in-depth study that concluded, among other things, "the majority of installed tanks can store blends above E10."<sup>11</sup> [EPA-HQ-OAR-2015-0111-2543-A2 p. 12]

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<sup>11</sup>. E15 and Infrastructure. K. Moriarty, National Renewable Energy Laboratory. J. Yanowitz, Ecoengineering, Inc. May 2015. <http://www.nrel.gov/docs/fy15osti/64156.pdf>

#### **American Council on Renewable Energy (ACORE)**

According to a study by the National Renewable Energy Laboratory, USEPA's assumption that fuel tanks cannot be used to store E15 is incorrect, "as the majority of installed tanks can store blends above E10."<sup>22</sup> [EPA-HQ-OAR-2015-0111-1926-A1 p.8]

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<sup>22</sup> E15 and Infrastructure. National Renewable Energy Laboratory (NREL), May 2015, <http://www.nrel.gov/docs/fy15osti/64156.pdf>

### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

the Proposed Rule mistakenly underestimates and ignores consumer demand for E0. This flawed assumption overstates the ability of the market to "absorb" ethanol in gasoline (*i.e.*, overestimates the point at which the blendwall becomes binding). [EPA-HQ-OAR-2015-0111-1948-A1 p.7]

EPA has not acknowledged the significant vehicle compatibility issue with E15. According to the automobile manufacturers, only those vehicles whose owners' manuals specifically state that they are designed for E15 can safely use this fuel. The American Automobile Association's ("AAA's") calculations indicate that only about 10 percent of the vehicles on the road today can use E15, including flex fuel vehicles.<sup>5</sup> Moreover, tests designed by automobile manufacturing company engineers and conducted by the Coordinating Research Council ("CRC"), demonstrate that ethanol blends above 10% can damage vehicle engines and fuel systems. EPA's substitution of its judgment in place of that of the automobile manufacturers is misplaced and not entitled to deference. Vehicle warranties and guidance in owners' manuals present an objective resource that the Agency should rely on with respect to E15 compatibility. [EPA-HQ-OAR-2015-0111-1948-A1 p.7]

EPA included a memorandum in the docket that attempted to estimate how much E0 the recreational boating industry demands.<sup>10</sup> The methodology was based on sales of gasoline additive from one supplier that serves 640 out of about 3,000 U.S. marinas. The additive is designed, among other things, to mitigate some of the E10 problems recreational boats experience. The additive is optional, making it a poor metric for determining E0 demand. EPA arbitrarily extended that limited information to all marinas without validation and assumed marina use represented all recreational boating consumption. Many recreational boaters fill up at retail stations outside of the marina. EPA's assumption that E0 refueling occurs primarily at marinas is not correct and significantly underestimates recreational boating E0 demand. [EPA-HQ-OAR-2015-0111-1948-A1 p.9]

Another indication that the EPA memorandum underestimates U.S. recreational marine gasoline demand stems from the fact that the memorandum estimates that all U.S. recreational marine gasoline sold (not just E0) was 248 million gallons, which differs significantly from EPA's own non-road model estimates of almost 1.7 billion gallons consumed by recreational boaters in 2012.<sup>11</sup> [EPA-HQ-OAR-2015-0111-1948-A1 p.9]

The Agency also does not address E0 demand from other sectors such as small engine use, antique cars, etc. While we do not know of other sector-specific E0 demand data, these sector needs for E0 must be acknowledged. [EPA-HQ-OAR-2015-0111-1948-A1 p.10]

Today, the overwhelming majority of vehicles have neither been certified nor warranted for ethanol blends above 10 volume percent, and every automaker has declined to extend warranty coverage if its legacy vehicles are operated using E15.<sup>47</sup> [EPA-HQ-OAR-2015-0111-1948-A1 p.28]

Given that states require this certification and that dispensers have useful lives greater than 20 years, the vast majority of dispensers in the country are not currently authorized to dispense E15. The same issue exists with the underground storage tanks and piping systems. Approximately 96% of the gasoline stations in the country are independently owned and it is beyond the control of the obligated parties to require investments to make those stations compliant.<sup>59</sup> [EPA-HQ-OAR-2015-0111-1948-A1 p.32]

EPA must avoid promulgating a rule that would require the manufacture and sale of a fuel product (E15) that carries with it a number of substantial (and unresolved) liability issues. [EPA-HQ-OAR-2015-0111-1948-A1 p.34]

### E15 Liability

Comments from ethanol advocates including Poet point to branding agreements as a restriction on E15 availability.<sup>10</sup> Gasoline retailer associations PMAA, SIGMA and NACS make clear the primary obstacles to offering E15 are a lack of demand, equipment compatibility and potential liability concerns. PMAA states: “Consumer and retailer acceptance of E15 will determine the pace of market growth for E15. In the near term, E15 will be offered at very few gas stations.”<sup>11</sup> SIGMA and NACS detail the groups’ concerns over potential liabilities from using incompatible equipment, misfueling, and voiding warranties for legal and unapproved use.<sup>12</sup> We encourage EPA to review comments from PMAA, SIGMA and NACS in detail. Refiner brands share many of these concerns. [EPA-HQ-OAR-2015-0111-3526-A2 p. 2]

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<sup>5</sup> Green, Michael. *The Real Facts on AAA and Ethanol*; AAA Newsroom at: <http://newsroom.aaa.com/2013/12/the-real-facts-on-aaa-and-ethanol/> Accessed July 18, 2015.

<sup>10</sup> “Estimating E0 Volume Sold in the U.S. at Marinas,” memorandum from Lester Wyborny to EPA, docket EPA-HQ-OAR-2015-0111-0009.

<sup>11</sup> Transportation Energy Data Book, Edition 33, Oak Ridge National Laboratory, Table 9.6 (July 31, 2014) (derived from 194.7 trillion BTUs).

<sup>47</sup> [http://sensenbrenner.house.gov/UploadedFiles/E15\\_Auto\\_Responses.pdf](http://sensenbrenner.house.gov/UploadedFiles/E15_Auto_Responses.pdf)

<sup>59</sup> PMAA letter to Chairman Upton and Ranking Member Pallone, House Committee on Energy and Commerce, May 1, 2015.

[http://www.pmaa.org/weeklyreview/attachments/PMAA\\_Rebuttal\\_RFA\\_April\\_2015\\_FINAL%20.pdf](http://www.pmaa.org/weeklyreview/attachments/PMAA_Rebuttal_RFA_April_2015_FINAL%20.pdf)

<sup>10</sup> EPA-HQ-OAR-2015-0111-2481 p. 20

<sup>11</sup> EPA-HQ-OAR-2015-0111-1197

<sup>12</sup> EPA-HQ-OAR-2015-0111-1921

### **American Motorcyclist Association**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 183-184.]

Regarding E0, the EPA discounts it and does not factor it in in its scenarios. The EPA views E0 as a constraint on the volume of ethanol that can be consumed and expects such volumes to be lower than they were in the past as the market tries to expand consumption of ethanol under the influence of the RFS program. This statement contradicts the data from the Federal Energy Information Administration that shows that demand for E0 rose from 3.4 percent in 2012 to nearly 7 percent in 2014. Consumers want E0 for their motorcycles, ATVs, boats, lawn mowers, and other equipment because it does not pose the risk of engine and fuel system damage.

The AMA urges the EPA to not increase and instead to lower the proposed volumes when the final rule is issued November 30th. Proposed volumes would increase the risk of inadvertent misfueling for motorcyclists and all-terrain vehicle owners by forcing the widespread availability of higher ethanol fuel blends, such as E15. [Docket Number EPA-HQ-OAR-2015-0111-1043, p. 182.]

### **Association of Nebraska Ethanol Producers (ANEPP)**

With respect to the RFS, USEPA has already approved a 15% blend of ethanol with gasoline for any automobile built after 2001. A transition to E15 would increase the biofuel consumption by approximately 50% compared to the current E10 blend. Such actions would dismantle the so-called 'blend wall' and make petroleum industry arguments against achieving the statutory RFS volumes moot. [EPA-HQ-OAR-2015-0111-1809-A1 p.4]

E15 would also allow for a decreased public exposure to aromatic hydrocarbons as BTEX and benefit the nation's fight to reduce PM-10/PM-2.5 and ambient ozone levels. [EPA-HQ-OAR-2015-0111-1809-A1 p.4]

### **Association of Nebraska Ethanol Producers (ANEPP)/Schmit Industries, Inc.**

Just as the Nebraska Legislature led the nation in calling for the removal — of lead from gasoline that same institution today is asking that your Agency expedite the removal of cancer causing aromatics from gasoline by insisting that petroleum retailers make available to the public E-15 ethanol blends with gasoline. That increased level of ethanol will produce a more environmentally friendly fuel. We will never know how many millions of our citizens have died or suffered needlessly because the petroleum companies continued to use lead as an octane enhancing element many years after they knew it was dangerous to human health. We should not allow the same entities to continue to use health endangering aromatics one day longer than necessary when a safe additive like ethanol is available. [EPA-HQ-OAR-2015-0111-1956-A2 p.1]

I hope that your Agency, encouraged by Senator Haar's Letter, will use your authority in the future as you have in the past to insist that the petroleum industry make available to the public the most environmentally favorable fuel possible, E-15. [EPA-HQ-OAR-2015-0111-1956-A2 p.1]

### **Aventine Renewable Energy**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 353-354.]

First, the obvious one is the EPA ruling resulted in ethanol demand destruction of a billion gallons a year. So the ruling, right off the top, a billion gallons is erased in terms of the mandate.

A third consequence is because of the price of the D6 RINs has been reduced by 30 cents a gallon, the market is now disincentivizing blender pumps whereby higher rates of E15, E20 of ethanol are blended. All of these are examples of the immediate unintended consequences of the recent EPA decision.

There has been \$50 billion spent in ethanol for 15 billion gallons of new production, and all of a sudden, the EPA is changing the rules of the game. The United States ethanol policy is the most, single most successful renewable energy program in the world in scope and in size and in everything else. Yet the EPA must not like the success because they've demonstrated the actions and are reducing actual physical demand for ethanol.

**Board of Commissioners, Mercer County; Crawford County; Greenville-Reynolds Development Corporation; Office of Commissioners, Lawrence County, Pennsylvania**

There are significant reasons that mandated ethanol blend rates should be lowered. They include:

**2. No consumer demand for E85 and E15.** The administration should not try to force the use of fuels like E85 and E15 for which there is no significant consumer demand while trying to eliminate fuels like E0 for which actual consumers have shown a substantial demand.

- 90% of cars on the road today are designed to use ethanol blends of 10 percent or less and only 6 percent of the current vehicle fleet can use E85.
- E85 has 30% loss in fuel economy, and according to AAA, is more expensive per mile driven.
- E85 demand is only 0.15 percent of overall gasoline demand; and demand, in recent years, has been relatively flat, despite more stations offering E85 as an option.
- EPA needs to acknowledge the real demand for EO - non-ethanol gasoline. Consumers want EO for their boats, for lawn equipment, and for motorcycles and older vehicles. [EPA-HQ-OAR-2015-0111-1666-A1 p. 2]

**Chevron**

In its comments, Protec Fuel mischaracterizes a 2011 communication from Chevron to its branded reseller customers, including it as an example of 'actions taken by obligated parties to discourage growth of E15 and E85 adoption'<sup>1</sup> and concluding that it 'contradict[s] what is being stated by obligated parties, namely major oil companies.'<sup>2</sup> We disagree with Protec Fuel's characterization as it is ultimately the decision of the independent retail outlet owner on what products to offer. [EPA-HQ-OAR-2015-0111-3527-A1 p.1]

A copy of this 2011 communication from Chevron is attached as Exhibit A. In addition, Protec Fuel inaccurately claims in its comments that 'Chevron Corp. prevents the selling of E15/E85 at all stations.' This statement is incorrect, and we explain below why Protec Fuel's claim is wrong. [EPA-HQ-OAR-2015-0111-3527-A1 p.1]

Under our long-standing policy and practice, the operators of Chevron® and Texaco® branded motor fuel retail outlets may sell, in addition to our branded products, motor fuels from a source other than Chevron, including alternative or renewable fuels like E15 and E85. We only require that retailers do so in a way that (1) avoids consumer confusion over the source of the products sold and infringement of Chevron's trademarks, and (2) complies with Chevron's retail outlet image standards and applicable laws. Chevron provides written guidelines to help retailers implement non-Chevron product offerings at stations in our branded network. A copy of those guidelines is attached as Exhibit B. They state that 'non-Chevron branded motor fuels can also be sold in conjunction with Chevron branded fuels under the branded canopy when proper care is taken to clearly identify them as 'Not a Chevron Product'.'<sup>4</sup> The letter in Exhibit A simply serves as a reminder of this Chevron policy. [EPA-HQ-OAR-2015-0111-3527-A1 p. 1-2]

Chevron supports the responsible development of biofuels. The United States needs all sources of commercially viable energy and biofuels are an important resource. Almost all of Chevron's gasoline now contains up to 10 percent ethanol and we have spent millions of dollars to enable ethanol blending at our motor fuel terminals. We have also been actively engaged in efforts to develop technologies for converting biomass into transportation fuels at commercial scale. [EPA-HQ-OAR-2015-0111-3527-A1 p.2]

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<sup>1</sup> Steve Walk, Prater Fuel, Comments to Docket ID No. EPA-HQ-OAR-2015-0111, July 16, 2015, page 6.

<sup>2</sup> Ibid. page, page 9.

<sup>3</sup> Ibid, page 7.

<sup>4</sup> Chevron Retail Image Guidelines, Section 12.2

### **Clean Air Task Force**

Many gasoline retailers have been reluctant to sell higher blends, particularly E15, due to concerns about the likelihood of misfueling, the possibility that they could be held liable for engine damage, and the cost of installing specialized tanks and pumps.<sup>9</sup> [EPA-HQ-OAR-2015-0111-1828-A1 p.4]

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<sup>9</sup> See, e.g., Global Automakers Responses to House Energy and Commerce Committee's Stakeholder Questions Regarding the Renewable Fuel Standard (April 5, 2013)

### **Conestoga Energy Partners Holding**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 248-249.]

Purpose of the blending credit that expired 2011 was to help the obligated parties offset the cost of infrastructure. They knew this day was coming. They didn't use the money wisely. The blending wall was self-induced and meant to keep the consumer from having a choice of fuel at the pump. E15 is the most widely tested fuel we've ever had, and it's been proven safe. And all we're asking is that Congress keep its word, allow the program to work, and sunset at its conclusion.

## **Conference of Professional Operators for Response Towing**

C-PORT, on behalf of the hundreds of small marine assistance business owners whose livelihood depends on a vibrant boating community, asks that the EPA reconsider its position of increased blends. We urge the agency to ensure that the boating industry isn't threatened by dangerous fuels and ensure that the blendwall isn't breached. [EPA-HQ-OAR-2015-0111-1718-A1 p. 1]

## **DuPont**

This [May 2015 NREL] report and its findings provide overwhelming support that the marketplace is well suited for adopting higher biofuel blends and is in direct conflict with EPA's assertion that "For ethanol blends, there are both legal and practical constraints on the amount of ethanol that can be supplied to the vehicles that can use it..." [EPA-HQ-OAR-2015-0111-1826-A1 p.19]

## **East Kansas Agri-Energy, LLC (EKAE)**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 287.]

I am against the EPA proposal to change the Renewable Fuels Standard by lowering the ethanol volume requirement for three primary reasons. The current RFS is working and meeting the intended objectives. It was passed by Congress in 2005 in an effort to primarily decrease our dependency on foreign oil and to produce a fuel that is safer to the environment. Over 14 billion gallons of ethanol are being produced per year and has allowed the U.S. to become less dependent on foreign oil. In addition, ethanol has contributed to lower prices at the pump as the big oil companies, despite what they may say, have enjoyed the ability to blend ethanol to attain the required octane rating at a lower cost. The production of U.S. ethanol over the RFS requirement has allowed us to also meet a growing global need, but in a more volatile export market. The belief by the agency that there is "inadequate domestic supply" is simply inaccurate.

## **ExxonMobil Refining & Supply Company**

What is clear is that the distribution and sale of E15 and other mid-level ethanol blends creates real risks not only for automobile owners and drivers (*e.g.*, potential vehicle or engine damage; warranty voidance; lower mpg), but also for automobile makers, fuel manufacturers and service station retailers (*e.g.*, potential consumer dissatisfaction; harm to brand and business reputation). Moreover, these risks may become potential business or legal liabilities for obligated parties, fuel distributors/retailers, ethanol producers, and vehicle and engine manufacturers. [EPA-HQ-OAR-2015-0111-2270-A1 p.6]

In the same vein, E15 fuel blends are not compatible with, or manufacturer-approved for, many types of existing fuel storage and/or dispensing facilities such as underground storage tanks, fuel lines and dispenser pumps. Through the use of mid-level ethanol blends, service station owners and operators may put their equipment at risk of failure; may violate any number of federal, state or local laws or regulations governing fuel storage and distribution; and may compromise their station insurance policies or dealer agreements. [EPA-HQ-OAR-2015-0111-2270-A1 p.7]

### **Farmers Cooperative Company**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 249-251.]

The main point EPA makes for lowering the volume obligations is that America is up against a so-called blend wall for ethanol. A simple solution to this concern is the E15 ethanol-blended gasoline. However, due to EPA's flawed RVP policies, E15 has run up against a wall of restrictions that do not fairly allow it to be sold in the same manner as E10. While E10 and E15 have similar RVPs, E10 is the only blend that is allowed the 1-pound summer exemption. At our ethanol blending sites, E15 accounts for only 11 percent of our ethanol blend sales, and that percentage stays the same all year round, even with the summer sales restriction. The reason, I believe, is because motorists are confused. The average person on the street does not want or need to understand the technical and mostly political reasons why E15 is restricted during the summer months while E10 can be purchased all year. The consumer wants a consistent type of fuel to use in their vehicles all year round. Granting E15 the same 1-pound waiver as E10 in the summer would enable E15 to become the new standard fuel sold in the United States, reducing ethanol demand by 50 percent. The fuel distribution terminals owned by the big oil companies would have no choice then but to meet demand and make E15 an available choice at the racks. Better policies need to be enacted to make higher ethanol blends available at the consumer level as well.

So the State of Iowa has made great strides in the offering of incentive programs to build the infrastructure to dispense these higher ethanol blends. However, in my travels to other areas, it has been difficult to locate ethanol blends higher than E10. Working with these areas to help set up incentive programs and educate retailers and consumers alike will be another large step to increase our renewable fuels usage across the United States.

### **Governor of Iowa, et al.,**

State leaders also call on the EPA and Federal leaders to eliminate summer blending restrictions for E15 that impose a significant artificial barrier for consumers to access E15 in the summer months by granting the one pound waiver to equalize the vapor pressure regulations for E10 and E15. Further, we call on Federal leaders to investigate restrictive branded oil contracts that outright prohibit the sale of E15 or make it so cumbersome or costly to offer a non-petroleum controlled product. Further, the EPA should replace the use of harmful aromatics with use of cleaner burning ethanol. [EPA-HQ-OAR-2015-0111-1915-A1 p.2]

### **Green Plains, Inc.**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 251-252.]

The RFS should be used as the vehicle for higher ethanol blends in the United States. It has been the most successful energy legislation in this country's history and has reduced our dependence on foreign oil, cleaned the air we breathe, created jobs across rural America, and created a strong secondary market for farmers to sell their corn. More ethanol into the fuel supply is a positive for not just the Midwest, but for the United States. As an industry, we have successfully introduced higher blends into the marketplace, proving that there is no blend wall. E15 is growing in

availability to drivers on the road today, and more and more manufacturers are certifying E15 for use in their new models. Many retailers like Kum & Go, Mapco, and Sheetz, Cenex, Murphy, and Minnoco have committed to providing their consumers with the opportunity to choose which blended fuel works best for them. Moving to E15 means more jobs here at home, more octane in your gas tank, and an even cleaner-burning fuel and, more importantly, giving consumers the right to choose.

## **Growth Energy**

One would naturally then expect to find somewhere in the proposal or EPA's supporting materials, some analysis explaining why the number of E15 stations could not grow significantly in the next year if provided incentive to do so under the RFS program, or a concrete assessment of how many drivers might actually have warranty concerns. Yet, EPA provides nothing of the sort. Rather, EPA takes the 100 stations offering E15 as a *given*, without any justification, and proceeds to estimate how much incremental ethanol would be sold through those same stations.<sup>241</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.42]

The first readily available path for bringing E15 to market would be to start blending it at the terminal. [EPA-HQ-OAR-2015-0111-2604-A2 p.43]

Once terminals start offering E15—which would happen if EPA actually adhered to the volume requirements mandated by Congress and E15 proved to be a relatively cost-effective means for obligated parties to comply—stations would require very little additional investment to receive and dispense E15. Most stations are already E15-compatible.<sup>250</sup> The vast majority of stations already have a tank compatible with E15.<sup>251</sup> Both manufacturers of fuel dispensers fully warranty their standard dispensers for E15 usage.<sup>252</sup> Stations would only need to purchase a retrofit kit, which costs \$2,000 per dispenser including installation, in order to comply with any Underwriter Laboratories listing requirements.<sup>253</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.44]

With respect to piping and other equipment, Stillwater explains that the costs of upgrading depend on how recently the station has been upgraded. Stations upgraded in the last five years will have already done the work to get most of their equipment E15-compatible, because since 2010, the equipment used in these upgrades has been E15-compatible, even if the station was not seeking to add E15.<sup>254</sup> It would cost these stations only \$1,000-\$1,500 to upgrade, on top of the retrofit kits.<sup>255</sup> Stations that last upgraded longer ago than that would cost \$7,000-\$8,000, in addition to the dispenser retrofit kit.<sup>256</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.44]

Stillwater conservatively estimated that under current regulations E15 sales could generate an incremental 1.6 bil gal of ethanol consumption in 2016, by displacing 32 bil gal of E10 sales in strategically targeted parts of the country. [EPA-HQ-OAR-2015-0111-2604-A2 p.45]

Applying a layered phase-in that takes advantage of the industry's seven-year upgrade cycle but does not begin until after EPA finalizes the volumes on November 30, 2015, Stillwater presents a terminal-blending scenario in which the market achieves 710 mil gal in incremental ethanol distribution through E15 over the course of 2016.<sup>269</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.46]

All told, Stillwater calculates that this expansion could be achieved with approximately \$255 million in total costs.<sup>273</sup> Stillwater also explains why this scenario is quite realistic with the right price incentives, even though it envisions upgrades at approximately 32,000 stations over

2016.<sup>274</sup> Because the market regularly handles upgrades at 22,000 stations a year,<sup>275</sup> the number of stations that would be making these E15 upgrades would be on the order of typical upgrade patterns. In fact, the upgrades made by the retrofit kits are orders of magnitude *less* intensive than tearing out and replacing the dispensers at a particular station. The work could proceed in parallel by various contractors, and in the face of EPA enforcing a strong RFS mandate, some stations would be eager to lead the crowd and thereby drive sales. [EPA-HQ-OAR-2015-0111-2604-A2 p.46]

To be sure, achieving this scenario would be difficult if oil companies continue to obstruct E15 at every turn. Refining terminals would have to start offering E15 at the refining terminal, as using blender pumps to achieve the same volumes would be significantly more expensive. And oil companies would have to stop contractually restricting branded stations from selling E15. [EPA-HQ-OAR-2015-0111-2604-A2 p.47]

Based on a conservative analysis of information from automaker manuals and EPA's own models, it is projected that 32.9 million vehicles on the road in 2016 will carry E15 warranties.<sup>290</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.49]

In addition, owners of vehicles that are out of warranty should not be concerned that using E15 could nonetheless void the warranty. It is projected that at least 101.6 million non-FFV MY2001+ vehicles on the road in 2016 will be out of warranty.<sup>291</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.49]

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<sup>241</sup> See EPA 2015 E15 Memorandum.

<sup>250</sup> *Id.* at 27.

<sup>251</sup> *Id.* at 6, 13.

<sup>252</sup> Letter from Patrick Jeitler, Dispenser Project Manager—North America, Wayne, dated Jan. 14, 2014 (attached as Exhibit 5); Gilbarco Veeder-Root, *Gilbarco Expands Standard Fuel Dispenser Warranty From E10 to E15* (Mar. 31, 2010), at <http://www.gilbarco.com/us/content/gilbarco-expands-standard-fuel-dispenser-warranty-e10-e15>.

<sup>253</sup> Stillwater Study at 27 (attached as Exhibit 4); Gilbarco Veeder-Root, *Frequently Asked Questions*, at [http://www.ethanolretailer.com/images/uploads/GilbarcoRetrofitKitE15\(2\).pdf](http://www.ethanolretailer.com/images/uploads/GilbarcoRetrofitKitE15(2).pdf) (explaining UL-listing issue).

<sup>254</sup> Stillwater Study at 27-28 (attached as Exhibit 4).

<sup>255</sup> *Id.*

<sup>256</sup> *Id.*

<sup>269</sup> See *id.* at 25-26.

<sup>273</sup> *Id.* at 29.

<sup>274</sup> *Id.* at 25.

<sup>275</sup> *Id.*

<sup>290</sup> Air, *Analysis of Fleet 2001+ Model*, at 6 (attached as Exhibit 3).

<sup>291</sup> *Id.* at 7.

## **Harrods Creek Boat Owners Association**

But the EPAs proposal also erodes consumer choice in what fuel they put in their boats. While boaters seek out pure gasoline, the agency's proposal assumes consumption of that type of fuel will drop even as recent data shows demand soaring. [EPA-HQ-OAR-2015-0111-1841]

In place of ethanol-free gasoline, the EPA wrongly assumes that more and more boater will use E85. THAT WILL NOT HAPPEN. [EPA-HQ-OAR-2015-0111-1841]

The market, not a mandate, should drive which fuels are available to boaters at the local gas dock. The EPA should lower the volumes for its final ruling to reflect reality of what boat owners really want and what engines really need instead of what the corn lobby demands. [EPA-HQ-OAR-2015-0111-1841]

## **Highwater Ethanol, LLC**

We have identified a few items below which requires immediate attention on the proposed rule from the U.S EPA in regards to the renewable fuels standards.

2. We have seen analysis concluding that the ambitious statutory targets in the Clean Air Act exceed real world conditions.” The EPA should use, and work with, the results of current engineering and scientific studies and the EPA Underground Storage Tank Division to coordinate information and act upon the most recent data and information which supports that E15 can be rapidly deployed into the marketplace as the “new” unleaded regular fuel. [EPA-HQ-OAR-2015-0111-2506-A2 p.2]

5. We are aware that other actions can also play a role in improving incentives provided by the RFS program to overcome challenges that limit the potential for increased volumes renewable fuels. The EPA could address the Reid vapor pressure (RVP) factor so as to enable the legal sale of E15 throughout the entire year rather than for merely a nine-month period from September 16 through June 15. **The EPA already has the administrative authority to immediately resolve the RVP barrier to E15.** [EPA-HQ-OAR-2015-0111-2506-A2 p.2]

## **ICM**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 312-313.]

If you want blending infrastructure rapidly expanded at the retail level, lowering the RVO will have the opposite effect. Instead, extend the 1-pound waiver to higher blends of ethanol, such as E15. The vapor pressure restriction is the biggest roadblock to letting retailers such as Sheetz and Minnoco offering consumers the choice at the pump.

## **Illinois Farm Bureau**

In its proposed rule, EPA points to the ‘ethanol blend wall’ as a reason for reducing the RFS targets for proposed volume requirements. However, EPA has issued provisions allowing for the blending of up to 15 percent ethanol in gasoline for vehicles produced after model year 2001. Vehicles approved for E15 constitute approximately 75 percent of the miles driven in the U.S.

today. However, to date, there has been very little adoption of E15 because gasoline stations are unwilling to put in pumps for this restricted market. [EPA-HQ-OAR-2015-0111-3290-A2 p.3]

### **Indiana Farm Bureau**

In the Proposed Rule EPA pointed to the “ethanol blend wall” as a reason for reducing the RFS targets for proposed volume requirements. However, EPA has issued provisions allowing for the blending of up to 15 percent ethanol in gasoline for vehicles produced after model year 2001. Vehicles approved for E15 constitute approximately 75 percent of the miles driven in the U.S. today. However, to date, there has been very little adoption of this product because gasoline stations are unwilling to put in pumps for this restricted market. [EPA-HQ-OAR-2015-0111-2486-A1 p.3-4]

### **Iowa Corn Growers Association (ICGA)**

One easy step to overcome the “blend wall” includes allowing the sale of E15 year round. The Reid Vapor Pressure (RVP) waiver that has been granted to E10 should also be available to E15 in the same locations. Many local stations, and now larger branded stations like Kum & Go are offering E15. However, they must relabel and change out the hoses on these pumps during the summer months. Allowing the sale of E15 year round would increase its consumer reach and help avoid consumer confusion. It would also clearly make it an easier decision for retailers to install the pumps. Both the state of Iowa and the Iowa Corn Promotion Board are investing in infrastructure to bring E15 and higher blends to market in Iowa. We need the RVOs to be set at levels that drive oil companies and retailers all over the U.S. to invest in the needed infrastructure to be able to sell higher blends. The non-branded retailers who have started selling E15 see great demand for the fuel. Many would like to expand their ability to offer it, but feel hampered by the RVP issue. [EPA-HQ-OAR-2015-0111-1820-A1 p. 3]

**Elimination of the incentive to invest in infrastructure.** EPA’s proposal would let oil companies off the hook from the requirement to blend amounts of ethanol above the “blend wall” in 2014-2016. As a result, RIN prices would continue to fall and the financial incentive to expand E15, MLB and E85 infrastructure would be virtually eliminated. The intent of the law was to do just the opposite and require additional infrastructure investments be made. In addition, Iowa Corn is making personal significant commitments to programs that build out pump infrastructure in Iowa. [EPA-HQ-OAR-2015-0111-1820-A1 p. 6]

### **Iowa Renewable Fuels Association**

There is No Blend Wall; Only Lack of Consumer Access [EPA-HQ-OAR-2015-0111-1957-A2 p. 10]

The large petroleum companies and their trade associations continue to focus their efforts on creating the myth of a blend wall. They seek to create the image of a physical barrier that simply cannot be surmounted in a timely fashion. This is false. The only physical barrier to the greater use of renewable fuels is the inability of the average motorist to pull up to a fuel pump and choose from various fuel options. [EPA-HQ-OAR-2015-0111-1957-A2 p. 10]

This restriction on competition is not the result of consumer preference, equipment availability, or renewable fuel supply. Iowa retailers have had great success with higher ethanol blends like

E15 and E85, when they are allowed to sell it. Customer demand is high. Contrary to the blatantly false claims that a blend wall exists, even more motorists would buy E15 and E85 if it were just available for them to choose. [EPA-HQ-OAR-2015-0111-1957-A2 p. 10]

In a recent poll by the Tarrance Group, when asked if they would consider using E15 if they owned a 2001 and newer vehicle and it was cheaper than E10, an overwhelming 70 percent of respondents said yes. Seventy-six percent of these respondents said they would drive out of their way to buy E15 to save between 5 and 10 cents a gallon if their usual station did not offer E15. (Attachment D) [EPA-HQ-OAR-2015-0111-1957-A2 p. 10] [EPA-HQ-OAR-2015-0111-1044 pp.71-72] [Attachment D can be found on p. 43-46 of docket number EPA-HQ-OAR-2015-0111-1957-A2]

This price-conscious attitude was further confirmed by the National Association of Convenience Stores' Consumer Fuel Survey conducted in January.<sup>37</sup> Approximately two in three consumers consistently shop on price, whether gas was as low as \$1.62 per gallon in 2009 or as high as \$3.28 per gallon in 2013. Even after the sharp gas price declines in late 2014, consumers were still price shopping for gasoline. This proves that motorists are more loyal to their wallets than they are to any store brand. Perhaps this is why branded oil companies are doing everything they can to create the so-called blend wall. Oil companies know that registered E15, as the lowest-cost registered fuel on the market today, would quickly become the most popular fuel among the majority of motorists. [EPA-HQ-OAR-2015-0111-1957-A2 p. 10-11]

Further, it has been suggested that offering higher blends like E15 and E85 is a costly endeavor for retailers. Yet a review of retailers around Iowa (and likely the U.S. as well) shows that it is often the small "ma and pa" stations that are providing the option of higher blends to their customers. On average, these stations should be the least likely to make a risky and expensive investment. If Sparky's One Stop in Bayard, Iowa (population 458) can offer its customers E85, why can't large retailers in large cities? It might have much less to do with "cost" than it does with what brand a retailer flies. [EPA-HQ-OAR-2015-0111-1957-A2 p. 11]

But consumer choice is coming to customers outside of small retailers in small towns as well. Programs such as "Prime the Pump"<sup>38</sup> and USDA's Biofuels Infrastructure Partnership program<sup>39</sup> are focused on high volume stations that will move renewable fuels sales significantly higher. Here in Iowa, one of the largest retailer chains, Kum & Go, recently made a commitment to add E15 to many of its stores over the next year<sup>40</sup> – and we're seeing E15 being adopted by other large retailers in other states as well. [EPA-HQ-OAR-2015-0111-1957-A2 p. 11]

Noting that customers can save 5 to 10 cents per gallon with E15 (compared to E10), Kum & Go's vice president of fuels Jim Pirolli noted: "That could really be a good driver, to be able to save \$1 or \$2 per fill-up. The more stores that are offering it, the better off everyone is. Consumers definitely are."<sup>41</sup> [EPA-HQ-OAR-2015-0111-1957-A2 p. 11]

While this polling and these exciting project announcements should help EPA understand the growth potential for higher blends if made available to the public, what can we actually expect in terms of sales? To answer that, IRFA contacted a number of retailers offering higher blends. Based on their responses, it is clear: there is no blend wall. If consumers are simply given a choice – retailers, obligated parties, and our Nation as a whole will have no problem reaching the

statutory RFS levels in 2016. But more than that, they'd be meeting the ultimate RFS standard for 2022. [EPA-HQ-OAR-2015-0111-1957-A2 p. 11]

The U.S. EIA currently projects 188 billion gallons of gasoline and diesel to be used in 2022. If the RFS goal of 36 billion gallons of renewables was realized (and factoring in biodiesel's RIN equivalent), the 2022 RFS level would be around 18 to 19 percent. [EPA-HQ-OAR-2015-0111-1957-A2 p. 11]

Fuel Time in St. Ansgar, Iowa takes advantage of low-priced E85 in its blender pump to offer E10, E15, E30, and E85. They also offer E0 (no ethanol) to their customers. Even with 10% of their sales going toward E0, their average ethanol content is 34.6 percent. [EPA-HQ-OAR-2015-0111-1957-A2 p. 12]

Fast Stop in Cresco, Iowa offers five levels of ethanol blends through its blender pumps with an average ethanol content of 43.5 percent. Five Star Coop reported that its three blender pump locations averaged an ethanol content of 23.7 percent. These three cases studies are representative of Iowa blender pump stations. All not only exceed the 2016 statutory RFS level, but the 2022 RFS level as well. (Details provided in Attachment E) [EPA-HQ-OAR-2015-0111-1957-A2 p. 12] [Attachment E can be found on p. 47-48 of docket number EPA-HQ-OAR-2015-0111-1957-A2]

You would be hard pressed to find a retailer with a blender pump offering E15 and E85 not meeting that level today. If they also offer biodiesel blends, their own "station RFS" would be even higher. There is no blend wall. There is only a lack of consumer access to higher ethanol blends – a challenge the RFS was specifically implemented to remediate. [EPA-HQ-OAR-2015-0111-1957-A2 p. 12]

### **Remove E15 Vapor Pressure Barrier** [EPA-HQ-OAR-2015-0111-1957-A2 p. 12]

Since the approval of E15 as a registered fuel, the IRFA has focused on making this new fuel widely available so Iowans have access to another fuel choice and the lowest-cost fuel on the market. In addition to being approved by the Agency for all light-duty passenger vehicles 2001 and newer (which accounts for over 80 percent of the U.S. passenger vehicle fleet), there are more vehicles on the road today expressly warranted by the manufacturer for the use of E15 than there are flexible fuel vehicles, diesel vehicles, or vehicles requiring premium fuel. E15 clearly has the potential to become a large market for renewable fuels very quickly. [EPA-HQ-OAR-2015-0111-1957-A2 p. 12] [EPA-HQ-OAR-2015-0111-1044 p.70]

Despite large petroleum companies using restrictive branded supply contracts that either outright prohibit the sale of E15 or make it too cumbersome or costly to offer a non-petroleum-controlled product, the largest obstacle to our efforts to make E15 widely available has been the inability for a retailer to offer E15 year-round. The summer blending restrictions have been the breaking point for several potential E15 retailers. [EPA-HQ-OAR-2015-0111-1957-A2 p. 12] [EPA-HQ-OAR-2015-0111-1044 p.70]

The ability to offer E15 year-round as a registered fuel (as opposed to offering it to only flexible fuel vehicles during summer months) is a serious issue. Retailers who have switched from offering E15 as a "flex-fuel only" to a registered fuel have seen their E15 sales increase by 93 percent. Many Iowa retailers are seeing E15 capture 27 to 47 percent of their total fuel sales

during the “winter” season. [EPA-HQ-OAR-2015-0111-1957-A2 p. 12] [EPA-HQ-OAR-2015-0111-1044 pp.70-71]

Without access to low vapor pressure blendstock during the summer, the sale of E15 in states like Iowa (conventional gasoline only) is essentially prohibited as a registered fuel. During this time, E15 sales plummet. As an example, a retailer in northern Iowa has vigorous E15 sales during the fall and winter; however, during the summer blend season his E15 sales decline by 72 percent. [EPA-HQ-OAR-2015-0111-1957-A2 p. 12] [EPA-HQ-OAR-2015-0111-1044 p.71]

Retailers are unnecessarily losing revenue and also incurring the additional expense of relabeling their registered E15 to sell it as a flex-fuel during the summer months. This is followed by a barrage of inquiries from customers who want to know why they can no longer purchase E15 for their 2001 and newer vehicle. Consumers want more choices and a consistent type of fuel to use in their vehicles all year. Fuel retailers want to meet their customers’ needs, but are hampered by EPA’s flawed policy that failed to equalize RVP limits for E10 and E15. [EPA-HQ-OAR-2015-0111-1957-A2 p. 12-13] [EPA-HQ-OAR-2015-0111-1044 p.71]

With motorists wanting more affordable, American-produced fuel choices, blending more ethanol in gasoline can be done, despite oil companies’ statements to the contrary. Equalizing E15 and E10 RVP limits in the summer would enable E15 to become the “new normal” in the U.S. fuel market, boosting ethanol demand by 50 percent. The fuel distribution terminals owned by oil companies would have no choice then, but to meet demand and make E15 an available choice at the rack. [EPA-HQ-OAR-2015-0111-1957-A2 p. 13] [EPA-HQ-OAR-2015-0111-1044 pp..71-72]

Retailers do not want to restrict the sale of E15 during the summer or take the blame for denying their customers an affordable fuel choice. But until the RVP limit for E10 and E15 are equalized, retailers are becoming the scapegoat for flawed federal policy. IRFA urges the EPA to use its existing statutory authority to equalize the vapor pressure regulations for E10 and E15 as soon as possible. [EPA-HQ-OAR-2015-0111-1957-A2 p. 13]

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<sup>37</sup> “2015 Retail Fuels Report.” National Association of Convenience Stores. Jan 2015, page 10 [http://www.nacsonline.com/YourBusiness/FuelsReports/2015/Documents/2015-NACS-Fuels-Report\\_full.pdf](http://www.nacsonline.com/YourBusiness/FuelsReports/2015/Documents/2015-NACS-Fuels-Report_full.pdf)

<sup>38</sup> Schill, Susanne Retka. “Prime the Pump seeks to expand E15 infrastructure.” *Ethanol Producer Magazine* 10 Dec 2014. <http://www.ethanolproducer.com/articles/11734/prime-the-pump-seeks-to-expand-e15-infrastructure>

<sup>39</sup> “USDA Begins Accepting Applications from States for \$100 Million Biofuels Infrastructure Partnership.” *USDA Office of Communications* 12 Jun 2015 <http://www.usda.gov/wps/portal/usda/usdahome?contentid=2015/06/0170.xml&contentidonly=true>

<sup>40</sup> Oller, Samantha. “With E15 and CNG, Kum & Go fills up on possibilities.” *Convenience Store and Fuel News* Jul 2015. page 73-75 <http://digitaledition.qwinc.com/publication/?i=264019>

<sup>41</sup> Ibid

## **Kansas Farm Bureau**

As noted in the proposed rule, the E10 blendwall is a constraint to renewable fuel use growth. We believe, however, that the current RFS2 program and the Renewable Identification Number (RIN) market are working as intended and can move the US beyond the 10 percent blend wall by producing an incentive for more biofuels to move into our nation's gasoline supply. The next step is to clear the final roadblocks to greater fuel blends; while we applaud EPA for issuing provisions allowing for the blending of up to 15 percent ethanol in gasoline for vehicles produced after model year 2001, more must be done. Vehicles that can use E15 constitute approximately 75 percent of the miles driven in the U.S. today but E15 and higher ethanol blends do not receive the same 1-pound RVP volatility waiver that is granted to E10, which limits summertime sales in many states. This regulatory restriction creates a disincentive for retailers to sell E15 or higher biofuel blends and denies consumers access to a fuel that meets their price and performance needs. For example, ethanol is currently priced \$0.40 per gallon less than a gallon of Reformulated Blendstock for Oxygenate Blending (RBOB) gasoline, meaning that a gallon of E15 is 6 cents per gallon cheaper than a gallon of conventional gasoline with no ethanol. Clearly, there is a financial incentive to blend. The petroleum industry's unwillingness to offer higher blends should not be taken as evidence that the RFS2 is unworkable but rather as evidence that it is unwilling to cede market share and that we have not removed all barriers to increased ethanol use. We ask EPA to grant an RVP volatility waiver for E15 and maintain the 15 billion gallon target for conventional ethanol as written in the RFS2. [EPA-HQ-OAR-2015-0111-1195-A1 p.1-2]

## **Ledgewood Auto Body and Repair LLC**

Need a completely separate fuel station pump for customers if you want high ethanol fuel. In most Midwest states they have separate pumps for different grades of fuel content. It must be done nationwide if you want higher ethanol content in fuel or you may damage anything over 5 years old (internal combustion engine). [EPA-HQ-OAR-2015-0111-1834]

## **Little Sioux Corn Processors**

Across this country, independent retailers are making the necessary moves to market e-15. You notice I say independent operators who are not obligated parties who do not have restrictive contracts prohibiting e-15 under the canopy. Their customers want e-15 and higher blends because of the inherent cost savings and better engine performance that e-15 provides.[EPA-HQ-OAR-2015-0111-1664-A1]

## **Marathon Petroleum Company**

We support the EPA assessment that the E10 blendwall is real and that the obstacles to the sale of large volumes of E15 and E85 are significant enough for those products to be considered non-viable solutions. [EPA-HQ-OAR-2015-0111-1932-A1 p. 1]

The demand for E0 in the United States is not negligible as the EPA stated in the NPRM. In 2013, MPC provided the EPA and the OMB a methodology to calculate the E0 demand using EIA data. An updated graph of E0 demand based on that methodology is included in the AFPM/API comments and demonstrates that the demand for E0 has stabilized at the 3.5 to 5.0% level since 2012. MPC provides E0 to the recreational engine market and our sales are consistent

with the values calculated using the EIA data. MPC supports capping the ethanol content in gasoline at 9.7% by volume to accommodate E0 demand. [EPA-HQ-OAR-2015-0111-1932-A1 p. 3]

We agree with the EPA's assessment that sales of E15 are negligible and can be ignored for this NPRM. In reality, demand for E15 will remain low until three issues related to compatibility are resolved. The solutions to these issues may take close to two decades to be implemented. First, there is the issue of engine compatibility. Although the EPA deemed all 2001 and newer vehicles compatible with E15, the automobile manufacturers disagree. They have consistently stated that vehicle owner's manuals are the source for allowable fuel specifications. AAA has calculated that approximately 10% of the US vehicle fleet, including flex fuel vehicles, is compatible with E15. The DOE, NHTSA and EPA data indicate that it takes 15 to 17 years to turnover the vehicle fleet. This means that the country is years away from having enough of the vehicle fleet turned over to consume significant quantities of E15. Second, most of the retail stations in the country are incompatible with ethanol blends greater than 10%. Prior to 2010, Underwriters Laboratories had not listed a single dispenser as compatible with any alcohol concentration greater than 10%. The same issue exists with underground storage tanks and piping. Most service stations undergo rebuilds every 20 years so it will take a long time to upgrade the service stations. Compounding the issue is the fact that obligated parties do not own about 95% of service stations. Obligated parties have no mechanism to require service station owners to upgrade their equipment. Finally, there are issues with liability associated with mis-fueling. As we stated earlier, the EPA's waivers exclude large classes of vehicles and engines from using E15. How do service station owners and obligated parties protect themselves from people who mis-fuel their engines and damage them or cause injury? These three issues need to be resolved before E15 will become a significant part of demand. [EPA-HQ-OAR-2015-0111-1932-A1 p. 3]

### **Marine Retailers Association of the Americas (MRAA)**

Multiple studies have proven that gasoline blended with levels of ethanol higher than 10% poses major problems to marine engines including damage, increased emissions, and catastrophic failure. As you know, boaters are prohibited from fueling their engines with E15. Raising ethanol volumes decreases the availability of fuels with 10% ethanol or lower, and with that lack of availability comes confusion among boaters as to what is appropriate for their boats. Consumer education and safeguards at the pump are woefully inadequate; with the use of a small label on a gas pump the extent of a public campaign. The label is clearly insufficient and is often overlooked by consumers. [EPA-HQ-OAR-2015-0111-1949-A1 p.1]

### **Mass Comment Campaign sponsored by American Ethanol-NASCAR (paper) - (65)**

NASCAR has driven 7 million miles on E15 American Ethanol.

Now it's becoming available to fans in many markets offering:

- Higher octane
- Fuel choice
- Cleaner Air

- Lower Price

Yet, the EPA has proposed REDUCING the amount of ethanol that will be blended next year!

Tell EPA that you and your favorite driver want more ethanol, not less!

[All text can be found in page 2 of EPA-HQ-OAR-2015-0111-2955-A1]

**Mass Comment Campaign sponsored by American Motorcyclist Association (AMA) (web) - (29,379)**

In fact, the proposed rule calls for the changes needed to significantly expand renewable fuel use include, among other items, an increase in E15 use in model year 2001 and later vehicles and an increase in use of E85 use in flex-fuel vehicles. [EPA-HQ-OAR-2015-0111-2049-A1 p.2]

In the proposed rule, the EPA discounts E0 and does not factor it in its scenarios. The EPA views E0 as a 'constraint on the volume of ethanol that can be consumed...and expect(s) such volumes to be lower than they were in the past as the market strives to expand consumption of ethanol under the influence of the RFS program.' This statement contradicts the data from the federal Energy Information Administration shows that demand for E0 rose from 3.4 percent in 2012 to nearly 7 percent in 2014. Consumers want E0 for their motorcycles, ATVs, boats, lawn mowers and other equipment because it does not pose the risk of engine and fuel system damage. Yet, the renewable fuels requirements have marginalized the product in favor of E10 or higher blends. [EPA-HQ-OAR-2015-0111-2049-A1 p.2]

**Mass Comment Campaign sponsored by anonymous 13 (web) - (121)**

While the EPA points out that there isn't adequate infrastructure at the moment to accommodate increasing volumes of ethanol, the EPA ignores two fundamental points. [EPA-HQ-OAR-2015-0111-0106 p.1]

Second, the EPA ignores the current infrastructure evidence compiled by the National Renewable Energy Laboratory (NREL) which found that most existing fuel dispensing infrastructure components in the country are compatible with E15. [EPA-HQ-OAR-2015-0111-0106 p.1]

At minimum, making E15 available throughout the country would help to meet the RVO since E15 can be used by nearly nine out of 10 vehicles on the road. [EPA-HQ-OAR-2015-0111-0106 p.1]

**Mass Comment Campaign sponsored by anonymous 18 (email) - (7560)**

Biofuels, notably ethanol, in concentrations as high as those present in E15 or greater are harmful to most cars on the road, as well as to engines in boats, motorcycles, lawnmowers, and other equipment. Furthermore, gasoline with ethanol is less fuel efficient and requires more fill-ups per miles traveled. Consumers could pay at the pump and possibly even the garage if the biofuels mandate is increased. [EPA-HQ-OAR-2015-0111-0220-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 2 (web) - (2781)**

This damage puts the public at risk-by raising the volume levels, the country will break the 'blendwall' by 600 million gallons next year. It is ever more likely that E15 will be forced on the public. Considering that 97 percent of boaters purchase gasoline at regular fueling stations, the likelihood of accidental misfueling is a very real threat. [EPA-HQ-OAR-2015-0111-0079 p.1]

As you know, this is illegal, as marine engines are prohibited from using E15 and higher blends. Yet to date, the government has failed to implement any legitimate plan or precautionary measures to prevent such misfueling or guarantee the availability of E10 and lower fuels. In absence of a proven misfueling plan and the guarantee for safe fuels, the EPA simply cannot increase the ethanol volumes without jeopardizing millions of marine engines. [EPA-HQ-OAR-2015-0111-0079 p.1]

Thus, I urge the agency to ensure that the blendwall isn't breached and that the boating industry isn't threatened by dangerous fuels. [EPA-HQ-OAR-2015-0111-0079 p.2]

**Mass Comment Campaign sponsored by Minnesota Corn Growers Association - (784)**

Right here in Minnesota, I've seen firsthand the important role that blending ethanol in our fuel supply played in bringing our Twin Cities metro area into compliance with EPA air quality standards. That was back in the mid-1990s. More recently, I've seen E15 rise in popularity and provide Minnesotans with another option at the pump. [EPA-HQ-OAR-2015-0111-2570-A2 p.1]

Minnesota's success in the early days of ethanol and recently with E15 is further proof that the mythical 'blend wall' can easily be toppled. Unfortunately, the oil industry works to block infrastructure like blender pumps, then claims it's unable to meet the blending standards called for by Congress in the RFS. [EPA-HQ-OAR-2015-0111-2961-A1 p.1]

EPA needs to see through the false 'blend wall' argument and hold the oil industry accountable for meeting the goals set forth in the RFS. Corn farmers have stepped up to the plate and efficiently increased production to meet RFS goals. It's time the oil industry does the same. [EPA-HQ-OAR-2015-0111-2961-A1 p.1]

**Mass Comment Campaign submitted by members of the marine industry (email) - (408)**

EPA-HQ-OAR-2015-0111 would greatly increase the availability of fuels with an ethanol concentration higher than E10 because the proposal would cause the country to break the 'blendwall' by 600 million gallons next year, thus necessitating an increase in the availability of E15. This would have an extremely negative impact on our products, and the overall customer satisfaction of marine industry consumers. When a consumer's products are destroyed by fuels higher than E10, my industry risks losing his or her future business permanently. [EPA-HQ-OAR-2015-0111-1477-A1 p.1]

As you know, it is illegal for marine engines to be fueled with E15 and higher blends. Considering that 97 percent of boaters purchase gasoline at regular fueling stations, the

likelihood of accidental misfueling is a very real threat. Yet to date, the government has failed to implement any legitimate plan or precautionary measures to prevent such misfueling, or to guarantee the availability of E10 and lower fuels. [EPA-HQ-OAR-2015-0111-1477-A1 p.1]

In absence of a proven misfueling plan and the guarantee for safe fuels, the EPA would be jeopardizing millions of marine engines if the current proposal came to fruition. Therefore, I urge the agency to ensure that the blendwall isn't breached and that the boating industry isn't threatened by dangerous fuels. [EPA-HQ-OAR-2015-0111-1477-A1 p.1]

**Mass Comment Campaign submitted by recreational boat owners (email) - (17697)**

The proposed Renewable Volume Obligations (RVO) for 2015 and 2016 will force a greater amount of E15 and higher ethanol blends to be pushed on to the American public. It is prohibited to use E15 in my marine engine and it has been shown to cause damage. EPA should set the RVO levels so that I can be assured an adequate supply of fuel that is safe for my family's boating. [EPA-HQ-OAR-2015-0111-1475-A1 p.1]

**Mass Comment Campaign submitted by recreational boat owners (email) - (17697)**

As a recreational boat owner I am deeply concerned with the proposal (EPA-HQ-OAR-2015-0111), which will increase the mandated ethanol volumes in the nation's fuel supply to record levels. If adopted, these obligations will make it more difficult for me to find fuel that is safe to use in my boat's engine. [EPA-HQ-OAR-2015-0111-1475-A1 p.1]

EPA must act to assure there is fuel available that will not put my engine at risk of being damaged and that I will not unintentionally put the wrong fuel in my boat. [EPA-HQ-OAR-2015-0111-1475-A1 p.1]

**Mass Comment Campaign sponsored by American Motorcyclist Association (AMA) (web) - (29,379)**

We urge the U.S. Environmental Protection Agency to not increase, and, instead, to lower the proposed volumes when the final rule is issued this year. The proposed volumes would increase the risk of inadvertent misfueling for motorcyclists and all-terrain-vehicle --owners by forcing the widespread availability of higher-ethanol fuel blends, such as E15. [EPA-HQ-OAR-2015-0111-2049-A1 p.1]

**Minnesota Bio-Fuels Association (MBA)**

The EPA should use, and work in concert with, the results of current engineering and scientific studies as well as the EPA Underground Storage Tank Division to coordinate information and act upon the most recent data and information which supports the proposition that E15 can be rapidly deployed into the marketplace as the 'new unleaded regular fuel'. [EPA-HQ-OAR-2015-0111-1936-A1 p.4]

A vast number of light duty motor vehicles are expected to be fueled with E15 through the existing infrastructure while additional investments are made to expand the availability of higher

blends of biofuels for FFVs and future engines which are expected to require, for instance, at least E30. Thus far, for 2015, Minnesota biofuel producers have worked with the Minnesota Department of Agriculture to put together a potential \$3 million grant package which will include funding to help some fuel retailers tackle simple, low-cost modifications to their fuel dispensers so they can offer E15 as the new regular unleaded fuel.[EPA-HQ-OAR-2015-0111-1936-A1 p.11]

### **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

Correct the NPRM's significant underestimate of the demand for E0. EPA's failure to account for what its own data sources reveal about E0 consumption caused it to significantly understate the gap between the amount of renewable fuel that EPA proposed to mandate in transportation fuels and the amount it assumed the economy was actually on pace to supply in transportation fuels. EPA must revise its mandates for 2015 and 2016 to appropriately account for E0 demand. [EPA-HQ-OAR-2015-0111-2603-A1, p.2]

### **NAFA Fleet Management Association**

Fleet managers were pleased to see the proposal acknowledge the real--world constraints that limit the amount of ethanol that can be safely blended into the fuel supply. EPA's recognition of the 'blend wall' may help protect fleets, and other consumers, from using E15 gasoline in vehicles not designed for its use. [EPA-HQ-OAR-2015-0111-3171-A1 p.2]

Fleet managers are especially concerned that the blendwall would result in the mandated use of E15 – an ethanol blend that we fear will void vehicle warranties, damage engines, and cause damage to underground storage tank systems. As a major consumer of vehicles and engines, we are concerned with the potential impact E15 could have on both light--duty engines as well as non-- covered engines, including engine failure, corrosion, materials incompatibility, catalyst degradation, water--in--fuel and phase separation, higher exhaust temperatures, increased pollution emissions, and reduced life of the vehicle or engine. Our fleet managers take very seriously the statements issued by vehicle and engine manufacturers warning of the potential damage to engines, voided warranties and reduced fuel efficiency. [EPA-HQ-OAR-2015-0111-3171-A1 p.2]

We are also concerned about the increases in fuel system repairs (injectors, fuel pumps, etc.) that could be directly related to ethanol in fuel. For instance, NAFA members that are users of small engines have seen a significant increase in engine failures due to issues with ethanol in the fuel. On many occasions, we have found that the fuel will separate with a small amount of moisture which has led to the additional expense of purchasing fuel conditioners to counter this effect. Put simply, we are now spending more on maintenance and repairs, while the life cycle expectancy of our equipment is reduced – a negative effect on production and profitability that will only worsen with E15. [EPA-HQ-OAR-2015-0111-3171-A1 p.2]

## **National Association of Charterboat Operators**

The fuel standard program being proposed by the EPA increases the amount of ethanol in all fuel sold in traditional outlets throughout the U.S. from 10% to 15% but prohibits the use of E-15 in marine engines. Some 17.5 million charter vessels and private boats in the U.S. consume 1.1 billion gallons of fuel annually. A vast majority of those vessels are trailered – with limited or no access to marina and boat yard fuel pumps. Without adequate land-based access to non-ethanol fuel, a great number of charter skippers with boats on trailers will not be able to provide services to their customers – and millions of sportsmen and recreational boaters who trailer will be greatly inconvenienced. [EPA-HQ-OAR-2015-0111-1812-A1 p.1]

Mandating an ethanol content of 15 percent in the bulk of the nation’s blended fuels also flies in the face of the EPA’s stated effort to reduce the overall consumption of fossil fuels. In 2013, some 3.8 billion gallons of E-10 blend were consumed in marine and other off-road engines. With E-15 physically destructive to, as well as legally banned for use in those engines, the consequence will be a dramatic increase in fossil based fuel consumption. [EPA-HQ-OAR-2015-0111-1812-A1 p.2]

NACO urges the EPA to stop its effort to introduce E15 fuel blends. The adverse effects and costs far out way any benefits the EPA hopes to achieve through this proposed rule. If you have any questions, please contact me. [EPA-HQ-OAR-2015-0111-1812-A1 p.2]

## **National Marine Manufacturers Association (NMMA)**

EPA’s RVOs proposal fails to guarantee the availability of approved fuels, such as E10. While E10 currently remains the predominant supplied fuel, there is no requirement for it to remain so—as obligated parties blend more E15, as will be required as a result of this proposal eclipsing the E10 blend wall, it is possible for retail service stations to eschew E10 options in favor of E15. In fact, per Configuration 1 of the existing Misfueling Mitigation Plan required by station owners dispensing E15, a station with dedicated E15 hoses is under no obligation to have a separate E10 hose on the premises<sup>2</sup>. If the RVOs proposal is enacted, such a scenario is more likely, causing significant problems for boats and other non-approved engines. [EPA-HQ-OAR-2015-0111-1928-A1 p.2]

EPA’s analysis infers that the approximate 124 million gallons of E0 purchased at marinas is the only E0 purchased by boat owners. NMMA strongly disputes this assertion. E0 is being consumed at marinas and at roadside retail service stations across the country, with the latter making up the vast majority of fuel purchases. For a myriad of reasons, boaters typically avoid fueling at marinas—it is common for a marina to charge a premium of between 75 cents and \$1.50 per gallon, marina fueling docks are rare and often have time-consuming traffic on weekends—and since 95 percent of boats are under 26 feet in length, they are frequently hitched to a trailer and fueled at the same time and service station as the towing vehicle. [EPA-HQ-OAR-2015-0111-1928-A1 p.3]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, pp. 189-190.]

Additionally, the proposal fails to guarantee that fuels E10 or lower are universally available at all retail service stations where the vast majority of our consumers purchase fuel. Without the guaranteed availability of approved fuels, a station with a dedicated E15 hose is not required to additionally sell E10 or lower blends. Such a scenario would leave our consumers without appropriate alternatives. Finally, NMMA continues to have concerns over the EPA's misfueling mitigation plan. A lone sticker on a gas pump is insufficient and ineffective. It does nothing to actually inform the consumers, not to mention it is easily lost amongst the signage, advertisements, and other labels common to a modern fuel pump. In absence of a stronger misfueling mitigation plan, the risk to misfueling increases as more E15 comes on the market. The onus to properly warn and educate consumers should rest with the EPA.

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<sup>2</sup> <http://www.epa.gov/OMS/regs/fuels/additive/e15/e15-mmp.htm>

### **National Taxpayers Union (NTU)**

Not only are few consumers able to utilize E85 – the blend that the EPA anticipates will help alleviate the glut of ethanol created by the rule – only 2 percent of gas stations can provide the fuel. This paucity is directly related to the cost of upgrading those facilities, which can run as high as \$200,000. The small business owners who run most gas stations operate on very thin margins and cannot afford such an investment, especially when the return is so uncertain. E15 faces similar demand and infrastructure problems. [EPA-HQ-OAR-2015-0111-3279-A1 p.1-2]

Together, these factors severely limit the potential market for higher blends of ethanol and make it unlikely that there will be a dramatic increase in demand for ethanol in less than six months. Exceeding the blend wall poses a threat of heavier burdens on consumers as refiners will be forced to scale back production. After all, the ethanol blend is only suitable for fuel consumed in the U.S., leaving refiners with much less flexibility in absorbing the financial effects. [EPA-HQ-OAR-2015-0111-3279-A1 p.2]

### **Nestle**

Those who oppose EPA's proposal, and support the original mandates as a kind of 'forcing mechanism,' also ignore the almost complete lack of consumer interest in E15, as well as the problems that fuel would continue to pose to older vehicles and small engines, not to mention the sizeable logistical, capital-investment and liability hurdles facing service station owners who might want to install E15 pumps. Meanwhile, though there is a small E85 market, there is no sign that it is likely to grow sufficiently to offset the blendwall that results when the conventional gasoline supply is saturated at a 10% blend. [EPA-HQ-OAR-2015-0111-1918-A1 p.2]

### **NH Energy Forum**

The current proposal calls for increasing amounts of ethanol to be blended into gasoline for fuels like E85 and E15 for which there is no significant consumer demand- nor the infrastructure in areas such as mine, to allow consumers to fuel their cars. [EPA-HQ-OAR-2015-0111-0282-A1 p.1]

## **North Dakota Corn Growers Association (NDCGA), et al.,**

We have also spent research dollars into infrastructure to assist retail station owners. This investment has primarily been in blender pumps and costs associated with blender pumps. This helps E10, E15 and other ethanol blends become more available to the consumers. It has been a challenge to increase our share of home grown ethanol when the oil companies have been preventing this from happening via contracts with gas station owners. Reducing the RVOs at this time sends a bad signal to the many that have helped our nation become less dependent on foreign oil. [EPA-HQ-OAR-2015-0111-2541-A2 p.1]

In 2009, our state legislature invested in the future of ethanol by passage of game-changing legislation which included \$1 million in grants for biofuel blender pumps and creation of a biofuel blender pump incentive fund. This legislation was unique: its sponsors were the majority AND minority leaders in the state House of Representatives and Senate. In a time of political gridlock, all sides came together to move both the agriculture and energy industries forward by partnering North Dakota's corn fields with our oil fields. [EPA-HQ-OAR-2015-0111-2541-A3 p.2] [EPA-HQ-OAR-2015-0111-1044 pp.182-183]

North Dakota now boasts over 200 blender pumps throughout the state and the use of biofuels has risen by an impressive amount, despite “nay-sayers” trying to contend otherwise. One of the arguments that you will hear is that there is a 10% “blend wall” that cannot be exceeded due to market constraints. Petro Serve USA, a local fuel distributor in North Dakota has numbers – which I am providing to you today – that show this just isn't the case. Two of our states' major fuel markets are Fargo and Bismarck/Mandan. Fargo has three pipelines which converge, and has traditionally had the lowest wholesale gasoline prices in the state. Bismarck/Mandan, which is served by a single facility, has traditionally been 15 to 20 cents per gallon higher than Fargo. [EPA-HQ-OAR-2015-0111-2541-A3 p.2] [EPA-HQ-OAR-2015-0111-1044 p.183]

In reviewing the Petro Serve USA numbers for Fargo stores that distribute E-15 and other Mid-Level Ethanol Blends (MLEB) the overall ethanol volume sales for comparable months show a 9.18% market share in 2013 increasing to 12.54% in 2015. However, the Bismarck/Mandan numbers really deserve your attention. As a higher priced fuel market, the numbers show a jump from 10.09% in January 2013 to 17.26% in April 2015. Looking at their markets overall, the numbers for E-15 and MLEB's are consistently over 12% of volume. This number alone indicates that such a “blend wall” is really a false pretense. [EPA-HQ-OAR-2015-0111-2541-A3 p.2] [EPA-HQ-OAR-2015-0111-1044 pp.183-184]

## **Office of the Lt. Governor, Indianapolis, Indiana**

Greater availability of biofuels will also support broader installation of blender pumps and the manufacturing of more flex fuel vehicles, leading to increased fuel options for consumers, which will put downward pressure on fuel prices and drive our economy forward. [EPA-HQ-OAR-2015-0111-2482-A1 p.2]

## **Ohio Corn & Wheat Growers Association**

As the various checkoff programs invest millions more across the country to partner with fuel retailers, pump manufactures, automakers and many more, it is clear the oil industry actively works to block the use of more biofuels and higher blends. The oil industry will tell you the retailers they work with are independent, yet they neglect to mention all the contracting restrictions and legal roadblocks they use to prevent retailers from selling fuels like E-15. We will not be able to push towards the higher blends needed to fulfill the RFS if the incentive for the oil companies is simply to do nothing. We cannot allow them to continue to block infrastructure and hold the American consumer hostage with their monopolistic practices. [EPA-HQ-OAR-2015-0111-1723-A1 p.1-2]

## **Petroleum Marketers Association of America (PMAA)**

PMAA strongly opposes adoption of ethanol mandates for 2014, 2015 and 2016 that would force the introduction of E\_15 gasoline blends. PMAA firmly maintains there are too many too many infrastructure, liability and marketplace issues related to E15 that prevents significant expansion of national ethanol blending volumes in the short run. Neither existing fueling infrastructure nor consumer demand and acceptance are compatible with the introduction of E-15 at this time. [EPA-HQ-OAR-2015-0111-1197-A1 p.1]

In the near term, E15 will be offered at very few gas stations because:

- . Many retailers may be unable to identify the type of adhesives, gaskets and connectors used in their underground storage tank (UST) systems in order to make a reliable determination of E15 compatibility.
- . Fire codes require UL listed equipment and very little existing infrastructure is listed for E15.
- . E15's impact on air quality such as nitrous oxides (NOx) is not yet known -- air quality regulations will likely exclude E15 from urban markets.
- . Limited underground storage would force retailers to eliminate premium or E10 to make way for E15.
- . Branded supply agreements generally bar retailers from making independent decisions on the type of fuel they sell.
- . Automobile manufacturers have expressed operability concerns over E15 being used in model year vehicles approved for E-15 use under the EPA waiver.
- . Manufacturers of small engines, such as boats, powered garden equipment and motorcycles believe E15 can damage engines, fuel systems and fuel tanks.
- . Retailer liability for consumer misfueling remains a strong disincentive for retailers. [EPA-HQ-OAR-2015-0111-1197-A1 p.2]

The cost to petroleum retailers for UST system retrofit would be enormous. PMAA estimates that the average cost to retrofit a retail gasoline station with E15 compliant equipment to be between \$375,000 and \$425,000 per site. [EPA-HQ-OAR-2015-0111-1197-A1 p.2]

Claims by the ethanol industry that these estimates are exaggerated or that E-15 compatibility is achievable for as little as \$1500 demonstrates a profound lack of understanding of the retail motor fuel industry and the laws and regulations that apply to underground storage tanks on the federal, state and local levels. [EPA-HQ-OAR-2015-0111-1197-A1 p.3]

E15 misfueling is unavoidable. Experience confirms that consumers are often inattentive and distracted when refueling and don't read product information and warnings posted on dispensers. As a result, consumer warning labels will do little to reduce the incidence of E15 misfueling. [EPA-HQ-OAR-2015-0111-1197-A1 p.3]

Given that independent petroleum marketers own and operate approximately 94 percent of all retail gasoline stations nationwide, it is important that the E-15 compatibility issue is a key determinant for establishing annual volumetric blending mandates for obligated parties in the years ahead. [EPA-HQ-OAR-2015-0111-1197-A1 p.4]

### **Poet, LLC**

Dispensing E15 can be readily done by gas stations. Stillwater Associates finds that for "the most part E10 compatible equipment is also E15 compatible."<sup>67</sup> Both manufacturers of fuel dispensers fully warranty their standard dispensers for E15 usage.<sup>68</sup> Stations, if their dispensers are not already compliant, would only need to purchase a retrofit kit, which costs roughly \$2,000 per dispenser including installation, in order to comply with Underwriter Laboratories listing requirements.<sup>69</sup> [EPA-HQ-OAR-2015-0111-2481-A1 p.18]

Stillwater conservatively estimated that under current regulations E15 sales could generate an incremental 1.43 billion gallons of ethanol consumption annually, through sales in strategically targeted parts of the country.<sup>74</sup> [EPA-HQ-OAR-2015-0111-2481-A1 p.18]

Regarding vehicles on the road and E15 use, about 85% of miles traveled and energy consumed are by vehicles currently approved for E15 use.<sup>80</sup> [EPA-HQ-OAR-2015-0111-2481-A1 p.19]

Implementing the E15 pathways described above in time to have an impact on 2016 consumption levels would be ambitious but feasible. Stillwater Associates identifies approximately 1 billion gallons in incremental ethanol distribution through E15 to be feasible in 2016.<sup>82</sup> However, this type of rapid market conversion will only take place if RIN values are at appropriate levels, and the NOPR undermines RIN values. Given that E15 can supplement E85 distribution pathways, pursuing both E85 and the expedited expansion of E15 could enable 2.90 billion gallons of additional ethanol to be delivered in 2016.<sup>83</sup> [EPA-HQ-OAR-2015-0111-2481-A1 p.20]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1044, pp. 200-201.]

When the RFS was passed in 2007, it was anticipated that there would be investment required to break through the E10 blend wall. In theory, the EPA approval of E15 for the majority of vehicles in the U.S. made meeting the statutory blending levels much easier, and yet today, the number of retail stations offering E15 remains negligible despite the fact that ethanol is less expensive than petroleum blend stock and provides higher octane. The EPA has mistakenly interpreted the lack of E15 consumption as lack of consumer demand. In reality, consumers are prevented from buying E15 because the major oil companies refuse to allow market access. None of the major brands allow E15 to be offered under their standard brand agreements and do not offer E15 blends at their blending terminals for their unbranded customers. The handful of private brands that have made voluntary investments in the infrastructure required to offer E15 are proof that meeting the statutory RFS volumes is not only possible, it is profitable.

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<sup>67</sup> Stillwater Study, at 27.

<sup>68</sup> Gilbarco Veeder-Root, *Gilbarco Expands Standard Fuel Dispenser Warranty From E10 to E15* (Mar. 31, 2010), at <http://www.gilbarco.com/us/content/gilbarco-expands-standard-fuel-dispenser-warranty-e10-e15>. Wayne also has indicated that “Our warranty for standard dispensers covers gasoline fuels with up to 15% ethanol content.” (January 14, 2014 letter to dispenser users).

<sup>69</sup> Stillwater at 27; Gilbarco Veeder-Root, *Frequently Asked Questions*, at [http://www.ethanolretailer.com/images/uploads/GilbarcoRetrofitKitE15\(2\).pdf](http://www.ethanolretailer.com/images/uploads/GilbarcoRetrofitKitE15(2).pdf) (explaining UL-listing issue).

<sup>74</sup> *Id.* at 25.

<sup>80</sup> See Growth Energy comments, Section V. C.3, citing Air Improvement Resources, Inc., *Analysis of Fleet Percentage of 2001+ Model Year Group In Calendar Years 2014, 2015, and 2016* (July 27, 2015).

<sup>82</sup> See Stillwater study at 26.

<sup>83</sup> *Id.* at 31.

## **Renew Kansas**

The RFS gives American consumers a true choice at the pump – providing market access for higher ethanol blends like E15. In fact, E15 can now be used by more than 80 percent of the vehicles on the road today. Consumer access to higher blends of ethanol fuel is critically dependent upon the blending obligations established by the RFS. Rather than retreating from the gains that have been made toward our national transportation fuels goals, we urge the EPA to adopt means to encourage the marketing and continued use of E15, E20, and higher ethanol blends, and to increase the number and availability of flex-fuel pumps. Let’s move our nation forward, not backward, by following the renewable fuel volume set forth in the Clean Air Act. [EPA-HQ-OAR-2015-0111-1309-A1 p.4]

## **Renewable Fuels Association (RFA)**

In recent months, major retail chains have announced plans to offer E15 (and, in most cases, E85) at dozens of retail gas stations. [EPA-HQ-OAR-2015-0111-1917-A1 p. 29]

These announcements were followed by similar statements from major retailers Cenex, Petro Serve USA, Kum & Go, Sheetz, and Protec Fuels. Taken together, these retailers will be offering E15 (and, in most cases, E85 as well) from some 300 new stations by late 2016 or early 2017. These investments were undoubtedly facilitated by the expectation that EPA would enforce RFS levels that necessitate moving beyond the so-called “blend wall.” [EPA-HQ-OAR-2015-0111-1917-A1 p. 29]

Given these recent developments in the E15 marketplace, it is surprising that EPA entirely neglected the potential use of E15 in 2015 and especially 2016 as a pathway to compliance with statutory blending requirements. We encourage EPA to reconsider its decision to exclude any potential contribution from E15 in its estimate of potential ethanol consumption in 2015 and 2016. [EPA-HQ-OAR-2015-0111-1917-A1 p. 29]

In addition, based on data from Edmunds, EPA’s MOVES model and other sources, we estimate approximately 83 percent of current light-duty automobiles in service were built in 2001 or later, meaning four out of every five cars and light trucks on the road are approved by EPA to use E15. Further, the use of E15 is explicitly approved by the manufactures of 60 percent of model year (MY) 2014 and 2015 light-duty vehicles sold in the United States.<sup>52</sup>

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52 The 60% figure was derived by examining automaker warranty statements for MY2014 and MY2015 vehicles and automotive sales market share data provided by Motor Intelligence. A full list of recommended gasoline language from MY2012-15 warranty statements is available at [www.ethanolrfa.org](http://www.ethanolrfa.org). For MY 2015 vehicles, see <http://www.ethanolrfa.org/news/entry/automakersapprove-e15-for-use-in-two-thirds-of-new-vehicles/>

## **Senate of Pennsylvania**

The proposed standards ask for an increasing amount of ethanol to be blended into gasoline. These standards will drive fuels such as E85 and E 15, where there is very little consumer demand, but yet greatly reduce ethanol-free fuels (e.g., E0), for which consumers have shown a substantial demand. [EPA-HQ-OAR-2015-0111-3447-A1 p. 1]

## **Society of Independent Gasoline Marketers of America (SIGMA) and the National Association of Convenience Stores (NACS)**

An examination of the shortcomings of a recent National Renewable Energy Laboratory (“NREL”) study regarding infrastructure compatibility with E15<sup>5</sup> illustrates the various liability concerns that retailers face in considering whether to store and sell gasoline-ethanol blends greater than E10. This study, which was commissioned by the Renewable Fuels Association,

addressed the compatibility of E15 with equipment at refueling stations. The study generally concluded that E15 is compatible with most existing equipment, and suggested that retailers can therefore store and dispense E15 in such equipment. This is misleading. In fact, the study's conclusion that E15 is compatible with most existing equipment in no way changes or minimizes retailers' liability concerns. These concerns are grounded in the requirement that retailers store and dispense E15 and higher blends in equipment that is *approved by UL* as compatible with such fuels. [EPA-HQ-OAR-2015-0111-1937-A1 p.6]

Thus, as a practical matter, the NREL study's core shortcoming is the fact that it examines *one* issue – the compatibility of E15 with equipment at refueling stations – in order to reach conclusions about *another* issue – whether retailers can lawfully store and dispense E15 without risk of liability. Indeed, even if – hypothetically – all retail infrastructure could store and dispense E15 without the risk that E15 could damage such infrastructure, retailers that market E15 would be exposed to legal liability on a number of fronts:

*UL Listing* – The NREL study states that UL listing is not necessary in order to store and sell E15. It has no legal basis for reaching this conclusion. [EPA-HQ-OAR-2015-0111-1937-A1 p.6]

As a practical matter, without the ability to verify that their equipment is UL listed to store E15 or other ethanol blends, the retailer is assuming liability risk if he or she stores such fuels. [EPA-HQ-OAR-2015-0111-1937-A1 p.7]

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<sup>5</sup> K. Moriarity and J. Janowitz, "E15 and Infrastructure." National Renewable Energy Laboratory, May 2015, available at <http://www.nrel.gov/docs/fy15osti/64156.pdf>.

### **Specialty Equipment Market Association (SEMA)**

SEMA opposes E15, contending that the fuel poses a risk to nearly 70 million older vehicles in addition to certain specialty high performance equipment installed on newer vehicles. [EPA-HQ-OAR-2015-0111-2490-A1, p.1]

By reducing the required volumes of renewable fuels in American transportation fuel to better reflect marketplace realities, the EPA has an opportunity to reconsider the current artificial mandates for E15 gasoline. Ethanol can cause metal corrosion and dissolve certain plastics and rubbers, especially in older vehicles that were not constructed with ethanol-compatible materials. The EPA recognized this fact when it limited E15 sales to MY 2001 and newer vehicles. However, the EPA only required a gas pump warning label making it "illegal" for the consumer to fuel older vehicles with E15. [EPA-HQ-OAR-2015-0111-2490-A1, p.1]

The EPA estimates that there are nearly 70 million pre-2001 vehicles subject to potential misfueling. This does not include the millions of boats, lawnmowers, handheld equipment, etc. that weren't designed for ethanol. If misfueled, the life span of this equipment can be dramatically reduced and owners could face equipment breakdowns. [EPA-HQ-OAR-2015-0111-2490-A1, p.2]

## **STAR Energy**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 241-243.]

Customers want to choose -- want the choice of E10 and E15. We, as a retail fuel supplier, want to give them this choice. To meet the required vapor pressure, also referred to as RVP, during the summer, we continue to evaluate different options to offer our customers as clean-burning fuel that they desire. Over the past 3 years, we have evaluated the option of bringing in low RVP gasoline from out of State. Due to the transportation cost associated with that, along with much higher cost of the base product, it does not create a viable option. Yes, I could bring this product into our stations and offer E15 as a registered fuel. However, at what cost? We have seen an increase of anywhere from 15 to 28 cents a gallon in the base fuel. I don't believe the answer is to offer higher-priced E15 to local communities during the summer months. I believe that it's time to grant the 1-pound waiver to equalize the vapor pressure regulations for E10 and E15 during the summer months running from June 1 to September 15th. It is time to allow my customers the right to choose the lowest-cost ethanol-blended gasoline during the summer months. I am confident that if we could offer this blend year around without the current restrictions, many of my customers would choose E15. It's time for the EPA to grant a waiver for E15.

## **The Boat Owners Association of The United States (BOATU.S.)**

On a regular basis our members tell us they have a preference for gasoline without ethanol altogether. In active recreational boating areas one will find numerous gas stations and marinas offering ethanol-free gasoline or E0. And this fuel is often at a premium prices as compared to fuel containing ethanol. Clearly, there is a boating consumer preference for E0 when it is available. We are concerned that the proposed RVOs will make it increasingly difficult for boaters to find E0. By EPA's own calculations, if the proposed levels are adopted, the petroleum industry will only be able to produce 130 million gallons of E0 as compared to 9.3 billion gallons of E10 consumed in 2014. This is a 98.5% decrease in the availability of E0. [EPA-HQ-OAR-2015-0111-2265-A1 p. 1]

We question EPA's calculation of the E0 demand from recreational boating. The source for the projected demand<sup>2</sup> relies upon a limited review of information and does not fully capture the recreational boating fuel market. The memo presumes that the only demand for E0 from recreational boats would come from marina fuel sales. In reality, 95 percent of all recreational boats are less than 26 feet in length, the size considered "trailerable" and are far more likely to fuel at conventional gas stations. EPA should reevaluate the demand for E0 from the recreational boating market. [EPA-HQ-OAR-2015-0111-2265-A1 p. 2]

The increased level of E15 in the marketplace in response to the proposed RVOs is a substantial concern for recreational boat owners. It is well established that E15 will cause damage to marine engines.<sup>3</sup> With E15 now approved for sale in approximately 24 states, it is increasingly likely that boat owners will see it where they fuel. With only one small required warning label on pumps dispensing E15, the prospect of mis-fueling of boats is significant. [EPA-HQ-OAR-2015-0111-2265-A1 p. 2]

On behalf of The Boat Owners Association of The United States, BOATU.S., we submit the following comments to express our significant concerns with the proposed standards and renewable volume obligations (RVO) for the Renewable Fuel Standard (RFS) Program, Docket ID: EPA-HQ-OAR-2015-0111. With over a half-million members nationwide and the largest provider of non-emergency recreational boat towing services, we have a unique perspective on the effects this proposal will have on the recreational boating consumer. [EPA-HQ-OAR-2015-0111-2265-A1 p. 1]

EPA must carefully weigh the impact the proposal will have on the availability and affordability of gasoline that is safe for use in marine engines. Boat owners recognize that renewable fuels are an important component of our nation's energy future. They also expect, however, EPA to ensure the fuel in the marketplace will not damage their engines and place their families at risk on the water. [EPA-HQ-OAR-2015-0111-2265-A1 p. 2]

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2. EPA Memorandum "Estimating E0 Volume Sold in the U.S. at marinas" 2015

3. High Ethanol Fuel Endurance: A Study of the Effects of Running Gasoline with 15% Ethanol Concentration in Current Production Outboard Four-Stroke Engines and Conventional Two-Stroke Outboard Marine Engines, National Renewable Energy Laboratory 2011

### **Trenton Agri Products LLC**

The RIN system was designed to incentivize petroleum refiners and downstream companies to build out infrastructure accommodating increased ethanol blending all the way to retail distribution. The law was passed nearly 8 years ago. Ample time has passed for all the commercial parties to plan accordingly. For those same parties to say today... 'we don't have the infrastructure in place' for higher level ethanol blends simply means they have been hoping the RFS wouldn't be enforced, as the EPA is now proposing not to do. And for the last several years, as they saw the breach of the blend wall coming, they have been saying the 'RFS is broken' and rallying other unrelated parties into the falsehoods of 'food fights' and other forms of demagoguery. What they are really messaging is 'we refuse to give up any more market share to ethanol' and accordingly, they will do anything to prevent the US consumer from having a true choice at the gas pump. [EPA-HQ-OAR-2015-0111-1686-A1 p.2] [EPA-HQ-OAR-2015-0111-1043, pp.320-321]

These obligated parties have temporarily convinced the EPA to buy into this 'factors that affect consumption' thesis to support the EPA's current, but wrong, proposal.[EPA-HQ-OAR-2015-0111-1686-A1 p.2] [EPA-HQ-OAR-2015-0111-1043, p.321]

### **Volvo Lexington Operation**

This damage puts the public at risk-by raising the volume levels. The country will break the 'blendwall' by 600 million gallons next year. It is ever more likely that E15 will be forced on the public. Considering that 97 percent of boaters purchase gasoline at regular fueling stations, the likelihood of accidental misfueling is a very real threat. [EPA-HQ-OAR-2015-0111-0538-A1 p.1]

As you know, this is illegal, as marine engines are prohibited from using E15 and higher blends. Yet to date, the government has failed to implement any legitimate plan or precautionary measures to prevent such misfueling or guarantee the availability of E10 and lower fuels. In absence of a proven misfueling plan and the guarantee for safe fuels, the EPA simply cannot increase the ethanol volumes without jeopardizing millions of marine engines.

Thus, I urge the agency to ensure that the blendwall isn't breached and that the boating industry isn't threatened by dangerous fuels. [EPA-HQ-OAR-2015-0111-0538-A1 p.1]

### **Wisconsin Corn Growers Association (WCGA)**

The EPA also wrongly backs the so called blend wall, which is a myth put out by big oil. This myth suggests that we've reached a saturation point of ethanol use at a 10 percent ethanol blend and that higher-level ethanol blends, such as E15 and E85, are not yet large enough to justify a higher RVO. That's just false. Ethanol consumption continues to increase and now we have 62 percent of 2015 model new cars warrantied to run on E15 with more retailers adding blending pumps to offer higher ethanol blended fuel. [EPA-HQ-OAR-2015-0111-1830]

### **Response:**

#### *Responses to comments on E0*

In the NPRM we anticipated that use of E0 (gasoline containing no ethanol) would remain fairly limited and would tend to decrease over time given the widening use of ethanol overall. Some stakeholders said that E0 represented at least 3% of the gasoline pool in recent years, and that this demand for E0 should be preserved in the determination of the volume requirements for 2016. We disagree. As described more fully in Section 2.6, we do not believe that recent supply of E0 is on the order of 3% of the gasoline pool as claimed by these stakeholders. More importantly, one of the ways that the RFS program can increase the supply of renewable fuels in the United States is by incentivizing the market to continue to transition from E0 to E10 and other higher level ethanol blends. It is mainly in the context of gasoline use in recreational marine engines that we believe the greatest challenges exist in moving away from E0.

In the NPRM we discussed our investigation into the volumes of E0 that are in demand by owners of recreational marine engines. Based on our investigation, we concluded that about 124 million gallons of E0 would be consumed by recreational marine engines. We estimated that the impact of this volume of E0 used in such applications on the total supply of renewable fuel in 2016 would be very low, and would likely be offset by the small expected use of E15. As a result we proposed to omit E0 and E15 from the scenarios described in Table II.D.2-2 of the NPRM.

In response to the NPRM, a number of organizations disagreed with our assessment of the potential volume of E0 consumed by recreational marine engines. Several stakeholders pointed to EPA's own, much higher estimates of total gasoline consumption by these engines. Total gasoline consumption by recreational marine engines is substantial - about 1.55 billion gallons according to a recent estimate from the EPA's NONROAD model. However, we disagree that all of this volumes is E0, and no stakeholders provided any data on actual consumption of E0 by recreational marine engines. Instead, stakeholders pointed to anecdotal evidence that owners of

recreational marine engines preferentially seek out E0. One stakeholder referenced data purporting to show that states with the greatest number of retail stations offering E0 tend to also be states with the greatest number of registered boats. After reviewing this data we concluded that a weak correlation may exist, but that it nevertheless provides no straightforward mechanism to quantitatively determine the volume of E0 consumed by recreational marine engines.

Based on the information provided by stakeholders and our own analyses, we believe that the volume of E0 consumed by recreational marine engines or otherwise demanded by the marketplace could be as high as several hundred million gallons in 2016. As a result, we have included some estimates of E0 in the volumes scenarios described in Section II.G of the final rule. Those scenarios demonstrate that our final volume requirements can be met even in cases where some volume of E0 remains in the marketplace.

One stakeholder said that the proposed volume requirements would only allow the petroleum industry to produce 130 million gallons of E0 in 2016. We disagree. The RFS volume requirements do not require specific amounts of ethanol, and neither would they prevent suppliers from providing E0 if there is demand for it. The market as a whole must supply the volumes that are required, but these volumes can be in the form of ethanol, biodiesel, renewable diesel, butanol, naphtha, heating oil, or biogas, or any combination of these fuel types.

#### *Responses to comments on E15*

In the NPRM, we discussed the fact that E15 is approved for use in model year 2001 and newer motor vehicles, but that we expected the volume of E15 used in 2016 to be low. We based this conclusion on the fact that the number of retail stations offering it at the time of the NPRM was only about 100 out of the approximately 152,000 retail stations in the U.S. We said that the number of retail stations offering E15 was unlikely to grow significantly in 2016, and we estimated that, at most, the use of E15 in 2016 would increase total ethanol consumption by only about 10 million gallons. Since this volume was far lower than the volume requirements under consideration, and its impact in our analysis would likely be offset by the small expected use of E0, we proposed to omit E0 and E15 from consideration in the determination of the volume requirements for 2016.

A number of stakeholders said that our estimate of the volume of E15 that could be used in 2016 was far too low. These stakeholders pointed to the large number of vehicles that are legally permitted to use E15. However, as described more fully in Section II.E.2.v of the final rule, we do not believe that the number of vehicles that are legally permitted to use E15, or the number of 2001 or later model year vehicle owners who would choose to use it, is a predominant factor in determining the volume of E15 that is likely to be consumed in 2016. Instead, it is the number of retail stations offering E15 in 2016 that is more likely to determine how much E15 is actually consumed.

Stakeholders who believed that E15 use could grow significantly in 2016 said that EPA had not provided sufficient analysis in the NPRM demonstrating why the number of retail stations offering E15 could not grow significantly by the end of 2016. These stakeholders made the implicit assumption that setting the volume requirements at the statutory targets would provide all the incentive that the market needs to significantly increase use of E15. We disagree. As described in Section II.E.1 of the final rule, the market is not unlimited in its ability to respond to

the standards we set, but in fact is subject to a variety of constraints, and the RIN mechanism is imperfect in its ability to provide the incentives needed to expand renewable fuel use, including E15 use as evidenced by the slow growth in the number of stations offering E15 over the last 5 years.

However, based on information supplied by other stakeholders, we have expanded our assessment of the potential for increased use of E15 in 2016. In this effort we reviewed two studies typically cited by proponents of E15 as the basis for claiming that the number of stations offering E15 could expand significantly in 2016: one by the National Renewable Energy Laboratory (NREL), and another by Stillwater Associates.<sup>17,18</sup> Proponents of increased use of E15 referred to these studies in arguing that the number of retail stations offering E15 could expand by many thousands by the end of 2016 if EPA were to create the appropriate incentives by setting the applicable volume requirements much higher than proposed.

In the time since E15 was approved for use, the number of retail stations offering E15 has only grown to about 120, or about 0.1% of all retail stations, based on information collected by the RFG Survey Association.<sup>19</sup> Based on comments received from retail station owners and their representative associations, this low number of retail stations offering E15 is most likely due to liability concerns. However, other stakeholders said that the slow growth in retail stations offering E15 may instead be due to the lack of a 1 psi waiver for E15. While we agree that this may be a factor, we have seen no evidence that it is a primary limitation, particularly since it is not a limitation in RFG areas, nor in other areas that do not provide a 1 psi RVP waiver for E10. Together, such areas represent about 40% of the country, strongly suggesting that the market can supply E15 without a 1 psi waiver. When statements have been reported to EPA that the lack of the 1 psi RVP waiver is a limitation in supply of E15, it has been in situations where other limitations have already been addressed (e.g., retail station compatibility). For further discussion of the 1psi waiver, see Section 10.6.5.

For instance, stakeholders representing retail stations indicated that, while it may be the case that much of the existing equipment at retail is compatible with E15 as argued in the NREL and Stillwater studies, compatibility with E15 is not the same as being approved for E15 use. Recently-amended EPA regulations require that parties storing ethanol in underground tanks in concentrations greater than 10 percent demonstrate compatibility of their tanks with the fuel, through either a certification or listing of underground storage tank system equipment or components by a nationally recognized, independent testing laboratory for use with the fuel, written approval by the equipment or component manufacturer, or some other method that is determined by the agency implementing the new requirements to be no less protective of human health and the environment. The use of any equipment to offer E15 that does not satisfy these requirements, even if that equipment is technically compatible with E15, would pose potential liability for the retailer, including concerns related to liability for equipment damage. Few

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<sup>17</sup> K. Moriarty and J. Yanowitz, "E15 and Infrastructure," National Renewable Energy Laboratory, May 2015. Attachment 3 of comments submitted by the Renewable Fuels Association.

<sup>18</sup> Stillwater Associates, "Infrastructure Changes and Cost to Increase RFS Ethanol Volumes through Increased E15 and E85 Sales in 2016," July 27, 2015. Submitted with comments provided by Growth Energy.

<sup>19</sup> "Stations registered to offer E15," docket EPA-HQ-OAR-2015-0111.

retailers would be willing to assume such liability, according to comments submitted by their national associations. This issue is of particular concern for underground storage tanks and associated hardware, as the documentation for their design and the types of materials used, and even their installation dates, is often unavailable.

Insofar as equipment can be verified as being compatible with E15 and is approved as such by a testing laboratory such as Underwriter's Laboratory, many retailers are still left with significant concerns about liability for misfueling. Notwithstanding EPA regulations that require pump labeling, a misfueling mitigation plan, surveys, product transfer documents, and approval of equipment configurations, retailer associations indicated that many retail stations owners are nevertheless concerned about litigation liability for misfueling, either for vehicles manufactured before 2001 or for nonroad engines. This concern creates a disincentive for many retailers to offer E15. While such disincentives are not insurmountable, they do represent a constraint that we must take into consideration.

Apart from retail stations that may already have equipment that could be used to offer E15, some stakeholders pointed to the potential for new equipment to be installed at retail, citing a number of companies which have plans for adding E15 dispensing capabilities to retail stations. However, even if all planned installations occurred by the end of 2016, they would only expand the number of retail stations offering E15 by a few hundred based on information provided by stakeholders in their comments.

Several stakeholders pointed to a recent grant from the U.S. Department of Agriculture called the Biofuel Infrastructure Partnership (BIP) which will provide \$100 million to add the equipment necessary to offer higher ethanol blends. These stakeholders suggested that this program will dramatically increase the volume of E15 used in 2016, and that as a result EPA should include substantial volumes of E15 in its determination of the volume requirements for 2016, rather than assume that they are zero. Based on information from USDA, the BIP program is expected to increase the number of retail stations offering higher level ethanol blends by 1,486, and to increase the number of underground tanks that can hold higher level ethanol blends by 515. However, it is not clear how many of these additional retail stations will offer E15 as opposed to E85, nor how many of these stations will offer higher ethanol blends in 2016. While the infrastructure changes are required to be completed by the end of 2016, there are also opportunities for extensions of up to two additional years. Even if most of the retail stations that have been targeted by the BIP program were upgraded to offer E15 and this occurred by the end of 2016, they would not all offer E15 for all of 2016. Instead, there would be a ramp up of stations offering E15 throughout 2016. Effectively, then, an average of only about 700 might be offering E15 for all of 2016. As described in Sections II.E.2.v and II.E.2.vi of the final rule, we have used this approach to estimate the volume of E15 that could be used in 2016 at 320 million gallons.

The costs associated with upgrading old equipment at retail stations in order to offer E15, or installing new equipment, was a matter of disagreement among stakeholders. In general, stakeholders representing the ethanol production industry believed that the costs would be low, while those who represent the interests of retail stations said that they would be high. For instance:

"Claims by the ethanol industry that these [cost] estimates are exaggerated or that E-15 compatibility is achievable for as little as \$1500 demonstrates a profound lack of understanding of the retail motor fuel industry and the laws and regulations that apply to underground storage tanks on the federal, state and local levels." (Petroleum Marketers Association of America, page 3)

Those representing the retail station industry would presumably have the most accurate knowledge of the costs and other issues associated with expanding offerings of E15.

While some stakeholders were enthusiastic about the potential for expansion of E15 use in 2016, and focused on the fact that E15 is legally permitted to be used in 2001 and later model year vehicles, others expressed concern about the increasing availability of E15 at retail and the potential for misfueling vehicles manufactured prior to 2001 as well as nonroad engines. Some of the stakeholders expressing these concerns said that EPA had not done enough to ensure that this misfueling does not occur. As mentioned above, the existing regulations require retail station owners to clearly label their pumps as to fuel type, to develop a misfueling mitigation plan and submit it to the EPA for approval, to participate in fuel surveys, to ensure that their product transfer documents correctly identify the fuel types they are offering, and ensure that all of their equipment configurations are approved for dispensing E15. We expect that these requirements are sufficient to prevent misfueling, and no stakeholder provided information or data on actual misfueling that would warrant changes to the regulatory requirements.

Stakeholders representing the refining industry said that the volume requirements that EPA sets must not require the use of E15 which, they said, has ongoing liability issues. In contrast, other stakeholders said that EPA should take steps to ensure that E15 is made available at retail. As described earlier, the RFS volume requirements are not specific to ethanol. The market will determine the mix of renewable fuels and blends with gasoline or diesel that are used. By setting volume requirements that are the maximum reasonably achievable, we are providing opportunities for E15 to grow if the market chooses that avenue to meet the volume requirements. Also, as described in Section 2.7.1, refiners can and should take steps to promote the use of renewable fuels, and in so doing they can choose which renewable fuels to promote. For responses to comments on the impacts of higher ethanol blends on engines, see Section 10.6.4.

One stakeholder said that more motorists would buy E15 and E85 if these fuels were available for them to choose. This is undoubtedly true. However, we disagree with this stakeholder's belief that sales of these fuels would increase dramatically if the EPA set the volume requirements at the statutory targets. As described in detail in Section II.E.1 of the final rule, there are a variety of constraints that limit the ability of the market to increase use of renewable fuels in response to the standards we set. One of those constraints is the time necessary for increasing the availability of E15 and E85 at retail. In addition to the imperfect nature of the RIN mechanism to reduce renewable fuel prices at retail as described in Section II.E.2.ii of the final rule, and the poor response we have observed among motorists who do have access to E85 as described in Section II.E.2.iii of the final rule, there are a number of reasons why we do not believe that E15 and E85 offerings at retail can expand fast enough to permit the market to reach the statutory targets in 2016. These include initial capital costs and concerns about liability for misfueling among retail station owners, among others. Anecdotal information suggesting that customer demand for E15 and E85 is always high when it is available to them contradicts

information we have from other retail station owners who have offered these fuels and been disappointed at the consumer response.<sup>20</sup>

For responses to comments stating that the E10 blendwall is not a constraint, or has been fabricated by the refining industry, see Section 2.4.

For responses to comments suggesting that the ethanol content of the gasoline pool should be kept below 10%, and that EPA should not be setting standards that are designed to increase the use of E15 and/or E85, see Section 2.6.

For responses to comments suggesting that obligated parties have failed in their statutory responsibilities to invest in the infrastructure needed to expand renewable fuel supply, see Section 2.7.1.

For responses to comments requesting a 1psi waiver for E15, see Section 10.6.5.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

|                 |   |
|-----------------|---|
| Section 2.2.2.1 | Inadequate Domestic Supply                                  |
| Section 2.4.1   | Proposed Total Renewable Fuel Volume for 2014               |
| Section 2.4.2   | Proposed Total Renewable Fuel Volume for 2015               |
| Section 2.4.3   | Proposed Total Renewable Fuel Volume for 2016               |
| Section 2.6     | Ethanol Consumption   |
| Section 2.6.1   | E10 Blendwall and Demand for Gasoline                       |
| Section 2.7.3   | Impacts on Corn Ethanol                                     |
| Section 2.7.4   | Impacts on Imports of Sugarcane Ethanol                     |
| Section 7       | Economic Impacts of the Proposed Rule                       |
| Section 7.3     | Fuels Industry Impacts (oil refineries, biofuel facilities) |
| Section 7.4     | Impact on RINs  |
| Section 7.5     | Retail Fuel Prices  |
| Section 7.7     | Impact on Jobs and Local/State Economy                      |
| Section 7.8     | Cost to Consumers   |
| Section 10.6.4  | Ethanol Impacts on Engines                                  |

## 2.7 Volume Scenarios

### Comment:

#### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

Co-processing at existing facilities is not a simple option. If feedstocks are available, modifications must be made at a petroleum refinery to safely handle and process the new feeds. Most renewable feedstocks for non-ethanol renewable fuels require pre-treatment, which requires a capital investment and time to design permit and construct. [EPA-HQ-OAR-2015-0111-1948-A1 p.20]

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<sup>20</sup> For instance, see comments from U.S. Ethanol.

EPA acknowledges that when it simulated future market behavior for those 16 combinations, only “some of the scenarios” showed that its proposed volume requirements were achievable.<sup>33</sup> Accordingly, EPA appears to implicitly recognize that the proposed volume requirements for 2016 are *not* achievable in many of its simulations. Thus, under EPA’s own analysis, the proposed requirements for 2016 cannot “be expected to be achieved in light of supply constraints.”<sup>34</sup> [EPA-HQ-OAR-2015-0111-1948-A1 p.22]

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<sup>33</sup> NPRM at 33126.

<sup>34</sup> *Id.* at 33105.

### **Clean Air Task Force**

Between the two compliance scenarios posited by EPA—one dominated by E85 and the other dominated by biomass-based diesel (BBD)—the Agency appears to be betting on the former. [EPA-HQ-OAR-2015-0111-1828-A1 p. 10]

### **Environmental and Energy Study Institute (EESI)**

In EPA’s proposal for 2014, 2015 and 2016, the total proposed volume will be capped at less than 10 percent, based on available infrastructure, not available fuel volumes. [EPA-HQ-OAR-2015-0111-1944-A1 p.2]

### **Governors’ Biofuels Coalition**

Under EPA’s proposed rule, there is no incentive for most vehicles to use anything other than E10, which will discourage any further investment in infrastructure leading us back to the initial problem and solution. [EPA-HQ-OAR-2015-0111-1722-A1 p.5]

### **Growth Energy**

EPA asserts that 100-600 mil gal of ethanol could be distributed and consumed as E85 in 2016.<sup>178</sup> EPA offers no quantitative evidence or analysis supporting those numbers. They appear to have been pulled out of thin air. [EPA-HQ-OAR-2015-0111-2604-A2 p.33]

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<sup>178</sup> *Id.* at 33,127-33,128.

### **International Council on Clean Transportation (ICCT)**

Indeed, there is no scenario presented to meet the proposed advanced and renewable biofuel mandates that does not require one or more of:

- Excessive pressure on vegetable oil markets;
- Excessive pressure on sugarcane ethanol imports;
- High consumption of conventional biodiesel imports, likely meaning grandfathered palm oil that is not expected to deliver a 20% emissions reduction. [EPA-HQ-OAR-2015-0111-1923-A1 p.8-9]

### **Marathon Petroleum Company**

A detailed review of the 16 cases shows that every case requires either E85 sales, biomass-based diesel blending or both that exceeds the highest level achieved in the last five years by a significant amount. These volumes are not realistic given the significant hurdles necessary in overcoming the constraints outlined earlier. [EPA-HQ-OAR-2015-0111-1932-A1 p. 5]

### **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

Accordingly, at least half of EPA's scenarios to fill the "gap" resulting from its proposed mandates significantly overestimate the amount of E85 that the economy is likely to supply in 2016. In order to satisfy the mandates, the economy instead will need to produce biomass-based diesel at or near levels that EPA has described as merely "theoretical[]," and a variety of other renewable fuels the availability of which has varied widely in recent years. [EPA-HQ-OAR-2015-0111-2603-A2, p.4]

### **National Biodiesel Board**

While NBB does not dispute that the industry could meet 3.40 billion gallons, EPA's assessment unduly restricts the possible scenarios, as it only assesses whether the proposed 3.4 billion gallons could be met, not other volumes. To identify "maximum achievable" supply, EPA was required to do more. At a minimum, EPA should have compared various additional increases and higher possible levels. [EPA-HQ-OAR-2015-0111-1953-A2 p.115]

### **Poet, LLC**

EPA fails to adequately grow volumes of biofuels beyond the so-called E10 blendwall, contrary to Congressional intent, and EPA's proposal would send a market signal that would undermine the wider distribution of fuel blends containing more than 10% ethanol. [EPA-HQ-OAR-2015-0111-2481-A1 p.10]

### **Response:**

Because the RFS volume requirements allow the market to determine the mix of particular types of fuels used, neither the EPA nor any other party can predict with precision how the market will respond to the RFS volume requirements. This fact was one of the purposes behind the presentation of multiple scenarios in Table II.D.2-2 in the NPRM. In describing these scenarios, the NPRM said:

"The scenarios in the table above are clearly not the only ways that the market could choose to meet the total renewable fuel and advanced biofuel volume requirements that we are proposing today, but they are illustrative of many ways that it could play out. While we are not in a position to predict how the market would respond to the volume requirements we are proposing today, we believe that the range of possibilities for E85, BBD, and other sources is a clear indication that the standards we are proposing are achievable." (80 FR 33128)

Despite this, many stakeholders expressed concerns that the proposed volume requirements would result in particular outcomes in the market that they believed would be in conflict with

their preferred outcomes or what they believed was Congress' intent. For instance, some stakeholders said that the proposed volumes would guarantee that the market remains below the E10 blendwall. In fact, all the scenarios represented renewable fuel volumes larger than the volumes that can be consumed as E10 alone and for the final rule more than 4 billion gallons greater. Furthermore, both the proposed and final volumes provide opportunities for the market to increase the use of higher ethanol blends such as E15 and E85 compared to historical levels, and the range of scenarios presented in the final rule result in a pool-wide gasoline ethanol content of between 10.07% and 10.18%. Other stakeholders said that the proposed volumes would have forced the market to supply volumes of E15 and/or E85 that were either not achievable or would have resulted in extremely high costs or shortfalls in gasoline and diesel. Again, while the RFS volume requirements create opportunities for increasing volumes of E15 and E85, as well as non-ethanol renewable fuels, they do not force the market to supply E15 or E85. The same is true for supply of biodiesel and imports of sugarcane ethanol: the market could supply a wide range of volumes of these fuel types depending on a wide variety of factors that include domestic and foreign markets for fuels and feedstocks, among other things.

One stakeholder said that the EPA was "betting" on those scenarios exhibiting the highest levels of E85 as being the most likely outcomes. We disagree. We do not have any preference or expectation for any particular scenario or outcome. On the contrary, we said in several locations that we were not in a position to predict how the market would respond to the proposed volume requirements. In contrast, another stakeholder said that many of the E85 volumes shown in Table II.D.2-2 of the NPRM were not attainable, and as a result the market would need to respond with volumes of BBD that were described in the NPRM as "theoretical." Again, we cannot predict how the market will respond to the standards we set, but the scenarios provided in the NPRM, and updated in Table II.G-2 of the final rule, provide a range of possible outcomes, all of which are possible. While some scenarios may be more likely than others, stakeholders differed in their views on which scenarios were more likely.

One stakeholder quoted the NPRM as saying that "... some of the scenarios fall within the reasonably expected capabilities of the market..." (80 FR 33126) and concluded that EPA was admitting that many of the scenarios were not achievable. This stakeholder then went on to conclude that the proposed 2016 volume requirements cannot be achieved because some of the scenarios presented in the NPRM were not achievable. This is a wholly unwarranted conclusion. The actual quote from the NPRM reads "... at least some of the scenarios fall within the reasonably expected capabilities of the market..." (emphasis added) to clarify that, given the inability to predict precisely how the market would respond, it was possible that all scenarios were achievable. This fact is further emphasized by the adjoining text that this stakeholder ignored:

"...we cannot predict precisely how the market would respond to the standards we are proposing..."

The purpose of the scenarios in Table II.D.2-2 of the NPRM was not to prove that every possible combination of fuel types was achievable, but only to demonstrate that there were a wide variety of options available to the market, and that the full range of levels for each fuel type was within the realm of possibility. The NPRM made it clear that "...we do not believe that all scenarios are equally likely. Certainly some are more likely than others." (80 FR 33129) This remains the case for the final rule, though the volumes and scenarios differ from those in the NPRM.

One stakeholder said that, since all of the scenarios described in the NPRM included either E85 or BBD volumes that were significantly higher than past levels, none of them were achievable. As described in Section II.A of the final rule, dramatic increases above historical volumes is exactly what Congress intended. More importantly, the fact that the proposed volumes would drive E85, BBD, or any other fuel type significantly higher than historical levels is not, in and of itself, a basis for saying that they are not realistic or not achievable. On the contrary, it is EPA's responsibility to determine first if the statutory targets can be achieved, and if they cannot, to determine the levels that can be reasonably achieved. Discussion of the various hurdles that would need to be overcome to reach the levels that we proposed, as well as the levels that we are finalizing today, can be found in Section II.E of the final rule.

One stakeholder raised a hurdle with respect to the challenge of co-processing renewable biomass and petroleum to increase the supply of renewable fuel, specifically the need for capital investments to handle the additional renewable feedstocks. We recognize that there are challenges, but the industry is actively working to overcome those challenges to increase the amount of coprocessing that can occur. For additional responses to comments on the responsibilities that obligated parties have for increasing renewable fuel supply, and whether existing refineries can use co-processing of renewable biomass and petroleum towards this end, see Section 2.7.1.

For responses to comments suggesting that the proposed 2016 volume requirement for advanced biofuel is too low, see Section 2.5.3.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

|                 |   |
|-----------------|---|
| Section 2.2.2.1 | Inadequate Domestic Supply  |
| Section 2.3.1   | Congressional Intent to Increase Volumes                                    |
| Section 2.6.1   | E10 Blendwall and Demand for Gasoline                                       |
| Section 2.7.4   | Impacts on Imports of Sugarcane Ethanol                                     |
| Section 2.7.5   | Impacts on Imports of Conventional Biodiesel                                |
| Section 3       | Proposed National Volume Requirement for Biomass-Based Diesel for 2014-2017 |
| Section 3.2.1   | Availability of Feedstocks  |
| Section 10.6.8  | Biointermediates  |

## 2.7.1 Achievable Volumes of E85 Consumption

### Comment:

**AL-Corn Clean Fuel; Badger State Ethanol; Big River Resources, LLC; Central Indiana Ethanol (CIE); Commonwealth Agri-Energy, LLC; Husker Ag LLC; Pacific Ethanol, Inc.; Syngeta**

E85 prices, sales volumes, and infrastructure development during periods of elevated RIN prices clearly demonstrate that the RIN mechanism will work exactly as intended to drive expansion of renewable fuel consumption and investment. For example, data from the Minnesota Department of Commerce show that E85 sales *tripled* between January and August 2013 as RIN prices increased. Similarly, E85 sales in Iowa doubled from the first quarter to the third quarter of 2013, according to the Iowa Department of Revenue. Additionally, the emergent E85 value proposition drove retailers to install an estimated 400 new E85 pumps since the beginning of 2013. Rising RIN prices also drove increased E85 blending by ethanol plants themselves and direct sales to wholesale or retail markets. The RIN market was set to do exactly what was intended—make oil companies invest in infrastructure to facilitate higher level blends and to provide those to their customers. Instead, EPA’s actions have emboldened oil interests to fight against higher level blends and to stifle the availability of and access to higher level blends such as E15 and E85. Let’s get back to what the law intended! [EPA-HQ-OAR-2015-0111-1214-A2 p.3]

### **American Coalition for Ethanol (ACE)**

Having apparently accepted refiners’ arguments that everyone has to pitch in to get past the blend wall, EPA seems to be ignoring the fact that everyone else already has. The only “fuel market participants” that have refused to take a single step to get over the blend wall are the obligated parties – who are, by definition, the only ones required by law to do so. [EPA-HQ-OAR-2015-0111-2543-A2 p. 8]

Today, obligated parties may protest that EPA is breaking the blend wall in 2016, but you need to separate the signal from the noise. EPA's methodology actually enables oil companies to stockpile approximately 2 billion gallons of carryover RINs by 2016. So, in reality, your proposal continues to limit ethanol blending to E10. According to Bruce Babcock of Iowa State University, because obligated parties control 80 percent of refined product terminals, they decide the level of ethanol blending that will or will not occur. And that's why Congress enacted the RFS. Left to their own devices, oil companies won't allow consumer access to E15 and flex fuels. Left to their own devices, oil companies won't reduce the carbon intensity of gasoline. They've earned the label obligated parties based on their refusal to innovate. [See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 19-20.]

### **American Council on Renewable Energy (ACORE)**

There is ample evidence that customers will purchase E85 when given the option. According to a recent study, E85 sales volume in California has grown over 600% in the past five years to 11.1 million total gallons, with retail locations selling an average of 140,585 gallons per year in 2014. Californian E85 customers recognize the product’s value proposition, with 92% of customers

reporting the same or better value compared to petroleum. [EPA-HQ-OAR-2015-0111-1926-A1 p.9]

The U.S. Department of Agriculture (USDA) announced it would invest up to \$100 million in a Biofuels Infrastructure Partnership to double the number of flex fuel pumps. [EPA-HQ-OAR-2015-0111-1926-A1 p.9]

The world's largest oil companies are resisting their obligation to allow higher ethanol blends such as E15 into the consumer marketplace, threatening the success of the RFS. It is simply not accurate for obligated parties to claim that all independently owned gas station owners can decide what gasoline blends to sell on their own. According to a recent study, half to two-thirds of gas stations in the U.S. are either owned by these obligated parties or subject to franchise and branding agreements, which often prohibit these stations from selling higher ethanol blends.<sup>32</sup> [EPA-HQ-OAR-2015-0111-1926-A1 p.10]

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<sup>32</sup> Protecting the Monopoly How Big Oil Covertly Blocks the Sale of Renewable Fuels, Renewable Fuels Association (RFA), July 2014, (p. 1-2), [http://ethanolrfa.3cdn.net/3888b61efa4f1e9fb3\\_t2m6btt6o.pdf](http://ethanolrfa.3cdn.net/3888b61efa4f1e9fb3_t2m6btt6o.pdf)

#### **American Farm Bureau Federation (Farm Bureau)**

Another option is E85. More than 17 million flex-fuel vehicles are on U.S. roads today; however, the United States is only utilizing 2 to 3 percent of its current E85 capacity. The issue with E85 acceptance by consumers has always been its price competitiveness relative to conventional gasoline, but as was shown in Table 1, D6 RIN values are being used to cut the price of E85 at the pump, encourage higher sale volume and thus provide greater volume demand for ethanol itself. [EPA-HQ-OAR-2015-0111-2355-A1 p. 5]

The problem is not whether E15 or E85 are justifiable; the issue is the petroleum industry defending its declining share of the liquid transportation fuel market. The petroleum industry has repeatedly been on record of stating that they have no recourse to remaining compliant with the RFS2 program other than to curtail gasoline supply when they run out of roll-over RINs. Statements and actions like this do not offer responsible solutions, but instead generate emotive responses that add to problems and can purposefully harm the U.S. economy. [EPA-HQ-OAR-2015-0111-2355-A1 p. 5]

#### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

The Proposed Rule states that the only practical means of using more ethanol in 2016 is to use more E85, but in the Proposed Rule EPA overlooks key facts in providing an unrealistically high estimate of the potential growth of E85 in 2016. Consumer acceptance, infrastructure barriers, and logistical constraints limit the rate at which E85 use can increase to make up that difference. The timeframe necessary to install compatible refueling infrastructure, build out the vehicle fleet, and change consumer preferences is measured in years or even decades and not the mere months left until the 2016 rule takes effect. [EPA-HQ-OAR-2015-0111-1948-A1 p.7]

The approach we recommend would require EPA to provide methodology for estimating E85 separately from ethanol in the rest of gasoline consumption. The amount of E85 assumed in the

calculation would be explicit and based on demonstrated and not aspirational targets. [EPA-HQ-OAR-2015-0111-1948-A1 p.11]

Working with automobile manufacturers to increase the number of FFVs in the fleet is not a practical option for increasing the volume of renewable fuels consumed in 2016. Making changes in the vehicle fleet occurs over a period of years and it is too late to significantly affect the number of FFVs to be sold in 2016. [EPA-HQ-OAR-2015-0111-1948-A1 p.19]

Increasing the number of retail stations offering E85 and E15, and locating stations near the higher populations of FFVs is similarly unrealistic. While there may be some increase in E85 investment due to the USDA grant program, the time required for permitting, constructing and operating new or upgraded retail facilities will delay the benefit of any such investments well beyond the 2016 window. Also, it is unclear how to influence where retail investments occur, since these decisions would be made by individual businesses who are evaluating market opportunities in their particular locations. [EPA-HQ-OAR-2015-0111-1948-A1 p.20]

The third option EPA suggests relies on using contractual mechanisms to ensure favorable pricing of E15 and E85 relative to E10. This option is unrealistic and would have little, if any, impact on the utilization of E15 and E85. Simply put, prices for different fuels are established in the market by consumer demand balanced against the cost of supplying the fuels. [EPA-HQ-OAR-2015-0111-1948-A1 p.20]

CAA section 211(o) does not require any party to invest in retail infrastructure, nor can any such obligation be implied in the law or EPA's implementing regulations. [EPA-HQ-OAR-2015-0111-1948-A1 p.32-33]

If the renewable fuels industry believes there is consumer demand, and are willing to accept the potential liability for selling fuels that are not compatible with consumers' vehicles, and they believe that they will benefit economically from making such investments, then it is reasonable to expect *they* will make such investments. It is not reasonable to forecast that obligated parties or independent retailers will make potentially uneconomic decisions and then base RFS standards on such an assumption. [EPA-HQ-OAR-2015-0111-1948-A1 p.34]

Stated simply, based on the information provided in the Proposed Rule, it is not reasonable to expect any significant increase in E85 demand in 2016. Relying on the mere possibility that demand for E85 might increase in 2016 is a risky approach for obligated parties, consumers and the economy and EPA should not take such risks. [EPA-HQ-OAR-2015-0111-1948-A1 p.35]

No definitive study shows why customers have not used E85 with greater frequency.<sup>76</sup> Some short term and limited analysis (focused primarily on a state or two) by The Fuels Institute and EPA indicates that consumers would respond to E85 price adjustments that account for the lower E85 energy content. Historically, this has not happened (as shown by the graph below) so whether this is an accurate predictor of consumer behavior is uncertain. [EPA-HQ-OAR-2015-0111-1948-A1 p.39]

### Retail Station Ownership

The assertion that refiners maintain control of the fuels they produce through the distribution system until the point of retail sale to the consumer is an often repeated misconception. For

example, Abengoa Bioenergy, DuPont Industrial Biosciences and POET -DSM Advanced Biofuels stated in joint comments: “if they were forced to do so, the Obligated Parties [could] use their control of the gasoline marketing sector to penetrate the E 10 ‘blendwall.’”<sup>1</sup> In fact, approximately 96% of the gasoline stations in the country are independently owned, and it is beyond the control of the obligated parties to require investments to make those stations E85 or E15 compliant.<sup>2</sup> The decision to invest in new infrastructure needed to offer higher level blends is a decision each retailer has to make based on a careful evaluation of the market and economic conditions for their business. [EPA-HQ-OAR-2015-0111-3526-A2 p.1-2]

### Lack of E85 Demand and Alleged Actions to Discourage E85 Sales

The lack of retail E85 availability is primarily due to a lack of consumer demand. Only about 6% of vehicles are compatible with the fuel, and E85 reduces fuel economy and range by about 20-30 percent.<sup>3</sup> Retail station owners must weigh the cost of investing in new infrastructure with expected demand, which is particularly challenging for the 58% of retail stations in the U.S. that are owned by individuals who own a single store.<sup>4</sup> The Society of Independent Gasoline Marketers of America (SIGMA) and the National Association of Convenience Stores (NACS) in joint comments noted the lack of demand, stating: “the number one trait of any successful retailer is an ability to identify what his or her customers want to buy, and then sell that product at a cost that enables the retailer to earn a profit. Fuel retailers’ customers do not purchase products because members of SIGMA and NACS sell them; members of SIGMA and NACS sell products because their customers purchase them.”<sup>5</sup> Rather than citing the lack of fueling pumps or the refining sector’s alleged recalcitrance as the predominant impediment to marketing greater E15 and E85 volumes as some members of the ethanol industry contend, it would be more constructive to critically review the structure and overall implementation of the RFS2 program for the unintended outcomes in execution that are creating the disincentives for ethanol blends and discordant market behavior. [EPA-HQ-OAR-2015-0111-3526-A2 p. 2]

Comments submitted to the docket by Protec Fuel falsely accuse API and some of our members of “doing everything possible to discourage their franchisees from carrying E15/E85 and increase the cost of installing infrastructure and selling E15/E85.”<sup>6</sup> Protec Fuel also claims to “have at least one letter from every single major oil company threatening my customers if they proceed forward in selling the fuel, and for those who took the risk and are currently selling the fuel, make them take it out.”<sup>7</sup> EPA should disregard these misleading and false statements when considering public comments and developing a Final Rule. [EPA-HQ-OAR-2015-0111-3526-A2 p. 2]

Contrary to Protec’s assertions, franchised retail stations are offering E85. These station owners made the necessary investments to ensure the station’s infrastructure is compatible with the product and meet the local demand for a niche product. While the total *number* of stations offering E85 is low, refiner brands represent a significant *percentage* of those retail stations offering E85. Our analysis of the U.S. Department of Energy’s Alternative Fuels Data Center E85 station locator data<sup>8</sup> shows that approximately 28 percent of the 2,639 stations offering E85 nationwide are franchised by major refiner brand names, 27 percent are unbranded retailers, another 36 percent are non-refiner brand names, and the remaining 9 percent are owned by co-ops and municipalities. The wide distribution of station types offering E85, as well as the large

fraction of refiner branded stations represented in the above referenced data demonstrate that refiners are not a significant obstacle to retail E85 availability. [EPA-HQ-OAR-2015-0111-3526-A2 p. 2-3]

### Franchise Brand Agreements

Franchise contracts are voluntary agreements between private entities that benefit both parties; the franchisee may benefit from supply contracts, advertising and other marketing assistance from the franchisor, and the franchisor can differentiate their product offerings from other manufacturers. Protec and others have pointed out that franchise agreements may include dispenser and signage placement restrictions, and labeling requirements relating to the sale of alternative fuels.<sup>9</sup> The implication is that any such requirements are intended to discourage the sale of alternative fuels. To the contrary, these requirements are consistent with the Petroleum Marketing Practices Act and would allow the refiner to protect its brand's trademarks and allow the customer to distinguish branded from unbranded products at the dispenser. Clear labeling of products and brands at the dispenser helps to ensure the customer purchases the product of their choice that is also appropriate for their vehicle. [EPA-HQ-OAR-2015-0111-3526-A2 p. 3]

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<sup>1</sup> EPA-HQ-OAR-2015-0111-3272

<sup>2</sup> PMAA letter to Chairman Upton and Ranking Member Pallone, House Committee on Energy and Commerce, May 1, 2015

<sup>3</sup> <http://www.epa.gov/oms/renewablefuels/420f10010a.pdf>

<sup>4</sup> National Association of Convenience Stores, 2015 NACS Retail Fuels Report, p. 28

<sup>5</sup> EPA-HQ-OAR-2015-0111-1937 p. 4

<sup>6</sup> EPA-HQ-OAR-2015-0111-1194

<sup>7</sup> EPA-HQ-OAR-2015-0111-1043 p. 136

<sup>8</sup> U.S. Department of Energy, Energy Efficiency & Renewable Energy, Alternative Fuels Data Center, Fuel Locator, [http://www.afdc.energy.gov/data\\_download/](http://www.afdc.energy.gov/data_download/)

<sup>9</sup> API and AFPM are not privy to the specific language detailed in our members' franchise agreements and this type of company specific information is not discussed as a matter of API or AFPM business.

<sup>76</sup> <http://www.eia.gov/biofuels/workshop/presentations/2013/pdf/presentation-04-032013.pdf>

### **Archer Daniels Midland Company (ADM)**

EPA also suggests in the RVO proposal that biofuel producers could have done more to address the impending blendwall, stating 'biofuel producers could also have taken appropriate measures, and that nothing precludes biofuel producers from independently marketing E85...' The statute intentionally identifies refiners, blenders and importers of fossil fuels as the obligated parties, not biofuel producers. Further, the RIN market was created to provide blending incentives to the obligated parties. [EPA-HQ-OAR-2015-0111-2262-A1 p. 5]

### **Board of Commissioners, Mercer County; Crawford County; Greenville-Reynolds Development Corporation; Office of Commissioners, Lawrence County, Pennsylvania**

There are significant reasons that mandated ethanol blend rates should be lowered. They include:

**2. No consumer demand for E85 and E15.** The administration should not try to force the use of fuels like E85 and E15 for which there is no significant consumer demand while trying to eliminate fuels like E0 for which actual consumers have shown a substantial demand.'

- 90% of cars on the road today are designed to use ethanol blends of 10 percent or less and only 6 percent of the current vehicle fleet can use E85.
- E85 has 30% loss in fuel economy, and according to AAA, is more expensive per mile driven.
- E85 demand is only 0.15 percent of overall gasoline demand; and demand, in recent years, has been relatively flat, despite more stations offering E85 as an option.
- EPA needs to acknowledge the real demand for E0 - non-ethanol gasoline. Consumers want E0 for their boats, for lawn equipment, and for motorcycles and older vehicles. [EPA-HQ-OAR-2015-0111-1666-A1 p. 2]

### **Butamax Advanced Biofuels, LLC**

The potential demand for ethanol in the US gasoline market has an upper limit set by E10 in the entire vehicle fleet plus 100% use of E85 in the FFV fleet plus E15 in a growing subset of the US vehicle fleet.<sup>4</sup> Within that envelope of potential E85 demand, Butamax believes that actual E85 demand can be predicted from a combination of price relationships and geographic modelling of retail availability and recommends recent work from Babcock, et al as a template.<sup>5</sup> The Verleger study appended to our comments on the November 2013 NPRM<sup>6</sup> provides additional quantitative guidance on feasible levels of E85 penetration with existing or expanded retail infrastructure. [EPA-HQ-OAR-2015-0111-1938-A2 p. 5]

Existing E85 infrastructure, together with existing FFV's are capable of much greater E85 sales than EPA assume. Further, the RIN mechanism will automatically stimulate these higher sales if the RVO is set appropriately. Butamax believes that such distribution growth will only occur if there is a policy environment that supports long-term increases in E85 sales and strong throughputs at existing E85 outlets. [EPA-HQ-OAR-2015-0111-1938-A2 p. 6]

Refiners can promote retail availability of E85 – While it is correct that only a small share of retail gas stations are refiner-owned, refiners are still able to take significant actions to promote retail availability of E85. For example, they can contract to supply E85, they can offer marketing support for refiner-branded retailers offering refiner-branded E85 and they can help finance retail infrastructure (much as they assist in finance of site image upgrades and point-of-sale equipment). Up to now, many refiners have done the exact opposite of this. [EPA-HQ-OAR-2015-0111-1938-A2 p. 8]

Analysis based on actual market data shows that existing E85 infrastructure and FFV fleet are capable of utilizing far more E85 than the EPA have assumed in the NPRM. Analysis submitted with this report illustrates that 600 million gallons per annum would be a reasonable target, instead of the 180 million gallons used by the EPA. [EPA-HQ-OAR-2015-0111-1938-A2 p. 10]

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<sup>4</sup> Butamax does not offer guidance on how to set potential E15 demand between the scope of EPA waivers and the more restrictive list of OEM-approvals. Sales of E15 and other mid-level ethanol blends, consistent with regulatory requirements is an optimization exercise; market potential can, in Butamax's view, be reasonably assessed as a combination of E10 and E85 sales.

<sup>5</sup> Babcock, B.A., and S. Pouliot. "Price It and They Will Buy: How E85 Can Break the Blend Wall." Policy Briefing Paper 13 PB-11. Center for Agricultural and Rural Development, Iowa State University.

<sup>6</sup> Available at

[http://www.butamax.com/Portals/0/pdf/Jan282014\\_Butamax\\_Comments\\_on\\_EPAs\\_proposal\\_for\\_the\\_2014\\_Renewable\\_Volume\\_Obligations.pdf](http://www.butamax.com/Portals/0/pdf/Jan282014_Butamax_Comments_on_EPAs_proposal_for_the_2014_Renewable_Volume_Obligations.pdf)

### **Carbon Green BioEnergy, LLC**

However, the oil industry has refused to make similar investments. And, now the oil industry is attempting to get the EPA to change the rules that were set by Congress because they refuse to comply. In fact, the oil industry is spending millions of dollars a year spreading false information to consumers about ethanol and then turning around and telling the EPA and Congress that the public doesn't want to consume our fuel. The EPA simply cannot reward this behavior, and should instead stay the course on the RVO's for 2014, 2015, 2016 and beyond. The ethanol industry and rural America has done its part to make the RFS the most successful energy policy in over 40 years. And we have proven through past investment and future commitments that we can make this policy work. [EPA-HQ-OAR-2015-0111-1688-A1 p. 4]

### **Chevron**

EPA's assumption that it may be possible to market E85 volumes as high as 600 million gallons in 2016 under favorable pricing conditions needs to be reevaluated. EPA itself acknowledges in the proposed rule that E85 growth has been very modest. To assume E85 volumes will dramatically increase up to 800% from 2014 usage is unrealistic. [EPA-HQ-OAR-2015-0111-1911-A1 p. 3]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-0143, p.174.]

EPA's forecast for additional volumes of E85 up to as much as 600 million gallons per year in 2016 are unlikely to be met. Our retailers have described their experience with E85 to be challenging at best. When implemented, E85 has suffered from very low customer demand, due to limited vehicle compatibility, cost, and reduced vehicle mileage, resulting in more frequent fueling.

### **Clean Air Task Force**

The volume of ethanol that can be safely consumed each year could grow if drivers of new-model and/or flex fuel vehicles purchase more higher-level ethanol blends (e.g., E15 and E85)—but in light of the related legal, logistical, and economic impediments, few analysts expect a

quick or dramatic expansion in E15-E85 consumption.<sup>10</sup> [EPA-HQ-OAR-2015-0111-1828-A1 p.4-5]

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<sup>10</sup> See, e.g., Scott Irwin and Darrel Good, *E85 Pricing and Recent Consumption Trends*, FARMDOC DAILY (June 13, 2013) (<http://farmdocdaily.illinois.edu/2013/06/e85KpricingKrecentKconsumptionKtrends.html>).

### **Clean Fuels Development Coalition and the Nebraska Ethanol Board**

The petroleum industry has, in our view, completely ignored their responsibility *to distribute, blend, and dispense* renewable fuels, thereby undermining the potential for increased consumption of renewable fuels. In so doing they flaunt the law and seemingly have convinced your agency that it is not possible to meet the requirements of the RFS. [EPA-HQ-OAR-2015-0111-2259-A1 p.1]

We continually hear from the petroleum industry that there is no demand for higher ethanol blends. Major oil companies proclaim they do not control demand and price of fuels. That is preposterous. Of course they do. Demand to a large extent is driven by what is available and offered. If they made E15 or higher blends available and told consumers it was a high quality product, it would clearly drive demand. They do the opposite. They do not make these fuels available and to a large degree disavow these fuels as inferior products. [EPA-HQ-OAR-2015-0111-2259-A1 p.2]

The agency acknowledges that refiners have not planned well for a post-E10 world. However, to then say biofuel producers could have done more is troubling. Our associates have produced the renewable fuel. [EPA-HQ-OAR-2015-0111-2259-A1 p.2]

Many of our producers and distributors have in fact independently marketed E85. But this activity is fraught with risks imposed by the petroleum industry. We are not obligated parties. Without the consent and support of the petroleum industry, their marketing, supply and branding requirements make the projects expensive and risky. This fact makes the latter part of the aforementioned statement even more odd. How can investment flow to renewable fuel production and marketing if EPA does not enforce statutory volume requirements? [EPA-HQ-OAR-2015-0111-2259-A1 p.2-3]

### **Countrymark Cooperative Holding Corporation**

First, the infrastructure required to dispense higher ethanol blends is prohibitive because low sales volumes do not provide a return on investment. [EPA-HQ-OAR-2015-0111-2264-A1 p. 4]

Due to the high cost and the apparent lack of consumer acceptance/demand discussed in the next section, our members are not currently pursuing the installation of E85 or blender pumps. [EPA-HQ-OAR-2015-0111-2264-A1 p. 4]

15% of CountryMark branded stations sell both E10 and E85. With this infrastructure and the high density of FFV, one would expect that E85 sales would make up a similarly high percentage of total gasoline sales. However, based on CountryMark experience, especially the side-by-side

comparison at retail stations that sell both E10 and E85, this is not the case. [EPA-HQ-OAR-2015-0111-2264-A1 p. 5]

With 20% of the vehicles in Indiana being able to use E85, one would expect that the percentage of E85 sales would be greater than the average 3.5% that we see from CountryMark data. [EPA-HQ-OAR-2015-0111-2264-A1 p. 6]

In 2014, CountryMark sold a little over 1 million gallons or about 2.7% of the amount that would have been expected if customers were fully purchasing E85. [EPA-HQ-OAR-2015-0111-2264-A1 p. 6]

Experience shows that even with adequate availability of E85 in the market and sufficient FFV to use the fuel, consumers do not buy E85. In fact, E85 sales are decreasing and our members are converting E85 pumps back to E0 service. [EPA-HQ-OAR-2015-0111-2264-A1 p.7]

## **DENCO II**

DENCO II has also devoted immense amounts of time, energy, and money into developing a retail direct E85 program. We work closely with our local retail stations that offer E85 (85% ethanol and 15% gasoline). We are crediting the RIN value back into our E85 price to ensure the product gets to the consumer at the lowest possible price to incentivize use. We also help them with marketing of higher level blends such as E15, E30 and E85. We are committed to selling higher level blends and our efforts have led to steadily increasing E85 sales as detailed below. Other ethanol production facilities and obligated parties have dedicated resources to similar programs and have experienced similar results. These programs have led to substantial savings for many of the Americans who choose to use E85, E15, and E30 in their vehicles. We have proven that with a little effort and education higher level blends can be a superior fuel option for retailers and consumers alike. [EPA-HQ-OAR-2015-0111-1216-A2 p.2]

## **DuPont**

Requiring additional volumes of biofuels will increase the demand for RINs incentivizing investments in biofuel infrastructure. [EPA-HQ-OAR-2015-0111-1826-A1 p.18]

Coinciding with the release of EPA's Proposed Rule on the 2014, 2015 and 2016 Renewable Volume Obligations for the Renewable Fuel Standard Program, USDA Secretary Tom Vilsack announced that USDA would "invest up to \$100 million in a Biofuels Infrastructure Partnership to support the infrastructure needed to make more renewable fuel options available to American consumers. Specifically, USDA will administer competitive grants to match funding for state-led efforts to test and evaluate innovative and comprehensive approaches to market higher blends of renewable fuel, such as E15 and E85."<sup>15</sup> [EPA-HQ-OAR-2015-0111-1826-A1 p.19]

The deadline for applications for these grants was on July 15, 2015. As such, EPA should have access to the data concerning these applications and able to consider these infrastructure investments for bringing additional volumes of higher biofuels blends to market for purposes of this rulemaking process. [EPA-HQ-OAR-2015-0111-1826-A1 p.19]

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<sup>15</sup> USDA Press Release, May 29, 2015.

### **East Kansas Agri-Energy, LLC (EKAE)**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 289.]

Ethanol is good for America and changing the RFS ethanol standard is not. I've already shared with you the significant and positive impact the ethanol industry has had on our area. It has created jobs, reversed the economic trend of another suffering small town in rural America, and generated income for local farm families through higher demand for their corn and nearly \$50 million in dividends for shareholders. I'm sure this is a similar story to the 200+ communities across America which are home to an ethanol plant. Due to favorable market timing, a high-performing plant and workforce, and a healthy ethanol market, our company has been financially successful. As a result, we are prepared to increase our capital investment in producing renewable fuel for America ONLY IF we believe market conditions will be favorable. The primary reason we would stop investment or divest is the lack of a long-term, stable energy policy that ensures a healthy business environment for ethanol producers.

### **Energy Policy Research Foundation, Inc. (EPRINC)**

For E85 to be competitive with E10, at a minimum it needs to be priced on an energy-parity basis. Since the implementation of the RFS, E85 prices have been trending towards parity, but nevertheless are at a premium, averaging about 84% of those of E10. However, parity pricing is not likely to be sufficient to induce consumers to substantially increase the use of E85 as a transportation fuel. We have substantial evidence of consumer resistance to E85 in those states that have promoted its use. Its low energy content requires more fueling stops and its long-term economic viability presents substantial investment risks to retail establishments considering installing fueling pumps and tanks. While EPA might believe it can induce consumers to purchase more E85, or other costly advanced biofuels, the price risks of actually achieving that goal are largely unknown. [EPA-HQ-OAR-2015-0111-1946-A1 p.4]

### **Environmental and Energy Study Institute (EESI)**

While the automotive industry, ethanol producers and farmers have proved that they can produce sufficient feedstocks, refine fuels, and design engines to handle these fuels, fuel refineries have not held up their end of the bargain. [EPA-HQ-OAR-2015-0111-1944-A1 p.3]

The petroleum industry and oil refineries have argued that the RFS is a failure, citing low consumer interest in mid and higher blends. Yet, as an obligated party, it is their responsibility to create interest and product acceptance. To say there is no consumer interest in these higher blends when they make it difficult or impossible for consumers to access them, is a self-fulfilling statement. [EPA-HQ-OAR-2015-0111-1944-A1 p.3]

### **Governor of Iowa, et al.,**

The State of Iowa has consistently supported growth of the renewable fuels industry and that strong and stable support laid the foundation for Iowa to lead the nation in ethanol and biodiesel production. Recently the State of Iowa submitted an application for the USDA's Biofuels Infrastructure Program (BIP) to build on the Iowa Renewable Fuels Infrastructure Program. The new BIP-supported program, as outlined in the State of Iowa proposal, would increase blender

pumps and E85 stations in Iowa by over 50%. In short, Iowa continues to advance consumer access to renewable fuels, but steady growth in the volume obligation levels is the best way to achieve improved consumer access. [EPA-HQ-OAR-2015-0111-1915-A1 p.2]

If the EPA's proposed rule stands, consumers across America would be limited in their choices at the pump. When consumers have choices, like they do in Iowa, they choose ethanol and other biofuels. The oil companies are preventing fuel choice in other parts of the country and consumers lose, paying much more for fuel. The Iowa Department of Revenue tracks biofuels sales and the data is clear – when given the choice, Iowans choose biofuels. Consumer purchases of E85 (85% denatured ethanol fuel and 15% gasoline) in Iowa continue to increase – growing from 9.12 million gallons in 2012 to 11.15 million gallons in 2013, to 12.08 million gallons in 2014 – a growth of nearly 33% in that period according to Iowa Department of Revenue data. Total B100 (100% biodiesel) sales in Iowa have expanded from 7.4 million gallons in 2010 to 33.3 million gallons in 2014. In 2010, the average blend level of biodiesel-blended gallons sold in Iowa was 3.1 percent and by 2014, the average blend level had more than tripled to 9.4 percent. Big Oil does not like competition – but American consumers deserve and demand choices at fuel pump. [EPA-HQ-OAR-2015-0111-1915-A1 p.3]

### **Governors' Biofuels Coalition**

Bruce Babcock and Sebastien Pouliot from Iowa State University developed a model of E85 demand. They use data on the location of flex fuel vehicles and E85 fueling stations to calculate the cost to drivers from having to drive further to find an E85 station. This cost was then added to the fuel cost. The owners of flex vehicles were assumed to choose between E10 and E85 on the basis of relative fuel costs and preference. The demand model shows that the existing vehicles and existing stations could consume as much as 1.3 billion gallons of E85 in 2015. [EPA-HQ-OAR-2015-0111-1722-A1 p.4]

### **Growth Energy**

EPA assumes that there were about 14 million FFVs in the fleet in 2014, and that this will grow to about 16 million FFVs in 2016, though there is evidence that there could already be as many as 17.4 million FFVs on the road today.<sup>179</sup> And EPA assumes that there are about 3,000 E85 stations nationwide.<sup>180</sup> That is reasonable, as other sources provide similar estimates.<sup>181</sup> Although that means that only about 2 percent of stations offer E85, EPA correctly recognizes that “the fraction of FFVs with access to E85 is higher than 2% since the vast majority of vehicles are within reasonable range of more than one retail station on typical trips.”<sup>182</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.33]

EPA makes no effort, however, to then estimate the actual proportion of FFVs with access to E85. It notes that *if* that number is 5%, then 800 mil gal of E85 could be consumed under favorable pricing conditions.<sup>183</sup> EPA does not explain its choice of 5%; the number appears to be entirely arbitrary. [EPA-HQ-OAR-2015-0111-2604-A2 p.33]

EPA does all this without any analysis whatsoever of why 600 mil, 100 mil, or any other volume is the *right* projection, and does not even explain what kind of uncertainty is driving EPA to suggest that there is a range of possible volumes that could be distributed. This is the epitome of arbitrary and capricious action. [EPA-HQ-OAR-2015-0111-2604-A2 p.34]

Nor does EPA explain why it abandoned the approach it took in November 2013 to answer this same question. There, EPA estimated “the fraction of FFVs that have access to E85” to be 8.6%, based on the notion that it would be reasonable to assume that an FFV had access to E85 if one out of four stations near it offered E85.<sup>191</sup> This led EPA to determine that 1.3 bil gal of E85 could be consumed per year (containing 860 mil gal of ethanol)—more than *double* the *high-end* of the range it uses now.<sup>192</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.34-35]

A better model that has long been available to EPA would be that of Professors Bruce Babcock and Sebastian Pouliot. They addressed with precision the question of how much E85 could be distributed to FFVs given current infrastructure.<sup>195</sup> Cross-correlating a database of FFV registrations by zip code with a database of E85 stations by zip code, they found that 55% of FFVs were within ten miles of an existing E85 station.<sup>196</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.35]

Stillwater explains that the 45,000 figure is very close to the amount supported by a *single* dispenser using the standard rule of thumb in the industry for the relationship between dispensers and total gasoline sales.<sup>201</sup> In other words, assuming conservatively that every E85 station has just one E85 dispenser, the 45,000 gal per month throughput would simply mean that this E85 dispenser would be as active as any other E10 dispenser in the station. [EPA-HQ-OAR-2015-0111-2604-A2 p.36]

Stillwater also analyzed the supply chain for E85 and found no bottlenecks. E85 tanks are typically 8,000 to 12,000 gallon capacity.<sup>207</sup> Stations generally receive new deliveries of fuel on a daily basis, and can receive multiple deliveries in a single day when needed.<sup>208</sup> Even assuming a smaller E85 tank, a station receiving a single delivery each day could potentially receive 240,000 gal per month of E85 (8,000 gallons per day times 30 days), which is far more than needed under Babcock and Pouliot’s or Stillwater’s analysis. [EPA-HQ-OAR-2015-0111-2604-A2 p.37]

There are two principal paths by which E85 infrastructure could be expanded: (1) adding a second E85-capable dispenser to existing E85 stations or (2) adding an E85-capable dispenser to stations that do not currently offer E85. Given the distribution and consumption capacity of existing infrastructure, as explained above, this expansion is unnecessary to achieve high volumes of additional E85 consumption in 2016. But these expansion options provide another path to achieving such volumes, and EPA’s failure to consider their feasibility further underscores the unreasonableness of EPA’s proposed requirements. [EPA-HQ-OAR-2015-0111-2604-A2 p.37]

If the station does not currently offer E85, then in addition to replacing the dispensers it would have to do some modest underground work. [EPA-HQ-OAR-2015-0111-2604-A2 p.38]

Stillwater estimates the total conversion cost to start offering E85, including installation of the dispenser, to be approximately \$30,000.<sup>218</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.38]

To be sure, one challenge with growing E85 infrastructure is the vise grip that the oil industry has over stations that sell their branded gasoline—approximately half of the stations nationwide.<sup>231</sup> Oil refiners often contractually require distributors to sell only those branded fuels that the refiner produces or makes available, but then the refiners rarely make available branded

forms of renewable fuels like E85.<sup>232</sup> Such agreements also typically preclude retailers from offering higher-blend fuels like E85 under the branded canopy or at all.<sup>233</sup> Should a retailer violate the terms of its onerous agreement with an oil company, the penalties are typically severe, including termination of the entire agreement.<sup>234</sup> Thus, as of July 2014, independent or unbranded stations were four to six times more likely to offer E85 than stations carrying a “Big Five” oil brand.<sup>235</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.40]

By adhering to statutory volume requirements, EPA will properly teach obligated parties to assume that the statutory volume requirements apply and to invest in biofuel infrastructure, as Congress envisioned. Instead, EPA’s proposal would teach obligated parties the opposite, that recalcitrance will lead to a decreased compliance obligation. [EPA-HQ-OAR-2015-0111-2604-A2 p.58]

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<sup>179</sup> *Id.* at 33,121, 33,128 & n.71; *see also* Air Improvements Resource, Inc., *Analysis of Fleet Percentage of 2001+ Model Year Group In Calendar Years 2014, 2015, and 2016*, at 4 (July 27, 2015) (“AIR, *Analysis of Fleet 2001+ Model*”) (attached as Exhibit 3).

<sup>180</sup> 80 Fed. Reg. at 33,121 (citing Alternative Data Fuels Center); *see also* 2013 Notice of Proposed Rulemaking E85 Memorandum at 3 (relying on [e85prices.com](http://e85prices.com)).

<sup>181</sup> Relying on 2013 data from [e85prices.com](http://e85prices.com) (a source on which EPA has previously relied), Babcock and Pouliot based their analysis on 3,072 stations E85 stations. *See* Babcock & Pouliot, *Price It and They Will Buy*, *supra* note 11, at [10. E85prices.com](http://10.E85prices.com) now states that there are 3,173 E85 stations.

<sup>182</sup> 80 Fed. Reg. at 33,128.

<sup>183</sup> *Id.*

<sup>191</sup> Memorandum from David Korotney to EPA Air Docket EPA-HQ-OAR-2013-0479, “Application of one-in-four E85 access methodology to 2014,” at 5 (Nov. 21, 2013) (“EPA 2013 E85 Memorandum”). EPA further assumed in this analysis that “the geographic distribution of FFVs is consistent with the geographic distribution of service stations.” *Id.* at 1.

<sup>192</sup> *See id.* at 5. Although EPA calculated this number in 2013 as available distribution capacity, it then discounted this figure significantly because it was improperly seeking to project how much E85 would be consumed without the mandate. *See* 78 Fed. Reg. at 71,762 (calculating “proposed mean volume of 180 mill gal for E85”). EPA now admits that this discounting was erroneous, *see* 80 Fed. Reg. at 33,117 (recognizing that “the approach we took in the November 2013 NPRM underestimated achievable volumes”). But rather than following the natural result of this concession and using its previously calculated 1.3 bil gal distribution capacity, it now simply ignores that it ever calculated this number at all.

<sup>195</sup> *See* Babcock & Pouliot, *Price It and They Will Buy*, *supra* note 11; Bruce A. Babcock and Sebastien Pouliot, “Impact of Sales Constraints and Entry on E85 Demand” (Aug. 2013), at <http://www.card.iastate.edu/publications/dbs/pdf/files/13pb12>.

<sup>196</sup> *See* Babcock & Pouliot, *Price It And They Will Buy*, *supra* note 11, at 9-10 (calculating that 8 million out of 14.6 million FFVs at the time were located in zip codes with a geographic center within 10 miles of an E85 station).

<sup>201</sup> Stillwater Associates, *Infrastructure Changes and Cost to Increase RFS Ethanol Volumes through Increased E15 and E85 Sales in 2016*, at 12 (July 27, 2015) (“Stillwater Study”) (attached as Exhibit 4).

<sup>207</sup> *Id.* at 6.

<sup>208</sup> *Id.* at 16.

<sup>218</sup> Stillwater Study at 14 (attached as Exhibit 4).

<sup>231</sup> *See, e.g.*, Elizabeth Douglas & Gary Cohn, *Refiners Maintain a Firm but Legal Grip on Supplies*, L.A. TIMES, June 18, 2005 (“[D]eclining station count has weakened competition and made it easier for the state’s major oil companies to impose their will on gas station owners, down to the profit earned on each gallon sold, dealers contend.”), at <http://www.latimes.com/news/la-fi-calgas18jun18,0,3198403.story?page=1>.

<sup>232</sup> *Id.* at 4.

<sup>233</sup> *See* Clean Fuels Foundation, *E85 and Blender Pumps: A Resource Guide to Ethanol Refueling Infrastructure*, at 23 (2011) (“[F]ranchise agreements generally do not allow the sale of ethanol blends other than 10% or 85% by volume.”), at [http://www.ffv-awareness.org/docs/11CFDC-004\\_Pump\\_Brochure\\_Indv.pdf](http://www.ffv-awareness.org/docs/11CFDC-004_Pump_Brochure_Indv.pdf).

<sup>234</sup> Renewable Fuels Association, *Protecting the Monopoly*, *supra* note 149, at 10.

<sup>235</sup> *See id.* at 1. The “Big Five” oil companies are BP, Chevron, ConocoPhillips, ExxonMobil, and Shell.

### **Hermes Consolidated, LLC dba Wyoming Refining Company**

We agree with CountryMark’s point that E85 and BBD cannot be relied upon to promote higher renewable fuel use. When changing consumer choice is a necessary requisite for success, Government’s ability to implement policy is, at best, extremely limited and even less so when parties who can achieve that policy have no legal obligation to do so. [EPA-HQ-OAR-2015-0111-2487-A1 p. 1]

### **HollyFrontier Corporation**

Additionally, if proposed 2016 volumes are finalized on November 30, 2015, there will be only one month remaining prior to the rule's effective date. That short window does not provide sufficient time for E85 infrastructure to come online which may or may not increase ultimate use of E85, and is an unrealistic time frame for industry to make investment decisions. [EPA-HQ-OAR-2015-0111-2257-A1 p.2]

### **Illinois Farm Bureau**

Another option is E85. More than 17 million flex-fuel vehicles are on U.S. roads today. Unfortunately, the United States is only utilizing 2 to 3 percent of its current E85 capacity. The issue with E85 acceptance by consumers has always been its price competitiveness relative to conventional gasoline, but as was shown in Table 1, D6 RIN values are being used to cut the price of E85 at the pump, encourage higher sale volume and thus provide greater volume demand for ethanol itself. [EPA-HQ-OAR-2015-0111-3290-A2 p.3] [Table 1 can be found on p. 2-3 of Docket number EPA-HQ-OAR-2015-0111-3290-A2]

### **Independent Fuel Terminal Operators Association (IFTOA)**

#### **II. E85**

EPA has said that it wants future mandates to drive the market to make significant changes by expanding infrastructure and modifying fuel prices to provide incentives for the production and

use of renewable fuels. In particular, EPA seems to be assuming that efforts to increase the use of ethanol beyond the blendwall will be primarily a function of the volume of E85 that is consumed. [EPA-HQ-OAR-2015-0111-1947-A1 p. 3]

EPA explains in the Preamble that if it proposes high volume mandates, RIN prices are likely to be higher than historical levels, and such RIN price increases are expected to help promote growth in renewable fuel supply. In addition, EPA explains that high RIN prices can provide the potential for reductions in the retail selling price of E85 and E15 if distributors, blenders, and retailers pass the value of those RINs on to end users. [EPA-HQ-OAR-2015-0111-1947-A1 p. 3]

Indeed, if faced with ambitious mandates, industry will likely be forced to make some of the infrastructure investments and price modifications that EPA has suggested, thereby allowing parties to meet their obligations under the RFS Program. However, those market changes come with a cost. On the one hand, these investments and price reductions for E85 may help some consumers overcome their objections to using that product – lower energy content, less efficiency, and greater cost. On the other hand, and more significantly, if industry reduces the price of E85 to meet the mandates, it will be forced to recover those costs on sales of E10 – the primary fuel used by most consumers. It is not at all clear how much this “cross-subsidization” would cost and what impact it would have on the national economy. [EPA-HQ-OAR-2015-0111-1947-A1 p. 3-4]

It appears that under this approach to establish ambitious standards, EPA has analyzed only one portion of the transportation pool – E85 – and has ignored the impact on the larger portion – E10. In addition, this analysis is based on the notion that renewable fuels, on an energy-equivalent basis, will cost less than the petroleum-based fuels they are replacing. However, the price of renewable fuels is affected by many factors such as the price of corn, which, in turn, is impacted by weather. Thus, if renewable fuels cost more on an energy-equivalent basis than the petroleum fuels they displace, there is a cost to using these renewable fuels. The higher the required volume of these fuels, the higher this cost will be. [EPA-HQ-OAR-2015-0111-1947-A1 p. 4]

Recommendation: EPA should take a broader view and analyze the full impact of its proposed actions on consumers and the economy. It should not establish the 2016 and future mandates by focusing primarily on increasing the production and use of renewable fuels. [EPA-HQ-OAR-2015-0111-1947-A1 p. 4] Specifically, the Association recommends the following: [EPA-HQ-OAR-2015-0111-1947-A1 p. 8]

3. EPA’s expectation that the market will reduce the price of E85 so that it can meet future ambitious targets is short-sighted. Industry can artificially reduce the price for E85, but such action will unfairly and substantially raise the price of E10 – the primary fuel used by most consumers. [EPA-HQ-OAR-2015-0111-1947-A1 p. 8]

### **Indiana Farm Bureau**

Furthermore, a significant reduction in the 2015 and 2016 volume requirements would slow or halt investments in the infrastructure needed to distribute and dispense larger volumes of ethanol, a key and unjustified reason that the EPA provides for reducing the RFS due to lack of

availability of higher ethanol blends. In Indiana alone, there are over 200 gas pumps offering E85. [EPA-HQ-OAR-2015-0111-2486-A1 p.2]

Another option is E85. More than 17 million flex-fuel vehicles are on U.S. roads today; however, the United States is only utilizing 2 to 3 percent of its current E85 capacity. The issue with E85 acceptance by consumers has always been its price competitiveness relative to conventional gasoline, but as was shown in Table 1, D6 RIN values are being used to cut the price of E85 at the pump, encourage higher sale volume and thus provide greater volume demand for ethanol itself. [EPA-HQ-OAR-2015-0111-2486-A1 p.4]

Farm Bureau believes that the ethanol blend wall can be overcome. In fact, the means of overcoming it are already in place with the RFS2. RFS2 volume mandates and RIN prices are working as intended to provide incentives for the production and use of higher ethanol blends. The petroleum industry's unwillingness to offer higher blends must not be taken as evidence that the RFS2 is unworkable. Rather, it is evidence that they are unwilling to cede market share to an alternative fuel. But making space in the market for alternative fuels that contribute to energy independence, environmental improvement, and economic development is exactly the point of RFS2. And it is working. There is thus no need to roll back volume requirements in the Proposed Rule. [EPA-HQ-OAR-2015-0111-2486-A1 p.4]

### **Iowa Corn Growers Association (ICGA)**

**Elimination of the incentive to invest in infrastructure.** EPA's proposal would let oil companies off the hook from the requirement to blend amounts of ethanol above the "blend wall" in 2014-2016. As a result, RIN prices would continue to fall and the financial incentive to expand E15, MLB and E85 infrastructure would be virtually eliminated. The intent of the law was to do just the opposite and require additional infrastructure investments be made. In addition, Iowa Corn is making personal significant commitments to programs that build out pump infrastructure in Iowa. [EPA-HQ-OAR-2015-0111-1820-A1 p. 6]

### **Iowa Renewable Fuels Association**

This restriction on competition is not the result of consumer preference, equipment availability, or renewable fuel supply. Iowa retailers have had great success with higher ethanol blends like E15 and E85, when they are allowed to sell it. Customer demand is high. Contrary to the blatantly false claims that a blend wall exists, even more motorists would buy E15 and E85 if it were just available for them to choose. [EPA-HQ-OAR-2015-0111-1957-A2 p. 10] Further, it has been suggested that offering higher blends like E15 and E85 is a costly endeavor for retailers. Yet a review of retailers around Iowa (and likely the U.S. as well) shows that it is often the small "ma and pa" stations that are providing the option of higher blends to their customers. On average, these stations should be the least likely to make a risky and expensive investment. If Sparky's One Stop in Bayard, Iowa (population 458) can offer its customers E85, why can't large retailers in large cities? It might have much less to do with "cost" than it does with what brand a retailer flies. [EPA-HQ-OAR-2015-0111-1957-A2 p. 11] Fuel Time in St. Ansgar, Iowa takes advantage of low-priced E85 in its blender pump to offer E10, E15, E30, and E85. They also offer E0 (no ethanol) to their customers. Even with 10% of their sales going toward E0, their average ethanol content is 34.6 percent. [EPA-HQ-OAR-2015-0111-1957-A2 p. 12] Fast Stop in Cresco, Iowa offers five levels of ethanol blends through its blender pumps with an average

ethanol content of 43.5 percent. Five Star Coop reported that its three blender pump locations averaged an ethanol content of 23.7 percent. These three cases studies are representative of Iowa blender pump stations. All not only exceed the 2016 statutory RFS level, but the 2022 RFS level as well. (Details provided in Attachment E) [EPA-HQ-OAR-2015-0111-1957-A2 p. 12]

[Attachment E can be found on p. 47-48 of docket number EPA-HQ-OAR-2015-0111-1957-A2]

You would be hard pressed to find a retailer with a blender pump offering E15 and E85 not meeting that level today. If they also offer biodiesel blends, their own “station RFS” would be even higher. There is no blend wall. There is only a lack of consumer access to higher ethanol blends – a challenge the RFS was specifically implemented to remediate. [EPA-HQ-OAR-2015-0111-1957-A2]

### **Marathon Petroleum Company**

We support the EPA assessment that the E10 blendwall is real and that the obstacles to the sale of large volumes of E15 and E85 are significant enough for those products to be considered non-viable solutions. [EPA-HQ-OAR-2015-0111-1932-A1 p. 1]

In addition, the EPA should consider ethanol consumed in E85 separately from other ethanol blends and the agency should use historical demand for E85, not optimistic projections. [EPA-HQ-OAR-2015-0111-1932-A1 p. 3]

The EPA needs to use E85 demand volumes that are in line with historical and EIA projections not inflate figures that are necessary to make its aspirational projections for biofuel demand to work. [EPA-HQ-OAR-2015-0111-1932-A1 p. 4]

### **Miller, Denis**

Big oil also alleges that there is no consumer demand for E85 or the mid-level mix of ethanol at their stations. However, I believe that much of this has been created by big oil's policies, an attempt to discourage finding or using the mid-levels or E85. I will give two examples.

I recommend a requirement that franchisees of big oil be allowed to pick one third to one half of the available pump options on the pumps, and the remaining could be dictated by big oil. This will allow the local retailer to sell the market he thinks that would be best for his business and not allow big oil to force him to use products clearly designed to limit the options that citizens may want to use.

### **Minsk, Ronald**

Tellingly, what happened in Minnesota, the state with most stations selling E85,<sup>5</sup> tracked Knittel et al.'s findings—as RIN prices rose in early 2013, the number of stations selling E-85 declined.<sup>6</sup> Reviewing this data leads me to concur with Knittel et al.'s conclusion that the RINs market is simply not functioning as it should. [EPA-HQ-OAR-2015-0111-1307-A1 p.3]

<sup>5</sup> Department of Energy, Alternative Fuel Data Center, *E85 Fueling Station Locations by State*, available at <http://www.afdc.energy.gov/data/10367>.

## **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

2. EPA has overestimated E85 usage for 2016.

Because EPA cannot expect high RIN prices to incent meaningful E85 growth in 2016, it should assume no more than 100-200 million gallons of E85 usage in 2016. EPA concluded in the NPRM that the market produced about 130 million gallons of E85 in 2013, and that E85 and E15 usage was “only about 100-200 million gallons” in 2014. Yet EPA did not provide any evidence to support these estimates and, as explained below, production data on which EPA has previously relied suggest that EPA has significantly overstated E85 consumption in past years. [EPA-HQ-OAR-2015-0111-2603-A2, p. 29]

EPA identified two EIA data sources to support E85 estimates and projections in connection with the original 2014 NPRM (although not even these sources supported those estimates and projections). Revisiting those data sources reveals production of 50.3 million gallons in 2012, 64.6 million gallons in 2013, and only about 76.5 million gallons in 2014. Production thus grew annually by only 18 to 28 percent over the last 30 months, despite high RIN prices, and production has not yet reached the 100 million gallon mark in any year. The data also reflect two-year growth (2012-2014) of only 52 percent. However, to reach the levels of E85 usage assumed in twelve of the sixteen compliance scenarios that EPA has identified in the NPRM, production would have to jump from 2014 levels by between 161 to 684 percent (i.e., from 76.5 million gallons to 200-600 million gallons). E85 production in 2015 has also remained low. Year-to-date E85 production data for 2015 show that E85 production during the first four months reached only 21.34 million gallons, as compared to 21.42 million gallons over the same period in 2014.<sup>80</sup> In other words, E85 production has actually decreased from 2014 levels. Even if production improves over the remaining quarters, so that 2015 production increases by an aggressive 25 percent over 2014 levels (i.e., about 95.6 million gallons in 2015), E85 consumption would still need to more than double in 2016 to reach 200 million gallons.<sup>81</sup> There is no empirical foundation for projecting such significant growth. [EPA-HQ-OAR-2015-0111-2603-A2, pp.29-30]

Moreover, even taking EPA’s higher numbers on faith and assuming that the economy consumed about 160 million gallons of E85 in 2014,<sup>82</sup> the resulting growth rate between 2013 and 2014 was only about 23 percent. Applying that growth rate over the next two compliance periods yields only about 197 million gallons of E85 in 2016, still well below what EPA assumes in half of its compliance scenarios for 2016. Of course, that growth rate ignores the low end of EPA’s 2014 range, which, if used, would imply a negative growth between 2013 and 2014, and would undermine any suggestion that the economy could consume 200 million gallons in 2016. [EPA-HQ-OAR-2015-0111-2603-A2, p.30]

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<sup>80</sup> U.S. Energy Info. Admin., U.S. Renewable Fuel & Oxygenate Plant Net Production of Finished Gasoline, <http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=>

M\_EPM0F\_YNP\_NUS\_MBBL&f=M (last visited July 22, 2015); U.S. Energy Info. Admin., U.S. Refinery and Blender Production of Motor Gasoline, Finished, Conventional, Greater than Ed55, [http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=M\\_EPM0CAG55\\_YPR\\_NUS\\_MBBL&f=M](http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=M_EPM0CAG55_YPR_NUS_MBBL&f=M) (last visited July 22, 2015).

<sup>81</sup> State-level data from Minnesota further demonstrate that E85 usage remains low, with only modest overall growth in the past two years. Because Minnesota has the highest concentration of E85 sales in the country, it should experience the most significant per capita growth in E85. However, estimated E85 sales volumes of 18.12 million gallons in 2013 represent modest annual growth of about 23 percent compared to 2012 estimated volumes (sales reported in the Minnesota Dept of Revenue Petroleum Collections Report (“MNDDR”) were lower, at only 13 million gallons in 2013). Minn. Dep’t of Commerce, 2015 Minnesota a E85 + Mid-Blends Station Report, <http://mn.gov/commerce/energy/images/2015-05may-e85.pdf>. Estimated E85 sales then decreased in 2014 to about 16.5 million gallons, even with persistently high RIN prices (MNDDR reported sales equaled only 13.4 million gallons, reflecting very modest annual growth). See id. Sales figures for the first five months of 2015 reflect modest year-over-year growth from 2013 levels (estimated and MNDDR consumption declined 1.4 percent, and increased 33.6 percent, respectively), and significant negative growth from 2014 levels (estimated and MNDDR consumption fell by 18.4 and 5.6 percent, respectively). See Minn. Dep’t of Commerce, 2014 Minnesota a E85 + Mid-Blends Station Report, [http://mn.gov/commerce/energy/images/2014\\_12DecE85.pdf](http://mn.gov/commerce/energy/images/2014_12DecE85.pdf); Minn. Dep’t of Commerce, 2013 Minnesota a E85 + Mid-Blends Station Report, <http://mn.gov/commerce/energy/images/E85-2013.pdf>.

<sup>82</sup> EPA estimates E15 usage at 40 million gallons in 2014. While the Merchant Refiner Group takes no position on the accuracy of those figures, it deducts that volume here from EPA’s 100-200 million gallon range for E15 and E85 to arrive at its 160-million gallons example for E85.

### **National Taxpayers Union (NTU)**

Not only are few consumers able to utilize E85 – the blend that the EPA anticipates will help alleviate the glut of ethanol created by the rule – only 2 percent of gas stations can provide the fuel. This paucity is directly related to the cost of upgrading those facilities, which can run as high as \$200,000. The small business owners who run most gas stations operate on very thin margins and cannot afford such an investment, especially when the return is so uncertain. E15 faces similar demand and infrastructure problems. [EPA-HQ-OAR-2015-0111-3279-A1 p.1-2]

Together, these factors severely limit the potential market for higher blends of ethanol and make it unlikely that there will be a dramatic increase in demand for ethanol in less than six months. Exceeding the blend wall poses a threat of heavier burdens on consumers as refiners will be forced to scale back production. After all, the ethanol blend is only suitable for fuel consumed in the U.S., leaving refiners with much less flexibility in absorbing the financial effects. [EPA-HQ-OAR-2015-0111-3279-A1 p.2]

## **Nestle**

According to press accounts, refiners doubt it will be possible to meet the increment beyond 10% through sales of E85 and, still less, E15. This would seem to imply the need for obligated parties to purchase surplus Renewable Identification Numbers (RINs) in order to comply with their assigned use of renewable fuels. Such an approach is likely not sustainable over the long haul. [EPA-HQ-OAR-2015-0111-1918-A1 p.2]

## **NH Energy Forum**

The current proposal calls for increasing amounts of ethanol to be blended into gasoline for fuels like E85 and E15 for which there is no significant consumer demand- nor the infrastructure in areas such as mine, to allow consumers to fuel their cars. [EPA-HQ-OAR-2015-0111-0282-A1 p.1]

## **Petroleum Marketers Association of America (PMAA)**

E-85 sales do not justify the capital costs for infrastructure even with generous grants from federal and state governments. [EPA-HQ-OAR-2015-0111-1197-A1 p.3]

## **Phillips 66 Company**

According to EIA data, the nationwide E85 volume in 2014 was 76.5 million gallons. [EPA-HQ-OAR-2015-0111-2039-A1 p.3]

Although consumers might increase their use of E85 if offered aggressive, discounted pricing, there are still other significant barriers that would continue to constrain demand. [EPA-HQ-OAR-2015-0111-2039-A1 p.3]

However, for the approximate 150,000 existing stations, retrofitting the station so that the equipment meets all legal requirements is a major undertaking. PMAA stated in a recent letter to Representative Upton, that they stand by their \$200,000 cost estimate for UST equipment replacement. The station owners may find this cost-prohibitive. [EPA-HQ-OAR-2015-0111-2039-A1 p.4]

Forecast FFV sales, according to EIA in the 2015 Annual Energy Outlook, remain basically flat over the next several years. FFV production incentives are phasing out in the future as a result of the new NHTSA/EPA CAFE/tailpipe GHG requirements. [EPA-HQ-OAR-2015-0111-2039-A1 p.4]

The combination of these issues is likely to continue to constrain E85 demand over the next several years. Without any significant increase in E85, attaining the mandated volumes for 2016 would then rely on over-compliance on biomass-based diesel. [EPA-HQ-OAR-2015-0111-2039-A1 p.4]

## Poet, LLC

Edgeworth Economics has determined through modelling that, under reasonable assumptions, it would be readily achievable for the market to consume 600 million to approximately 1.1 billion gallons of ethanol in E85, at RIN prices of \$0.80 to \$1.45, in 2015 and 2016.<sup>47</sup> [EPA-HQ-OAR-2015-0111-2481-A1 p.14]

The challenges EPA cites as a basis for reducing the Base Renewable target are largely of obligated parties' own making, as they have spent years refusing to invest in renewable-fuel distribution infrastructure, and suing EPA over RFS standards, precisely to try to entrench the E10 blendwall in hopes that EPA would waive the volume requirements. [EPA-HQ-OAR-2015-0111-2481-A1 p.20]

Despite their best efforts to promote biofuels, ethanol producers are not in a position to force their customers (the obligated parties) to distribute biofuels in higher quantities. [EPA-HQ-OAR-2015-0111-2481-A1 p.21]

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<sup>47</sup> See Edgeworth Economics, *Impact of the RFS Mandate on Motor Fuel Volumes and Prices, 2014-2016* (July 2015) (Attachment 1 hereto to POET comments). [Attachment 1 can be found in docket number EPA-HQ-OAR-2015-0111-2481-A2.]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 199.]

With this rule, there remains little to no incentive for the obligated parties that control 50 percent of the retail supply chain to make investment in new blending equipment.

## Protec Fuel

The EPA has used 2013 actual data regarding infrastructure and pricing to project E85 demand for 2014 at between 100 to 300 million gallons. In so doing, the EPA has provided obligated parties, which would rather be selling fossil fuels, a roadmap for how to prevent further growth of the renewable fuel industry. [EPA-HQ-OAR-2015-0111-1194-A1 p.1]

The EPA's proposed rule signals to fossil fuel providers that if prices for E85 specifically can be kept above the level that would encourage use, historic consumption for E85 will be used to project demand and reduce total renewable fuel volumes for following years. [EPA-HQ-OAR-2015-0111-1194-A1 p.1-2]

Based on Protec's experience, the cost of installing E85 infrastructure at one of four stations is trivial and can easily be supported by the obligated parties. This cost should be assumed by obligated parties to encourage installation of infrastructure. Even if historic demand for ethanol blends were a factor to be considered in setting the total Renewable Fuel volumes, API and its members should not be heard to complain about the blend wall until they have done what is necessary to encourage consumer adoption. [EPA-HQ-OAR-2015-0111-1194-A1 p.5]

If large oil companies did not contractually require a branded station owner to sell the 3 grades of fuel, many, if not most, retailers would elect to sell regular gasoline and E85 only. *The sales from E85 fuel would far exceed the sales from premium and mid grade fuel sales combined.* [EPA-HQ-OAR-2015-0111-1194-A1 p.6]

The API insinuates that only 100 +/- E85 stations get converted/built each year and numerous close down due to the economics. In the real world and being in the market first hand, this lack of growth is more due to the oil companies having a strangle hold on retail branded stations and presenting “behind the scene” challenges, then on infrastructure equipment itself or the business economics. [EPA-HQ-OAR-2015-0111-1194-A1 p.6]

The API states that 95% of the retail stations are owned by small businesses. This is most likely accurate. However, what is not mentioned that these small businesses are branded a major oil brand, where they are contractually obligated to purchase and sell the branded fuel product. Being small businesses, they are more entrepreneurial spirited and would love an opportunity to increase product offerings at their business, it’s the branded oil companies that prevent E85 and E15 being able to be sold at the station. [EPA-HQ-OAR-2015-0111-1194-A1 p.6]

Since the business of Protec is to work with gas station owners to add E15/E85 pumps to their stations, we see every day what the obligated parties do to discourage the adoption of higher ethanol blends. While these actions may not be illegal and are logical actions that an obligated party would want to leverage their high fossil fuel content blends over E15/E85, it is not surprising that demand has not been at a level consistent with the volume requirements of the RFS. [EPA-HQ-OAR-2015-0111-1194-A1 p.6]

### **Renewable Fuels Association (RFA)**

According to the Department of Energy, 17.4 FFVs capable of operating on blends up to E85 were “on U.S. roads” as of December 2014.<sup>50</sup> Assuming 2015 FFV production and sales levels are consistent with 2013-2014 rates, approximately 19.5 million FFVs will be on the road by the end of 2015. Accordingly, the current fleet of FFVs alone is capable of consuming roughly 8.7 billion gallons of ethanol annually (11.7 billion gallons of E85).<sup>51</sup> [EPA-HQ-OAR-2015-0111-1917-A1 p. 30]

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<sup>50</sup> DOE Alternative Fuels Data Center, Flexible Fuel Vehicles, available at [http://www.afdc.energy.gov/vehicles/flexible\\_fuel.html](http://www.afdc.energy.gov/vehicles/flexible_fuel.html)

<sup>51</sup> Assumes average annual fuel consumption per vehicle is 600 gallons. Assumes E85 average ethanol content of 74%.

### **Small Refinery Owners Coalition**

To meet the total renewable fuel volume for 2016, for example, EPA concedes that the market would need to respond by expanding infrastructure for distribution and consumption of higher renewable fuel blends. EPA has no basis to make that determination. EPA lacks any special

expertise or knowledge on whether the number of capital projects that it would take to expand infrastructure to meet the 2016 volumes could be undertaken, let alone concluded, in the several months between November, when the rule is finalized, and the 2016 compliance year begins. [EPA-HQ-OAR-2015-0111-2339-A1 p. 21]

### **Society of Independent Gasoline Marketers of America (SIGMA) and the National Association of Convenience Stores (NACS)**

To date, very few retailers that sell mid-high ethanol-gasoline blends such as E15 or E85 have seen substantial sales of these products. Quite the opposite, most retailers that sell E15 or E85 have yet to see substantial sales of these products. Indeed, even consumers with flex-fuel vehicles that are compatible with E85 tend to purchase E10. [EPA-HQ-OAR-2015-0111-1937-A1 p.4-5]

Although E85 can be sold for less dollars-per-gallon than the more widely available E10, this price differential does not generate sufficient demand to justify the investment. Because E85 provides vehicles fewer miles per gallon (“MPG”) than E10, it must be sold at a discount in order to be priced equal to gasoline on a dollar per British Thermal Unit (BTU) basis. Even if E85 is sold on an equal dollar per BTU basis as E10, for E85 to infiltrate the market on a more widespread basis, there likely would have to be an *additional* discount to justify consumers having to stop and purchase the product more frequently relative to E10. The economics are simply not present in most places in the United States for this level of price discounting and market infiltration to occur. [EPA-HQ-OAR-2015-0111-1937-A1 p.5]

Retailers who wish to sell any gasoline containing more than 10% ethanol (such as E15 or E85) must acquire a new dispenser that has been listed as compatible with the product if they have not purchased new dispensers in the last five years. Dispensers can cost upwards of \$20,000 and many retailers are understandably disinclined to dispose of functional and modern dispensers in order to sell a new fuel for which demand is at best uncertain.<sup>4</sup> [EPA-HQ-OAR-2015-0111-1937-A1 p.6]

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<sup>4</sup> The two primary device manufacturers (Gilbarco and Wayne-GE) have obtained UL listing for retrofit kits for some of their units to upgrade their compatibility to accommodate fuels containing up to 25% ethanol. These units are currently available for \$2,000 - \$4,000 per kit and may be available for more than 50% of the dispensers in the market. This reduces the costs for many retailers, but the expense still equates to nearly 10% of a store’s annual pre-tax income – a significant risk given uncertain consumer demand.

### **State of Nebraska**

Ethanol has gained acceptance among Nebraska consumers. Proof of this was evident at a series of recent ethanol promotions sponsored by an Omaha convenience store chain, with flex-fuel vehicle drivers waiting in line for 45 minutes to fill up with E-85. To help satisfy this demand, Nebraska recently enacted legislation to commit state resources to expand access to clean-burning motor fuels. Additionally, Nebraska is one of over 20 states that applied earlier this

month to the U.S. Department of Agriculture Farm Service Commodity Credit Corporation's \$100 million grant opportunity dedicated to growing the ethanol infrastructure. The EPA's proposal to decrease volume requirements undermines these efforts. [EPA-HQ-OAR-2015-0111-1810-A1 p.1-2]

### **The Valero Companies**

“Working with vehicle manufactures to increase the number of Flex Fuel Vehicles (FFVs) in the fleet”

This option will have no impact on 2016 E85 consumption and doubtful impact in the next several years. Furthermore, individual refiners do not have sufficient market power or the requisite vehicle manufacturing business expertise to work with vehicle manufacturers to increase the number of FFVs in the market. [EPA-HQ-OAR-2015-0111-2765-A1 p.22]

Only a small fraction of refiners own retail stations. Even if individual refiners gave grants or covered the cost of installing equipment at retail stations, that alone would not increase the volume of renewable fuel entering the fuel market. The market for renewable fuel is influenced by other factors as EPA already acknowledges. [EPA-HQ-OAR-2015-0111-2765-A1 p.23-24]

EPA’s rationale appears to imply that contractual mechanisms among various parties can somehow make the gasoline fuels market uniformly lower the price of E15 and E85 relative to E10, thus ensuring greater overall market uptake of higher ethanol-blended fuels. EPA’s rationale for this option appears to be based entirely on conjecture and the option is unsupported by any analysis in the proposed rule. [EPA-HQ-OAR-2015-0111-2765-A1 p.24]

Individual refiners do not have sufficient market share to change the price of renewable fuels. Antitrust laws prohibit refiners from working together on pricing strategies. [EPA-HQ-OAR-2015-0111-2765-A1 p.24]

### **Union of Concerned Scientists**

Our specific recommendations include:

Provide stable policy support for ethanol blends beyond 10% ethanol. [EPA-HQ-OAR-2015-0111-2260-A1 p.2]

Addressing the infrastructure constraints and market access issues that complicate the sale of higher ethanol blends is critical to the long term success of the RFS. However, we recognize that overcoming these challenges requires actions that go beyond the present RFS proposal, and indeed that efficient and cost effective use of higher ethanol blends will require action from stakeholders in other parts of the federal government, state regulators, and private sector parties in the automobile, fuel production, refining, distribution and retail industries. But while the present rule alone cannot resolve the blending challenges, a balanced and stable path forward can make a significant contribution. In particular, we believe the approach EPA articulated in the proposal should clearly communicate to market participants that EPA intends to balance stability

in fuel markets with a concerted regulatory push that will allow RIN markets to provide significant support for additional biofuel use. [EPA-HQ-OAR-2015-0111-2260-A1 p.6]

One of the biofuel market dynamics that has emerged clearly over the last few years is the competition between BBD and E85 to provide compliance for advanced and renewable mandates that cannot be met within E10 blends. This competition has been illuminated by several studies from Scott Irwin at the University of Illinois published on FarmDocDaily. In light of this competition between E85 and BBD, it seems likely that absent exercise of general waiver authority, a 2016 renewable mandate of 18 Bgal (the statutory minimum) plus the cellulosic volume, would result in a dramatic increase the use of biodiesel rather than steady progress on availability and competitive pricing of higher ethanol blends. As discussed earlier, the supply of BBD is already straining to meet the non-cellulosic advanced mandate, and is clearly insufficient to increase by a further 667 Mgal to make up for the missing 1 Bgal worth of D6 RINs that would be required absent exercise of general waiver authority. Such a dramatic increase in the use of biodiesel would be destabilizing and not supportive of steady growth of fuel production and distribution capacity over time. In this sense, the availability of additional corn ethanol in the US is irrelevant if the markets will not support its use as fuel. [EPA-HQ-OAR-2015-0111-2260-A1 p.6]

Thus EPA is justified in using the inadequate supply argument to reduce the 2016 mandate, although it is the supply of BBD rather than ethanol that is inadequate. EPA should determine the extent of the general waiver to support the maximum realistic potential use of ethanol in various blends while limiting spillover that increases demand for BBD and other biofuels beyond available supplies (taking feedstocks into consideration). This should provide fuel market participants the assurance that as infrastructure to distribute ethanol at cost effective prices is deployed, EPA will administer the RFS standards in a manner that supports the sale of these higher blends. EPA's arguments and analysis are generally sound, and quantitatively the proposal seems quite aggressive in its support for higher ethanol blends. [EPA-HQ-OAR-2015-0111-2260-A1 p.6] While EPA's 2016 proposal for the RFS balances stability while providing support higher blends, progress on higher blends over the long term will require coordination of car-makers, gas stations and numerous private sector actors and government agencies. No single industry or regulatory body can resolve this challenge by itself, but government has an important role to play coordinating this process and keeping changes focused on cutting oil use and emissions. We urge EPA to seek opportunities to lead or participate in multi-stakeholder processes to develop a fuel and vehicle infrastructure that steadily evolves to meet long term climate and oil saving goals. [EPA-HQ-OAR-2015-0111-2260-A1 p.6]

**Response:**

The RFS program does not specify which renewable fuels are required, or in what form, beyond the fact that there are four separate but nested volume requirements. Rather, the standards set under the RFS program allow for a broad array of renewable fuel types to be used to meet the requirements, with market ultimately determining the best means of increasing renewable fuel volumes to comply with those standards. We acknowledge that in determining the level to which we should waive the 2016 statutory targets, EPA must evaluate the volume of ethanol that could be supplied in 2016. However, this was done in the context of an assessment of supply of all renewable fuels, including non-ethanol renewable fuels that can be achieved by a marketplace

that is responsive to the standards we set. Many stakeholders, however, have largely based their positions on the appropriate level of the 2016 total renewable fuel volume requirement wholly on whether and to what degree E85 volumes can increase in 2016, and these commenters typically also expressed opinions on whose responsibility it is to ensure that increases in E85 use occur.

Many stakeholders decried obligated parties' failure to invest in the infrastructure needed to permit expanded use of higher ethanol blends such as E15 and E85. They argued that EPA should not reward obligated parties for their recalcitrance by reducing the applicable volume requirements below the statutory targets. In taking these positions, these stakeholders cited both the statutory requirement that obligations be placed on "refineries, blenders, and importers, as appropriate" and EPA's regulations which (with limited exceptions) further narrow the applicability of the obligations to producers and importers of gasoline and diesel. Suggestions in the NPRM that renewable fuel producers could contribute to efforts to expand infrastructure were generally met by these stakeholders with references to the statutory language and their belief that all responsibility for investing in expanded infrastructure rests on obligated parties.

The statutory language, in combination with the regulatory structure, generally places the responsibility on producers and importers of gasoline and diesel to ensure that transportation fuel sold or introduced into commerce contains the required volumes of renewable fuel. Obligated parties have a variety of options available to them, both to increase volumes in the near term (i.e., through the period being addressed by this final rule) and in the longer term. The standards that we are establishing today reflect both the responsibility placed on obligated parties as well as the short-term activities available to them, and we also expect obligated parties to be taking actions now that will help to increase renewable fuel volumes in future years. However, this general responsibility does not require obligated parties to take actions specific to E15 and/or E85 infrastructure, as the RFS program does not require any actions specific to E15 or E85, and in fact does not require any actions specific to ethanol at all. Moreover, we do not believe the statute should be interpreted to require that refiners and importers change the fundamental nature of their businesses so as to comply with RFS requirements, as this would be a far-reaching result that Congress can be expected to have clearly specified if it was intended. For example, to the extent that commenters imply that refiners should be required to build or purchase renewable fuel production facilities, take ownership of retail stations, produce or sell cars capable of using high-ethanol blends, or plant cropland to provide feedstock for increased renewable fuel production, we would disagree, since they would then be engaging in business practices other than those directly relevant to their position as a "refiner, importer, or blender" as specified in the statute. Rather, if other parties engaged in these activities fail to increase their activities to allow statutory volume targets to be met, we believe the result is an inadequate domestic supply of renewable fuel that justifies granting a waiver pursuant to 211(o)(7)(A). The primary role that obligated parties play in the RFS program is to acquire RINs, and it is this demand for RINs that in turn drives demand for renewable fuel and which should stimulate other parties to increase their activities to supply it. In so doing, obligated parties provide the funding (recouped through higher petroleum fuel prices) to subsidize renewable fuel prices so that the market is incentivized to expand renewable fuel supply.

Nevertheless, there are actions that obligated parties can take that are more directly related to their roles as importers and refiners, such as investing in or otherwise influencing business practices in such a way as to promote increases in renewable fuel use. We also noted several

other ways in the NPRM in which obligated parties could help to increase the supply of renewable fuel:

- Working with vehicle manufacturers to increase the number of FFVs in the fleet
- Increasing the number of retail stations offering E15 and E85 through direct installation of new equipment or providing grants to retail owners, and locating those stations offering E15/E85 closest to higher populations of vehicles than can use those fuels
- Developing contractual mechanisms to ensure favorable pricing of E15 and E85 at retail compared to E10 to boost sales volumes
- Increased production and/or imports of non-ethanol renewable fuels (e.g., greater production of drop-in biofuels)
- Expanded co-production of non-ethanol renewable fuels with petroleum at new and existing facilities

In response, obligated parties described why in their view none of these suggestions were practical and/or would not provide any benefits for 2016. We understand that some of these may be atypical for some refiners, but they are also fully within the realm of activities common for refiners, their marketing operations, and their partnerships with other industries. We do not agree with stakeholders who said that developing contractual mechanisms to promote favorable pricing of E15 and E85 at retail would amount to illegal price fixing, or would reduce or eliminate consumer choice concerning which fuels to purchase. Contractual mechanisms could include a scale of increasing subsidies offered to retailers who increase sales of E15 and/or E85, or non-monetary support to retail stations in the form of expanded signage or advertising for renewable fuels in exchange for the retailer's agreement to offer E15 and/or E85. There is also no reason why existing refineries cannot be undertaking changes to their equipment or operations to produce renewable fuel themselves, even if those efforts would not produce renewable fuel volumes until after 2016.

More importantly, the examples we provided in the NPRM of activities that obligated parties could undertake were just that - examples of actions that obligated parties could take in addition to their primary responsibility to acquire RINs. They are not the only ways that obligated parties could help to increase the supply of renewable fuel, and we expect them to make ongoing efforts to further the goals of the RFS program both for 2016 and beyond. It would also be in the interests of renewable fuel producers to take similar, related, and/or complementary steps to increase the ability of the marketplace to supply their products to the vehicles and engines that can use them, notwithstanding the fact that the legal and regulatory responsibility for the purchase of RINs rests upon obligated parties.

With regard to the NPRM's discussion of the volumes of E85 that might be achievable in 2016, stakeholders held strongly diverging views. Some insisted that poor consumer response and the low concentration of retail stations offering E85 would ensure that E85 use in 2016 would be no higher than 100 - 200 million gallons, and that EPA should set the volume requirement assuming no more than this amount. Other stakeholders said instead that the RIN mechanism would cause sales of E85 to follow whatever volume requirements that EPA set, and that EPA should set the

volume requirements based on the expectation that the market would respond by increasing the sales of E85 (and E15) to meet those volume requirements. These stakeholders argued the E85 volumes could reach at least 1 billion gallons in 2016, and some argued that significantly higher volumes were possible.

As discussed in more detail in Section II.E.2.ii of the final rule, we generally believe that the market could theoretically be incentivized to provide higher volumes of E85 through the RIN mechanism in response to higher standards. However, we have investigated the specific mechanisms involved and have concluded that the process is far more constrained than most ethanol proponents believe it to be. These constraints make it inappropriate to estimate total potential E85 consumption based on the consumption capacity of all FFVs, or even just those FFVs with reasonable access to E85. It is similarly inappropriate to assume that the E85 throughput at a given retail station can be the same as typical throughput rates for gasoline. All such estimates demonstrate what is physically possible, not what is likely to occur given the way that the market actually operates under the influence of high RIN prices. While some stakeholders said that the RIN market, with its current high prices, is already working as intended to drive E85 volumes in some locales, they had a different perspective on what this implied for potential E85 volumes nationwide in 2016. For further responses to comments on the role of the RIN mechanism in reducing the retail price of E85, see Section 2.3.2.

As discussed more fully in Section II.E.2.iii of the final rule, we have also found that the response of FFV owners to greater E85 price discounts relative to E10 has not produced the substantial increases in E85 sales volumes that would be needed to reach the total E85 consumption levels that some stakeholders said are possible. A memorandum to the docket provides the details of this analysis demonstrating that even significant reductions in the retail price of E85 relative to E10 would only increase E85 sales to a few hundred million gallons for the nation as a whole in 2016 under very optimistic conditions.<sup>21</sup> Thus based on an analysis of available data, we have determined that at this point in the market's development, the constraints on the ability of applicable standards to drive increased consumption of E85 in 2016 are twofold:

- Higher RIN prices are not likely to produce dollar-for-dollar equivalent reductions in E85 retail prices under current circumstances wherein the number of E85 stations is too few to compel competition between them
- Reductions in E85 retail prices produce only moderate increases in E85 consumption by FFV owners

Our observations and analysis lead us to conclude that if EPA were to dramatically increase the total renewable fuel volume requirement above the level we have finalized for 2016 on the basis of higher E85 use, in the near term we would expect to see sharply higher RIN prices, but this would not translate into significantly higher E85 sales volumes.

In the NPRM we presented a collection of volume scenarios in Table II.D.2-2 that described market outcomes that were possible for E85, BBD, sugarcane ethanol, and other fuel

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<sup>21</sup> " Correlating E85 consumption volumes with E85 price," memorandum from David Korotney to docket EPA-HQ-OAR-2015-0111.

types. These scenarios were intended to demonstrate that the proposed volume requirements were achievable by illustrating the wide variety of options available to the market, all of which were possible, though not all equally likely. Within the context of these volume scenarios, we included a range of E85 volumes from 100 to 600 million gallons. In response to the NPRM, some stakeholders interpreted the range of E85 volumes in those scenarios as placing a 600 million gallon limit on E85 sales. In fact those volume scenarios placed no limits on the volumes of E85 that the market might supply in response to the proposed volume requirements. We explained in the NPRM that the volume scenarios were not the only ways that the market could meet the proposed volume requirements, and "indeed many additional scenarios could be generated." The NPRM also explained that we were not in a position to identify those scenarios that were most likely. Thus, for instance, we did not indicate whether 100 million gallons of E85 was more or less likely than 600 million gallons of E85.

The NPRM explained why we believed that the highest levels of each type of renewable fuel in Table II.D.2-2 were possible without indicating the likelihood that the market would reach those highest levels. In this context, we described why we believed that 600 million gallons of E85 in 2016 was possible by discussing access of FFVs to retail stations offering E85:

"While only about 2% of retail stations nationwide currently offer E85, the fraction of FFVs with access to E85 is higher than 2% since the vast majority of vehicles are within reasonable range of more than one retail station on typical trips. If only 5% of all FFVs had a retail station nearby that offered E85, they could consume 800 million gallons of E85 in 2016 under favorable consumer pricing conditions...Thus we believe it is possible for the market to reach volumes perhaps as high as 600 million gallons under favorable pricing conditions (i.e., where consumers believe they are obtaining an economic advantage through purchase of E85)." (80 FR 33128)

Some stakeholders said that we had contradicted ourselves by stating that 800 million gallons of E85 was possible while the highest level of E85 in Table II.D.2-2 was 600 million gallons. We disagree. As stated before, the volume scenarios in that table were not the only ways that the market could meet the proposed volume requirements, nor did we indicate whether 600 million gallons was more or less likely than any other level of E85. We could have, for instance, included a scenario wherein 800 million gallons of E85 was part of the market's response to the proposed volume requirements. More importantly, the calculation of 800 million gallons of possible E85 use was based upon broad and imprecise considerations of potential access to E85, and an assumption that every single FFV with access to E85 would refuel on E85 essentially 100% of the time. We chose a value somewhat higher than the 2% of retail stations which offer E85 to represent access to E85 merely to demonstrate that a relatively low level of access would nevertheless result in the potential for up to 800 million gallons of E85 consumption. Thus, the calculation was a bounding exercise designed to illustrate what might be possible under some simplifying assumptions, and the 800 million gallons that this calculation served to support the lower volumes that we had included in the volume scenarios table.

One stakeholder said that it was inappropriate for EPA to ignore a previous, larger estimate of FFV access to E85 that we had discussed in the 2013 NPRM, and instead assume that 5% of

FFVs have access to E85.<sup>22</sup> In that 2013 NPRM, we discussed an estimate of access to E85 that dated back to the 2010 final rulemaking that established the current RFS program. There we defined “reasonable access” to E85 as a situation in which one out of every four service stations to which an FFV owner had access offered E85. We did not use this estimate in the June 10, 2015 NPRM for a variety of reasons. First, it was originally designed only to provide a rule of thumb for the number of retail stations needed to support the introduction of alternative fueled vehicles. In fact, the 2010 rule clarified that one-in-three and one-in-five might also be reasonable estimates of access. Second, access to E85 does not, by itself, determine how much E85 would actually be used by those FFVs. A variety of other factors will also be at play, including relative price, distance travelled to reach the station offering E85, ineffective marketing, knowledge of choices, etc. It was the consideration of these other factors that led to the range of 100 - 600 million gallons of E85 that we included in the NPRM's scenarios. The bounding exercise using the assumed level of 5% access was not used to generate the E85 volumes in the scenarios nor the proposed volume requirements themselves, but was only used to demonstrate that the E85 volumes in those scenarios were possible; by describing why 800 million gallons of E85 was physically possible, all lower volumes of E85 were justified as likewise being physically possible. The use of a one-in-four assumption for FFV access to E85 could have served the same purpose, but would not have changed the consideration of other constraints that led to the range of 100 - 600 million gallons of E85 in the scenarios.

Several stakeholders said that we should have relied on analyses conducted by Babcock and Pouliot demonstrating that E85 volumes considerably higher than 600 million gallons were possible. We reviewed the referenced analyses and other data related to RIN prices, E85 retail prices, and E85 sales volumes, and determined that the analyses conducted Babcock and Pouliot could not be used to support the very high E85 volumes cited by ethanol proponents. Contrary to the assumptions made by analysts Babcock and Pouliot, the data showed that the market was not responding to higher RIN prices in the ways necessary to drive significant increases in E85 sales volumes. We also found that while sales volumes of E85 did increase as the price discount for E85 relative to E10 increased, these sales volume increases were both less dramatic than many have assumed, and perhaps more importantly, did not increase sharply when the price discount exceeded energy parity, as others including Babcock and Pouliot have assumed. Our own review of the information and data submitted by stakeholders is discussed in more detail in Sections II.E.2.ii and II.E.2.iii of the final rule.

Based on the additional analyses we conducted, we examined more closely for the final rule the possibility that significant increases in the number of retail stations offering E85, or a stronger than average consumer response to E85 price reductions, could result in much higher sales of E85 in 2016 than have occurred in the past. We determined that if all relevant factors were extremely favorable, it may be possible for nationwide E85 consumption to reach as high as 400 million gallons in 2016. However, we do not consider this to be a likely outcome, and thus did not view 400 million gallons of E85 to be a reasonable basis for determining the 2016 volume requirement for total renewable fuel. Nevertheless, because 400 million gallons of E85 is possible despite being unlikely, the highest volume of E85 that we have included in the updated volumes table in the final rule (Table II.G-2) is 400 million gallons. Again, however, the market will choose how to respond to the standards that we set for 2016, and we acknowledge that

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<sup>22</sup> 78 FR 71761, November 29, 2013.

volumes higher than 400 million gallons of E85 are theoretically possible. For the purposes of estimating total ethanol supply, we have estimated that total E85 supply in 2016 will reach 200 million gallons, based on an estimate of growth in the number of E85 stations to about 3,200 and an E85 price discount of 22% relative to E10. Both the number of E85 stations and the E85 price discount are significantly higher than at any time in the past for the nation as a whole, but we believe that they are achievable for a market that is responsive to the standards we set. For further discussion of our assessment of volumes of E85 that are reasonably achievable in 2016, and the basis for using 200 million gallons of E85 in our determination of the total volume of ethanol that we estimate to be reasonably achievable in 2016, see Sections II.E.2.iii and II.E.2.vi of the final rule.

One stakeholder said that the release of this final rule by November 30, 2015 would only provide one month for the market to increase E85 infrastructure, and that as a result E85 was unlikely to grow in 2016 above current levels. In fact the market can increase E85 infrastructure all throughout 2016, though the later that the infrastructure becomes operational the less of a contribution it can make to total E85 use. Nevertheless, E85 infrastructure is likely to continue to be a constraint in 2016, and as a result increases in E85 volumes in 2016 above current levels are expected to be constrained as discussed in Section II.E.1. of the final rule.

One stakeholder said that EPA had no "special expertise or knowledge" concerning the infrastructure that would be needed to meet the proposed volume requirements, and thus had no basis for concluding that the necessary capital projects could be undertaken and finished in time to enable the proposed volume requirements to be met. While it is true that EPA staff are not engaged in the business of fuels infrastructure, EPA staff have acquired significant knowledge over the years on fuel production, distribution, and retail infrastructure in the context of developing and implementing our various fuel programs, placing us in a fairly unique situation to evaluate the issues. It is EPA's responsibility to assess the extent to which an inadequate domestic supply of renewable fuels exists in the 2014-2016 time period, and we have done so by reviewing the available information, comments provided, what the industry has accomplished in the past, and such factors as production capacity, availability of feedstocks, and a variety of constraints on supply to vehicles and engines as described in Section II.E.1 of the final rule. With respect to the specific issue of retail stations that offer E85, we examined the historical rate at which infrastructure has expanded in the past and estimated possible increases for 2016. For further discussion, see the aforementioned memorandum to the docket.

For responses to comments on how the RIN mechanism operates to subsidize the cost of renewable fuels at retail, see Section 2.3.2.

For responses to comments stating that the E10 blendwall is not a constraint, or has been fabricated by the refining industry, see Section 2.4.

For responses to comments on USDA's Biofuel Infrastructure Partnership, see Section 2.6.2.

For responses to comments on E0 and E15, see Section 2.6.2.

For responses to comments on whether the proposed volumes would force consumers to use E85, see Section 2.7.

For responses to comments on how RIN prices would affect retail fuel prices, see Section 7.5.

For comments on supply of biodiesel, see Section 2.7.2.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

|                |   |
|----------------|---|
| Section 2.3.1  | Congressional Intent to Increase Volumes                    |
| Section 2.3.2  | Power of the Market to Respond to Ambitious Standards       |
| Section 2.4.1  | Proposed Total Renewable Fuel Volume for 2014               |
| Section 2.4.2  | Proposed Total Renewable Fuel Volume for 2015               |
| Section 2.4.3  | Proposed Total Renewable Fuel Volume for 2016               |
| Section 2.6    | Ethanol Consumption   |
| Section 2.6.1  | E10 Blendwall and Demand for Gasoline                       |
| Section 2.6.2  | Assumptions of Zero Volumes for E0 and E15                  |
| Section 2.7.3  | Impacts on Corn Ethanol                                     |
| Section 2.7.4  | Impacts on Imports of Sugarcane Ethanol                     |
| Section 7.3    | Fuels Industry Impacts (oil refineries, biofuel facilities) |
| Section 7.4    | Impact on RINs  |
| Section 7.5    | Retail Fuel Prices  |
| Section 7.7    | Impact on Jobs and Local/State Economy                      |
| Section 7.8    | Cost to Consumers   |
| Section 10.6.4 | Ethanol Impacts on Engines                                  |
| Section 10.6.5 | Other Information and Ideas to Overcome Current Challenges  |

## **2.7.2 Impacts on Advanced Biodiesel Production and Imports**

### **Comment:**

#### **Advanced Biofuels Association (ABFA)**

Renewable diesel will make a modest contribution towards LCFS compliance, even at low volumes. With no additional distribution infrastructure or refueling infrastructure costs, and no limitations on consumption in vehicles, renewable diesel is an attractive option for LCFS compliance. Furthermore, it is available in significant quantities today. Even at conservative forecasts of 150 million gallons renewable diesel delivered to California by 2020, renewable diesel could generate about 8 percent of the LCFS credits required to achieve compliance. [EPA-HQ-OAR-2015-0111-2498-A1 p.6]

The EPA proposal spends little time discussing renewable diesel. EPA should be aware that there are more than 900 million gallons of global renewable diesel capacity from companies that are located in the U.S. or imported to the U.S. This includes U.S. production capacity of over 200 million gallons per year of renewable diesel. The ability of renewable diesel to help meet the RFS's statutory targets should not be underestimated and it continues to add incrementally more volume each year. [EPA-HQ-OAR-2015-0111-2498-A1 p.6]

## **American Soybean Association (ASA)**

EPA should increase the biomass-based diesel volumes relative to the total Advanced Biofuels volumes in order to promote the use of domestically produced biodiesel over imported advanced biofuels such as sugarcane ethanol. The intent of Congress when they established and expanded the RFS program was clearly to increase and promote domestic energy production and U.S. energy independence. This is reflected by the title of the 2007 law – the Energy Independence and Security Act (EISA) - and is supported by numerous statements by legislators during consideration of the bill. [EPA-HQ-OAR-2015-0111-1818-A1 p.3]

Biomass-based diesel and imported sugarcane ethanol are the two primary, and practically the only, fuels available to fulfill the Advanced Biofuels requirements. Since EPA contends that there is an ethanol “blend wall,” increasing the biomass-based diesel volumes would help alleviate this so-called “blend wall” issue by reducing the imports of sugarcane ethanol. In addition, on an equivalency or RIN basis, biomass-based diesel counts as 1.5 gallons for each 1.0 gallon of sugarcane ethanol. [EPA-HQ-OAR-2015-0111-1818-A1 p.3]

To be consistent with the primary purpose and intent of the EISA, the EPA should implement the RFS in a way that helps build our domestic industry, and doing so requires strong policy signals that promote fulfilling volume requirements with domestically produced biofuels to the greatest extent possible. Increasing the biomass-based diesel requirements relative to the overall Advanced Biofuels requirements is a way to accomplish that mission. [EPA-HQ-OAR-2015-0111-1818-A1 p.3]

Wherever possible, EPA should seek to promote domestic biofuel sources to fulfill the RFS volume requirements. However, when determining the appropriate volume standards for biomass-based diesel, the EPA must also account for the likelihood of increased imports of biodiesel from Argentina due to some factors beyond the RFS volume requirements. [EPA-HQ-OAR-2015-0111-1818-A1 p.3]

Prior to the EU imposing anti-dumping tariffs, Argentina was exporting approximately 400 million gallons to that market and they are seeking new markets for those volumes.<sup>5</sup> The EPA has approved a streamlined process for Argentine biodiesel to comply with the RFS and should expect Argentine imports into the U.S. to increase significantly in future years. [EPA-HQ-OAR-2015-0111-1818-A1 p.4]

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<sup>5</sup> USDA Foreign Agricultural Service. July 8, 2011. Argentina Biofuels Annual 2011, Global Agricultural Information Network Report. Available at: [http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual\\_Buenos%20Aires\\_Argentina\\_7-8-2011.pdf](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual_Buenos%20Aires_Argentina_7-8-2011.pdf)

## **Biotechnology Industry Organization**

If EPA sets the level of the overall RVO according to the amount of ethanol that can be consumed in a blend of E10 and well below the industry’s production capacity, as the agency proposes, it would improperly create a likelihood that the entire overall RVO above the advanced RVO would be met with conventional ethanol, rather than with additional advanced biofuels other than ethanol. [EPA-HQ-OAR-2015-0111-1958-A2 p. 37]

### **California Biodiesel Alliance (CBA)**

The vast majority of biodiesel produced in California is made from ultra-low carbon feedstocks such as used cooking oil, animal fats and non-food grade corn oil. When the market is too small, as it was in 2014, lower carbon fuels are squeezed out of the market by the more established higher carbon renewable fuels made. This unfortunate consequence is not only contrary to Congress' intent to promote the continued growth of the lower carbon advanced biofuels, it is also detrimental to California's comprehensive carbon reduction program. The State of California's Low Carbon Fuel Standard ("LCFS") calls for a substantial reduction of the carbon intensity of transportation fuels by 2020, and a recent executive order strengthened this goal to 40% below 1990 levels by 2030. The ultra-low carbon fuels such as biodiesel produced in California are critical to meet these carbon reduction goals. [EPA-HQ-OAR-2015-0111-1910-A1, p.1]

The new RFS proposal, while an improvement over the 2013 one, still discourages further investment in advanced biofuels, including biomass-based diesel, by setting a mandate that is substantially lower than what the industry can achieve. [EPA-HQ-OAR-2015-0111-1910-A1, p.1]

### **National Biodiesel Board**

the highest biomass-based diesel volume under all the scenarios considered by EPA is limited to 2.131 billion gallons. This represents approximately 178 million gallons of production per month. But, the industry has shown it can exceed this volume, including as high as 219.6 million gallons in 2013 (335 million ethanol-equivalent gallons). [EPA-HQ-OAR-2015-0111-1953-A2 p.116]

EPA also does not consider State-based initiatives that continue to provide opportunities for biomass-based diesel. DOE's Alternative Fuels Data Center indicates incentives or regulations that promote biodiesel use or production in Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.<sup>94</sup> See U.S. Department of Energy, Alternative Fuels Data Center, Search Federal and State Laws and Incentives (Biodiesel), available at [www.afdc.energy.gov](http://www.afdc.energy.gov) (Attachment 15). Several of these incentives seek to promote biodiesel blends above 5 percent, such as Minnesota that has moved to a B10 mandate for most of the year. From 2011-2014, biodiesel and renewable diesel together accounted for 30 percent of the total credits generated under the California Low Carbon Fuel Standard (LCFS) [EPA-HQ-OAR-2015-0111-1953-A2 p.116]

EPA does not adequately consider the potential increase in imports of biomass-based diesel. [EPA-HQ-OAR-2015-0111-1953-A2 p.117]

EPA must consider and account for these expected increases in imports. Such increases, without a corresponding increase in the RFS2 requirements will hurt domestic production and, thereby,

the U.S. economy, undermining a key goal of the program. [EPA-HQ-OAR-2015-0111-1953-A2 p.117]

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<sup>94</sup> Several of these States have their own tax incentives.

### **North Dakota Ethanol Council**

By taking a step backward, you are sending a signal that the government no longer supports the production of biofuels. This uncertainty, coupled with a dramatic cut in what should be produced, puts our industry at risk. Furthermore, if EPA and the government turn their backs on the production of current conventional biofuels, it will have a devastating effect on the development and commercialization of next generation biofuels. [EPA-HQ-OAR-2015-0111-1927-A1 p. 2]

We are also concerned that the proposed 2.9 billion gallon 2015 RVO for advanced biofuels will incent imported sugarcane-based ethanol due to the instability of the biodiesel production credit and its impact on biodiesel production. Shortfalls in biodiesel production will likely be met by imported advanced biofuels driven by inflated RIN values improperly incentivizing imported ethanol into a market that has yet to properly address market expansion. We believe all ethanol market expansion should be met with conventional and other nationally produced products. [EPA-HQ-OAR-2015-0111-1927-A1 p. 2]

### **The Andersons, Inc.**

We also cannot comprehend why EPA would want to encourage ethanol imports by raising the Advanced Biofuel RVO beyond our current domestic production capacity. Imported ethanol competes with domestically produced ethanol yet requires additional transportation to get here. Sugar ethanol is the exact same clean burning, high octane energy molecule as the corn ethanol that we produce in the United States. Why we would want to just move our Energy Dependence from the Middle East to South America is beyond comprehension. By keeping a low conventional ethanol RVO but an Advanced Biofuel RVO that is beyond our capacity to domestically produce, EPA has inflated D5 vs. D6 RIN prices and created a market that has already created a situation for sugar cane ethanol to be imported and force US production capacity to slow, or we'll have to export the excess. [EPA-HQ-OAR-2015-0111-2275-A2 p. 4]

### **Response:**

Some commenters argued that EPA should set the RFS standards in a manner that maximizes the incentives for domestically produced biofuels, either by reducing the advanced biofuel standard to provide more opportunity for conventional ethanol or by increasing the BBD standard relative to the advanced standard to reduce the opportunity for sugar cane ethanol to contribute toward meeting the advanced standard. While we recognize there are benefits of domestically produced renewable fuel, there are other important factors that EPA must consider in establishing the standard. If, for example, EPA raises the BBD standard relative to the advanced biofuel standard, we reduce the opportunity for other advanced biofuels such as sugarcane ethanol, but also advanced butanol and other drop-in fuels. We believe these other advanced fuels are essential to the success of the RFS program, and allowing space for them to compete in the advanced biofuel pool provides important incentives for those advanced biofuels that are

currently being produced as well as an important market signal to parties developing and investing in these fuels (see Section III of the final rule and Section 3 of the RTC for further discussion of the BBD standard). Reducing the advanced standard to provide more opportunities for domestically produced corn ethanol would similarly reduce the incentives for advanced biofuels, and would also reduce the GHG benefits the RFS program is designed to provide. Finally, we note that the Clean Air Act allows for imported renewable biofuels to contribute towards meeting the RFS standards (see additional discussion in section 2.1). Setting the RFS standards with the intent of limiting renewable fuel imports would not only contradict congressional intent and the goals of the program (e.g. GHG emissions reduction, as described above), but could also run contrary to U.S. trade agreements. Regardless, the final advanced and total renewable fuel standards provide a tremendous incentive for the growth of both domestic and imported renewable fuels (including biodiesel, renewable diesel, and both corn and sugarcane ethanol), and the biomass-based diesel standard provides added certainty for investment in biodiesel growth.

A commenter claimed that the highest biomass-based diesel volume considered by EPA was less than the annualized total of the highest historic monthly production rate. As discussed in Section II.E.3 of the final rule, we do not believe that using the highest monthly production rate to project an annual production volume is valid, as there are many reasons to believe that the production rate in a single month is not sustainable over the course of a year. These reasons include, for instance, the ability to temporarily increase or draw down the amount of biodiesel and renewable diesel feedstock and fuel in inventory. EPA is aware of the state incentives mentioned by the commenter and has considered them in projecting the available supply of biodiesel and renewable diesel in 2016. We note that for the final rule we have increased our projection of the available supply of biodiesel and renewable diesel to 2.5 billion gallons in 2016.

Some commenters stated that EPA's standards must account for increasing volumes of imported biofuel. EPA has assessed the potential for increased biofuel imports in determining the appropriate level for both the total renewable fuel standard and the advanced biofuel standard. For more information on our assessment of the potential for imported renewable fuels see Section II.E and II.F of the final rule. With regard specifically to imports of biodiesel from Argentina, we note that the annualized volume of imported Argentinean biodiesel for 2015, based on data collected through July, is 94 million gallons. This level is far less than the potential volumes projected by the National Biodiesel Board and several others. There are also indications that Argentina's production of biodiesel in 2015 will be significantly reduced compared to prior years, as described in Section II.E.3.iii of the final rule. Finally, Argentina has changed the applicable tax on exported biodiesel several times since the beginning of 2015, highlighting the uncertainty associated with projecting potential future imports into the U.S. Based on these facts, we believe that the volume of biodiesel and renewable diesel imported from Argentina in 2016 is likely to be far less than the several hundred million gallons suggested by some commenters.

A commenter stated that if EPA set the total renewable fuel standard according to the amount of biofuel that can be consumed in an E10 blend it would increase the likelihood that the entire volume above the advanced standard would be met with conventional ethanol, reducing the opportunity for non-ethanol advanced fuels. The situation described by the commenter,

however, is not what we have finalized. In setting the total renewable fuel standard we determined that some ethanol can be consumed as E85. We have also projected the likely production and imports of all non-ethanol advanced biofuels and included these in our calculations of the available supply of renewable fuel. We believe these standards provide the appropriate incentives for all non-ethanol advanced biofuels.

Another commenter stated that higher RIN prices are essential to the success of drop-in biofuels. EPA recognizes the incentives that higher RIN prices provide, however we have not and cannot establish the RFS standards to try to achieve a certain RIN price we determine to be optimal in part because the market determines RIN prices based on many factors that are outside of anyone's control. Instead, we have set the required total renewable fuel volume at the maximum reasonably achievable supply of renewable fuel (see Section II.B and II.E for a further discussion on the total renewable fuel standard). Similarly, a commenter stated that the proposed volumes would slow or halt the investment needed to distribute large volumes of renewable fuel. We disagree, and believe the volumes in this final rule will continue to provide the necessary incentives for ongoing investment in the production and distribution of renewable fuels. Further, we believe it would be inappropriate for EPA to set standards beyond what the market can supply in an effort to provide additional incentives for growth in the renewable fuels market that cannot realistically be realized.

A commenter stated that EPA's proposal spent little time discussing renewable diesel and suggested that renewable diesel could be a significant source of renewable fuel in 2016. Another stakeholder pointed out that some volumes of renewable diesel are used in California to help meet their LCFS requirements, and that this volume should also count towards meeting the federal RFS requirements. Renewable diesel used in California that qualifies under the RFS program would indeed contribute to overall efforts to increase renewable fuel use consistent with the statute's goal for the RFS program. EPA believes that renewable diesel may contribute significantly towards meeting the BBD standard, advanced biofuel standard, and total renewable fuel standards in 2016. As described in Sections II.E.3, II.F, and III of the final rule, we have assessed available supply of both biodiesel and renewable diesel in 2016, and this supply would include any qualifying volumes used in California.

A commenter stated that the proposed standards are substantially lower than what the market can achieve, and that this has negative impacts on the California LCFS program, Congress's intention to reduce GHG emissions, and future investment in renewable fuel development. EPA has reviewed available information since the proposal and increased each of the standards based on this information. We believe the 2016 total renewable fuel standard in this final rule represents the maximum reasonably achievable volume of renewable that can be supplied in 2016 and will require significant growth in biodiesel, other advanced biofuel, and conventional biofuel volumes.

One stakeholder said that we had ignored the many State-specific incentives for the production or use of biodiesel. We believe that those incentives have played a role in bringing biodiesel use to the level that has been achieved to date. However, this stakeholder provided no information regarding how those incentives would lead to increases in supply in 2016 over current or proposed levels.

Finally, one commenter characterized EPA's proposed standards as a step back, and a signal that the government no longer supports biofuel production. We strongly disagree with this assessment. We believe that the volumes finalized in this rule represent growth based on the maximum achievable supply of renewable fuel in 2016. These volumes provide an incentive for substantial growth in each of the categories of renewable fuel over the volumes supplied in 2015. By responsibly exercising our general waiver authority we are providing the certainty that the renewable fuels market needs to continue to grow.

For responses to comments suggesting that domestic production of renewable fuel should be favored over imports of renewable fuel, see Section 2.1.

For responses to comments suggesting that the E10 blendwall can be addressed by increasing the required volumes of BBD, see Section 2.5.

### **2.7.3 Impacts on Corn Ethanol**

#### **Comment:**

##### **Abengoa Bioenergy**

The US ethanol industry has current installed production capacity in excess of 15 billion gallons per year, and the statute includes volumes that would allow conventional corn ethanol to contribute that 15 billion gallons per year in both 2015 and 2016. However, EPA's proposed rule cuts that opportunity to 13.4 and 14 billion gallons respectively — over a billion gallons short of actual production capacity today, even for the 2016 volumes. This does not seem to be a rule calculated to expand investment and production of biofuels when it does not even allow utilization of existing capacities. [EPA-HQ-OAR-2015-0111-2474-A1 p.5] [EPA-HQ-OAR-2015-0111-1004 p.132]

##### **Calease, John**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 282-283.]

If the EPA has, indeed, the authority to decrease the RVO of the RFS2 by congressional intent, under what scenario or circumstances will the EPA increase the dry grind portion of corn ethanol? Obviously, the EPA did not feel necessary when we produced 2 years back-to-back of 14 billion bushel corn crops, and corn prices have plummeted over 50 percent. Or when E85 blends are selling in northern Iowa for \$1 less per gallon than regular gas. I cannot understand the EPA's possible reasoning for lowering the RVOs for dry grind corn ethanol production. I have no doubts our farmers and our industry can produce all the ethanol needed to move to E15 and higher blends nationwide. This would help immensely in reaching our goals nationally for less than 25 percent imported fuels by 2025. I fully understand the economic impact of the RFS and the RFS2 has had on our rural communities and the jobs in the peripheral industries as well. The EPA's indecision of the past has stymied investment opportunities not only for dry grind corn ethanol, but also for the biofuels technologies as well.

## **Linn & Associates**

First and foremost, I believe that we should alter the 2015 corn -- conventional corn ethanol proposal to 13.9 billion gallons versus the proposed 13.4. Setting a target of 13.9 is an actual improvement over the initial -- over the last 2013 mandated volume. So you're following the spirit of the law.

And we also believe we should increase corn ethanol and biodiesel targets 100 million gallons each year to a maximum 15 for corn ethanol and 2.0 for biodiesel. This allows people to make long-term projections.

### **Mass Comment Campaign sponsored by American Ethanol-NASCAR (paper) - (65)**

I am writing in opposition to efforts to reduce the use of ethanol in the Renewable Fuel Standard. [EPA-HQ-OAR-2015-0111-2955-A1 p.1]

NASCAR chooses American ethanol, racing more than 7 million miles on corn ethanol and dramatically reducing its environmental footprint. I have seen its performance on the race track and in my engine at home. [EPA-HQ-OAR-2015-0111-2955-A1 p.1]

Please reverse your decision and leave the corn ethanol level where it currently is in the Renewable Fuel Standard statute. [EPA-HQ-OAR-2015-0111-2955-A1 p.1]

### **Mass Comment Campaign sponsored by anonymous 14 (email) - (1339)**

I support that mission and am proud to say that corn ethanol advances this mission. Corn ethanol provides up to a 50 percent reduction in greenhouse gas emissions, compared to gasoline. Global ethanol production and use is estimated to reduce greenhouse gas emissions by 100 million metric tons annually, the equivalent of taking more than 20 million vehicles off the road. Ethanol is a sustainable octane source that is much better for the environment than particulate-generating petroleum alternatives. [EPA-HQ-OAR-2015-0111-0216-A1 p.1]

Your decision to reduce corn ethanol levels harms both the rural economy and the environment which it is your mission to protect. [EPA-HQ-OAR-2015-0111-0216-A1 p.1]

### **Mass Comment Campaign sponsored by anonymous 23 (email) - (10)**

I support that mission and am proud to say that corn ethanol advances this mission. Corn ethanol provides up to a 50 percent reduction in greenhouse gas emissions, compared to gasoline. [EPA-HQ-OAR-2015-0111-1479-A1 p.1]

Please defend renewable fuels and reconsider your proposed reduction in the corn ethanol renewable volume obligations. [EPA-HQ-OAR-2015-0111-1479-A1 p.1]

### **Mass Comment Campaign sponsored by anonymous 29 (email) - (29)**

I am writing in response to your proposal to reduce the use of corn ethanol in the Renewable Fuel Standard for 2014-2016. The nation's premier racing series has chosen to use American ethanol to dramatically improve their environmental footprint, racing over 7 million miles on

renewable corn ethanol. I oppose your decision to reduce corn ethanol volumes. [EPA-HQ-OAR-2015-0111-2558-A1 p.1]

I'm concerned about what this will do to the air we breathe. We cannot forget the important environmental benefits of ethanol, which provides up to a 50 percent reduction in greenhouse gas emissions, compared to gasoline. Ethanol is a sustainable octane source that is much better for the environment than particulate-generating petroleum alternatives. I have seen its performance on the race track and in my engine at home. [EPA-HQ-OAR-2015-0111-2558-A1 p.1]

In addition to its environmental benefits, corn ethanol also has important economic benefits. The ethanol industry has created hundreds of thousands of jobs, even during the recession. It has grown rural tax bases benefiting schools, hospitals, fire departments and roads. Damage to the ethanol industry could devastate rural America and harm the broader economy. [EPA-HQ-OAR-2015-0111-2558-A1 p.1]

Please reverse your decision and leave the corn ethanol level where it is currently in the Renewable Fuel Standard statute. Follow the lead of the nation's favorite spectator sport and boost the usage of corn ethanol. [EPA-HQ-OAR-2015-0111-2558-A1 p.1]

#### **Mass Comment Campaign sponsored by anonymous 32 (postcard) - (7,903)**

I urge you to get the RFS back on track, as Congress intended, by finalizing corn-based ethanol volumes according to the law-14.4 billion gallons for 2014 and 15 billion gallons for 2015 and beyond. [EPA-HQ-OAR-2015-0111-2562-A1 p.1]

#### **Minnesota Bio-Fuels Association (MBA)**

Instead, we suggest the EPA consider the RFS language which sets the volume amounts as 'minimum' amounts and that the EPA more fully embrace the role the increased use of at least 15 billion gallons annually of conventional renewable biofuel can immediately play in helping to reduce GHG emissions. This action would be fully consistent with the letter and spirit of the RFS, President Obama's energy policy, reports of the Intergovernmental Panel on Climate Change regarding the role biofuels play in reducing GHG emissions and Minnesota's GHG emission reduction statute (See, e.g., Minn. Stat. 216H.02) and biofuel laws (Minn. Stat. 239.7911). [EPA-HQ-OAR-2015-0111-1936-A1 p.2]

#### **Missouri Coalition for the Environment**

EPA's authority to set volume requirements for the Renewable Fuel Standard program is derived from the Clean Air Act (CAA) — legislation designed to protect our natural resources. The science is indisputable: corn ethanol and the policy that mandates its production is devastating to our environment and has not demonstrated air quality benefits. The corn-based ethanol mandate serves the narrow interest of the corn ethanol lobby and the corn ethanol lobby alone — while we pay the costs. At this major milestone, we must finally put our environment and science before narrow special interests, support using quality farm land for sustainable agricultural production, and invest in renewable fuels that don't harm our environment. Corn ethanol has no place in a clean fuel future. [EPA-HQ-OAR-2015-0111-2271-A1 p. 2] [EPA-HQ-OAR-2015-0111-1043, p. 268]

## **Nestle**

However, the appropriate public policy considerations involved in this rulemaking extend well beyond the negative impact on any single company. In the comments that follow, we lay out some of these concerns. We believe it is high time for a broader debate over whether the Renewable Fuel Standard (RFS) is actually leading the nation toward the environmental and energy-independence benefits that are widely touted by the ethanol industry. EPA itself can play a vital role in that debate, although we recognize that in the present rulemaking, the agency is constrained by the policies that are presently enshrined in statute. [EPA-HQ-OAR-2015-0111-1918-A1 p.1]

### **Disadvantages of RFS Mandates**

As noted above, Nestlé in the U.S. fully realizes that EPA is charged with carrying out the Renewable Fuel Standard Program and can only operate within the limits of its statutory authority. Nevertheless, we are troubled by the continuing growth in the RFS mandate for corn-based ethanol in light of certain longer-term concerns. We believe these concerns should inform EPA's consideration of RFS issues both in this rulemaking and in future years. [EPA-HQ-OAR-2015-0111-1918-A1 p.3]

### **NUVUFuels, LLC and DENCO II**

Corn ethanol as a biofuel is the only proven alternative fuel to petroleum-based gasoline. The corn to ethanol industry has provided this country with initial and ongoing investment in our rural communities, cleaner burning oxygenated fuel, price strengthening for our agriculture sector, small farm/co-op profitability, sustainable job creation and a lessened dependence on foreign oil. This industry has also created a roadmap for the development of other bio-fuel technologies such as fermentation of 'cellulosic' substrates. [EPA-HQ-OAR-2015-0111-2631-A1 p.1]

Every year our industry and American agriculture do more with less and it sickens me to see the EPA's proposed RVO's which is taking a step backward and rewarding big oil for their behavior in fighting increased blends of renewables. I say this because that is exactly what my company and our ethanol plants will do with respect to continuing to invest in new technologies and ultimately next generation biofuels if the EPA finalized the proposed RVO's as is. We simply will not invest further without a strong RFS and ambitious goals. [EPA-HQ-OAR-2015-0111-2631-A1 p.1]

### **Trenton Agri Products LLC**

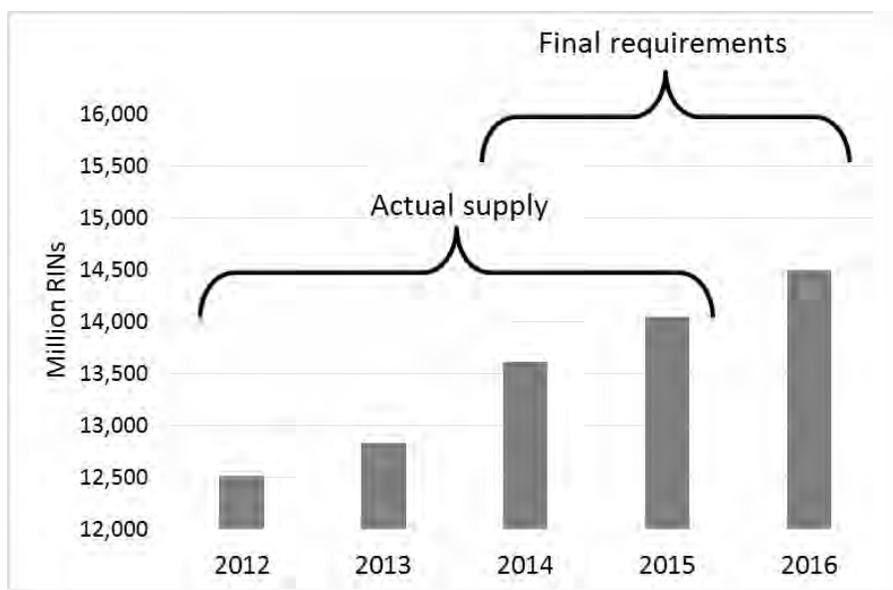
The ethanol production industry has invested billions to create supply consistent with the Congressional mandates. But the parties obligated to blend and distribute renewable fuels downstream haven't made their necessary investments; and they would be bailed out of their obligations by the EPA's proposed RVO's. I have to ask you, the EPA, what are we to do with our nearly 2 BGY of excess capacity if your proposed RVO is finalized? The answer is it will be shut in, and the economic peril related thereto will permeate through rural America. [EPA-HQ-OAR-2015-0111-1686-A1 p.2] [EPA-HQ-OAR-2015-0111-1043, p.320]

**Response:**

Many stakeholders who represented the corn ethanol industry were opposed to any reductions in the implied volume requirement for conventional renewable fuel.<sup>23</sup> Most of these stakeholders pointed to the fact that the domestic corn ethanol industry has sufficient capacity to produce 15 billion gallons of ethanol per year. Stakeholders who took this view generally regarded the blendwall as being fiction created by refiners, and said or implied that production capacity was the only relevant criterion on which to base the 2016 volume requirements. However, as described in Section 2.4, the blendwall represents real constraints on the supply of ethanol to vehicles, though it is not the firm barrier that some other stakeholders believe it to be. When we take the constraints associated with the blendwall into consideration, as we have a responsibility to do, it is clear that the statutory targets are not achievable in 2016. This conclusion also applies to conventional renewable fuel as described in Section II.B.6 of the final rule.

Stakeholders who asked that the volume of conventional renewable fuel be set at the statutory target of 15 billion gallons typically emphasized the negative impacts of any reduction on jobs in the corn ethanol industry and rural economies. Many of these stakeholders said or implied that any reduction from the statutory target would result in a reduction in actual use of ethanol compared to recent years. However, despite the fact that we are reducing the volume requirements using the waiver authorities provided in the statute, the necessary volume of conventional renewable fuel would still increase in all years addressed by this rulemaking, as shown below.

Conventional Renewable Fuel Supply



<sup>23</sup> Although many stakeholders viewed the volume of conventional renewable fuel as a standard, it is not. The statute requires minimum volumes of advanced biofuel and total renewable fuel. "Conventional renewable fuel" is that portion of total renewable fuel which is not required to be advanced biofuel, though it could be.

Thus the final volume requirements will provide opportunities for the corn-ethanol industry to continue expanding in 2016, not decline as these stakeholders suggest.

Some stakeholders said that we had not adequately considered the GHG benefits of increasing the volumes of conventional renewable fuel. While reducing GHGs is one of the broad goals of the RFS program, it is not explicitly a factor in the statutory waiver provisions. For reductions of total renewable fuel under the general waiver authority, we are making reductions based on inadequate domestic supply. In this context, we are establishing a 2016 volume requirement that is the maximum that is reasonably achievable. A consideration of GHGs in the context of setting the total renewable fuel volume requirements would not result in higher volumes even if the general waiver authority permitted us to consider them, since we are already setting the 2016 supply at the maximum that is reasonably achievable. With regard to the advanced biofuel standard, we can consider GHG since the cellulosic waiver authority does not specify which factors we can or must consider. Since advanced biofuel is required to reduce GHGs by 50%, while conventional renewable fuel is only required to reduce GHGs by 20% (and facilities which are grandfathered under §80.1403 are not required to meet any GHG reduction threshold), a consideration of GHGs in this context would generally encourage higher volumes of advanced biofuel. For a given volume of total renewable fuel, higher advanced biofuel volumes would result in lower conventional renewable fuel volumes. We note, however, that we also considered other factors when determining the reasonably attainable volume of advanced biofuel for 2016, as discussed in Section II.F of the final rule.

One stakeholder said that the environmental benefits of corn-ethanol are questionable, and that as a result EPA should be minimizing the demand for corn-ethanol that is created by the RFS program and instead emphasizing advanced biofuels. While we agree that the statute places an emphasis on advanced biofuels as evidenced by the fact that all growth in the statutory targets after 2014 is in advanced biofuels, we are also bound by the prescriptive nature of the waiver authorities available to us. Under the general waiver authority, we have not made, nor has any stakeholder made, a case that the statutory target for total renewable fuel would severely harm the environment of a state, region, or the United States. Instead, we are reducing the volume requirements for total renewable fuel based on a finding of inadequate domestic supply. In this context, we must consider available supply of all qualifying renewable fuels, corn-ethanol included.

For responses to comments stating that production capacity should be the basis of the volume requirements, see Section 2.4.

For responses to comments suggesting that obligated parties have failed in their statutory responsibilities to invest in the infrastructure needed to expand renewable fuel supply, see Section 2.7.1.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

|               |   |
|---------------|---|
| Section 2.3.1 | Congressional Intent to Increase Volumes              |
| Section 2.3.2 | Power of the Market to Respond to Ambitious Standards |
| Section 2.6.1 | E10 Blendwall and Demand for Gasoline                 |
| Section 7.1   | General Comments on Economic Impacts                  |

|                |  |
|----------------|--|
| Section 7.2    | Agricultural Impacts (food, animal feed, crops, feedstock) |
| Section 7.6    | Energy Security  |
| Section 7.7    | Impact on Jobs and Local/State Economy                     |
| Section 8.2    | Climate Change (GHG Impacts)                               |
| Section 10.6.4 | Ethanol Impacts on Engines                                 |
| Section 10.6.5 | Other Information and Ideas to Overcome Current Challenges |

## 2.7.4 Impacts on Imports of Sugarcane Ethanol

### Comment:

#### **Advanced Biofuels Association (ABFA)**

EPA must take into account the impact of state-level mandates on the imports of sugarcane ethanol. EPA recognized such impacts in the 2012 RVO Proposed Rule, noting that California's Low Carbon Fuel Standard (LCFS) drives demands for sugarcane ethanol [EPA-HQ-OAR-2015-0111-2498-A1 p.11]

#### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

Sugar cane ethanol use has decreased as a result of the E10 blendwall. Based on 2014 and 2015 EMTS data, 74 million gallons of D5 RINs in 2016 is a reasonable projection [EPA-HQ-OAR-2015-0111-1948-A1 p.25]

#### **Archer Daniels Midland Company (ADM)**

As previously mentioned, the clear intent of Congress in passing the Energy Independence and Security Act of 2007 (EISA) was to incentivize and provide market access to domestically produced renewable fuels to lessen U.S. dependence on foreign sources of fuel. Instead of setting volumetric standards which would allow fuels to openly compete for access, EPA's RVO proposal actually incentivizes the importation of foreign renewable fuels at the expense of domestically produced ethanol and biodiesel. [EPA-HQ-OAR-2015-0111-2262-A1 p. 6]

#### **Brazilian Sugarcane Industry Association (UNICA)**

EPA opines in the Proposed Rule that Brazil cannot supply the 3-4.7 billion gallons in advanced biofuels it calculates would be required between 2015 and 2016 under the RFS2 statutory volumes, and that Brazil would be unlikely to reach such figures when its highest level of exports to the United States was 680 million gallons in 2006 and only 64 million gallons in 2014.<sup>18</sup> As shown above and in Table 4, EPA's figures do not match the figures of the Brazilian Ministry of Industry and Commerce's Secretariat of Foreign Trade ('SECEX'). [EPA-HQ-OAR-2015-0111-2495-A1 p.10]

According to Brazil's National Agency of Petroleum, Natural Gas and Biofuels (ANP) the installed capacity for anhydrous and hydrous ethanol production are 108.67 million and 205.68 million liters per day (more than 5 billion gallons and 10 billion gallons per year, respectively).<sup>21</sup> If we look at the most recent harvest season, Brazil produced 3.3 billion gallons and 4.6 billion

gallons, respectively of anhydrous and hydrous ethanol. The numbers regarding ethanol productive capacity were based on the 383 producing mills listed by the ANP, and it shows that installed capacity is superior than the actual production, so in case of a higher demand for ethanol, Brazil is able to quickly respond to the market. In fact, under the right market conditions, including more robust volumetric requirements, Brazil can have the capacity to produce an estimated 2 billion gallons of sugarcane ethanol available for export to the United States in 2016. [EPA-HQ-OAR-2015-0111-2495-A1 p.11] EPA is correct that Brazil recently raised the blend of ethanol in its gasoline from 25 percent to 27 percent (but not 27.5 percent as incorrectly stated later by EPA). [EPA-HQ-OAR-2015-0111-2495-A1 p.11]

Indeed, the Brazilian government instituted the higher blend as an economic incentive for ethanol producers due to an existing overstock of ethanol. [EPA-HQ-OAR-2015-0111-2495-A1 p.11]

There is no reason that biofuels imported to meet the LCFS should also not count for compliance with the relevant RFS2 category, so every gallon of sugarcane ethanol imported into California for blending into qualifying transportation fuel should count toward the advanced biofuel and total renewable fuel requirements under RFS2 as well. [EPA-HQ-OAR-2015-0111-2495-A1 p.13]

UNICA supports EPA's view that the 2016 proposed volume requirements for advanced biofuel and total renewable fuels can be met with varying amounts of imported sugarcane ethanol, but could be higher than 433 million gallons. [EPA-HQ-OAR-2015-0111-2495-A1 p.14]

Two-way trade should not be an issue of concern for EPA. First the issue is not germane to EPA's rulemaking process. Trade in ethanol is impacted by a number of factors, including government laws and regulations promoting biofuels. [EPA-HQ-OAR-2015-0111-2495-A1 p.15]

Ultimately, rather than be concerned with two-way trading, EPA should focus on encouraging Brazilian imports of sugarcane ethanol as a preferred policy, given the fuel's low GHG lifecycle as compared to corn ethanol. [EPA-HQ-OAR-2015-0111-2495-A1 p.15]

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<sup>18</sup> 80 Fed. Reg. at 33,116, 33122; *see also id.* at 33,109 (alleging general limitations on import capabilities without any further detail).

## **Growth Energy**

In fact, in conjunction with the proposed advanced volume requirements, the proposed renewable fuel volume requirements would create a counterproductive scenario in which significant volumes of sugarcane ethanol are *imported* from Brazil to meet the advanced volume, while significant volumes of American corn ethanol are *exported* to meet Brazil's own demand for ethanol. This "ethanol shuffle" of course results in its own massive greenhouse gas emissions, as vast quantities of ethanol are shipped back and forth by tanker between the two countries to satisfy regulatory demands that, ironically, were designed in part to reduce the overall carbon footprint of the transportation sector. [EPA-HQ-OAR-2015-0111-2604-A2 p.68]

## National Biodiesel Board

Although EPA does not identify a volume of imports it deems could be available in the new proposal, saying only that 3-4.7 billion gallons are “infeasible,” EPA’s November 2013 proposal looked at various estimates of ethanol imports from Brazil into the United States, which found that as much as 820 million gallons could be available for export in 2014. [EPA-HQ-OAR-2015-0111-1953-A2 p.118]

The EIA estimated 871 million gallons of ethanol imports (non-cellulosic) for 2016 (EPA-HQ-OAR-20130479-0006). In another, the FAPRI-ISU 2012 World Agricultural Outlook projected that Brazil can have 1.729 billion gallons available for export in 2016 (EPA-HQ-OAR-2013-0479-0021).<sup>96</sup> Based on FAPRI’s assessment, it could be estimated that approximately 854 million gallons can be available for export to the United States (based on an advanced biofuel volume of 3.4 billion gallons for 2016).<sup>97</sup> These estimates are substantially higher than the largest volume of sugarcane ethanol (D5) of 433 million gallons in EPA’s “volume scenarios.”<sup>98</sup> [EPA-HQ-OAR-2015-0111-1953-A2 p.118]

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<sup>96</sup> Although more recently FAPRI estimated an increase in ethanol imports to 267 million gallons in 2016, this was based on an estimated advanced biofuel requirement of 2.418 billion gallons. See FAPRI, *U.S. Baseline Briefing Book: Projections for Agricultural and Biofuel Markets*, FAPRI-MU Report #01-15, at 36 (Mar. 2015), available at <http://www.fapri.missouri.edu/wp-content/uploads/2015/03/FAPRI-MU-Report-01-15.pdf>.

<sup>97</sup> This number is based on using the monthly average from the estimate of 794 million gallons from September 2015-August 2016 and 974 million gallons from September 2016-August 2017. See FAPRI, *FAPRI-MU Biofuel Baseline*, FAPRI-MU Report #02-13, at 4 (Mar. 2013), available at <http://www.fapri.missouri.edu/wp-content/uploads/2015/02/FAPRI-MU-Report-02-13.pdf>.

<sup>98</sup> The volume of ethanol D5 RINs similarly exceeded this amount in 2013, where EPA claims the ethanol market was saturated.

## North Dakota Ethanol Council

We are also concerned that the proposed 2.9 billion gallon 2015 RVO for advanced biofuels will incent imported sugarcane-based ethanol due to the instability of the biodiesel production credit and its impact on biodiesel production. Shortfalls in biodiesel production will likely be met by imported advanced biofuels driven by inflated RIN values improperly incentivizing imported ethanol into a market that has yet to properly address market expansion. We believe all ethanol market expansion should be met with conventional and other nationally produced products. [EPA-HQ-OAR-2015-0111-1927-A1 p. 2] **Northern Canola Growers Association**

EPA should increase the biomass-based diesel volumes relative to the total Advanced Biofuels volumes in order to promote the use of domestically produced biodiesel over imported sugarcane ethanol. The intent of Congress when they established and expanded the RFS program was clearly to increase and promote domestic energy production and U.S. energy independence. This is clearly reflected by the title of the 2007 law – the Energy Independence and Security Act

(EISA) - which expanded the RFS and established the biomass-based diesel program. [EPA-HQ-OAR-2015-0111-2036-A1 p.2]

**Response:**

The Brazilian Sugarcane Industry Association (UNICA) provided comments suggesting that 2 billion gallons of sugarcane ethanol could be supplied to the U.S. in 2016. After further investigation, we do not believe that this level of import is reasonably achievable in 2016. To begin with, exports of 2 billion gallons from Brazil to the U.S. would be significantly higher than total exports to all countries in all previous years, as shown in Figure II.F-2 of the final rule. In recent years, ethanol exports from Brazil to countries other than the U.S. averaged more than 300 million gallons each year, and Brazil has recently increased ethanol exports to China and has also increased its own ethanol use requirements. If this were to continue in 2016, total exports from Brazil would need to reach 2.4 billion gallons in order to supply 2 billion gallons to the U.S. As described below, we do not believe that the information that UNICA provided supports this extremely high level of exports to the U.S.

Although UNICA cites a variety of factors that can affect ethanol exports and which are beyond the control of Brazilian mills and the EPA, it nevertheless based its estimate of potential exports to the U.S. solely on a combination of Brazilian ethanol production capacity and opportunities created by the RFS program itself. We believe that UNICA has underestimated the uncertainty associated with other market factors, including the E10 blendwall in the U.S., changes in domestic demand for ethanol in Brazil, and competing world demand for sugar. With regard to sugar, it is true that Brazilian production has been declining for the last several years. However, between 2005 and 2015, Brazilian production of sugar has increased just as often as it has decreased, demonstrating that there is uncertainty with regard to worldwide demand for sugar. We believe it would be imprudent to assume that the downward trend in sugar production in recent years will continue in 2016.

More importantly, while production of sugarcane has increased moderately in Brazil over the last several years, total gasoline consumption in Brazil also continues to climb. This leaves little room for substantial increases in exports of ethanol in 2016. In fact, total consumption of petroleum in Brazil has increased at a rate of about 4.9% over the last several years, while the rate of sugarcane production has only grown at a rate of about 2.2%.

Not only do we believe that the facts do not support UNICA's projection of 2 billion gallons exported to the U.S., but the supply of imported sugarcane ethanol continues to be highly uncertain and there is little indication that this uncertainty will change in 2016. For instance, both total ethanol imports and imports of Brazilian sugarcane ethanol have varied significantly since 2004, as shown in Figure II.F-1 of the final rule. The highest volume of Brazilian sugarcane ethanol that has ever been imported was 680 million gallons in 2006, and imports reached 435 million gallons in 2013. However, in 2014 imports were only 64 million gallons, and the projected annual level of imports for 2015 is about 55 million gallons. Some sugarcane ethanol will likely be imported in 2016 in order to meet the requirements of California's Low Carbon Fuel Standard (LCFS), and all such imported sugarcane ethanol will qualify to meet the RFS standards. However, sugarcane ethanol volumes have also fallen off in recent years under California's program. Given our assessment of UNICA's estimate of volumes it can export to

the U.S. in 2016, and our assessment of uncertainty in import volumes as evidenced by the highly variable historical supply, there is no indication (apart from UNICA's comments) that imports of sugarcane ethanol in 2016 will be markedly different from recent levels.

One stakeholder noted that we had made more specific, and considerably higher, projections of imports of sugarcane ethanol in past rulemakings. For instance, in the November 29, 2013 NPRM, we cited a report from Iowa State University which projected up to 820 million gallons in 2014, and a FAPRI report that projected 1,259 million gallons in 2014. In response to the February 7, 2013 NPRM, UNICA projected that Brazil could supply 800 mill gal of sugarcane to the U.S. in 2014. Despite these optimistic projections, actual imports of sugarcane ethanol in 2014 were only 64 million gallons. These results demonstrate the high degree of uncertainty in projections of imports. Projections from EIA and FAPRI of imports that could occur in 2016, which were referenced by this stakeholder, must similarly be treated with caution.

For the purposes of determining the 2016 volume requirement for advanced biofuel, we assumed that imports of sugarcane ethanol would reach 200 million gallons. This level is considerably higher than the levels reached in 2014 and 2015, but lower than the average over the last ten years. It reflects the fact that imports have historically been highly variable and thus are extremely difficult to predict with precision, but nevertheless the standards we set for 2016 can create some incentive for increased imports. However, we note that the volume requirements we are setting for 2016 do not require a specific volume of imported sugarcane ethanol, nor any other specific type of renewable fuel. The scenarios provided in Table II.G-2 of the final rule provide examples of different ways that the market may respond to the 2016 volume requirements, and these scenarios include a range of volumes of imported sugarcane ethanol.

Several stakeholders also pointed to the potential for so-called "circle trade" between the U.S. and Brazil as a reason to either reduce the applicable volume requirement for advanced biofuel in such a way as to limit imports of sugarcane ethanol, and/or to increase the required volume of BBD. In this circle trade, corn-based ethanol is exported from the U.S. to Brazil at the same time that sugarcane ethanol is exported from Brazil to the U.S. This has undoubtedly occurred in the past, though the circle trade volumes have represented only 21% of all ethanol imports and exports between the two countries that occurred between 2010 and 2014.<sup>24</sup> However, there has been a high degree of variability in sugarcane ethanol imports into the U.S., and also a high degree of variability in the export of corn ethanol to Brazil. In some years the U.S. exported more ethanol to Brazil than Brazil exported to the U.S., while in other years the opposite occurred. This indicates that there are a wide variety of factors driving imports and exports of ethanol, and "circle trade" does not appear to have been the major one in the past. Nevertheless, to the degree that circle trade increased in response to higher RFS volume requirements for advanced biofuel, the GHG benefits associated with the advanced biofuel volume requirement would be reduced. However, we do not believe that these considerations justify requiring less than reasonably attainable volumes of advanced biofuel, since despite these considerations, there is a substantial GHG reduction benefit associated with the use of advanced biofuels, including sugarcane ethanol. Also, this does not provide a basis for increasing the required volume of BBD. The advanced biofuel requirement is set at a level that will require reasonably attainable

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<sup>24</sup> Between 2010 and 2014, circle trade represented about 21% of all ethanol imports and exports between the U.S. and Brazil. See "Analysis of circle trade between the US and Brazil," docket EPA-HQ-OAR-2015-0111.

volumes of BBD as well as sugarcane ethanol, and we believe that the advanced standard will in fact drive BBD use to these levels, which are higher than is required by the separate BBD standard. As discussed in Section III of the final rule, we believe it is important to allow competition within the advanced standard between BBD and other types of advanced biofuels, and have set the BBD volume requirement accordingly.

For responses to comments on the relative role of domestic versus imported renewable fuels in meeting the volume requirements under the RFS program, see Section 2.1

For responses to comments suggesting that the E10 blendwall can be addressed by increasing the required volumes of BBD, see Section 2.5.

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Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

|               |   |
|---------------|---|
| Section 2.3.1 | Congressional Intent to Increase Volumes  |
| Section 2.3.2 | Power of the Market to Respond to Ambitious Standards   |
| Section 2.4.3 | Proposed Total Renewable Fuel Volume for 2016   |
| Section 2.5.3 | Proposed Advanced Biofuel Volume for 2016   |
| Section 2.6   | Ethanol Consumption   |
| Section 2.6.1 | E10 Blendwall and Demand for Gasoline   |
| Section 2.7.5 | Impacts on Imports of Conventional Biodiesel  |
| Section 3.2.3 | Imports of BBD  |
| Section 3.2.5 | Federal Tax Credit for Biodiesel  |
| Section 3.3.1 | Balance between Supporting the BBD Industry and Ensuring Opportunities for Other Advanced to Grow |
| Section 3.4.2 | Increases in BBD Displace Other Advanced, not Diesel  |
| Section 7.4   | Impact on RINs  |
| Section 7.6   | Energy Security   |
| Section 7.7   | Impact on Jobs and Local/State Economy  |
| Section 8.2   | Climate Change (GHG Impacts)  |

## **2.7.5 Impacts on imports of Conventional Biodiesel**

### **Comment:**

#### **International Council on Clean Transportation**

As described above in our comments on the advanced biofuel volumes, we suggest that EPA consider reducing the renewable fuel volumes further, to reflect the reduced advanced volumes suggested above. As noted above, this would maintain support for E85 deployment without adding substantial pressure on BBD production and U.S. oil and fat supplies, or forcing high imports of conventional biodiesel with questionable environmental performance.

## **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

Specifically with respect to conventional biodiesel, EPA observed that “greater BBD production reduces the likelihood of large imports of palm biodiesel because these two fuels compete against one another.” Yet, even in scenarios where EPA assumed biomass-based diesel consumption of nearly 2.1 billion gallons, EPA still assumed maximum conventional biodiesel consumption of 250 million gallons. [EPA-HQ-OAR-2015-0111-2603-A2, p.37]

There is another problem concerning EPA’s projections of conventional biodiesels—specifically, with respect to palm-based biofuels. EPA has declined to approve those biofuels as an eligible feedstock to generate RINs under RFS2 because they fail to meet the greenhouse gas reduction standards of the RFS program. The only reason palm oil imports contribute to the RFS program in the first place is because EPA grandfathered a handful of plants able to continue using the feedstock to produce D6 RINs.<sup>104</sup> [EPA-HQ-OAR-2015-0111-2603-A2, p.37]

Indeed, six months into the year, it appears the economy has imported slightly less than 11 million gallons of sugarcane ethanol.<sup>109</sup> In light of this, even if EPA can point to certain projections that Brazilian ethanol will recover, it is more prudent to cap consumption in its scenarios at closer to the current level of observed imports. [EPA-HQ-OAR-2015-0111-2603-A2, pp.38-39]

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<sup>104</sup> Platts, US biodiesel imports in July hit year-to-date high: Census Bureau (Sept. 4, 2014), <http://www.platts.com/latest-news/shipping/montreal/us-biodiesel-imports-in-july-hit-year-to-date-21183120>.

<sup>109</sup> U.S. EPA, 2015 RFS2 Data, <http://www.epa.gov/otaq/fuels/rfsdata/2015emts.htm>.

### **Response:**

Some stakeholders said that the volume requirements that EPA sets should not provide an incentive to import conventional biodiesel, as it would most likely be produced from palm oil and thus would not meet the 20% minimum GHG reduction required under the statute for conventional renewable fuel.<sup>25</sup> [1] In the context of determining the 2016 volume for total renewable fuel using the general waiver authority, we must consider all potential sources of qualifying renewable fuel that impact the assessment of "inadequate domestic supply." We cannot refuse to consider renewable fuels that may produce lower GHG benefits if they nevertheless qualify under the RFS program. However, once the volume requirements are set, the market will determine the mix of renewable fuels that is supplied to meet those requirements. In addition to conventional biodiesel and renewable diesel, the need for conventional renewable fuel can be filled with corn ethanol to the degree that the market can expand use of E15 and/or E85, or excess volumes of advanced biofuel above the advanced biofuel volume requirement.

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<sup>25</sup> There is currently no RIN-generating pathway for biodiesel produced from palm oil. As a result, the only way that RINs could be generated for biodiesel made from palm oil is if the facility has been grandfathered under 40 CFR 80.1403. In this case, it would qualify as a renewable fuel under the RFS program even though it may not produce the minimum 20% GHG reduction that is otherwise required.

One stakeholder pointed out that the range of conventional biodiesel volumes included in the scenarios in in Table II.D.2-2 of the NPRM was larger than the actual supply of conventional biodiesel in 2014. The range of volumes in the NPRM scenarios was based on the number of RINs generated in the past for conventional biodiesel and renewable diesel before corrections were made to account for such events as spills, enforcement actions, and fuel used in non-transportation activities. Under the influence of higher volume requirements, regulated parties would have greater incentive to avoid the circumstances that led to these corrections, and thus the number of RINs generated may be available for demonstrating compliance. We note also that the volume of conventional biodiesel and renewable diesel for 2015 is projected to be about twice as high as the volume in 2014 - 110 million gallons versus 53 million gallons. This fact supports our view that supply of conventional biodiesel and renewable diesel can continue to grow in 2016.

One stakeholder said that we had provided contradictory information in the NPRM in the context of possible volumes of conventional biodiesel. While Table II.D.2-2 of the NPRM shows some scenarios with both high levels of conventional biodiesel and high levels of BBD, the text following that table says that "greater BBD production reduces the likelihood of large imports of palm biodiesel because these two fuels compete against one another." (80 FR 33129) However, this stakeholder failed to note that the highest level of conventional biodiesel in the scenarios table (250 million gallons) was not, in fact, paired with the highest level of BBD (2,131 million gallons) in a single scenario. Moreover, the quoted text was meant to highlight the fact that "The probability that the upper limits of all sources shown in Table II.D.2-2 could be achieved simultaneously is extremely unlikely." The NPRM was thus not focused on the total potential volumes of biodiesel (advanced + conventional), though it is true that different sources of biodiesel will compete with one another for access to consumers given various constraints associated with infrastructure. Instead, the focus of the discussion of the volume scenarios was on the fact that it would be inappropriate to estimate the total potential volumes of the sum of all renewable fuels based on the highest volumes of each sources shown in Table II.D.2-2.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

|               |  |
|---------------|--|
| Section 2.7.1 | Achievable Volumes of E85 Consumption    |
| Section 2.7.4 | Impacts on Imports of Sugarcane Ethanol  |
| Section 3.2   | Factors Affecting Supply and Consumption |
| Section 3.2.1 | Availability of Feedstocks               |
| Section 3.2.3 | Imports of BBD                           |
| Section 8.2   | Climate Change (GHG Impacts)             |

### **3. Proposed National Volume Requirement for Biomass-Based Diesel for 2014-2017**

#### **3.1 General Comments on Biomass-Based Diesel**

##### **Comment:**

##### **Advanced Biofuels Association (ABFA)**

One of the true success stories of the RFS2 is found in the biomass-based diesel pool. Renewable diesel and biodiesel as well as renewable heating oil and jet fuel have made significant contributions to the overall program and have delivered the bulk of the advanced biofuel category gallons to date. This is extremely important as diesel and jet fuel demand are the fastest growing product demands across the world. These fuels traditionally are not able to use ethanol as part of their mix and yet those engines are some of the largest in the world in terms of CO<sub>2</sub> emissions. It is essential in dealing with our climate change challenges that lower carbon fuels are available going forward for large ocean going vessels, airplanes, and heavy duty engines and trucks. EISA set the biomass-based diesel RVO at a minimum of 1 billion gallons and the current administration adjusted that volume to 1.28 billion gallons in 2012 to reflect the increasing production of the category. [EPA-HQ-OAR-2015-0111-2498-A1 p.4-5]

##### **Ag Processing, Inc.**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 220.]

The biodiesel industry has created thousands of jobs and provides clean-burning and high-performance transport fuel for our country. The industry needs regulatory stability in a multiyear framework to maximize production capabilities. However, recent delays in the implementation of the RFS has led to uncertainty and hardship for U.S. biodiesel producers. Lost economic activity, reduced commodity prices, and layoffs at many of these production facilities has resulted.

##### **Bates White**

It is also unnecessarily low, given that there is considerable excess U.S. production capacity, there are ample feedstocks, there is no blend wall, and there is little risk of adverse impacts on retail fuel prices. From an economic perspective, given its cost effectiveness in reducing CO<sub>2</sub> emissions, further increasing RFS2 biodiesel volumes is a no-brainer.

##### **Biotechnology Industry Organization**

EPA inaccurately asserts, "In 2012 the available BBD RINs were slightly less than the BBD standard."<sup>166</sup> In making this assertion, EPA compares the statutory volumes to the number of generated RINs; to correctly assess RIN availability, the agency must compare the obligation as a function of RVO percentages applied to actual fuel volumes. The BBD RVO for 2012 was 0.91 percent of a total non-renewable fuel volume of 171.4 billion gallons of non-renewable fuel, or roughly 1.56 billion RINs (equivalent to 1 billion gallons of biomass-based diesel). More than 1.47 billion 2012 vintage D4 RINs have been retired, and more than 355 million 2011 vintage

D4 RINs were retired in excess of the 2011 RVO, indicating they were rolled over to meet the 2012 obligation. This was apparently more than enough to satisfy the 2012 obligation, since an additional 182 million 2012 vintage RINs are still available for compliance in future years, and more than 176 million were held by obligated parties as of April 1, 2015.<sup>167</sup> At a minimum, EPA's assertion of a shortage of 2012 D4 RINs needs more justification and explanation. EPA has not stated explicitly whether obligated parties fully satisfied the 2012 RVOs. [EPA-HQ-OAR-2015-0111-1958-A2 p. 50-51]

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<sup>166</sup> Proposed Rule 33133.

### **California Biodiesel Alliance (CBA)**

First, we would like to express our thanks to the EPA for withdrawing the NPRM that was issued in 2013. In our public comment in response to the 2013 draft proposal, CBA predicted that a mandate of only 1.28 billion for biomass-based diesel for 2014/2015 would be devastating to our burgeoning biodiesel market. The biodiesel industry had demonstrated its ability to produce 1.8 billion in 2013, and obligated parties were holding substantial RIN carryovers. Unfortunately, we were right to be concerned. In 2014, as a result of the poor market conditions created by the lack of a strong biodiesel mandate, four of California's eleven biodiesel plants closed their doors.<sup>1</sup> Other plants scaled back production, laid off workers, deferred expansion projects and lost investment opportunities. [EPA-HQ-OAR-2015-0111-1910-A1, p.1]

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<sup>1</sup>The four plants that closed are: Yokayo Biofuels, Blue Sky Biofuels, Promethean Biofuels and Bently Biofuels

### **Canola Council of Canada**

It is important to note that biodiesel from canola oil can also be used in other applications, not just motor vehicle use. Research into additional biofuels from canola oil, such as renewable diesel, continues. [EPA-HQ-OAR-2015-0111-2484-A1 p.4]

### **Cool Planet Energy Systems**

We also support raising the level of the D4 pool to a higher level than 1.28 and believe it could also be justified about 1.9 billion gallons. We also agree a balancing must be done with respect to those gallons that can be generated in the D5 pool which are undesignated. We must have an opportunity to give all technologies a chance to participate particular in the short term to allow for the lowest cost producers to emerge in the sector. [EPA-HQ-OAR-2015-0111-2572 p. 1]

### **Green Plains, Inc.**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 260.]

Another ongoing concern for our biodiesel customers has been the very slow response from EPA regarding requests for clarifications and guidance on many issues. Some requests for what would appear to be straightforward points of clarification have taken up to 1 year to receive guidance on, and many times the guidance generates more questions for clarification.

### **Illinois Soybean Growers (ISG)**

The biodiesel industry has met or exceeded the RFS volume requirements every year and has continued to increase production annually since 2010. The recently proposed biodiesel standards are a dramatic improvement from the initial draft in November 2013; however, they are still much lower than production levels. According to your agency, the U.S. produced a record-breaking 1.8 billion gallons of biodiesel in 2013. [EPA-HQ-OAR-2015-0111-3428 p.1]

Biodiesel is not only beneficial for Illinois soybean farmers and consumers, its better for our environment. It has the highest energy balance of any fuel, returning 5.54 units of energy for every unit of fossil fuel needed to produce it. Its made right here in the U.S., supporting Congress intent to promote domestic energy production and independence with the RFS program. [EPA-HQ-OAR-2015-0111-3428 p.2]

### **Mass Comment Campaign sponsored by Biodiesel.org (email) - (93)**

According to the EPA's own calculations, biodiesel delivers more significant greenhouse gas emissions reductions than any other domestic, commercial-scale fuel on the national market. It is supporting tens of thousands of jobs across the country, and perhaps most importantly, it is helping us diversify our fuel supplies and reduce our dangerous dependence on petroleum. Our dependence on a finite commodity — oil — threatens not only our economic stability but also our national security. We should be working as aggressively as we can to encourage the development of clean alternative fuels so that we aren't leaving future generations with a continued dependence that will only become more dangerous as global supplies are depleted. [EPA-HQ-OAR-2015-0111-0211-A1 p.1]

### **Mass Comment Campaign sponsored by soybean farmers (email) - (8)**

including a more diversified energy market; increased domestic energy production; significant reductions in greenhouse gas emissions resulting in improved air quality; new jobs and economic development, particularly in rural America; expanded markets for soybean farmers and a market for soy oil displaced from food markets due to trans fat issues; and reduced soy meal feed costs for livestock producers. [EPA-HQ-OAR-2015-0111-1480-A1 p.2]

As you know, biodiesel is a domestic, renewable fuel source and the most prevalent and commercially available advanced biofuel. The EPA itself has determined that biodiesel reduces lifecycle greenhouse gas emissions by 57 percent to 86 percent compared to petroleum diesel. Substituting higher amounts of biodiesel for traditional diesel fuel is a simple, effective way to immediately reduce diesel emissions. Since biodiesel provides a greenhouse gas benefit compared to the petroleum-based diesel it is replacing, increasing its use will contribute to reduced climate change impacts. [EPA-HQ-OAR-2015-0111-1480-A1 p.2]

Biodiesel has and will continue to create and sustain jobs in the United States, including many in rural America. A recent economic study conducted for the National Biodiesel Board estimates that the biodiesel industry, at 1.7 billion gallons of production, supports more than 62,000 jobs, \$2.6 billion in wages, and \$16.8 billion in overall economic impact. The industry's economic impact is poised to grow significantly with continued production increases. The industry supports jobs in a variety of sectors, from manufacturing to transportation, agriculture and service industries. [EPA-HQ-OAR-2015-0111-1480-A1 p.2]

### **Mass Comment Campaign submitted by employees of New Leaf Biofuel (web) - (24)**

We are writing you today to ask you to increase the biomass-based diesel requirement under the Renewable Fuel Standard because we strongly believe that our entire company all of our jobs depend on it. [EPA-HQ-OAR-2015-0111-2048-A1 p.1]

### **Missouri Soybean Association (MSA)**

the Missouri Soybean Association (MSA) urges EPA to —include additional biodiesel growth in the Renewable Fuel Standard (RFS) volumes to be finalized later this year. While we believe the recent proposal for biodiesel under the RFS was a step in the right direction, it does not fully capitalize on biodiesels benefits and potential for growth. [EPA-HQ-OAR-2015-0111-3304 p.1]

According to the EPAs own calculations, biodiesel delivers more significant greenhouse gas emissions reductions than any other domestic, commercial-scale fuel on the national market. Perhaps most importantly, it is helping us diversify our fuel supplies and reduce our dependence on petroleum, which threatens our economic stability and national security. We should be working as aggressively as possible to encourage the development of clean alternative fuels so that we arent leaving future generations with a continued dependence that will only become more dangerous as loba supplies are depleted. [EPA-HQ-OAR-2015-0111-3304 p.1]

### **National Association of Truck Stop Operators (NATSO)**

NATSO is the premier trade association representing travel plaza and truck stop owners and operators. Highway travel plazas and truck stops sell 90 percent of all diesel fuel sold at retail in the United States. Thus, in light of the integral role that biodiesel plays in satisfying the RFS's objectives, the success of the RFS will hinge on NATSO's members' ability to sell biodiesel on a cost-effective basis. [EPA-HQ-OAR-2015-0111-2478-A1 p.2]

As it proceeds with this rulemaking, EPA must be cognizant of the variety of policy and economic factors that influence the price – and thus market demand for – biodiesel. Any policy changes that would lead to an increase in the price of biodiesel in the United States would lower consumer demand for biodiesel and restrict the Agency's ability to set ambitious RVOs. [EPA-HQ-OAR-2015-0111-2478-A1 p.3]

Highway travel plazas and truck stops sell 90 percent of all diesel fuel sold at retail in the United States. NATSO members prefer long markets with a variety of supply options to offer their customers. As with any successful retailer, NATSO members simply want to sell products that their customers want to buy. In their effort to provide the most competitively priced fuel to their customers, many NATSO members buy and blend biodiesel into the diesel fuel sold at their locations. While the entire industry is not involved in blending biodiesel, many NATSO members buy and blend biodiesel into diesel fuel when the blending economics allow them to do so. As the biodiesel industry matures, more and more truck stop operators are considering expanding into biodiesel blending.

The success of the Renewable Fuel Standard will hinge on NATSO's members' ability to acquire, blend, and sell biodiesel on a cost-effective basis relative to traditional diesel fuel. Given the central importance of trucking and diesel fuel in our nation's supply chain for goods,

low-cost biodiesel not only makes fuel cheaper for fleets and truck drivers, but it subsequently makes all goods more affordable. [EPA-HQ-OAR-2015-0111-2478-A1 p.3]

### **National Biodiesel Board**

While NBB appreciates EPA's move to get on track and set the volumes for biomass-based diesel over several years, EPA's proposal for biomass-based diesel fails to reflect its key contributions to the program or to fulfill the intent of Congress. [EPA-HQ-OAR-2015-0111-1953-A2 p.23]

In the new proposal, EPA continues to ignore expected increases in use of renewable fuel outside the gasoline pool. While ethanol represents the largest volume of renewable fuel currently in use, EPA's focus on addressing purported constraints in the gasoline market for using increased volumes of ethanol fails to account for Congress's expectation to increase use of renewable fuels in the diesel pool, including in non-road applications, heating oil and jet fuel applications. [EPA-HQ-OAR-2015-0111-1953-A2 p.32]

EPA should continue to promote increased use of renewable fuel in heating oil. [EPA-HQ-OAR-2015-0111-1953-A2 p.128]

EPA has recognized that biodiesel is increasingly being used as heating oil as well. 80 Fed. Reg. at 33,116. EPA has clarified and expanded the definition of heating oil.<sup>112</sup> These clarifications may also expand the use of advanced biofuels, including biodiesel and renewable diesel, in the heating oil market. Heating oil is not accounted for in setting the RVOs and, therefore, any renewable fuel used in this market is "excess" production. [EPA-HQ-OAR-2015-0111-1953-A2 p.128]

### **Northern Canola Growers Association**

As you know, biodiesel is the most prevalent advanced biofuel currently produced in the United States and the industry has met or exceeded the RFS biomass-based diesel volume requirements each and every year they have been in place. [EPA-HQ-OAR-2015-0111-2036-A1 p.2]

### **San Diego Regional Clean Cities Coalition**

Biodiesel and biomass-based diesel are desirable alternative fuel options for fleets, since they can be used with their existing diesel vehicles. Locally produced fuel is used by fleets in high level blends as well as blended into the fuel supply. This lowers both our regional petroleum consumption and contributes to our national goals. [EPA-HQ-OAR-2015-0111-1719-A1 p. 1]

### **Sprague Operating Resources LLC**

While the recent proposal for biodiesel under the program moves in the right direction, we believe it does not fully capitalize on biodiesel's benefits and potential for growth. Congress intended to have increasing volumes of renewable fuel in the diesel fuel pool, which includes transportation, off-road and heating oil applications, and EPA has recognized that biodiesel is increasingly being used as heating oil. [EPA-HQ-OAR-2015-0111-1924-A1 p.1]

According to the EPA's own calculations, biodiesel delivers more significant greenhouse gas emissions reductions than any other domestic, commercial-scale fuel on the national market. It is

supporting tens of thousands of jobs across the country, and perhaps most importantly, it is helping us diversify our fuel supplies. The six criteria for biodiesel growth outlined in the RFS statute have clearly been met. The benefits are clear in terms of cost-effective pollution reduction, job creation, tax revenues and energy security. It also is clear that the biodiesel industry has the ability and capacity to increase production above and beyond the standards called for in your recent proposal, particularly when you consider the potential for sharply increased imports qualifying for the RFS. [EPA-HQ-OAR-2015-0111-1924-A1 p.2]

### **Western Canada Biodiesel Association**

According to the EPA's own calculations, biodiesel delivers more significant greenhouse gas emissions reductions than any other domestic, commercial-scale fuel on the national market. It is supporting tens of thousands of jobs across the country, and perhaps most importantly, it is helping us diversify our fuel supplies and reduce our dangerous dependence on petroleum.[EPA-HQ-OAR-2015-0111-0265-A1]

### **Response:**

The EPA received numerous general comments favoring increasing the BBD volume requirements beyond what we had proposed. As required under the Clean Air Act, in developing this final rule, the EPA reviewed the implementation of the renewable fuels program, all the factors required under the statute, comments received, and coordinated with the Departments of Energy and Agriculture. EPA recognizes that there are many different views on what is the appropriate level for the biomass-based diesel applicable volume for 2014-2017. EPA has endeavored to consider all comments and has weighed the statutory factors to reach a decision that is appropriate and reasonable.

As a result of this review we believe that it is appropriate, as we did for advanced and total renewable fuel in 2014 and 2015, to establish the 2014 and 2015 volume requirements for BBD to reflect actual supply (including a projection for the latter part of 2015 that is primarily based on supply in the earlier part of the year for which data is available). For 2016 and 2017, to provide continuing support to the BBD industry, recognizing the important role that BBD plays in the RFS program, as well as to help ensure that higher volume requirements for advanced biofuel can be reached, we believe that it is appropriate to increase the BBD volume requirement for each of these years while maintaining room under the advanced biofuel standard for growth from other renewable fuels.

Thus, based on a review of the implementation of the program to date and all the factors required under the statute, we are finalizing the 2014 and 2015 BBD volume requirement at the actual volumes of 1.63 and 1.73 billion gallons, respectively, and we are also finalizing increases in the applicable volume of BBD to 1.9 and 2.0 billion gallons for years 2016 and 2017, respectively. We believe that these increases support the overall goals of the program while also maintaining the incentive for development and growth in production of other advanced biofuels.

For instance, there are advantages to providing some additional stability to the biomass-based diesel industry. This industry is currently the single largest contributor to the advanced biofuel pool, one that to date has been largely responsible for providing the growth in advanced biofuels envisioned by Congress. Nevertheless, there has been variability in the number of biodiesel

facilities in production over the last few years, as well as the percent utilization of individual facilities, both of which contribute some uncertainty to the rate of production growth that can be achieved in the near future, and which can be mitigated to some degree with a moderate increase in the biomass-based diesel applicable volume.

Arguments in favor of increasing the required volume must be balanced, however, against the benefits, as described in the NPRM, of EPA retaining a substantial degree of neutrality with regards to the types of advanced biofuel that are used to meet the advanced biofuel standard. Allowing competition among qualifying advanced biofuels types provides an incentive for innovation, and could lead to the development of new fuels with advantages, including increased volume potential, potentially lower costs, and greater environmental and energy security benefits that are as yet unforeseen.

Various commenters expressed concern that recent delays in implementation of the RFS as well as lower standards initially proposed for BBD have undercut certainty for biodiesel producers, particularly smaller producers, causing reduced commodity prices, layoffs at some production facilities and even shut downs. While our standards cannot protect companies from shutting down for the many different reasons companies close (inefficient, high cost, poor market conditions, unfortunate events, etc.) the final BBD standards provide a floor that provides certainty for greater volumes of BBD volumes than today, and the total renewable fuel and advanced biofuel standards are expected to drive even higher volumes. As a result, the final RFS standards should create the right market conditions for biodiesel companies to grow and flourish.

Another commenter expressed concern at the slow response from EPA regarding requests for clarifications and guidance on many issues associated with the RFS program. EPA acknowledges that the biodiesel industry along with the entire renewable fuel industry needs regulatory stability and we believe that this final multiyear framework we are finalizing addresses this need. The final rule represents EPA's commitment and continued support for steady growth in renewable fuel use. One commenter questioned EPA's statement in the NPRM that, "in 2012 the available BBD RINs were slightly less than the BBD standard". As stated in Section III. D.1 of the final rule, in reviewing the implementation of the RFS program to date, it is apparent that the advanced and/or total renewable fuel requirements were in fact helping grow the market for volumes of biodiesel above the BBD standard. Table III.D.1-1 in the final rule and reproduced below shows the number of BBD RINs generated and available for use towards demonstrating compliance in each year from 2011 – 2013. RINs available for use equals the number of RINs generated minus the number of RINs retired (or that we anticipate will be retired) for any reason other than a demonstration of annual compliance, such as RINs retired for exported biofuel, volume error corrections, enforcement actions, fuel used in applications other than transportation fuel, heating oil, or jet fuel, etc. As can be seen from this table, in 2011 and 2013 the number of BBD RINs available for use exceeded the volumes required to satisfy the BBD standard. In 2013 the number of advanced RINs generated from fuels other than BBD was not large enough to satisfy the implied standard for "other advanced" biofuel (advanced biofuel that is not BBD or cellulosic biofuel), and BBD filled the gap. In fact, the amount by which the available BBD RINs exceeded the 1.28 billion gallon BBD volume requirement (421 million RINs) was slightly larger than the amount by which the non-BBD RINs fell short of satisfying the "other advanced" biofuel implied standard (285 million RINs). This supports the conclusion that the advanced

biofuel standard provided an incentive to support a BBD volume in the United States in excess of that required to satisfy the BBD standard.

In 2012 the available BBD RINs were slightly less than the BBD standard, despite the continued opportunity for BBD to contribute towards satisfying the advanced and total renewable fuel volume requirements. There are a number of reasons this may have been the case. The drought in 2012 resulted in reduced production of soy beans and other oilseed crops that provide feedstocks for the BBD industry. Compounding this effect was the lower corn harvest in 2012, which increased the demand for soy beans and other fats and oils in the animal feed market. The biodiesel tax credit, which had been in place since the end of 2010, expired at the end of 2011. Finally, and perhaps most significantly, the E10 blendwall had not yet been reached in 2012. This meant that meeting the advanced biofuel requirements through the use of advanced ethanol, primarily sugar cane ethanol, in E10 blends, rather than additional volumes of BBD was still an attractive option. Indeed, in 2012 over 600 million RINs were generated for advanced ethanol. While we believe these circumstances are unlikely to be repeated in future years, this does demonstrate that the BBD standard can still have an impact despite the ability for the advanced and total renewable fuel volume requirements to incentivize additional biodiesel and renewable diesel volumes beyond the BBD standard.

**Table III.D.1-1**

Biomass-Based Diesel and Advanced Biofuel RIN Generation and Standards (million gallons)

|      | Available BBD (RINs) | BBD Standard (RINs) | Available Non-Biodiesel Advanced Biofuel | “Other” Advanced Biofuel Allowed |
|------|----------------------|---------------------|--|----------------------------------|
| 2011 | 1,484                | 1,200               | 225                                      | 150                              |
| 2012 | 1,465                | 1,500               | 597                                      | 500                              |
| 2013 | 2,360                | 1,920               | 552                                      | 830                              |

### 3.2 Factors Affecting Supply and Consumption

**Comment:**

**Baker Commodities**

As a result of these inherent disadvantages, it is extremely important for the RFS Program to set the biomass-based diesel mandate at a level that continues to push the boundaries on the production and import capacity for biodiesel. This will ensure that companies like Baker are given proper market signals to build and expand biodiesel plants that will contribute to a more diverse biodiesel pool with lower GHGs. [EPA-HQ-OAR-2015-0111-1907-A1 p.3]

## **Canola Council of Canada**

The increasing volume requirements under the RFS2 program have provided greater certainty to support further investment. Thus, the RFS2 program has helped spur further research and innovation, supporting efforts to increase yields, to improve the sustainability of and efficiencies in feedstock production, and expand biofuel production and use. Canola oil has been a significant contributor to these efforts in helping move the renewable fuel industry forward. [EPA-HQ-OAR-2015-0111-2484-A1 p.4]

## **Growth Energy**

EPA also substantially underestimates the amount of BBD that could be distributed and consumed in excess of the proposed BBD mandate. As discussed above, EPA recognizes that existing BBD production capacity is sufficient to generate at least 4.2 bil RINs per year. Yet EPA appears to assume that total BBD production will generate hundreds of millions or even more than one billion fewer RINs than capacity in 2016.<sup>306</sup> EPA gives no explanation for why more available production capacity could not be used. [EPA-HQ-OAR-2015-0111-2604-A2 p.52]

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<sup>306</sup> See 80 Fed. Reg. at 33,127, Table II.D.2-2-2 & n.b (indicating EPA's expected range of BBD and conventional biodiesel RIN generation in 2016).

## **Illinois Soybean Growers (ISG)**

In addition to the soybean farmers we represent, livestock producers benefit greatly from biodiesel. Biodiesel is made only from the oil portion of the soybean, so all of the protein found in soybeans is leftover in soybean meal, which is a great source of nutrition for livestock. By creating demand for the soybean oil, biodiesel increases the availability of protein-rich meal for livestock feed and consumer food products. [EPA-HQ-OAR-2015-0111-3428 p.2]

## **Kansas Soybean Association**

While the recent proposal for biodiesel under the program was a step in the right direction, it does not fully capitalize on biodiesels benefits and potential for growth. The U.S. biodiesel industry has the capacity and has demonstrated its ability to increase production above the levels in the Proposed Rule, particularly when you consider U.S. production capacity, feedstock availability, and the potential for increased imports of biodiesel qualifying for the RFS. [EPA-HQ-OAR-2015-0111-2340 p.1] [EPA-HQ-OAR-2015-0111-1044 p.27]

## **Mass Comment Campaign sponsored by soybean farmers (email) - (8)**

While the recent proposal for biodiesel under the program was a step in the right direction, it does not fully capitalize on biodiesel's benefits and potential for growth. The U.S. biodiesel industry has the capacity and has demonstrated its ability to increase production above the levels in the Proposed Rule, particularly when you consider U.S. production capacity, feedstock availability, and the potential for increased imports of biodiesel qualifying for the RFS. [EPA-HQ-OAR-2015-0111-1480-A1 p.1]

## **Metropolitan Energy Center**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 46-47.]

But it's clear by now that it's imperative that many stakeholders, the public agencies and private businesses of Kansas and Missouri, not to mention the farmers and their families and the biofuel refineries, imperative that they have a stable regulatory environment so a mature biodiesel market can finally maturely develop. If biodiesel -- if biofuels are so great, why do we need a cumbersome regulation to support them? The short answer is the entrenched petroleum industry. That industry is currently vital to our way of life, including our economy and national security. This fact makes it difficult for consumers, including large corporations, to make a decision -- to support domestic renewable fuels just because it's good for the nation. It's clear that the U.S. biodiesel industry has the ability to produce quality products and the capacity to increase production above and beyond the standards called for in your recent proposal. We should be building our domestic industry, and doing so requires strong policy signals.

## **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

In Order to Satisfy EPA's Proposed Mandates, Biomass-Based Diesel Consumption Would Need to Increase to Levels That EPA Has Said Are Merely "Theoretically" Possible.

EPA purported to set the biomass-based diesel mandate at 1.8 billion physical gallons in 2016, about 200 million physical gallons more than were available for compliance a mere six months ago. But the effective biomass-based diesel mandate proposed for 2016 is actually much higher. Even if E85 consumption were to grow robustly over the next six months so that the market has the capacity to use 100-200 million gallons in 2016, Table II.D.2-2 suggests that the market still must also use approximately 2.0-2.1 billion physical gallons of biomass-based diesel in order to achieve the proposed mandates. There is a substantial risk that the market will come up short in meeting EPA's goal. Moreover, by imposing standards that require biomass-based diesel production to be pushed to the limits of what is practicable and then beyond those limits, EPA will cause significant volatility in RIN prices. Accordingly, EPA must revise its advanced and total renewable mandates downward to more realistic levels. [EPA-HQ-OAR-2015-0111-2603-A2, p.31]

1. EPA effectively proposed to mandate consumption of biomass-based diesel at levels at or near what EPA describes merely as "theoretically possible"

According to EPA, the market made available for compliance about 1.63 billion physical gallons of biomass-based diesel last year, slightly more than the 1.55 billion physical gallons made available in 2013. Thus, to meet EPA's effective mandate for biomass-based diesel of about 2.0-2.1 billion gallons over the next six to eighteen months, the economy would need to increase the number of physical gallons available for consumption by about 20 to 29 percent compared to last year. Yet year-over-year production through the first six months of 2015 has increased only by 16 million physical gallons, or 2 percent compared to this time last year.<sup>86</sup> [EPA-HQ-OAR-2015-0111-2603-A2, pp.31-32]

The notion that the biomass-based diesel production can reach about 2.0-2.1 billion physical gallons in 2016 also is in tension with EPA's previous acknowledgement that structural

impediments prevent the industry from quickly and materially increasing domestic production, which amounted to only 1.46 billion of the 1.63 billion gallons available for compliance in 2014. EPA should have concluded from that earlier analysis—which EPA relied upon for its exercise of waiver authority—that it is unrealistic to achieve biomass-based diesel production of 2.0-2.1 billion gallons within six to eighteen months. Instead, EPA relied on its calculation that more than 2.7 billion gallons of capacity has been registered at one time or another under the RFS program. But the mere existence of capacity that at one time has been registered says very little about the market’s actual ability to increase domestic production over the next six to eighteen months to make an additional 322 million gallons or more available.<sup>89</sup> [EPA-HQ-OAR-2015-0111-2603-A2, p.32]

Indeed, EPA acknowledged that such increased biomass-based diesel production may not be practically achievable. In its own words, EPA was “not able to say whether [2.131 billion physical gallons] of BBD is one that the market could be expected to achieve in 2016, notwithstanding our belief that such volumes are theoretically possible.” If EPA believes producing 2.131 billion physical gallons in 2016 is only theoretically possible, what basis has it to believe other targets between 1.952 and 2.065 billion gallons (i.e., the remaining portion of the range posited in the event E85 consumption reaches 100-200 million gallons) are actually possible? EPA must revise its advanced and total renewable requirements to levels that can actually be achieved with some reasonable degree of certainty. [EPA-HQ-OAR-2015-0111-2603-A2, p.33]

2. EPA has ignored additional factors that could constrain the economy’s ability to consume biomass-based diesel at the levels needed to meet the proposed mandates.

Not only has EPA set an effective biomass-based diesel mandate at a level that by its own admission is only theoretically possible, and not necessarily achievable in practice, it has also ignored important market risks that may make its effective mandate impracticable. For example, EPA has ignored the possibility that diesel consumption will outstrip EIA projections for 2016. If total diesel usage projections turn out to be too low, then more physical gallons of biomass-based diesel will be needed to achieve the same fractional advanced and total renewable requirements. Yet its proposed mandates, based upon current EIA gas and diesel projections, already push biomass-based diesel production to levels that are only theoretically achievable. EPA appears not to have considered this possibility in setting advanced and total requirements. It should adjust mandates to provide more breathing room to meet the requirements with production in 2016. [EPA-HQ-OAR-2015-0111-2603-A2, pp.33-34]

EPA also has understated the role biomass-based diesel may have to play in filling the renewable gap by assuming the market will produce 206 million gallons of cellulosic biofuel. If EPA projections of cellulosic production miss the mark, then even with robust E85 growth, biomass-based diesel markets may have to make closer to 2.2-2.3 billion gallons available for compliance. This scenario is in fact likely given EPA’s terribly poor track record in projecting cellulosic production—it has been off by millions of gallons in each of the last several years.<sup>94</sup> [EPA-HQ-OAR-2015-0111-2603-A2, p.34]

<sup>86</sup> Compare U.S. EPA, 2015 RFS2 Data, <http://www.epa.gov/otaq/fuels/rfsdata/2015emts.htm> (last visited July 24, 2015) with U.S. EPA, 2014 RFS2 Data, <http://www.epa.gov/otaq/fuels/rfsdata/2014emts.htm> (last visited July 24, 2015).

<sup>89</sup> This figure is derived by using the minimum incremental gallons of biomass-based diesel that EPA posits would be needed to meet the total mandate in the event that the economy consumed no more than 200 million gallons of E85 (i.e., 1,952 billion physical gallons).

<sup>94</sup> EPA might respond that it could address that sort of issue later—once it is clear the cellulosic industry cannot perform up to EPA’s aspirational projections, EPA could reduce the advanced and total renewable volume requirements at that time. But that does not justify leaving the market to guess whether it must consume at least 170 million more gallons of biodiesel. And, as EPA recognizes, “changing those requirements during the compliance year . . . would be disruptive to businesses and therefore to the long-term objectives of the RFS program . . . .” Id. at 33,130.

## **National Biodiesel Board**

In the new proposal, EPA continues to ignore expected increases in use of renewable fuel outside the gasoline pool. While ethanol represents the largest volume of renewable fuel currently in use, EPA’s focus on addressing purported constraints in the gasoline market for using increased volumes of ethanol fails to account for Congress’s expectation to increase use of renewable fuels in the diesel pool, including in non-road applications, heating oil and jet fuel applications. [EPA-HQ-OAR-2015-0111-1953-A2 p.32]

### **Response:**

EPA received a number of comments that discussed the ability of the biodiesel industry to supply increasing levels of biodiesel and renewable diesel to meet higher volume requirements in 2016 and 2017. In many cases these comments did not differentiate between their support for higher or lower biomass-based diesel standards and their support for higher or lower advanced biofuel and total renewable fuel standards on the basis of biodiesel and renewable diesel supply. Factors affecting supply and consumption of biodiesel and renewable diesel are relevant in setting all three standards. However, since the total and advanced biofuel standards are expected to be the main market drivers for growth in biodiesel and renewable diesel volumes, these comments are addressed in Sections 2.4.3, 2.5.0, 2.5.3, and 2.7.2 of this document, as well as in Sections II.E.3 and II.F of the final rule.

In section II.E.3 of the final rule we discuss the many factors that affect the supply and consumption of biodiesel and renewable diesel. Several stakeholders claimed that the level of biodiesel feedstock supply that could be available in 2016 and 2017 combined with the biodiesel and renewable diesel production capacity that already exists warrant an increase in the BBD volume requirement compared to those we proposed in the NPRM. We also received comments challenging the availability of additional biodiesel feedstocks and pointing out additional constraints that limited the opportunity for increased BBD volume requirements.

We received widely divergent comments and available data on the potential supply of biodiesel feedstocks, however, a focus on potentially available feedstock supplies is insufficient as this is not the only factor to consider in assessing the potential volumes of biodiesel and renewable diesel in 2016. Neither biodiesel production capacity, nor the supply of oils, fats, and greases around the world, has ever been the sole constraint on biodiesel and renewable diesel supply to the U.S. As discussed in section II.E. 3 and 4 of the final rule, there are a number of constraints, ranging from biodiesel renewable diesel distribution infrastructure to engine compatibility,

which we believe will constrain the supply of biodiesel and renewable diesel supply in 2016. Sections 3.2.2-3.2.5 in this document discuss a variety of factors such as imports, limitation on biodiesel use due to cold weather and engine warranties, availability of federal tax credits which all impact the supply and consumption of BBD.

These constraints do not represent insurmountable barriers, but they do take time to overcome. The market has been making efforts to overcome these constraints in recent years as demonstrated by the fact that biodiesel and renewable diesel consumption in the U.S. has been steadily increasing. We agree with the biofuels industry that more opportunity for ongoing growth still exists, but we do believe that the constraints listed above will continue to be a factor in the rate of growth for 2016. We believe that the ongoing constraints discussed in section II.E.3 of the final rule mean that the opportunity for growth 2016 is of a similar magnitude to that which we have experienced in recent years. For 2016 we are projecting the supply of biodiesel and renewable diesel for use in the United States could reasonably be as much as 2.5 billion gallons. We believe this value represents the maximum reasonably achievable volume of biodiesel and renewable diesel that can be supplied to the United States in 2016.

### **3.2.1 Availability of Feedstocks**

#### **Comment:**

#### **Advanced Economic Solutions (AES)**

Advanced and Biodiesel Proposed RVOs: The proposed advanced biofuel RVO during 2016 has significant consequences for biodiesel feedstock requirements. EPA should consider reducing the 2016 advanced biofuel RVO to the level proposed for 2015 (2.90 B gallons). [EPA-HQ-OAR-2015-0111-1193-A1 p.2] [EPA-HQ-OAR-2015-0111-1043, p. 303]

Even allowing for an increase of imported Argentine biodiesel during 2015 and beyond[1], AES estimates that the EPA proposed advanced biofuel mandate levels would result in US soy oil use for the production of methyl ester during 2016 to 5.57 B pounds, a 13% increase from the previous year. [EPA-HQ-OAR-2015-0111-1193-A1 p.2] [EPA-HQ-OAR-2015-0111-1043, p. 303]

U.S. soy oil usage of 5.57 B pounds would equate to a record 26% of the USDA projected 2015/16 annual US soy oil production. The increase in soy oil demand will be difficult to meet, as US ending stocks of soy oil are already at historically low levels [2]. The dramatic soy oil market reaction to the May 29 announcement by the EPA of their proposed mandates should be recognized as an indicator of adverse reaction to rising biodiesel requirements:

- Nearby July soy oil futures rose by 7.5% in the hours following the announcement of the proposed RVOs, from \$0.321 per pound to \$0.345 per pound [3] [EPA-HQ-OAR-2015-0111-1193-A1 p.2] [EPA-HQ-OAR-2015-0111-1043, p. 303]

The 2016 advanced biofuel RVOs proposed by the EPA have already created a disruption in the availability and price of the primary feedstock used to produce biodiesel: soy oil. Because of the importance of soy oil to food companies, EPA decisions with regard to the annual RVO for

advanced biofuels are already substantially increasing costs for food companies. [EPA-HQ-OAR-2015-0111-1193-A1 p.3] [EPA-HQ-OAR-2015-0111-1043, pp. 303-304]

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[1] Argentine biodiesel earning a D4 RIN is projected at 150 mm gallons and 250 mm gallons during 2015 and 2016, respectively

[2] USDA World Agricultural Supply and Demand Estimates (June 10, 2015)

[3] Chicago Mercantile Exchange

### **American Soybean Association (ASA)**

Biodiesel also has a positive impact on soy meal supplies, which are primarily utilized in animal feed. Processing biodiesel from soybeans uses only the oil portion of the soybean, leaving all of the soy meal protein available to nourish livestock and humans. By providing a market for soybean oil, biodiesel increases the availability of protein-rich meal for human and livestock consumption. The increased meal supply results in a more cost-effective food and feed source. From 2006 through 2015 biodiesel production resulted in lower soy meal and thus lower feed costs for U.S. livestock producers that ranged from \$5.9 to 11.8 billion in value.<sup>4</sup> [EPA-HQ-OAR-2015-0111-1818-A1 p.3]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, pp. 25-26.]

The biodiesel market provides an outlet for this surplus soybean oil, which is a byproduct of soybean production that is driven by the demand for soybean meal for protein.

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4 Informa Economics. March 2015. Impact of the U.S. Biodiesel Industry on the U.S. Soybean Complex and Livestock Sector.

### **Baker Commodities**

EPA also suggests that any increase in the biomass-based diesel pool would come from virgin soybean biodiesel is not the more innovative, ultra-low carbon feedstocks. However, the record shows that the proportional use of waste feedstocks such as used cooking oil and animal fats increases as the biodiesel market grows. When the industry constricted in 2009/2010, the percentage of waste feedstock use went down. See Figure 1.v [EPA-HQ-OAR-2015-0111-1907-A1 p.2]

As shown above, the market potential for biodiesel made from used cooking oil, animal fats and other lower-valued feedstocks is directly related to the size of the biodiesel market in general. These lower valued feedstocks are more difficult to work with as they require significant pre-treatment in order to process quality biodiesel. As a result, more capital is necessary to build a plant that utilizes lower value feedstocks and the resulting plant will have higher production costs than traditional first-generation plants. Although we have seen wider consumer acceptance of fuel made from recycled sources over the last few years, there are still customers who prefer to use biodiesel that is made from virgin oils. [EPA-HQ-OAR-2015-0111-1907-A1 p.2-3] [The figure can be found on p. 2 of Docket number EPA-HQ-OAR-2015-0111-1907-A1]

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iv EPA states in the Memorandum to docket on the 6 factors: 'For any volume above the 1.0 billion gallon

minimum, it is appropriate, therefore, to consider the impact of producing BBD from soy oil, the feedstock that will most likely be used at the margin to increase production over levels that can be attained using waste materials and non-food grade corn oil.'

v David DeRamus, Ph.D., Bates White Economic Consulting, Biodiesel Renewable Fuel Standard: Updated Analysis of Cost Of Carbon Reduction and Contribution to US CO2 Goals, PowerPoint Presentation, Dated June 29, 2015 (Attachment to Comments of the National Biodiesel Board)

### **Canola Council of Canada**

The Canola Council's mission is to enhance the Canadian canola industry's ability to sustainably produce and supply seed, oil and protein meal products that offer superior value to customers throughout the world. The Canola Council includes all members of the canola value chain such as seed and input companies, growers, exporters, processors, and biodiesel producers. Members of the Canola Council include companies that own and operate U.S. biodiesel facilities that utilize canola from Canada as a primary feedstock and that have participated in the RFS2 program. All members have an economic stake in the implementation of the RFS2 program. [EPA-HQ-OAR-2015-0111-2484-A1 p.2]

Utilizing renewable biomass as a form of energy provides numerous economic and environmental benefits. Diversification of feedstocks for renewable fuels is also important to move toward increased use of advanced biofuels. Canola epitomizes these important goals. Both the government of Canada and the provincial governments have numerous programs that encourage farmers to employ good farming practices, including conservation of lands. In particular, canola has a unique place in sustainable crop rotations and played a significant role in substantially reducing the number of acres of non-sustainable fallow land. Thus, canola is grown sustainably and in a manner that reduces greenhouse gas emissions associated with its production. [EPA-HQ-OAR-2015-0111-2484-A1 p.2]

Canola is grown on over 19 million acres in Canada.<sup>3</sup> The bulk of Canada's agricultural zone lies in the south of the country within a few hundred kilometers of the U.S. border, as well as the southern areas of Ontario, Quebec and the Maritimes. The vast majority of canola oil that is produced is exported,<sup>4</sup> with the United States receiving the majority of those exports.<sup>5</sup> Even with the development of the biodiesel industry in Canada, Canada will remain the largest global exporter of canola for the foreseeable future.

Economic factors, and general trends in Canada, show that renewable biomass producers in Canada continue to increase yields and improve utilization of existing lands to meet any increased demand for crops. Canola production in Canada has been able to increase over the years based on an increased use of lands that otherwise were left fallow, coupled with conservation or zero tillage. This has resulted in better and more sustainable use of the existing land base. Continued advances in technology, and production, have driven yields up further.<sup>6</sup> Average per-acre canola yields have risen 50% in fifteen years to 34 bushels per acre in 2014, and Canada is on track to produce 15 million tonnes of canola a year.<sup>7</sup> Plans are to continue increasing yield to 52 bushels per acre by 2025.<sup>8</sup> Thus, canola from Canada continues to provide a source of feedstock for the U.S. biomass-based diesel industry, and can continue to contribute in increasing amounts through a sustainable manner. This is precisely the program envisioned by Congress. [EPA-HQ-OAR-2015-0111-2484-A1 p.3]

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3 Canola Council of Canada, Harvest Acreage (updated Dec. 15, 2014), <http://www.canolacouncil.org/markets-stats/statistics/harvest-acreage/>.

4 Canola Council of Canada, Oil Supply and Demand (updated Nov. 21, 2013), <http://www.canolacouncil.org/markets-stats/statistics/oil-supply-and-demand/>.

5 Canola Council of Canada, Current Oil Exports (updated July 15, 2015), <http://www.canolacouncil.org/markets-stats/statistics/current-oil-exports/>.

6 It should also be noted that production of canola oil provides canola meal, which is one of the most widely used protein sources in animal feed. See Canola Council of Canada, Canola Meal, <http://www.canolacouncil.org/oil-and-meal/canola-meal/>.

7 Canola Council of Canada, Canola can meet the demand, <http://www.canolacouncil.org/canola-biodiesel/canola-biodiesel/canola-can-meet-the-demand/>.

8 Canola Council of Canada, Innovation in Action: 2014 Annual Report, available at <http://www.canolacouncil.org/media/564992/CanolaCouncilAR2014/index.html>.

### **Darling Ingredients Inc.**

The EPA summarizes its analysis of available feedstock for BBD in the Current Proposed Rule by concluding, 'The combined volumes of soybean oil, corn oil, and waste oils produced annually is far more than would be needed to produce 2.1 billion gallons of biodiesel' and the EPA adds, 'For instance, in 2014 exports of soy oil were 250 million gallons and exports of rendered fats and greases was 440 million gallons.'<sup>15</sup> With even a small diversion of volume that is currently being exported the EPA has established there is no feedstock limitation for an expansion of volumes to those suggested in this submittal. Further, that conclusion ignores the substantial volume of imported BBD which is acknowledged multiple times in the Proposed Rule. The EPA reports that imports which met the qualifications to fulfill the BBD bucket were 340 million gallons in 2013 and 322 million gallons in 2014. The vast majority of the imported BBD utilizes feedstock which is sourced locally (and outside the U.S.) to the BBD fuel production facility and not imported from the United States. That further expands the available feedstock supply available for the production of Biomass Based Diesel. The EPA has clearly established in the Proposed Rule there is no feedstock limitation associated with the volumes being suggested by Darling in this submittal. In fact the EPA could mandate over 3 billion gallons of BBD before it reaches its own established feedstock limitations. It should also be noted that the imports from Argentina will most likely substantially increase due to the recent decision of the EPA to allow for the survey method of compliance for Argentinian biodiesel production. [EPA-HQ-OAR-2015-0111-1929-A1 p.7]

### **Green Plains, Inc.**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 258-259.]

Within Green Plains, we continually develop markets for corn oil, as well as other fats and oils across fuel, feed, food, and industrial applications. Thus, I wanted to relay my thoughts on the impact of the proposed RFS RVO from the perspective of a supplier to each of these industries. As a feedstock for biodiesel fuel, corn oil has been one of the key supplies that has helped generate investments in new biodiesel processing technologies, driving efficiencies and capacity

in the industry. One of the key aspects of the proposed RVO is not only the volumes themselves, but the fact that the volumes for biodiesel be set through 2017. Having a firm volume established at least 2 years out is very helpful for our corn oil biodiesel customers. This gives our customers the ability to make better forecasts and thus make longer-term investments, in return giving the fuel industry a constant biodiesel supply.

### **Growth Energy**

EPA also alludes to a need to secure sufficient feedstocks, but the proposal does not indicate this would be a problem.<sup>167</sup> Just the opposite. The proposal states that “[t]he combined volumes of soybean oil, corn oil, and waste oils produced annually is far more than would be needed to produce 2.1 billion gallons of biodiesel.”<sup>168</sup> The proposal explains that “[i]t is possible that the market could divert additional feedstocks from food and other domestic uses or exports to the production of biodiesel. For instance, in 2014 exports of soy oil were 250 million gallons and exports of rendered fats and greases were 440 million gallons.”<sup>169</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.30]

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<sup>167</sup> 80 Fed. Reg. at 33,116.

<sup>168</sup> Id. at 33,128 (emphasis added).

<sup>169</sup> Id.

### **International Council on Clean Transportation (ICCT)**

EPA has proposed volumes for biomass-based diesel (BBD) for 2014-2017 that increase by about 100 million biodiesel-equivalent gallons each year. This rate of increase in volumes is faster than could be supported by domestic feedstock availability, and therefore would imply increased imports with attendant disruption to existing markets. The mandated volumes should be revised downward to be more consistent with projected BBD feedstock supply. [EPA-HQ-OAR-2015-0111-1923-A1 p.5]

A recent study by economist Wade Brorsen (2015; included as an Appendix to these comments) provides new information relevant to the assessment of the impact on the price and supply of agricultural commodities. Brorsen examines the supply and demand of U.S. BBD feedstocks, and projects quantities that may be available for increased BBD production without causing a significant increase in prices or unduly affecting other uses of these feedstocks. This study covers all major BBD feedstocks, including: soy oil, canola oil, inedible corn oil, yellow grease, and other recycled feeds. The study projects supply growth of soy and canola oil from past trends and USDA forecasts, and allows growth in supply of “waste” fats and oils. These growth assumptions on waste oil availability may tend to the generous side. For example, Brorsen allows for 8% annual growth in used cooking oil collection, but the study is not able to provide evidence to confirm that such increases would be economically feasible. Brorsen concludes that annual growth in total BBD feedstock availability will be 30 million gallons in 2015, 29 million gallons in 2016, and 25 million gallons in 2017 (Table 9 from Brorsen, 2015). [EPA-HQ-OAR-2015-0111-1923-A1 p.5-6] [Table 9 can be found on page 28 of EPA-HQ-OAR-2015-0111-1923-A1.]

Brorsen finds that EPA’s proposed BBD volumes would result in a feedstock deficit of 186 million biodiesel-equivalent gallons in 2017 and a cumulative deficit of 337 million gallons over

2015-2017 (shown in Figure 1). [EPA-HQ-OAR-2015-0111-1923-A1 p.6] [Figure 1 can be found on page 6 of EPA-HQ-OAR-2015-0111-1923-A1.]

### **Kansas Soybean Association**

Because soybean demand is driven by the protein meal markets, soy oil has traditionally existed in surplus. In recent years, demand for U.S. soybean oil for food use also began to decline significantly following the U.S. Food and Drug Administrations (FDA) action in 2003 to require food manufacturers to include trans-fats on nutrition labels beginning in 2006. The increase in the use of soybean oil for the biodiesel market has essentially taken up the reduced demand for soybean oil in the food sector associated with trans-fat labeling as the food industry shifted away from the use of partially hydrogenated soybean oil to various other oil blends. The amount of soy oil used in domestic food markets on an annual basis is approximately 4 billion pounds lower in 2012 than it was in 2005.

Additional soybean oil will be displaced from domestic food markets as a result of the recent FDA determination requiring the elimination of all partially hydrogenated oil, which creates trans-fat. It is estimated that this will displace an additional 1-1.5 billion pounds of soybean oil from food use.

Biodiesel also has a positive impact on soy meal supplies. Processing biodiesel from soybeans uses only the oil portion of the soybean, leaving all of the soy meal protein available to nourish livestock and humans. By providing a market for soybean oil, biodiesel increases the availability of protein-rich meal for human and livestock consumption. The increased meal supply results in a more cost-effective food and feed source. [EPA-HQ-OAR-2015-0111-2340 p.2-3]

### **LMC International, Ltd.**

The single most important takeaway from our global analysis is that there are large volumes of vegetable oils and fats in the marketplace and that these volumes are getting ever-larger, dwarfing biodiesel's demand for these feedstocks. So when analyzing feedstocks that would fill a proposed requirement for biodiesel and renewable diesel of at least 1.9 billion gallons in 2017, a number only slightly larger than actual production in each of the last 2 years, there is little, if any, impact on feedstock supply. We project total global production of qualifying feedstocks to rise from 112 million metric tons last year to more than 137 million by 2020, and over half of that growth is expected to come from increased production of soybean oil. Looking just at 2016, the supply of qualifying feedstocks is projected to rise strongly from 117 million metric tons this year to 120 million next. In 2015, we estimate that the demand for these feedstocks by uses other than biodiesel will be almost 92 million metric tons. That still leaves 25 million metric tons of qualifying feedstocks for biodiesel, equivalent to 7.6 billion gallons of biodiesel, and the U.S. program is expected at only 1.7 billion. By 2020, these numbers will rise significantly to 28.4 million metric tons of qualifying feedstocks available for biodiesel production after accounting for other uses. That's the equivalent of 8.5 billion gallons of biodiesel. In conclusion, this year and next and in the longer term, there will be more than enough qualifying feedstocks to produce biodiesel for the U.S., and only a small percentage of those feedstocks will go into biodiesel, even allowing for significant growth in the program.

### **Mass Comment Campaign sponsored by soybean farmers (email) - (8)**

While biodiesel is now made from a diverse group of feedstocks, soybean oil remains the largest source of biodiesel feedstock. Biodiesel is an important market for soybean oil, adding value to our product and boosting the farm and rural economy. Soy oil would be a drag on demand for soy meal protein and whole soybeans if not for the biodiesel market. Over the past decade there has been increased soybean production to meet global protein demand and at the same time soy oil is being displaced from food markets due to the move away from trans-fat. [EPA-HQ-OAR-2015-0111-1480-A1 p.2]

Because soybean demand is driven by the protein meal markets, soy oil has traditionally existed in surplus. In recent years, demand for U.S. soybean oil for food use also began to decline significantly following the U.S. Food and Drug Administration's (FDA) action in 2003 to require food manufacturers to include trans-fats on nutrition labels beginning in 2006. The increase in the use of soybean oil for the biodiesel market has essentially taken up the reduced demand for soybean oil in the food sector associated with trans-fat labeling as the food industry shifted away from the use of partially hydrogenated soybean oil to various other oil blends. The amount of soy oil used in domestic food markets on an annual basis is approximately 4 billion pounds lower in 2012 than it was in 2005. [EPA-HQ-OAR-2015-0111-1480-A1 p.2]

Additional soybean oil will be displaced from domestic food markets as a result of the recent FDA determination requiring the elimination of all partially hydrogenated oil, which creates trans-fat. It is estimated that this will displace an additional 1-1.5 billion pounds of soybean oil from food use. [EPA-HQ-OAR-2015-0111-1480-A1 p.2-3]

Biodiesel has a positive impact on soy meal supplies, which are primarily utilized in animal feed. Processing biodiesel from soybeans uses only the oil portion of the soybean, leaving all of the soy meal protein available to nourish livestock and humans. By providing a market for soybean oil, biodiesel increases the availability of protein-rich meal for human and livestock consumption. The increased meal supply results in a more cost-effective food and feed source. [EPA-HQ-OAR-2015-0111-1480-A1 p.3]

### **Minnesota Soybean Processors (MnSP)**

It is important for this Administration to understand that the soybean oil that MnSP produces when we process soybeans is no longer in demand for human consumption because of trans-fats. This is especially noteworthy with the FDA announcement that trans-fats are no longer “generally recognized as safe” for use in food. As a result nearly all soybean oil production will need to find markets outside of human food consumption. The biodiesel market is a perfect match for production of biodiesel from a renewable, non-food product. [EPA-HQ-OAR-2015-0111-2505-A1 p.1]

### **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

EPA likewise observed that there are more than sufficient feedstocks to produce 2.1 billion gallons of biodiesel. It suggested that “[i]t is possible that the market could divert additional feedstocks from food and other domestic uses or exports to the production of biodiesel,” noting that the market theoretically could have foregone exporting 690 million gallons of feedstocks. But EPA did not assess whether that degree of diversion is achievable in practice, particularly if

much of that feedstock is committed to feeding populations or to other productive uses that may not be easy to abandon on a dime. [EPA-HQ-OAR-2015-0111-2603-A2, pp.32-33]

### **National Biodiesel Board**

Moreover, based on an analysis by LMC International, “there should be no question about adequate feedstocks to meet biodiesel volume requirements here in 2015 and 2016, and through 2020, even allowing for significant growth to the program.” Testimony of Andrea Kavalier, LMC International Ltd. at 2 (EPA-HQ-OAR-2015-0111-0993) (emphasis in original). There is more than adequate feedstock to meet global demand and to support 7.6 billion gallons of biodiesel in 2015. See id. By 2020, there is still likely to be sufficient feedstock to support at least 8.5 billion gallons of biodiesel. Id. Thus, the biomass-based diesel industry can continue to contribute significantly and meaningfully into the RFS2 program, but for EPA’s self-fulfilling policy in setting volumes below what it believes can be achieved. [EPA-HQ-OAR-2015-0111-1953-A2 p.11]

EPA further ignores that the biomass-based diesel industry has not only exceeded expectations regarding volumes, but it has more than met the goals of Congress in diversifying feedstocks and, thus, moving toward those fuels with greater GHG emission reductions. The industry has increasingly been using canola oil, biogenic waste oils/fats/greases, and non-food grade corn oil. The industry has spurred new feedstocks, such as camelina sativa oil, pennycress oil, and carinata oil. EPA recently issued a notice for use of cottonseed oil. The industry continues to look for other feedstocks. These advances have occurred so that the industry can continue to expand production, which increases efficiency, and reduce costs. EPA argues, however, that the increases its proposal would provide would likely be soybean oil. EPA-HQ-OAR-2015-0111-0008 at 3. Thus, it is also negatively affecting the innovation of the industry that has resulted in increased efficiencies and lower costs. [EPA-HQ-OAR-2015-0111-1953-A2 p.45]

### **National Renderers Association (NRA)**

Each year, renderers contribute approximately 9 billion pounds of recycled animal fats and refined used cooking oil/grease recaptured from food service establishments and food processors to the marketplace. (Food service includes restaurants, schools/universities, and health care, corrections, military facilities, etc.) Renderers collect 4 billion pounds annually of used cooking oil/grease, recycling it so the product is suitable as a feedstock for biomass-based diesel and as a component of other products. [EPA-HQ-OAR-2015-0111-2496-A1 p.3]

Biomass-based diesel has become an important and growing market for the U.S. rendering industry, with over 20 percent of rendered fats, oil and grease currently used as feedstocks. The biodiesel and renewable diesel markets are increasingly important to the economic sustainability of the rendering industry. Many of NRA’s U.S. members produce large amounts of feedstocks for these biofuels, are actively engaged in the production of biodiesel and renewable diesel, or are poised to enter these markets. [EPA-HQ-OAR-2015-0111-2496-A1 p.3]

Biomass-based diesel – either through production of animal-based biofuels or supplying feedstocks for this fuel – is now a critical part of the U.S. rendering industry. U.S. exports of animal fats and oils have declined in recent years, largely due to global oversupply of competing oil, foreign trade barriers and the relative high value of the dollar. Biodiesel has emerged as an

important replacement market, and a sufficient supply of rendered fats and used cooking oil/grease can reliably be expected to be available for biomass-based diesel feedstocks as demand continues to increase if RFS volumes for 2014-2017 are set at levels recommended by NRA. [EPA-HQ-OAR-2015-0111-2496-A1 p.3]

Rendered animal fats and used foodservice cooking oil/grease accounted for 22 percent of the feedstocks used in U.S. biomass-based diesel production in 2014. During the first four months of this year, renderers supplied almost 26 percent of total biomass-based diesel feedstocks. [EPA-HQ-OAR-2015-0111-2496-A1 p.4]

### **Renewable Energy Group, Inc. (REG)**

Based on a recent feedstock supply study by LMC International, commissioned by the National Biodiesel Board, qualifying feedstock availability is not an issue as the biomass-based diesel volume continues to grow; there is increased availability of qualifying waste fats, greases and inedible corn oil, as well as soy and canola oil. Based on the report conclusions, in 2015 there is enough qualifying feedstock for 6.8 billion gallons of biodiesel. *See* NBB Attachment, LMC International, *Current and Future Supply of Biodiesel Feedstocks* (July 2015). *See* NBB Attachment, ABF Economics, *Impacts of Biomass-Based Diesel Production on the Animal Fats, Waste Greases and Inedible Plant Oils Industry* (2013). *See* NBB Attachment, Centrec Consulting Group, LLC, *Biodiesel Demand for Animal Fats and Tallow Generates an Additional Revenue Stream for the Livestock Industry* (Sept. 2012). REG has, and will continue to, update the EPA with advances in these markets. [EPA-HQ-OAR-2015-0111-1952-A1 p.3]

### **State of Indiana House of Representatives**

Almost 300 million pounds of soybean oil from Indiana soybeans is used in the production of biodiesel. Our state is home to the world's largest fully-integrated soybean processing and soy biodiesel facility: Louis Dreyfus in Claypool, Indiana. [EPA-HQ-OAR-2015-0111-3466-A1 p.1]

### **U.S. Canola Association (USCA)**

The use of canola as a feedstock is based on the geographic location of the biodiesel production facilities in regions where canola is grown. Canola provides another feedstock option for biodiesel production that can be locally sourced in regions where other feedstocks are less prevalent or more costly. [EPA-HQ-OAR-2015-0111-1819-A1 p.1]

for canola and other farmers, a viable biodiesel industry helps maintain a link between vegetable oil and energy values, creates a floor for commodity values, and serves as a hedge against energy inflation. Continued growth in the biodiesel industry is needed to realize and optimize these benefits, and that growth can be prompted by increasing the RFS volumes for biomass-based diesel beyond the levels in the Proposed Rule. [EPA-HQ-OAR-2015-0111-1819-A1 p.2]

### **Union of Concerned Scientists**

EPA's proposal for bio-based diesel mandates gives inadequate consideration to feedstock availability and focuses too much on BBD availability and market access. Each biofuel is different, and while blending constraints are the principal near term obstacle to increased ethanol sales, and fuel production capacity is the principal constraint on cellulosic biofuel production, for

bio-based diesel (BBD) the availability of feedstocks is the most urgent question. [EPA-HQ-OAR-2015-0111-2260-A1 p.3]

Together with the International Council on Clean Transportation, the Union of Concerned Scientists commissioned Professor Wade Brorsen, a distinguished agricultural economist from the University of Oklahoma, to evaluate the availability of biodiesel feedstock in the United States to support expanded BBD mandates and advanced biofuel mandates (Brorsen, 2015). Professor Brorsen considered all the major sources of biodiesel feedstock and developed projections of their availability in the next several years. The conclusions of the study were that the US agricultural sector can increase production of fats and oils beyond 2014 levels by 30 Mgal in 2015, 29 Mgal for 2016 and 25 Mgal in 2017. [EPA-HQ-OAR-2015-0111-2260-A1 p.3] [The commissioned study can be found in docket number EPA-HQ-OAR-2015-0111-2260-A2]

Increasing the use of biodiesel at a faster rate will primarily result in bidding feedstocks away from other uses and ultimately to reduced vegetable oil exports or increased imports of vegetable oil or biodiesel. Increasing vegetable oil or biodiesel imports and bidding vegetable oil and other biodiesel feedstocks away from other uses are not sustainable means to meet the objectives of the RFS as outlined in Clean Air Act (CAA) section 211 (o)(2)(B)(ii). [EPA-HQ-OAR-2015-0111-2260-A1 p.3]

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1 World Health Organization (WHO). Diet, nutrition and the prevention of chronic diseases: report of a joint WHO/FAO expert consultation, Geneva, 28 January - 1 February 2002. <http://www.fao.org/docrep/005/ac911e/ac911e00.htm>

2 Gaskell, Joanne C. The Palm Oil Revolution in Asia PhD dissertation. Stanford University. 2012.

3 Union of Concerned Scientists (UCS). 2012. Recipes for Success: Solutions for deforestation-free vegetable oils. Online at <http://www.ucsusa.org/assets/documents/globalwarming/Recipes-for-Success.pdf>.

### **Response:**

A number of the comments claim that there is sufficient feedstock available to increase BBD production. For example, the American Soybean Association commented that demand for U.S. soybean oil for food use began to decline following the U.S. Food and Drug Administration's (FDA) action in 2003 to require food manufacturers to include trans-fats on nutrition labels. The commenter states that this will result in the likely displacement of additional soy oil from food use that would then be available for biodiesel feedstock. EPA acknowledges the trend of declining soybean oil use in food, and believes it will continue as a result of a June 2015 FDA determination requiring the elimination by 2018 of all partially hydrogenated oil in food use. To the extent that soy oil is being phased down for food purposes, some supply of soy oil will likely become available for other uses, such as biodiesel production.

The NBB submitted a study by LMC International entitled "*Current and Future Supply of Biodiesel Feedstocks*" which was also cited in comments by Renewable Energy Group, Inc. This study concludes that feedstock availability is not a limiting factor for increasing BBD volumes; there is increased availability of qualifying waste fats, greases and inedible corn oil, as well as soy, canola and other oils. According to the study, in 2015 there is enough qualifying feedstock for 6.8 billion gallons of biodiesel globally. By 2020, there is likely to be sufficient feedstock to support at least 8.5 billion gallons of biodiesel.

EPA believes the LMC International study contains several erroneous assumptions which contribute to an overestimation of feedstock availability. For example, when estimating availability the study considers the theoretical amount of oil that could be extracted from an oilseed, or “oil in seed”, versus the amount of oil actually expected to be extracted/produced. Some amount of the soybean supply is not crushed, and fed directly to livestock, and in other instances the soybean is crushed, and oil is extracted, but it is added to feed and thus doesn’t enter the oil market. These unaccounted for alternate practices contribute to oil supply estimates that are in some cases significantly higher than USDA estimates. For example, LMC International’s estimates of U.S. soybean oil supply is more than 80 percent greater than that reported by USDA-WASDE for recent years.<sup>26</sup>

Darling Ingredients, Inc. suggests that when accounting for the combined volumes of: (1) soybean oil, corn oil and waste oils currently produced in the U.S., and (2) the potential diversion of a portion of U.S. exports of soy oil and rendered fats and greases to the U.S. marketplace, that at least three billion gallons of BBD could be produced to meet the RFS RVOs before feedstock limitations would arise. We believe that Darling Ingredients Inc. is on the high side of estimates of feedstock that can be made available in 2016 given the time and effort needed to divert those feedstocks from other uses. For instance, Darling Ingredients Inc. assumes that a considerable portion of the potential feedstock production could be diverted to BBD for the RFS without focusing on the possibility that the diversion of exports could possibly have disruptive effects in other markets for BBD feedstocks. Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC raise this issue suggesting that these feedstocks may be “committed to feeding populations or to other productive uses that may not be easy to abandon on a dime”. In addition, EPA considers a variety of other factors besides just feedstock availability when determining how much BBD to require under the RFS. See Section II.E.3 of the final rule and the memorandum in the docket discussing our evaluation of the statutory factors in CAA section 211(o)(2)(B)(ii) for a discussion of these other factors.

In their comments NBB claims EPA argues “that the increases its proposal would provide would likely be soybean oil”, and that this argument negatively affects the innovation of the industry. In providing illustrative costs, we produce a scenario that assumes that the entire change in the advanced standards is met with soybean oil biomass-based diesel. This is only intended to be illustrative, not an attempt to estimate actual costs given the variety of feedstocks that can and are used. In this context, EPA believes that it is appropriate to use soybean oil as the representative marginal feedstock, versus any other biodiesel feedstock, as it is the single largest feedstock source. However, EPA believes other biomass-based diesel feedstocks can, and will, contribute to advanced standard volumes. We do not believe that this simplifying assumption has any impact on industry innovation.

The Canola Council of Canada and the U.S. Canola Association both touted the benefits of canola as a quality biodiesel feedstock in their comments. The Canola Council of Canada points out that renewable biomass producers in Canada continue to increase yields and improve utilization of existing lands to meet any increased demand for crops. Thus, the Council believes that canola can provide an important and growing source of feedstock for biodiesel requirements for the RFS in the U.S. According to the Canola Council of Canada, continued advances in

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<sup>26</sup> USDA, *World Agricultural Supply and Demand Estimates* (October 2015).  
<http://www.usda.gov/oce/commodity/wasde/latest.pdf>

technology and production have driven yields up. Average per-acre canola yields have risen 50 percent in fifteen years to 34 bushels per acre in 2014. Plans are to continue increasing canola yields to 52 bushels per acre by 2025. We acknowledge these comments and want to point out that this rule is assuming continued growth in biodiesel made from vegetable oil feedstocks such as canola oil to help fulfill the RFS requirements.

Green Plains, Inc. stresses the need to develop markets for corn oil as well as other fats and oils. They state that as a feedstock for biodiesel fuel, corn oil has been one of the key supplies that has helped generate investments in new biodiesel processing technologies driving efficiencies and capacity in the industry. They believe that having a firm volume established at least two years out is very helpful for their corn oil biodiesel customers. While the market will determine which feedstocks to use and in what quantities, EPA is assuming continued growth in corn oil as a feedstock for biodiesel production to fulfill the RFS requirements.

Other comments challenged the availability of additional feedstocks and thus the opportunity for increased BBD production. The ICCT and UCS submitted a study "*Projections of U.S. Production of Biodiesel Feedstock*" by Professor Brorsen at the University of Oklahoma. Professor Brorsen considered all the major sources of U.S. biodiesel feedstock and developed projections of their availability through 2019. The conclusion of the study is that the potential to expand biodiesel production from the feedstocks in the U.S. is limited without substantially increasing feedstock prices. The study estimates that the U.S. agricultural sector can increase production of fats/oils beyond 2014 levels by 30 million gallons (Mgal) in 2015, 29 Mgal in 2016 and 25 Mgal in 2017. Thus, according to the study, higher volumes of biodiesel would have to come from imports of feedstock or finished biodiesel.

Due to the near coincidental timing of the submission of the Bronson study with the aforementioned FDA determination, the study did not have an opportunity to account for the impacts of the FDA determination on soy oil availability in its projections. Further, even if time permitted, the trends projection approach which extrapolates from recent production patterns is not well suited to capture adjustments in feedstock markets such as, for example, the impacts of the FDA announcement (or the recent slowdown in the demand for commodities in China). EPA believes the study likely underestimates the amount of feedstock available for expanded biodiesel production due to its methodological shortcomings. Also, given its focus on only U.S. sources of feedstocks for biodiesel, it does not consider all sources of feedstock supply which could qualify under the RFS program.

Advanced Economic Solutions (AES) suggests that EPA should consider reducing the 2016 advanced biofuel applicable volume to the level proposed for 2015 due to a lack of feedstock availability. AES estimates that the EPA proposed advanced biofuel mandate levels would result in 5.57 billion pounds of U.S. soy oil use for the production of methyl ester in 2016, a 13 percent increase from the previous year. According to AES, U.S. soy oil usage of 5.57 billion pounds would equate to a record 26 percent of the USDA projected 2015/16 annual U.S. soy oil production.

AES claims that the soy oil market reaction to the announcement by EPA of their proposed RFS requirements should be recognized as an indicator of adverse reaction to rising biodiesel requirements. AES claims that July soy oil futures rose by 7.5 percent in the hours following the announcement of the proposed applicable volumes, from \$0.321 per pound to \$0.345 per pound.

AES further asserts that the 2016 advanced biofuel applicable volume proposed by the EPA have already created a disruption in the availability and price of the primary feedstock used to produce biodiesel: soy oil. Because of the importance of soy oil to food companies, AES believes that EPA decisions with regard to the annual applicable volumes for advanced biofuels are substantially increasing costs for food companies.

EPA disagrees with AES that the current RFS renewable fuel volumes are causing disruption in the availability and price of the primary feedstock used to produce biodiesel: soy oil. Currently, the average price of soy oil on the Chicago Board of Trade is roughly \$0.286 per pound for the month of October 2015. Given the low price of soy oil and the general availability of soy oil, we do not think that RFS renewable fuel volume requirements are having a significant cost impact on food companies.

Baker Commodities asserts that EPA believes that any increase in the BBD pool would come from soybean biodiesel, not from other feedstocks such as wastes and animal fats. This commenter asserts that the use of waste feedstocks to make biodiesel increases in rough proportion when the biodiesel market grows. While the largest supply of biodiesel is soybean-based biodiesel, EPA recognizes that wastes and animal fats are significant contributors to the BBD fuel pool, are a less expensive feedstock, and that the supply of wastes/animal fats may be able to grow in the future to help meet the RFS renewable fuel volumes as the infrastructure to increase collection of waste oils and fats increases. However, we still believe it is most likely that the marginal gallons of biodiesel in the near future will primarily be filled with soybean oil or other virgin vegetable oils based on the relative abundance of these feedstocks. This belief is supported by analysis provided by the NBB which assessed the growth in biodiesel volumes through 2018/2019 by feedstock.<sup>27</sup>

The National Renders Association suggests that U.S. exports of animal fats and oils have declined in recent years, largely due to global oversupply of competing oil, foreign trade barriers and the relative high value of the dollar. They assert that biodiesel has emerged as an important replacement market, and a sufficient supply of rendered fats and used cooking oil/grease can reliably be expected to be available for biomass-based diesel feedstocks as demand continues to increase as RFS volumes increase. We believe that rendered fats and used cooking oil/grease can continue to grow through time to supply more of the RFS volumes.

Given the comments and available data, we believe that an increase in biodiesel volume availability is warranted in this rulemaking, and that sufficient feedstocks are available for the production of the volume requirements we are finalizing in this rule. However, we believe the level of BBD increase suggested by NBB and others seem unreasonable in the 2016 timeframe given uncertainties about the market's short run ability to supply feedstocks for such a significant increase in BBD, and for other reasons discussed in the preamble.

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<sup>27</sup> See "NBB-WAEES Results Feedstock Use and Price Levels and Changes Under the Minimum Scenario" in the docket.

### **3.2.2 Production Capacity**

#### **Comment:**

#### **Advanced Biofuels Association (ABFA)**

The EPA proposal spends little time discussing renewable diesel. EPA should be aware that there are more than 900 million gallons of global renewable diesel capacity from companies that are located in the U.S. or imported to the U.S. This includes U.S. production capacity of over 200 million gallons per year of renewable diesel. The ability of renewable diesel to help meet the RFS's statutory targets should not be underestimated and it continues to add incrementally more volume each year. [EPA-HQ-OAR-2015-0111-2498-A1 p.6]

#### **Archer Daniels Midland Company (ADM)**

ADM concurs with EPA's statement in the RVO proposal that 'the approach we take to setting standards must be consistent with Congress' clear goal of compelling the industry to make dramatic changes to increase renewable fuel use.' The biodiesel industry exceeded EPA's 2013 requirements by a wide margin, and according to EPA's 2014 RVO proposal has a production capacity of nearly 3.6 billion gallons. The industry has clearly demonstrated its ability to meet a goal that exceeds the proposed volumes. [EPA-HQ-OAR-2015-0111-2262-A1 p. 2]

#### **Crimson Renewable Energy LP**

For 2015 thru 2017, Crimson has serious concerns about the RFS currently proposed RVO for advanced and biomass-based diesel for 2015- 2017. The biodiesel industry has consistently demonstrated its ability to expand production, year after year. In fact, EPA acknowledges in the RFS Proposal that the proposed volumes for biomass-based diesel through 2017 remain well below domestic capacity. In 2013, the biodiesel industry produced approximately 1.8 billion gallons of fuel, and would have easily produced 2.1 billion in 2014 but for the EPA's action in 2013. 2015 was off to a poor start as a result of EPA's continued delay, but in May and June, the two months since the announcement of the current RFS proposal, the industry produced or imported 169 and 176 million, respectively, which can be annualized to 2.1 billion gallons. [EPA-HQ-OAR-2015-0111-1823-A1 p.2]

#### **Darling Ingredients Inc.**

DGD, built at a cost of almost \$400 million in private capital, has been operating for two years and is currently producing at a rate of over 160 million gallons of Renewable Diesel a year (120% of nameplate capacity). It represents the largest fully utilized Advanced Biofuel facility in North America. DGD, as well as all of Darling's Biodiesel facilities, utilizes waste oils as their feedstock which has a lifecycle greenhouse gas emission reduction of over 85 percent, while also resulting in substantially less particulate emissions. Because the feedstocks are less expensive than traditional vegetable oils the result is the production of environmentally friendly fuels (fuels which provide GHG reductions in excess of those required for cellulosic) in a cost effective manner per ton of carbon reduced. [EPA-HQ-OAR-2015-0111-1929-A1 p.1]

It should be noted that the 2.8 billion gallons does not take into consideration the impact of potential expansion of domestic Renewable Diesel production. Diamond Green Diesel is capable

of expanding an additional 50-75 million gallons per year above the current 160 million gallon run rate. [EPA-HQ-OAR-2015-0111-1929-A1 p.6]

The BBD industry is not asking the EPA to set mandated volumes at levels that would require new capacity. Rather the industry is asking the EPA to support EXISTING industry capacity which was built on the basis of clearly stated levels established by the Energy Independence and Security Act. It is disingenuous for the EPA to argue there is no firm guidance on whether to increase BBD mandates when they clearly can achieve the environmental goals established by the Act for Cellulosic and, therefore, Advanced biofuels on a cost competitive basis. [EPA-HQ-OAR-2015-0111-1929-A1 p.7]

### **Growth Energy**

there is sufficient BBD production capacity to generate between 4.409 bil RINs (4.14 bil from biodiesel and 0.269 bil from renewable diesel) and 4.562 bil RINs (4.2 bil from biodiesel and 0.362 bil from renewable diesel). [EPA-HQ-OAR-2015-0111-2604-A2 p.31]

EPA also substantially underestimates the amount of BBD that could be distributed and consumed in excess of the proposed BBD mandate. As discussed above, EPA recognizes that existing BBD production capacity is sufficient to generate at least 4.2 bil RINs per year. Yet EPA appears to assume that total BBD production will generate hundreds of millions or even more than one billion fewer RINs than capacity in 2016.<sup>306</sup> EPA gives no explanation for why more available production capacity could not be used. [EPA-HQ-OAR-2015-0111-2604-A2 p.52]

In addition, as EPA purports to recognize, renewable diesel is not even subject to a blend-wall because it is chemically “indistinguishable from conventional diesel fuel.”<sup>319</sup> Thus, there is simply no distribution- or consumption-based constraint whatsoever on using the entire domestic production capacity, which again could generate about 0.362 bil RINs per year.<sup>320</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.53-54]

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<sup>306</sup> See 80 Fed. Reg. at 33,127, Table II.D.2-2-2 & n.b (indicating EPA’s expected range of BBD and conventional biodiesel RIN generation in 2016).

<sup>319</sup> 80 Fed. Reg. at 33,128.

<sup>320</sup> Stratas Report at 16 (attached as Exhibit 2).

### **Kansas Soybean Association**

I am proud of the leading role soybean farmers have played in establishing and developing the U.S. biodiesel industry. From the first investments from the soybean industry, biodiesel has grown to a point of producing well over 1 billion gallons annually and now has the capacity to produce over 3 billion gallons of domestic, renewable, advanced biofuels. [EPA-HQ-OAR-2015-0111-2340 p.2]

### **Mass Comment Campaign sponsored by Biodiesel.org (email) - (93)**

I am writing to urge you to include additional biodiesel growth in the Renewable Fuel Standard (RFS) volumes to be finalized later this year. While the recent proposal for biodiesel under the

program was a step in the right direction, I believe it does not fully capitalize on biodiesel's benefits and potential for growth. [EPA-HQ-OAR-2015-0111-0211-A1 p.1]

It is clear that the U.S. biodiesel industry has the ability and capacity to increase production above and beyond the standards called for in your recent proposal, particularly when you consider the potential for sharply increased imports qualifying for the RFS. We should be building our domestic industry, and doing so requires strong policy signals. The six criteria for biodiesel growth outlined in the RFS statute have clearly been met. The benefits are clear in terms of cost-effective pollution reduction, job creation, tax revenues and energy security. [EPA-HQ-OAR-2015-0111-0211-A1 p.1]

**Mass Comment Campaign sponsored by Indiana Soybean Alliance (email) - (250)**

I am writing in response to your recently established biodiesel volumes under the Renewable Fuel Standard (RFS). As an Indiana farmer, I certainly recognize and appreciate that the proposal is a positive step. But I, and farmers all across our state, remain concerned that the proposed biodiesel volumes for 2016 and 2017 fail to adequately recognize the domestic biodiesel industries production capacity and its ability to increase production. [EPA-HQ-OAR-2015-0111-2569-A2 p.1]

**Mass Comment Campaign sponsored by soybean farmers (email) - (8)**

Biodiesel has contributed to increased domestic energy production while also delivering significant greenhouse gas emissions reductions and creating jobs and boosting the farm and rural economy. I am proud of the leading role soybean farmers have played in establishing and developing the U.S. biodiesel industry. From the first investments from the soybean industry, biodiesel has grown to a point of producing well over 1 billion gallons annually and now has the capacity to produce over 3 billion gallons of domestic, renewable, advanced biofuels. [EPA-HQ-OAR-2015-0111-1480-A1 p.1]

**Missouri Soybean Association (MSA)**

It is clear that the U.S. biodiesel industry has the ability and capacity to increase production above and beyond the standards called for in EPA's recent proposal, particularly when you consider the potential for sharply increased imports qualifying for the RFS. We should be building our domestic industry, and doing so requires strong policy signals. [EPA-HQ-OAR-2015-0111-3304 p.1-2]

**National Biodiesel Board**

Despite doubts raised by obligated parties every year, biodiesel facilities have been able to increase production to meet demand, and idled facilities can come back on-line quickly. Renewable diesel production has also continued to grow. The industry also continues to have more available capacity from which to increase production. [EPA-HQ-OAR-2015-0111-1953-A2 p.9-10]

As shown in the table below, the biomass-based diesel industry has shown that it can respond positively to the RFS2 requirements and market demand. It has exceeded the minimum applicable volumes for biomass-based diesel and has increased production by over 600 million

gallons from 2010 to 2011 and again from 2012 to 2013. Indeed, from 2011-2013, biodiesel production alone exceeded the mandated volumes for biomass-based diesel in each of those years. Biodiesel also expanded its markets in this time, including increased use in the heating oil market, and renewable diesel production (and importation) has also shown significant growth in recent years. Nonetheless, the industry is still in its early stages, and continues to make advancements and create efficiencies, resulting in benefits to consumers. [EPA-HQ-OAR-2015-0111-1953-A2 p.10] [The table can be found on page 10 of docket number EPA-HQ-OAR-2015-0111-1953-A2]

While increasing, these volumes remain well below production capacity in the United States and the capacity of registered facilities. EPA has estimated that there is about 2.8 billion gallons of registered biodiesel production capacity in the United States, although total capacity may be as high as 3.6 billion gallons. 80 Fed. Reg. at 33,116. Using the 1.5 equivalence value for biodiesel, this represents 4.2 billion RINs and 5.4 billion RINs, respectively. [EPA-HQ-OAR-2015-0111-1953-A2 p.10]

NBB has tracked every domestic biomass-based diesel plant that is registered with the EPA and/or is a Member of NBB. Based on this assessment, there are 232 domestic production facilities with a volume capacity of almost 3.4 billion gallons. Additionally, almost 80 foreign facilities are registered with EPA under the RFS2, with almost 1.7 billion gallons of capacity. The total volume is over 5.0 billion gallons, and it represents approximately 7.8 billion RINs. This list of facilities is provided at Attachment 1. [EPA-HQ-OAR-2015-0111-1953-A2 p.11]

But, Congress required EPA to review the “expected annual rate of future commercial production of renewable fuels, including advanced biofuels in each category (cellulosic biofuel and biomass-based diesel).” 42 U.S.C. § 7545(o)(2)(B)(ii)(III) (emphasis added). Congress sought to ensure continued growth in these categories specifically. Indeed, as noted above, Congress sought to increase biodiesel specifically. See *id.* § 7545(o)(1)(D) (defining biomass-based diesel as “renewable fuel that is biodiesel”), (5)(A)(ii) (requiring “appropriate” credits for biodiesel). Indeed, unlike cellulosic biofuel, where EPA went through a painstaking process to identify each possible gallon of cellulosic biofuel that could be generated, EPA ignores its own data of already registered biomass-based diesel facilities that have total capacity exceeding 5 billion gallons. Instead, EPA sets the volume increases at an unremarkable year-on-year increase of 4 percent. [EPA-HQ-OAR-2015-0111-1953-A2 p.46]

### **New Leaf Biofuel, LLC**

EPA admits in the proposal dozens of times that the domestic production capacity of biodiesel is over 2 billion gallons. And that does not include the biodiesel and renewable diesel imports in to the United States which are increasing rapidly as a result of the LCFS ramp up and the Argentinian biodiesel pathway. If our goal is to reduce greenhouse gas emissions - and EPA has demonstrated that this is a top priority - then why would the EPA intentionally keep the biomass-based diesel number low? I will defer the detailed legal counter-arguments regarding EPA’s “stimulate competition” justification to the NBB comments, but just as a practical matter, the proposal reads as if biodiesel – the shining star on all accounts for the RFS – is getting the short end of the stick in favor of the interests of obligated parties and mysterious “other advanced fuels”. [EPA-HQ-OAR-2015-0111-1909-A1, p.2]

## **Phillips 66 Company**

there could also be biodiesel production challenges. These include issues associated with restarting idled facilities, difficulties in obtaining quality feedstocks, etc. EPA indicated that as of November, 2012 there were 112 biodiesel production facilities. According to the list of all biodiesel production companies in the rulemaking docket, the facilities range in capacity from less than 1 million gallons per year to a few with over 100 million gallons per year capacity. Biodiesel production facilities are small in size making it necessary to secure volumes from numbers of producers. Biodiesel can be produced using a variety of feedstocks and with varying processes, particularly back-end processes for removing unreacted feedstocks and purifying the finished product. The number of producers coupled with the variation in feedstocks and production processes require increased diligence on quality oversight as each of these impact product quality. Increasing volume requirements that could result in use of lesser quality feedstocks, more producers, etc. will increase the challenge of ensuring product quality. Additionally, even with the introduction of the voluntary quality assurance plan program, given the potential need for significant increased biodiesel volumes, there could once again be a perverse incentive for unscrupulous producers to enter the market with fraudulent renewable credits. [EPA-HQ-OAR-2015-0111-2039-A1 p.5]

## **Western Dubuque Biodiesel**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 217.]

The market will only support half the biodiesel currently produced based on your proposed RVO with the industry projected imports included. This means potentially half our industry will be either laid off or terminated for this year and next. This means for my facility a \$2.5 million to a \$4 million loss in revenues in 2015.

## **Response:**

A number of renewable fuel industry commenters pointed to additional existing BBD and renewable diesel production capacity in advocating that the BBD volume requirement be increased to as much as 3.4 billion gallons for 2016 and 2017. On the other hand a number of oil industry commenters noted that there could be production challenges if the EPA were to increase the 2016 volume requirement to 1.8 billion gallons including restarting idled facilities, or the unavailability of BBD within their region.

As highlighted in the NPRM, the current total capacity of all registered biodiesel and renewable diesel production facilities in the United States currently exceeds 2.7 billion gallons. In addition to the domestic production capacity, there is also significant registered capacity overseas. Historically domestic biodiesel production rates have been well short of the production capacity, with facility utilization rates often less than 50%.

One commenter stated that EPA had not adequately addressed the production capacity of renewable diesel and that renewable diesel's contribution in meeting the RFS's statutory targets should not be underestimated since it continues to add incrementally more volume each year. The basis for what increment can be expected for 2016, however, was not well defined. Several other comments provided information on production capacity and growth of renewable diesel. In

Section II.E.3 of the final rule EPA has expanded its discussion of both the supply of biodiesel and renewable diesel used as transportation fuel in the United States. Renewable diesel produced and imported has increased in 2013. For renewable diesel, where the hydrotreating necessary to convert the oil into diesel fuel requires considerably more capital, economies of scale require facilities to be relatively large, and the size and complexity of the facilities require much more time for financing, design, construction, and commissioning. This helps explain why renewable diesel production facilities are far fewer in number, have much larger production capacities on average, and why the volume of renewable diesel production has grown more slowly.

A number of commenters pointed to the currently existing and registered production capacity as evidence to support its projection of how much biodiesel and renewable diesel could be supplied in 2016. However, while there is certainly potential to increase utilization of the existing production facilities it is uncertain what steps would have to be taken to increase production rates at these facilities. For example access to additional feedstocks, feedstock and product distribution, offtake agreements, staffing, capital, etc. Therefore, there is uncertainty associated with the ability for an appreciable number of registered biodiesel and renewable diesel production facilities to simultaneously increase production rates given the constraints in other aspects of the marketplace as discussed in Section II.E.3 of the final rule. Consequently, while we do not believe biodiesel and renewable diesel production capacity will likely be a constraining factor in biodiesel and renewable diesel production in 2016, reaching the 3.4 billion gallons suggested by NBB would likely require the addition of new production capacity. Because of the reasons mentioned above, and in the final rule, EPA finds that production capacity informs our decision of the BBD volume, but is not the only factor we consider.

Another commenter stated that, based on the proposed RVO, the market will only support half the biodiesel currently produced and imported and that potentially half their industry will be either laid off or terminated for 2015 and 2016. Their conclusion is entirely inconsistent with the increasing RFS standards. EPA believes that the RVOs being finalized for this multiyear rulemaking are challenging even as we also believe they are reasonably achievable and will support growth in the BBD industry. A very high percentage of the 2.5 billion gallons of total biodiesel and renewable diesel that we estimated in the context of determining the total renewable fuel volume requirement for 2016 is likely to be advanced biodiesel and renewable diesel and we would expect about 2.1 billion gallons to be advanced biodiesel and renewable diesel. This represents an increase of about 370 million gallons from that supplied in 2015, which is greater than the annual increase that occurred in the previous two years (91 million gallons from 2013 to 2014 and 104 million gallons from 2014 to 2015) but less than the annual increase that occurred in 2013 (about 560 million gallons from 2012 to 2013). Finally, we do not believe that production capacity alone is what should be used to determine the BBD standard. While it is an important factor in assessing the ability of the marketplace to increase volumes of renewable diesel and biodiesel in support of growing the BBD, advanced biofuel and total renewable fuel standards, we also believe that, especially with respect to the BBD standards, we need to take into account other factors, including the ability for other advanced biofuels to have an incentive for investment and growth under the advanced biofuels standards. As discussed in Section II.D.5 of the final rule we believe it is appropriate to set the BBD standard for 2016 and 2017 at levels lower than the maximum that we believe might be achievable.

### **3.2.3 Imports of Biomass-Based Diesel**

#### **Comment:**

#### **Advanced Biofuels Association (ABFA)**

Exceeding the RVO requirements in 2013 and 2014 certainly supports the rise in the biomass-based diesel RVO called for between 2014 and 2017. In fact, we may well be able to support a higher volume in 2017 as result of new production coming on line and being sanctioned under the Defense Production Act program supported by the Departments of Energy, Agriculture, and the Navy. ABFA alone represents over 1.5 billion gallons of overseas production that would like to call America home to a portion of their fuels. These drop-in fuels essentially have no blend wall as they meet the existing ASTM D-975 specs in neat form and are able to utilize the existing U.S. pipeline, rail, and trucking infrastructure systems. [EPA-HQ-OAR-2015-0111-2498-A1 p.5]

#### **Ag Processing, Inc.**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 221.]

That being said, we hope that any attempt by EPA to create growth opportunity through the RFS should recognize that the RFS is primarily a domestic fuels policy. From a competitiveness perspective, the EPA should not intentionally or unintentionally support foreign producers of biodiesel at the expense of our domestic industry. For example, multilateral organizations such as the World Trade Organization have deemed practices such as differential export taxes for Argentine-produced biodiesel is trade distorting. Such fuel should not qualify for the RFS.

#### **American Council on Renewable Energy (ACORE)**

It is clear that the U.S. biodiesel industry has the ability and capacity to increase production above and beyond the standards called for in the USEPA's recent proposal, particularly when considering the potential for sharply increased imports qualifying for the RFS. USEPA is underestimating the impact of imports of Argentina BBD. Industry data estimates that 450 million gallons of Argentina BBD will be imported in 2015, and will increase to 600 million gallons in 2016. USEPA should increase the overall BBD RVOs to accommodate this surge of imports from Argentina. [EPA-HQ-OAR-2015-0111-1926-A1 p.16]

#### **American Soybean Association (ASA)**

When determining the appropriate volume standards for biomass-based diesel, the EPA can and should mitigate the potential for increased imports of sugarcane ethanol and account for the likelihood of increased imports of biodiesel from Argentina. [EPA-HQ-OAR-2015-0111-1818-A1 p.3]

EPA should increase the biomass-based diesel volumes relative to the total Advanced Biofuels volumes in order to promote the use of domestically produced biodiesel over imported advanced biofuels such as sugarcane ethanol. The intent of Congress when they established and expanded the RFS program was clearly to increase and promote domestic energy production and U.S. energy independence. This is reflected by the title of the 2007 law – the Energy Independence

and Security Act (EISA) - and is supported by numerous statements by legislators during consideration of the bill. [EPA-HQ-OAR-2015-0111-1818-A1 p.3]

Biomass-based diesel and imported sugarcane ethanol are the two primary, and practically the only, fuels available to fulfill the Advanced Biofuels requirements. Since EPA contends that there is an ethanol “blend wall,” increasing the biomass-based diesel volumes would help alleviate this so-called “blend wall” issue by reducing the imports of sugarcane ethanol. In addition, on an equivalency or RIN basis, biomass-based diesel counts as 1.5 gallons for each 1.0 gallon of sugarcane ethanol. [EPA-HQ-OAR-2015-0111-1818-A1 p.3]

To be consistent with the primary purpose and intent of the EISA, the EPA should implement the RFS in a way that helps build our domestic industry, and doing so requires strong policy signals that promote fulfilling volume requirements with domestically produced biofuels to the greatest extent possible. Increasing the biomass-based diesel requirements relative to the overall Advanced Biofuels requirements is a way to accomplish that mission. [EPA-HQ-OAR-2015-0111-1818-A1 p.3]

Wherever possible, EPA should seek to promote domestic biofuel sources to fulfill the RFS volume requirements. However, when determining the appropriate volume standards for biomass-based diesel, the EPA must also account for the likelihood of increased imports of biodiesel from Argentina due to some factors beyond the RFS volume requirements. [EPA-HQ-OAR-2015-0111-1818-A1 p.3]

Prior to the EU imposing anti-dumping tariffs, Argentina was exporting approximately 400 million gallons to that market and they are seeking new markets for those volumes.<sup>5</sup> The EPA has approved a streamlined process for Argentine biodiesel to comply with the RFS and should expect Argentine imports into the U.S. to increase significantly in future years. [EPA-HQ-OAR-2015-0111-1818-A1 p.4]

Argentina has an estimated 5.2 billion liters (1.37 billion gallons) in total production capacity for biodiesel, and in past years exports have averaged 70% percent of Argentina’s total biodiesel production.<sup>6</sup> In 2015 and 2016 local exporters will focus on the U.S. biodiesel market, which currently presents the best export market potential.<sup>7</sup> Members of CARBIO, the trade association whose petition for streamlined RFS compliance was approved by EPA this year, make up the vast majority of Argentinian biodiesel production, and almost 720 million gallons in capacity is already registered with EPA. CARBIO members signed onto the survey plan approved by EPA, and thus their imports into the United States are likely to increase. [EPA-HQ-OAR-2015-0111-1818-A1 p.4]

AS EPA is aware, the European Union placed anti-dumping measures on Argentina in 2013, which restricted biodiesel imports into Europe. Prior to the European anti-dumping subsidies, Argentina was the world’s largest biodiesel exporter, with 90% of its exports sold in the European market. The same dumping activity from Argentina may now occur in the United States as demand for domestic use of biodiesel in Argentina is not expected to make up for the loss in exports. The Argentinian government also artificially subsidizes its biodiesel production and exports through a Differential Export Tax (DET) program. Under the DET program, Argentinian biodiesel producers are encouraged to export finished biodiesel rather than raw soybeans or soybean oil. [EPA-HQ-OAR-2015-0111-1818-A1 p.4]

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<sup>5</sup> USDA Foreign Agricultural Service. July 8, 2011. Argentina Biofuels Annual 2011, Global Agricultural Information Network Report. Available at: [http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual\\_Buenos%20Aires\\_Argentina\\_7-8-2011.pdf](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual_Buenos%20Aires_Argentina_7-8-2011.pdf)

<sup>6</sup> USDA Foreign Agricultural Service. July 1, 2015. Argentina Biofuels Annual 2011, Global Agricultural Information Network Report. Available at: [http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual\\_Buenos%20Aires\\_Argentina\\_7-1-2015.pdf](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual_Buenos%20Aires_Argentina_7-1-2015.pdf)

<sup>7</sup> Ibid

### **Archer Daniels Midland Company (ADM)**

During oral testimony provided by Kent Engelbrecht, a Manager in ADM's biodiesel division, at EPA's Public Hearing on June 25, 2015, Mr. Engelbrecht discussed the market reaction to the RVO proposal. In particular, since the RVO proposal's release, a significant price gap between D6 and D5 RINs has emerged. This price spread, caused by reducing blending requirements for conventional ethanol, creates a financial incentive to import Brazilian sugarcane ethanol and subsidized Argentinian biodiesel to satisfy the advanced and biomass-based diesel standards. [EPA-HQ-OAR-2015-0111-2262-A1 p. 2-3]

To date, we have only seen a further escalation of this impact. Since EPA's RVO proposal was released on May 29, the volume of Argentinian biodiesel imports has more than doubled. Prior to the release, Argentina had imported 27.7 million gallons in 2015. Since May 29, Argentinian biodiesel imported, or scheduled to be imported, has accounted for 52.3 million gallons — an increase of 189%. Total Argentinian biodiesel imports are now on pace to exceed 150 million gallons this year. [EPA-HQ-OAR-2015-0111-2262-A1 p. 3]

In testimony before the Senate Homeland Security Subcommittee on Regulatory Affairs and Federal Management on June 18, Acting Assistant Administrator Janet McCabe stated that when setting annual volumes, EPA does not differentiate between imported and domestically produced gallons. We believe this is an incorrect interpretation of Congressional intent where U.S. energy security is concerned. Even assuming that this interpretation is correct, EPA has not adequately accounted for actual or anticipated imports of both Brazilian sugarcane ethanol and Argentinian biodiesel when setting volumes. We remain concerned that EPA's RVO proposal does not take into account the projected imports from Argentina following EPA's approval of the Camara Argentina de Biocombustibles (CARBIO) survey method. With that approval, and Argentina's Differential Export Tax (DET) in place, Argentinian producers face a growing commercial advantage in the U.S. market. [EPA-HQ-OAR-2015-0111-2262-A1 p. 3]

This is a significant factor which EPA has not taken into consideration when setting volumes for 2015, 2016, and 2017, and which the market has already borne out in the months since EPA issued its RVO proposal. D6 RIN prices continue to be depressed, and Argentinian biodiesel imports are increasing. This goes against the foundation by which the RFS was adopted, and we strongly encourage EPA to consider this intent when finalizing standards for 2015, 2016, and 2017. [EPA-HQ-OAR-2015-0111-2262-A1 p. 3]

## **California Biodiesel Alliance (CBA)**

Furthermore, it does not appear that the EPA considered the increasing renewable fuel imports when setting the biomass-based diesel volumes. Between the recently approved pathway for Argentinian biodiesel and the yearly ramp up of the LCFS program, it is more than likely that imports will exceed the 100 million gallon “increase” for 2015 alone, and will only increase over the next few years. The effect of adding hundreds of millions of gallons of new imported biodiesel on top of the proposed already smaller market place would create a disastrous marketplace for California biodiesel producers. [EPA-HQ-OAR-2015-0111-1910-A1, p.2]

## **Canola Council of Canada**

### **3. Any Alternative Renewable Biomass Tracking Program Should be Transparent and “Achieve at Least the Same Level of Quality Assurance” as the Renewable Biomass Requirements Applicable to Other Feedstocks.**

The Canola Council is also concerned with EPA’s recent approval of an alternative tracking program for renewable biomass for soybean biodiesel from Argentina. The decision document provided by EPA provides little detail or explanation as to how the program will work in practice, and the Canola Council is concerned with the lack of transparency of these requirements compared to the public scrutiny of the aggregate approach for Canadian crops. It is also unclear how the program compares to the proof Canada must establish to show that its agricultural land is not increasing to support continued reliance on the aggregate compliance approach. In Canada agricultural lands have been steady or on the decline and land use is strictly regulated to protect and conserve forest and sensitive lands.

Thus, we are concerned with the potentially reduced requirements imposed on soybean biodiesel from Argentina, and thereby reduced costs that makes supply from that country more competitive in a manner that will displace U.S. production of biodiesel, as well as other biodiesel imported from other countries. The Canola Council is aware that there is a pending petition for reconsideration on EPA’s approval and requests that EPA take action on such petition. [EPA-HQ-OAR-2015-0111-2484-A1 p.4-5]

## **Crimson Renewable Energy LP**

Additionally, it does not appear that the EPA considered the increasing renewable fuel imports when setting the biomass-based diesel volumes. Between the recently approved pathway for Argentinian biodiesel and the yearly ramp up of the LCFS program, it is more than likely that imports will exceed the 100 million gallon “increase” for 2015 alone, and will only increase over the next few years. Indeed for 2015 through April 30, 140 million gallons of biomass-based diesel have been imported into the U.S., and projections from NBB are for over 400 million gallons of total imports of biomass based diesel in 2015. The effect of adding hundreds of millions of gallons of new imported biodiesel on top of the proposed already smaller market place would create a disastrous marketplace for U.S. biodiesel producers, effectively idling over 500 mil gallons of existing annual production capacity. [EPA-HQ-OAR-2015-0111-1823-A1 p.2]

## **Darling Ingredients Inc.**

The proposed rule sets out its recommended approach in setting standards for 2015-2016. Since the volume obligations established for 2014 and 2015 are simply set at the actual (2014) and estimated (2015) RIN's available (expressed in gallons of BBD), Darling agrees it was appropriate for the EPA to consider exports in determining mandated volumes. History cannot be changed. However, Darling argues that exports of BBD should not be considered in establishing the volume mandates for 2016 and 2017. The issue of exports is NOT identified as a criteria to be used by the EPA in determining BBD volumes. The proposed rule appears silent on whether the EPA is factoring exports in its determination of BBD volumes, but in the Proposed Rule when discussing Current and Future shortfalls in supply the EPA states, '...the market supplied 1.63 billion gallons...of BBD (referring to 2014). That statement is incorrect as the market supplied 1.705 billion gallon in 2014 (production plus imports) with a small volume being exported resulting in a net supply of 1.63 billion gallons. [EPA-HQ-OAR-2015-0111-1929-A1 p.5]

It does not consider the over 800 million gallons of Renewable Diesel volume available from Neste plants located in Singapore, Porvo Finland, and Rotterdam. According to company statements currently half of that production is from waste oils that qualify as BBD under the RFS2 pathways. An additional 136 million gallons of capacity is available from Canada. Finally, with the recent approval of the survey methodology by the EPA it is likely that Argentina will increase its exports of biodiesel to the U.S. given the subsidies provided to Biodiesel to be exported from Argentina. In 2013 imports from Argentina were 132 million gallons'. The NBB has estimated that imports from Argentina could exceed 400-500 million gallons annually in 2015 forward due to the recent adoption, by the EPA of utilizing the survey method of compliance for Argentinian production. Capacity clearly exists to meet both the 2.0 billion gallons proposed by Darling in 2016 or the 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-1929-A1 p.6-7]

The EPA summarizes its analysis of available feedstock for BBD in the Current Proposed Rule by concluding, 'The combined volumes of soybean oil, corn oil, and waste oils produced annually is far more than would be needed to produce 2.1 billion gallons of biodiesel' and the EPA adds, 'For instance, in 2014 exports of soy oil were 250 million gallons and exports of rendered fats and greases was 440 million gallons.'<sup>15</sup> With even a small diversion of volume that is currently being exported the EPA has established there is no feedstock limitation for an expansion of volumes to those suggested in this submittal. Further, that conclusion ignores the substantial volume of imported BBD which is acknowledged multiple times in the Proposed Rule. The EPA reports that imports which met the qualifications to fulfill the BBD bucket were 340 million gallons in 2013 and 322 million gallons in 2014. The vast majority of the imported BBD utilizes feedstock which is sourced locally (and outside the US) to the BBD fuel production facility and not imported from the United States. That further expands the available feedstock supply available for the production of Biomass Based Diesel. The EPA has clearly established in the Proposed Rule there is no feedstock limitation associated with the volumes being suggested by Darling in this submittal. In fact the EPA could mandate over 3 billion gallons of BBD before it reaches its own established feedstock limitations. It should also be noted that the imports from Argentina will most likely substantially increase due to the recent decision of the EPA to allow

for the survey method of compliance for Argentinian biodiesel production. [EPA-HQ-OAR-2015-0111-1929-A1 p.7]

### **Green Plains, Inc.**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 259-260.]

One of the major concerns for our biodiesel customers is the 70 to 75 cents per gallon export incentive that Argentina has for biodiesel relative to their soybean oil. We are starting to see the very negative impact to our customers caused from Argentine biodiesel vessels arriving at United States ports. Another ongoing concern for our biodiesel

### **Imperium Renewables and Renewable Biofuels**

The proposed rule also fails to account adequately for increasing volumes of imported BBD entering the country, thereby undermining the domestic industry's expectation and potential for growth and for the RFS program to further diversify the nation's transportation fuels. We believe that if BBD imports are going to continue to climb, the annual RVOs must be increased further to account for these imports in addition to demonstrated domestic production capability. [EPA-HQ-OAR-2015-0111-2043-A1 p.2]

With that as a backdrop, it is equally important to review past and prospective volumes of RIN-eligible BBD entering the country from foreign sources, and to consider their impact on supply, as well as on domestic producers. [EPA-HQ-OAR-2015-0111-2043-A1 p.3]

We note that volumes of RIN-eligible BBD are being imported from a number of regions, including Asia, South America, Europe and others. These imports aggregate to several hundred million additional gallons annually. Imports too often come from countries with lower wages and worker safety standards, and often are subsidized by the foreign government. Absent the EPA setting annual volume requirements high enough to accommodate both domestic production and these increasing import volumes, the imports will undercut U.S. producers and undermine the energy security goals of the RFS program. [EPA-HQ-OAR-2015-0111-2043-A1 p.3]

Imported BBD is on the increase. In 2011, imported RIN generating BBD volumes represented only 44 million gallons. In 2012, those volumes increased to 97 million gallons. By 2013, those volumes had more than tripled to 368 million gallons. Even amid the serious uncertainty of the BBD market of 2014, RIN generating imported volumes topped 330 million gallons. EPA's most recent EMTS posting reports that over 144 million gallons of foreign-sourced RIN generating biomass based diesel has already been shipped to the US through May. [EPA-HQ-OAR-2015-0111-2043-A1 p.3]

In February of 2015, EPA approved a petition from CARBIO, the trade association for BBD producers in Argentina, to qualify certain Argentine production for RFS RIN generation. This approval is arguably a game changer that will result in significant increases in imported RIN-eligible BBD. [EPA-HQ-OAR-2015-0111-2043-A1 p.3]

In our discussions with BBD producers in Argentina, we have been told that the industry has the capacity to produce well over 700 million gallons of RIN-eligible BBD, has begun to ramp up

production this year and will increase production dramatically going forward. Although we do not expect Argentinian volumes to reach that level this year, the impact of that decision is already beginning to be observed. [EPA-HQ-OAR-2015-0111-2043-A1 p.3]

Separately, shipping records covering Argentinian BBD show increasing volumes destined for U.S. ports and markets. According to Bloomberg tracking of shipments, as of this writing, 2015 imports of Argentinian BBD total nearly 52 million gallons, including 23.3 million gallons that arrived in mid-July. An additional 19.36 million gallons is scheduled to arrive in mid-August. EIA data shows even higher volumes of Argentinian BBD having arrived through May 2015. [EPA-HQ-OAR-2015-0111-2043-A1 p.3]

As a basis for projection, the year to date number is a little deceiving for two reasons: First, the CARBIO application was only approved in February so there will be a lag in the preparation and shipping of product, and secondly, there were major labor-management conflicts at Argentinian ports in the spring that led to there being only one shipment between February 16 and June 14. Shipments commenced again in June. Additionally, according to a July 23, 2015, *World Ethanol and Biofuels Report*, Argentinian FAME production reached nearly 52 million gallons/month in May, up month over month, reportedly in direct response to the increased demand in the US. [EPA-HQ-OAR-2015-0111-2043-A1 p.3-4]

With the February EPA approval of the CARBIO petition, and the recent ramp up in scheduled shipments, we anticipate that volumes will increase on a month-over-month basis, continuing through 2016 and beyond. A moderate growth projection takes that figure to 170 million gallons for 2015, a figure consistent with the projections in the most recent USDA GAIN report. A more aggressive, but realistic, growth scenario could increase the Argentinian imports to well over 300 million gallons this year. [EPA-HQ-OAR-2015-0111-2043-A1 p.4]

Taking into account this trend line of monthly increases of Argentine product, combined with current imports from other countries, a conservative projection would put total 2015 BBD imports in the range of 550 million gallons, and imports could increase to 800 million gallons or more in subsequent years. Given this projected ramp up, we recommend that EPA carefully review EMTS data that comes out after the comment period is closed, but before the rule is finalized, to determine if this upswing in imports is continuing. [EPA-HQ-OAR-2015-0111-2043-A1 p.4]

### **Indiana Soybean Alliance and American Soybean Association**

The EPA should implement the RFS in a way that helps build our domestic industry, and doing so requires strong policy signals that promote fulfilling volume requirements with domestically produced biofuels to the greatest extent possible. Increasing the biomass-based diesel requirements relative to the overall Advanced Biofuels requirements is a way to accomplish that mission. [EPA-HQ-OAR-2015-0111-A1 p.2]

Wherever possible, EPA should seek to promote domestic biofuel sources to fulfill the RFS volume requirements. However, when determining the appropriate volume standards for biomass-based diesel, the EPA must also account for the likelihood of increased imports of biodiesel from Argentina due to some factors beyond the RFS volume requirements. [EPA-HQ-OAR-2015-0111-A1 p.2]

## **Iowa Renewable Fuels Association**

Additionally, if the Agency is serious about building upon the successes of the U.S. biodiesel industry, it must account for genuine concerns about dramatic increases in Argentinian biodiesel imports. The EPA decision in January of this year to fast track Argentinian biodiesel imports through the significantly less stringent survey approach to sustainable feedstock verification will have powerful ramifications for U.S. biodiesel producers. Some estimate that up to 600 million gallons of Argentinian biodiesel could enter the U.S. as a result from this decision.<sup>36</sup> Therefore, while the Agency describes the proposed biodiesel RFS levels as providing steady growth, they could actually be a step backwards for U.S. biodiesel producers once Argentinian imports are properly accounted for. [EPA-HQ-OAR-2015-0111-1957-A2 p. 10]

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36. Fatka, Jacqui. "EPA streamlines Argentine biodiesel imports." *Feedstuffs*. 28 January 2015: <http://feedstuffs.com/story-epa-streamlines-argentine-biodiesel-imports-45-123298>.

## **Minnesota Soybean Processors (MnSP)**

MnSP has special concerns that EPA has not fully accounted for the impact of foreign imports, especially from Argentina. CARBIO members make up the majority of Argentinian biodiesel production and approximately 720 million gallons of Argentinian biodiesel production capacity is registered with the EPA. CARBIO members signed on to the lax "Survey" plan approved by EPA with the result that imports into the United States, which are now allowed by the relaxed "Survey" plan are bound to increase, especially in light of the fact that the Argentinian government subsidizes biodiesel production through a Differential Export Tax (DET) program. Under the DET program, soybean processors are encouraged to export biodiesel rather than crude soybean oil out of the country. [EPA-HQ-OAR-2015-0111-2505-A1 p.3]

It is appropriate to remind EPA that the statute that authorizes EPA to oversee the RFS program is titled "Energy INDEPENDENCE and Security Act of 2007. (Emphasis added.) It is a stretch to imagine that Congress desired to rely on foreign biofuel to achieve energy independence. We ask EPA to pay particular attention to NBB's comments relative to the harm potentially imposed to the domestic biodiesel industry by foreign produced imports. [EPA-HQ-OAR-2015-0111-2505-A1 p.3]

## **National Association of Truck Stop Operators (NATSO)**

EPA's recent decision to allow streamlined Argentinian biodiesel imports to qualify under the RFS<sup>[1]</sup> is another example of public policy that serves to increase the supply of biodiesel that can be acquired and sold at a lower cost than diesel fuel. Such imports will increase the supply of biodiesel in the United States, which in turn imposes downward pressure on prices. [EPA-HQ-OAR-2015-0111-2478-A1 p.5]

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[1] See Environmental Protection Agency, Letter from Byron Bunker, Director, Compliance Division, Office of Transportation and Air Quality. Jan. 27, 2015, available at <http://www.epa.gov/otaq/fuels/renewablefuels/documents/carbio-decision-document-2015-01-27.pdf>.

## National Biodiesel Board

EPA'S PROPOSAL CONTINUES TO IGNORE THE HARMS TO THE DOMESTIC BIODIESEL INDUSTRY AS A RESULT OF IMPORTS RISING AT A VOLUME ABOVE THE INCREASES EPA CONTENDS IT IS PROPOSING TO "GROW" U.S. RENEWABLE FUELS, INCLUDING IMPORTS WITH SUSPECT ELIGIBILITY UNDER EPA'S RECENTLY APPROVED (WITHOUT PUBLIC INPUT) SURVEY PLAN. [EPA-HQ-OAR-2015-0111-1953-A2 p.75]

Energy security and domestic jobs are two central goals often highlighted under the EISA and the RFS2. As discussed herein, the U.S. domestic biodiesel industry has the capacity and feedstocks available to produce dramatically more biodiesel than what has been required under historical renewable volume obligations. Although EPA acknowledges that the proposed volumes for biomass-based diesel *through 2017* remain well below *domestic* capacity,<sup>61</sup> EPA makes no assessment as to the amount of potential imports of biomass-based diesel into the United States. Rather, it simply contends that the biomass-based diesel industry must compete with "other" advanced biofuels in order to continue to grow. But, unlike most "other" advanced biofuels, which are largely not substitutes for diesel fuel, importers of biodiesel and renewable diesel are the direct competitors to the U.S. biomass-based diesel industry. Under the RFS2 program, imports of biomass-based diesel and of additional biodiesel and renewable diesel that qualify for D5 or D6 RINs have increased. [EPA-HQ-OAR-2015-0111-1953-A2 p.75]

Importing fuel is also a way to meet the U.S. domestic standards. Although initially hitting a high of 325 million gallons in 2008, biodiesel imports in the United States have increased from around 23 million gallons in 2010 to over 300 million gallons in 2013. EIA, *Monthly Energy Review*, Table 10.4: Biodiesel and other renewable fuels overview (June 2015), *available at* <http://www.eia.gov/totalenergy/data/monthly/pdf/sec108.pdf>. The three month total for January-March of 2015 is 46 million gallons, almost twice as much as it was for the same time period in 2013 (23.7 million gallons).<sup>62</sup> *Id.* In 2013, biodiesel imports substantially increased toward the end of the year, which was largely due to the increase in imports from Argentina. *Id.*; EIA, *Today in Energy: U.S. biomass-based diesel imports increase to record levels in 2013*, May 2, 2014, <http://www.eia.gov/todayinenergy/detail.cfm?id=16111>. The remaining volumes came from Indonesia<sup>63</sup> and various European countries. *Id.* November and December of 2013 had the highest amount of imports by far at 69 million gallons and 74 million gallons, respectively. EIA, *Monthly Energy Review*, Table 10.4: Biodiesel and other renewable fuels overview (June 2015), *available at* <http://www.eia.gov/totalenergy/data/monthly/pdf/sec108.pdf>. [EPA-HQ-OAR-2015-0111-1953-A2 p.75-75] [Table 10.4 can be found on page 76 of docket number EPA-HQ-OAR-2015-0111-1953-A2]

These imports are expected to increase substantially, if not in 2015, certainly by 2016. Given EPA's proposed biomass-based diesel volumes, the additional foreign capacity to an already overfull domestic U.S. marketplace would negatively impact U.S. biodiesel producers. The effect of adding hundreds of millions of gallons of new imported biodiesel on top of the proposed already smaller mandate would create a disastrous marketplace for U.S. biodiesel producers. [EPA-HQ-OAR-2015-0111-1953-A2 p.76]

In particular, imports of soybean biodiesel from Argentina are likely to grow significantly. EPA references only 132 million gallons of biomass-based diesel from Argentina in 2013. 80 Fed.

Reg. at 33,133 n.88. These imports may have been aimed at heating oil (not the RFS2) and reports have indicated that the Argentinian biodiesel industry was waiting to focus on the U.S. market for EPA's approval of the CARBIO survey plan,<sup>64</sup> which came in January of 2015. *See, e.g., AgroChart, Argentina: Biofuels Annual June 2013* (Nov. 2013), <http://www.agrochart.com/en/news/news/041113/argentina-biofuels-annual-jun-2013/>. With the approval, traders expected "significant volumes to be shipped." *Id.* ("Local traders believe that if EPA makes them eligible to export they could ship some 300-800 million liters of biodiesel to the US, especially to the east and west coasts as they are further away from the biodiesel production area."); *see also* USDA Foreign Agricultural Service, *Argentina: Biofuels Annual 2013*, GAIN Report, at 12-13 (June 28, 2013). [EPA-HQ-OAR-2015-0111-1953-A2 p.76-77]

Argentina production of biodiesel has grown in recent years. A "continuously increasing export demand" was cited as one of the key reasons for that growth. *See* USDA Foreign Agricultural Service, *Argentina: Biofuels Annual 2011*, GAIN Report, at 8 (July 8, 2011). Production capacity grew from 0 in 2007 to 5.15 billion liters (1.36 billion gallons). USDA Foreign Agricultural Service, *Argentina: Biofuels Annual 2014*, GAIN Report, at 11 (July 1, 2014) ("GAIN 2014 Argentina Biofuels Annual"). Today, Argentina has an estimated 5.2 billion liters (1.37 billion gallons) in total production capacity for biodiesel. *See* USDA Foreign Agricultural Service, *Argentina: Biofuels Annual 2015*, GAIN Report, at 2, July 1, 2015 ("GAIN 2015 Argentina Biofuels Annual"), available at <http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual/Buenos%20Aires%20Argentina%207-1-2015.pdf>. Exports have "played a very important role, averaging 70% percent of Argentina's total biodiesel production." *Id.* Since domestic demand currently does not approach capacity, these companies will continue to look for export markets. "In 2015 and 2016 local exporters will focus on the U.S. biodiesel market, which currently presents the best export market potential." *Id.* Although seven of CARBIO's members were previously registered with EPA prior to approval of the survey plan, they had only imported 47 million gallons in 2014 that generated RINs. *Id.* CARBIO members make up the vast majority of Argentinian biodiesel production, and almost 720 million gallons in capacity is already registered with EPA. According to USDA, RINs allow export prices to the United States to be \$80-100 per ton higher than prices sold to other markets. *Id.* at 13. Although this is purportedly offset by the costs of "segregation" of \$30-40 billion, those costs were prior to EPA's approval of the survey plan. *Id.* Couple these reduced costs with the efficiencies gained by the fact that the production areas for these facilities are very close to ports, and the ability to export to the United States cannot be denied. *Id.* With the favorable tax treatment in Argentina, the lack of a tax credit in the United States is not much of a disincentive when the United States may be the only market available. CARBIO members signed onto the survey plan, and thus, the imports into the United States, which are now subject to relaxed requirements from the individual map and track requirements, are likely to increase. [EPA-HQ-OAR-2015-0111-1953-A2 p.77]

In addition to the approval from EPA, the likelihood of increased imports to the United States can also be attributed to two key factors. First, the Argentinian government props up its biodiesel production through a Differential Export Tax (DET) program. Under the DET program, Argentinian biodiesel producers are encouraged to ship finished biodiesel rather than raw soybean oil out of the country. Among other things, the DET program helps create jobs in Argentina. [EPA-HQ-OAR-2015-0111-1953-A2 p.77]

The second factor is that Argentina has been losing important export markets in recent years due to concerns regarding the subsidies Argentinian biodiesel receives. Most significant, the European Union placed anti-dumping measures on Argentina in 2013, which restricted imports into Europe. See Reuters, *Argentine biodiesel exports slammed by EU tariffs in 2014 - trade group*, Mar. 11, 2014, <http://www.reuters.com/article/2014/03/11/argentina-biodiesel-idUSL2N0M813M20140311>. After approval of Argentinian biodiesel under the European Renewable Energy Directive (RED), Argentinian biodiesel flooded the European marketplace and displaced biodiesel produced in Europe. Prior to the European anti-dumping subsidies, Argentina was the world's largest biodiesel exporter, with 90 percent of its exports sold in the European market. Tess Bennett, *Running on Empty: Argentine Biodiesel Industry's Fight to Survive*, The Argentina Independent, Nov. 6, 2013, <http://www.argentinaindependent.com/currentaffairs/running-empty-argentine-biodiesel-industrys-fight-survive/>. The same dumping activity from Argentina may now occur in the United States where domestic demand in Argentina is not expected to make up for this loss in exports. In late 2014, it lost the Africa market when crude oil prices collapsed, making Argentine biodiesel uncompetitive with #2 diesel fuel. See WAEES, *Analysis of an Alternative Biodiesel Volume Obligation to the EPA's Proposed Rule*, at 14 (July 2015) (Attachment 12); see also GAIN 2015 Argentina Annual at 12. There are additional reports of concerns raised in Peru that might affect imports to that country. GAIN 2015 Argentina Annual at 13. The remaining market to handle the substantial volumes that can be exported is the United States. [EPA-HQ-OAR-2015-0111-1953-A2 p.78]

Prior to the RFS2, Argentina was among the main biodiesel producer countries in the world. See CARBIO, *Argentine Biodiesel Market Overview*, Presentation Oct. 2010, available at <http://www.argentine-embassy-uk.org/docs/economiacomercio/files/networking/carbio.pdf>. Members of CARBIO made up about 95 percent of the biodiesel production in Argentina. *Id.* The majority of Argentinian biodiesel production is exported out of the country. In 2014, biodiesel exports from Argentina increased by 41 percent. Platts, *Argentinian biodiesel exports up 41% year on year in 2014 to 1.6 mil mt: Carbio*, Jan. 22, 2015, <http://www.platts.com/latest-news/agriculture/london/argentinian-biodiesel-exports-up-41-year-on-year-21881303> For 2015, based on imports through June, about 90 million gallons of U.S. biodiesel from Argentina can be expected, but this number is likely low. Genscape, *Outlook on the Global Renewable Fuels Markets: Your Webinar Questions Answered*, at 7, May 2015. Argentinian exports to the U.S. have been stronger in the latter half of the year and through the winter, post-harvest, over the last two years. *Id.* That is when EPA asserts the CARBIO approved plan would begin. [EPA-HQ-OAR-2015-0111-1953-A2 p.78].

USDA has found that the U.S. biodiesel market is expected to be the “most active destination,” with estimated exports to the United States at 625 million liters (165 million gallons) in 2015 and 750 million liters (198 million gallons) in 2016. See GAIN 2015 Argentina Annual at 1. In addition, based on import volumes reported by Eurostat using tariff codes, Argentina exported as much as 442 million gallons in 2012 to Europe for which it has been seeking a new export market. An analysis of feedstock markets show that imports of biodiesel from Argentina may jump to 336 million gallons in 2015 and 520 million gallons in 2016. See WAEES, *Analysis of an Alternative Biodiesel Volume Obligation to the EPA's Proposed Rule*, at 14 (July 2015) (Attachment 12). “Biodiesel traders that have reviewed these model estimates continue to warn

that these numbers may be conservative. The Argentine biodiesel sector was designed for biodiesel exports.” *Id.* [EPA-HQ-OAR-2015-0111-1953-A2 p.78-79]

We have been assured that EPA does not believe the U.S. market will be flooded, estimating only 100 million gallons will be imported from Argentina in 2015. *See also* Chuck Zimmerman, *EPA Response to RFS and CARBIO Plan*, Jan. 30, 2015, <http://energy.agwired.com/2015/01/30/epa-response-on-rfs-and-carbio-plan/>. Even at this estimate, however, these volumes are more than the purported increase for biomass-based diesel for 2015 and at the purported increases for 2016 and 2017, adversely affecting domestic producers that are able to meet more than the volume that EPA is proposing. As the program is implemented, these volumes are likely to increase substantially and quickly. [EPA-HQ-OAR-2015-0111-1953-A2 p.79]

Other renewable diesel imports have also increased from 25 million gallons in 2012 to over 200 million gallons in 2013, with the bulk coming from Singapore. *See* EIA, U.S. Imports by Country of Origin—Other Renewable Diesel (Release Date June 30, 2015) (Attachment 13). “Neste Oil’s renewable diesel produced in Finland and Singapore is qualified as advanced under the RFS and is imported in significant quantities (as much as 25 million gallons per month).” E2 2014 Advanced Biofuel Report at 13. These imports are likely to continue to increase, particularly due to the California LCFS. “Depending on the feedstock and the method of production, both biodiesel and renewable diesel have some of the lowest CI values among eligible fuels, and thus are valuable fuels for meeting LCFS targets.” EIA, *Today in Energy: U.S. biomass-based diesel imports increase to record levels in 2013*, May 2, 2014, <http://www.eia.gov/todayinenergy/detail.cfm?id=16111>. [EPA-HQ-OAR-2015-0111-1953-A2 p.79]

Total imports of biomass-based diesel represented 34 percent of U.S. biomass-based diesel consumption in the United States in 2013.<sup>65</sup> EIA, *US biodiesel and renewable diesel imports decline 36% in 2014*, Mar. 20, 2015, <http://www.eia.gov/todayinenergy/detail.cfm?id=20452>. Imports are likely to continue to play “an important role in meeting the LCFS and the RFS targets going forward.” EIA, *Today in Energy: U.S. biomass-based diesel imports increase to record levels in 2013*, May 2, 2014, <http://www.eia.gov/todayinenergy/detail.cfm?id=16111>. A “number of other advanced international projects will be complete by 2016.” E2 2014 Advanced Biofuel Report at 9. The E2 2014 Advanced Biofuel Report includes a “list of international companies and projects that may have an impact on the U.S. advanced biofuel market.” *Id.* at 14. For example, facilities in Europe have begun to convert from petroleum to renewable diesel production. *See, e.g.*, Haldor Topsdale March 18, 2015 Press Release, *Wood-based renewable diesel bio-refinery goes on-stream in Finland*, <http://www.topsoe.com/news/2015/03/wood-based-renewable-diesel-bio-refinery-goes-stream-finland>; Ron Kotrba, *Total to convert oil refinery to renewable diesel production*, Biodiesel Magazine, Apr. 16, 2015, <http://www.biodieselmagazine.com/articles/355201/total-to-convert-oil-refinery-to-renewable-diesel-production>. [EPA-HQ-OAR-2015-0111-1953-A2 p.79-80]

EPA must consider and account for these expected increases in imports. Such increases, without a corresponding increase in the RFS2 requirements will hurt domestic production and, thereby, the U.S. economy, undermining a key goal of the program. As noted above, estimates indicate that increasing imports can fulfill any unmet portion of the RFS2. E2 2014 Advanced Biofuel

Report at 9. Thus, EPA should ensure the volumes account for this potentially available supply and, thereby, better ensure the mandated volumes may be met. In this way, EPA can, in fact, “support” the successful existing *domestic* industry and continue to push the industry forward. In demanding increasing use of renewable fuel in the *diesel fuel markets*, Congress also sought increased *domestic* production of biomass-based diesel. On this, EPA’s proposal simply fails. [EPA-HQ-OAR-2015-0111-1953-A2 p.80]

The only “competition” EPA is creating is between domestic biomass-based diesel production and foreign biomass-based diesel production, while at the same time apparently trying to protect domestic ethanol production from sugarcane ethanol by lowering the advanced biofuel volume. Indeed, because EPA’s purported “increase” in the biomass-based diesel volume is likely less than expected imports, it cannot be the “maximum” achievable volume, even under EPA’s own standard. EPA does not explain why biomass-based diesel should be subject to a different requirement than all other biofuels. This available supply, which can easily come into the United States, then should be accounted for when assessing the “maximum” available supply for advanced biofuels. [EPA-HQ-OAR-2015-0111-1953-A2 p.80]

The following table shows the imports of biodiesel and renewable diesel into the United States based on country of origin. [EPA-HQ-OAR-2015-0111-1953-A2 p.80] [The table can be found on pages 80-81 of docket number EPA-HQ-OAR-2015-0111-1953-A2]

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<sup>61</sup> 80 Fed. Reg. at 33,116 (“There currently exists only about 2.8 billion gallons of registered biodiesel production capacity in the U.S., though total production capacity considering unregistered facilities may be as high as 3.6 billion gallons.”)

<sup>62</sup> Imports of renewable diesel in April this year also were higher (266 thousand-barrels) than had been imported in the same month in 2012 (50 thousand-barrels), 2013 (148 thousand-barrels) and 2014 (247 thousand-barrels). EIA, *U.S. Imports from Non-OPEC Countries of Other Renewable Diesel Fuel* (release date June 30, 2015), [www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=M EPOORDO IM0 NUS-MN0 MBBL&f=M](http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=M EPOORDO IM0 NUS-MN0 MBBL&f=M).

<sup>63</sup> These imports are likely to be biodiesel produced from palm oil, which EPA found did not even meet the 20% lifecycle greenhouse gas emission reductions under the statute.

<sup>64</sup> NBB submitted a petition for reconsideration of the approval of the CARBIO program. EPA, to date, has not responded. Given the significant concerns with the plan, we request EPA respond to this petition. We incorporate the petition and attach it to these comments (Attachment 11).

<sup>65</sup> Although this number declined in 2014, this was due, in part, to “[u]ncertainty surrounding future Renewable Fuel Standard (RFS) targets.” EIA, *US biodiesel and renewable diesel imports decline 36% in 2014*, Mar. 20, 2015, <http://www.eia.gov/todayinenergy/detail.cfm?id=20452>.

### **National Renderers Association (NRA)**

RFS volume levels for biomass-based diesel should also be higher than proposed by EPA to account for the recent sharp increase in imports. U.S. producers and feedstock suppliers should rightly be the first to realize the economic benefits of higher final RFS volumes, not foreign competitors. [EPA-HQ-OAR-2015-0111-2496-A1 p.2]

### **Newport Biodiesel**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 209.]

A second concept that must be considered is the effect of imported biodiesel on a domestic industry. It is critical that EPA be realistic in addressing the potential for much more biodiesel to be imported in the coming years. Unless EPA accounts appropriately for this increased volume, small producers, such as Newport Biodiesel, will be soon priced right out of the market. I have heard EPA estimates of imported biodiesel to be in the vicinity of 100 million gallons per year, but I'm sure that NBB will provide definite evidence that the potential for such impacts -- imports is three or four times higher.

### **Northern Canola Growers Association**

When determining the appropriate volume standards for biomass-based diesel, the EPA can mitigate the potential for increased imports of sugar cane ethanol from Brazil and account for the likelihood of increased imports of biodiesel from Argentina. [EPA-HQ-OAR-2015-0111-2036-A1 p.2]

There is also a likelihood that there will be a significant increase in imports of biodiesel from Argentina to the United States. Prior to the European Union imposing anti-dumping tariffs, Argentina was exporting over 400 million gallons to that market and they are seeking new markets for those volumes. The EPA has approved earlier this year a streamlined process for Argentine biodiesel to comply with the RFS and should expect Argentine imports into the U.S. to increase significantly in future years. The biomass-based diesel volumes for 2016 and 2017 should reflect this potential for increased biodiesel imports. [EPA-HQ-OAR-2015-0111-2036-A1 p.2-3]

### **Renewable Energy Group, Inc. (REG)**

Based on available EMTS data, from 2010-2012, imported volumes of biomass-based diesel represented, on average, 6.5% of the total biomass-based diesel volume. In 2013 and 2014, imports increased dramatically to represent nearly 20% of the biomass-based diesel volume. According to U.S. Census and EIA data, imports of biodiesel through May have more than doubled in 2015 compared to the same time last year. Significant increases can be seen from Indonesia, Argentina, Singapore (renewable diesel) and Korea. *See* NBB Table: U.S. Imports of Biodiesel & Renewable Diesel HTS 3826.00.1000. These imports are expected to increase substantially, if not in 2015, certainly by 2016. **Given EPA's proposed biomass-based diesel volumes, the additional foreign capacity to an already overfull domestic U.S. marketplace would negatively impact biodiesel producers.** The effect of adding hundreds of millions of gallons of new imported biodiesel on top of the proposed already smaller market place would create a disastrous marketplace for U.S. biodiesel producers. [EPA-HQ-OAR-2015-0111-1952-A1 p.3-4]

In particular, imports of soybean-based biodiesel from Argentina are likely to grow significantly. Based on Agencia Maritima Nabsa S.A. (NABSA) data, there are currently more than 20 million gallons of Argentine biodiesel scheduled to be loaded on vessels with the U.S. listed as the reported destination in the next 30 days (<http://www.nabsa.com.ar/VesselLineUp.php>). On an annualized basis this is well in excess of the 100 million gallons projected by CARBIO. USDA has found that the U.S. biodiesel market is expected to be the "most active destination," with exports at 625 million liters (165 million gallons) in 2015 and 750 million liters (198 million gallons) in 2016. *See* USDA Foreign Agricultural Service, Argentina:

Biofuels Annual 2015, GAIN Report, July 1, 2015, available at <http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20AnnualBuenos%20Aires%20Argentina7-1-2015.pdf> See also, NBB comments section VII. While we feel the GAIN report is conservative in its estimates, their projection supports imports larger than 100 million gallons. [EPA-HQ-OAR-2015-0111-1952-A1 p.4]

### **South Dakota Soybean Association**

Currently, Argentina is exporting millions of gallons of biodiesel into the U.S. marketplace, which is offsetting our domestic production for the RFS. Increasing the RVOs from 2015 to 2017 by 100 million per year, does not take into account the millions of gallons of Argentine biodiesel. In order to continue growth of the U.S. biodiesel industry with respect Argentina imports, we need to increase our annual RVOs by 300 million per year. [EPA-HQ-OAR-2015-0111-1308-A1 p. 1]

### **U.S. Canola Association (USCA)**

When determining the appropriate volume standards for biomass-based diesel, the EPA can and should mitigate the potential for increased imports of sugarcane ethanol and account for the likelihood of increased imports of biodiesel from Argentina. [EPA-HQ-OAR-2015-0111-1819-A1 p.2]

Biomass-based diesel and imported sugarcane ethanol are the two primary, and practically the only, fuels available to fulfill the Advanced Biofuels requirements. Since EPA contends that there is an ethanol “blend wall,” increasing the biomass-based diesel volumes would help alleviate this so-called “blend wall” issue by reducing the imports of sugarcane ethanol. In addition, on an equivalency or RIN basis, biomass-based diesel counts as 1.5 gallons for each 1.0 gallon of sugarcane ethanol. [EPA-HQ-OAR-2015-0111-1819-A1 p.3]

Wherever possible, EPA should seek to promote domestic biofuel sources to fulfill the RFS volume requirements. However, when determining the appropriate volume standards for biomass-based diesel, the EPA must also account for the likelihood of increased imports of biodiesel from Argentina due to some factors beyond the RFS volume requirements. [EPA-HQ-OAR-2015-0111-1819-A1 p.3]

Prior to the EU imposing anti-dumping tariffs, Argentina was exporting approximately 400 million gallons to that market and they are seeking new markets for those volumes.<sup>1</sup> The EPA has approved a streamlined process for Argentine biodiesel to comply with the RFS and should expect Argentine imports into the U.S. to increase significantly in future years. [EPA-HQ-OAR-2015-0111-1819-A1 p.3]

Argentina has an estimated 5.2 billion liters (1.37 billion gallons) in total production capacity for biodiesel, and in past years exports have averaged 70% percent of Argentina’s total biodiesel production.<sup>2</sup> In 2015 and 2016 local exporters will focus on the U.S. biodiesel market, which currently presents the best export market potential.<sup>3</sup> Members of CARBIO, the trade association whose petition for streamlined RFS compliance was approved by EPA this year, make up the vast majority of Argentinian biodiesel production, and almost 720 million gallons in capacity is already registered with EPA. CARBIO members signed onto the survey plan approved by EPA,

and thus their imports into the United States are likely to increase. [EPA-HQ-OAR-2015-0111-1819-A1 p.3]

AS EPA is aware, the European Union placed anti-dumping measures on Argentina in 2013, which restricted biodiesel imports into Europe. Prior to the European anti-dumping subsidies, Argentina was the world's largest biodiesel exporter, with 90% of its exports sold in the European market. The same dumping activity from Argentina may now occur in the United States as demand for domestic use of biodiesel in Argentina is not expected to make up for the loss in exports. The Argentinian government also artificially subsidizes its biodiesel production and exports through a Differential Export Tax (DET) program. [EPA-HQ-OAR-2015-0111-1819-A1 p.3-4]

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<sup>1</sup> USDA Foreign Agricultural Service. July 8, 2011. Argentina Biofuels Annual 2011, Global Agricultural Information Network Report. Available at: [http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual\\_Buenos%20Aires\\_Argentina\\_7-8-2011.pdf](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual_Buenos%20Aires_Argentina_7-8-2011.pdf)

<sup>2</sup> USDA Foreign Agricultural Service. July 1, 2015. Argentina Biofuels Annual 2011, Global Agricultural Information Network Report. Available at: [http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual\\_Buenos%20Aires\\_Argentina\\_7-1-2015.pdf](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual_Buenos%20Aires_Argentina_7-1-2015.pdf)

<sup>3</sup> Ibid

### **Union of Concerned Scientists**

Increasing the use of biodiesel at a faster rate will primarily result in bidding feedstocks away from other uses and ultimately to reduced vegetable oil exports or increased imports of vegetable oil or biodiesel. Increasing vegetable oil or biodiesel imports and bidding vegetable oil and other biodiesel feedstocks away from other uses are not sustainable means to meet the objectives of the RFS as outlined in Clean Air Act (CAA) section 211 (o)(2)(B)(ii). [EPA-HQ-OAR-2015-0111-2260-A1 p.3]

Setting targets for production that exceed the reasonable growth of feedstocks will lead to a growing feedstock deficit (described in detail in Brorsen 2015). This will impact food markets, particularly affecting people living in extreme poverty for whom vegetable oil is a significant source of dietary fat (WHO 2002).<sup>1</sup> It will also indirectly expand the market for palm oil to replace soybean oil currently exported for food use and other purposes. [EPA-HQ-OAR-2015-0111-2260-A1 p.3]

Earlier assessments submitted by the American Biodiesel Board have suggested biodiesel feedstock is available to support a rate of growth of biodiesel mandates as high as 300 Mgal a year, but these assessments consider the global availability of vegetable oil rather than domestic resources. The US fuel market is not the sole consumer of BBD. EPA should consider how BBD growth would impact the balance of trade for vegetable oils in assessing the relevant data. We do not believe it is consistent with the goals of the RFS to create an unsustainable shift in global markets in which the US becomes increasingly dependent on vegetable oil or biodiesel imports. [EPA-HQ-OAR-2015-0111-2260-A1 p.4]

Our concern about changes in the balance of trade in vegetable oil and biodiesel is not motivated by a protectionist impulse but primarily by the concern that palm oil is the marginal oil in the global marketplace for vegetable oil. As a consequence, changes in the US balance of trade in vegetable oil are unlikely to lead to increased planting of soybeans in the US or abroad, which are grown primarily for protein meal. Instead, over the long term, steady increases in demand for vegetable oil beyond the US capacity to supply it will result primarily in expanded demand for palm oil. This need not be caused by direct US imports of palm oil BBD, but could occur indirectly as price sensitive consumers of vegetable oil elsewhere in the global marketplace shift from soy oil to palm oil on the basis of price. The 2012 Stanford Ph.D. dissertation of Joanne Gaskell<sup>2</sup> highlights the palm oil revolution going on in Asia. India, for example, as one of the largest global importers of vegetable oil, has been steadily increasing the quantity and share of oil imports from palm oil, although it is still importing an average of 1.5 million metric tons of soybean oil per year in the last five years (Foreign Agricultural Service, USDA). If US biodiesel markets bid away vegetable oils that are eligible biodiesel feedstocks, it is likely that this oil will primarily be replaced by further expansion of palm oil production. Palm oil production is a major driver of deforestation and the associated land use change and peat emissions will lead to dramatic increases in carbon emissions (UCS 2012).<sup>3</sup> [EPA-HQ-OAR-2015-0111-2260-A1 p.4]

Unrealistic and unsustainable growth rates for BBD are not just a concern for food markets and the environment, but for BBD producers as well. Expanding BBD production capacity beyond the available feedstocks will eventually lead to market instability in the BBD market. A sustainable rate of growth of BBD production based on stable long term trends in underlying low carbon feedstock availability will provide more sustainable support for steady growth of the BBD industry over time. Rapid increases in production that are based on bidding feedstock away from other uses and changing the balance of trade will enhance the risk of a future market collapse when feedstock availability inevitably becomes constrained. [EPA-HQ-OAR-2015-0111-2260-A1 p.4]

**Response:**

In determining the appropriate RFS standards for 2016, we have considered the potential for imported volumes of biodiesel and renewable diesel. The total renewable fuel standard we are finalizing in this rule for 2016 includes the maximum reasonably achievable volume of qualifying biodiesel and renewable diesel that we project can be supplied, including both domestically produced and imported volumes. In projecting available volumes of biodiesel and renewable diesel we considered a wide range of potential constraints to increasing the supply of these fuels, including the availability of feedstocks and production capacity in the United States and overseas, and also the ability for the transportation fuels market to distribute and consume increased volumes of biodiesel and renewable diesel (see Section II.E.3 for a discussion of biodiesel constraints, including available supply of biodiesel and renewable diesel feedstocks). An increase in the amount of biodiesel or renewable diesel available for import into the United States may not ultimately result in an increased supply in 2016, due to mandates and demand for this fuel from other countries and potential limitations to the fuel's distribution and use as transportation fuel or for other qualifying purposes. . Changing the biodiesel tax credit to a producers' tax credit from the blenders' tax credit that has been in place for several years, as has been proposed in the Grassley-Cantwell amendment, would also be expected to reduce the volume of biodiesel and renewable diesel imports into the United States in 2016.

We note that in setting the total renewable fuel applicable volume at 18.11 billion gallons we are projecting an increase in the available supply of biodiesel and renewable diesel from about 1.8 billion gallons in 2015 to 2.5 billion gallons in 2016, and that our assessment of the renewable fuel supplied to the United States in 2015 already includes over 600 million gallons of imported biodiesel and renewable diesel from several countries including Argentina, Southeast Asia, Europe, and other regions. This estimate for 2015 is based on a review of the EMTS data, including that which became available after the NPRM and close of the comment period, consistent with the request of one commenter. We have not specifically projected the amount of biodiesel and renewable diesel expected to be imported to the United States in 2016, as our standards do not differentiate between domestically produced and imported fuels. We think, however, that it is unlikely that imports of biodiesel and renewable diesel fuels are likely to decrease in 2016 from the 600 million gallons seen in 2015 in light of the increasing advanced biofuel and total renewable fuel standards. We cannot exclude these volumes of imported biodiesel and renewable diesel from participating in the RFS program, however by including all available volumes of biodiesel and renewable (both domestically produced and imported) in our total renewable fuel standard we believe we are providing the appropriate incentives for the production of domestic biodiesel even if there are advantages to biodiesel producers in other countries. For a further detail on our consideration of imported biodiesel and renewable diesel see Section II.E.3 of the final rule. Many commenters pointed to individual sources of potential imported volume that they thought might warrant increases in the RFS standards without being specific as to what the resulting standards should be. We believe that our final standards reasonably take into consideration all available sources.

In this final rule we are finalizing an advanced biofuel applicable volume for 2016 that is 210 million gallons greater than the proposed advanced standard, and a total renewable fuel standard that is 710 million gallons greater than the proposed total renewable fuel standard. This is in part in response to the information presented by commenters suggesting that greater volumes of advanced biofuels, including imported biodiesel and renewable diesel, are available. We acknowledge that increasing the production of biodiesel and renewable diesel will require the consumption of additional feedstocks, including soy oil, but we believe that there are sufficient feedstocks available to meet the advanced biofuel standard. In establishing the advanced standard we have projected that more than 80% of the biodiesel and renewable diesel available in 2016 will qualify as an advanced biofuel. We also recognize, however, that significant volumes of conventional (D6) biodiesel and renewable diesel have been imported in recent years, and will likely continue to be an available source of renewable fuel in the United States in 2016. See Section II.F for a further discussion of the advanced biofuel standard.

Imported volumes of biodiesel and renewable diesel were also considered in EPA's determination of the biomass-based diesel standards for 2016 and 2017. As noted in the final rule, however, we did not attempt to establish the BBD standard for 2016 and 2017 at the maximum achievable volume of biodiesel and renewable diesel in these years. We instead attempted to balance the benefits to the United States and the biodiesel and renewable diesel industries associated with a higher BBD standard with a desire to provide incentives for the development of non-BBD advanced biofuels and to allow these fuels to compete for market share within the advanced biofuel standard. Nevertheless, based on the data and arguments presented by commenters, we are finalizing BBD standards for 2016 and 2017 that are 100 million gallons higher than the proposed volumes. For further detail on the consideration of

imported volumes of biodiesel and renewable diesel in the BBD standard see Section III of the final rule.

One commenter argued that EPA should set the RFS standards in a manner that maximizes the incentives for domestically produced biofuels by increasing the BBD standard relative to the advanced standard to reduce the opportunity for sugar cane ethanol to contribute toward meeting the advanced standard. While we recognize the domestic economic benefits of domestically produced renewable fuel, there are other important factors that EPA must consider in establishing the standard. If EPA raises the BBD standard relative to the advanced biofuel standard, we reduce the opportunity for other advanced biofuels such as sugar cane ethanol, but also advanced butanol and other drop-in fuels. We believe these other advanced fuels are essential to the success of the RFS program, and allowing space for them to compete in the advanced biofuel pool provides important incentives for those advanced biofuels that are currently being produced as well as an important market signal to parties developing and investing in these fuels (see Section III of the final rule and Section 3 of this document for further discussion of the BBD standard). We also note that the statute allows for imported renewable biofuels to contribute towards meeting the RFS standards, and that certain imported biofuels, such as sugarcane ethanol, are advanced biofuels that significantly contribute to a reduction in GHG emissions from transportation fuel. Setting the RFS standards with the intent of limiting renewable fuel imports could therefore conflict with furthering the goals of the Act.

Many commenters stated that there was the potential for large volumes of biodiesel and renewable diesel from Argentina to enter US markets in 2016 and 2017, driven in part by EPA's approval of an alternative plan for certain Argentine biodiesel producers to demonstrate compliance with the RFS renewable biomass verification provisions, and the anti-dumping measures on Argentine biodiesel adopted by the EU and the Differential Export Tax (DET). EPA is aware of the large capacity of biodiesel production facilities registered under the RFS program in Argentina, and we have considered the potential for biodiesel and renewable diesel imports from Argentina and other countries in our projections of the total available supply of biodiesel and renewable diesel. As discussed in Section II.E.3.iii of the final rule, however, we believe that many of the commenters' projections of potential volumes of biodiesel imported to the US from Argentina are overstated and do not accurately account for competing demand for this fuel, both in the country where it produced and in other potential destination countries, and the potential limits on the ability to distribute and consume this fuel within the United States. We note that some commenters projected 400 – 500 million gallons of biodiesel would be imported from Argentina to the United States in 2015. This number is significantly higher than the actual volume of biodiesel imported from Argentina, which was on track to reach 94 million gallons in 2015 based on import data through July 2015. There are also indications that Argentina's production of biodiesel in 2015 will be significantly reduced compared to prior years (see Section II.E.3.iii for more detail).

Some commenters expressed concern with EPA's approval of an alternative renewable biomass tracking program for biodiesel producers in Argentina. While the approval of the plan is beyond the scope of this rule, we have considered the extent to which the approval could lead to increased imports, as described in the preamble, and after taking this issue into account, together with other relevant issues, have determined that 2.5 billion gallons of biodiesel and renewable diesel are the maximum reasonably achievable volumes for 2016.

A commenter claimed that EPA had not considered imported volumes of renewable diesel in our assessment of the available supply of renewable fuels. This is not the case, as we have included both domestic and imported volumes of renewable diesel in our estimate (see Section II.E.3 for more detail).

Several commenters pointed to the existence of biodiesel or renewable diesel produced overseas, or U.S. production that is exported to other countries as being “available” to the U.S. and claimed that it should be included in our assessment of the available supply of biodiesel and renewable diesel in setting the RFS standards. However, the existence of biodiesel and renewable diesel overseas, or domestically produced biodiesel and renewable diesel that is currently being exported to other countries, does not mean this fuel is likely to be available to the U.S. As discussed in Section II.E.3 of the final rule competing mandates for the use of biodiesel and renewable diesel in other countries, incentives for the use of these fuels, existing contracts, limitations on export and import capability, and constraints on the ability of the market to distribute and use greater volumes of biodiesel and renewable diesel must all be taken into consideration in determining the available supply of biodiesel and renewable diesel in the United States in 2016.

A commenter noted that after the release of the NPRM a price spread between D6 RINs and D5 RINs emerged, opening the possibility for increased sugar cane imports to replace corn ethanol. In this final rule EPA has sought to establish each of the standards in a manner consistent with our waiver authorities, and with the goal of providing incentives for the lowest GHG-emitting fuels. We further note that the commenter’s concerns may be misplaced, as sugar cane ethanol imports into the United States have remained low since the NPRM.<sup>28</sup>

A commenter raised concerns that by requiring greater quantities of vegetable oil to be used as a feedstock to provide biodiesel and renewable diesel to the United States the RFS program could lead to the increased production of palm oil. We note that in establishing the total renewable fuel volumes for 2014 -2016 EPA is exercising our general waiver authority on the basis of an inadequate domestic supply of renewable fuel. In this context we must consider all available sources of qualifying renewable fuel. We are not permitted to consider the potential impact of our standards on world palm oil production in this context. After establishing the total renewable fuel standard EPA considered the degree to which to exercise our cellulosic waiver authority in establishing the advanced biofuel standard. We believe that our final advanced biofuel standard takes into account the reasonably attainable supply of advanced biodiesel and renewable diesel both domestically and internationally that furthers the GHG reduction goals of the program. For additional discussion of this topic see RTC Section 2.2.2.1.

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<sup>28</sup> See ethanol import data from EIA. Accessed 11/29/15. Available online at [https://www.eia.gov/dnav/pet/pet\\_move\\_impcus\\_a2\\_nus\\_epooxe\\_im0\\_mbb1\\_m.htm](https://www.eia.gov/dnav/pet/pet_move_impcus_a2_nus_epooxe_im0_mbb1_m.htm)

### **3.2.4 Limitations on Biodiesel use due to Cold Weather Operability and Engine Warranties**

#### **Comment:**

#### **American Council on Renewable Energy (ACORE)**

Furthermore, there is significant market opportunity and untapped demand for BBD. The vast majority of diesel vehicles being produced today, particularly heavy trucks that consume most diesel fuel in the U.S., support blends of 20%. [EPA-HQ-OAR-2015-0111-1926-A1 p.16]

#### **Canola Council of Canada**

Biodiesel produced from canola oil has important advantages. It has a lower level of saturated fat, which results in biodiesel with a very low Cloud Point and helps canola biodiesel perform better in cold weather, and it has a low iodine value, which means it is more stable and less prone to oxidation. [EPA-HQ-OAR-2015-0111-2484-A1 p.4]

#### **Countrymark Cooperative Holding Corporation**

The main problem with biodiesel is cold weather properties. Biodiesel can start to gel at 35oF which causes filter plugging and vehicle operation problems. Because of this, our members do not purchase biodiesel starting November 1st through the middle of March. Biodiesel is not desired for nearly 40% of the year. [EPA-HQ-OAR-2015-0111-2264-A1 p.6]

#### **Growth Energy**

EPA's low BBD assumption cannot be explained by any distribution- or consumption-related constraint, even if such constraints were cognizable in assessing the general waiver. "The standard heating oil and diesel specifications allow up to 5% biodiesel" blends ("B5"), and thus "all diesel and heating oil equipment and infrastructure is de facto compatible" with B5.<sup>307</sup> Moreover, as EPA recognizes, "essentially all engine manufacturer warranties permit up to 5% biodiesel."<sup>308</sup> Given projected diesel consumption for 2016, 4.091 bil RINs could still be generated from biodiesel up to the B5 blendwall.<sup>309</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.52-53]

The closest EPA comes to explaining its lower expectation is its suggestion that some diesel fuel must "contain no biodiesel to accommodate that used in northern states during the coldest months of the year."<sup>310</sup> This is nonsense. Minnesota—hardly known as a mild winter state<sup>311</sup>—has for years implemented a year-round B5 mandate.<sup>312</sup> Oregon has done the same.<sup>313</sup> New grade specifications have been adopted for biodiesel that are specifically designed to accommodate multi-season use.<sup>314</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.53]

Further underscoring the ability of the market to reach well over full B5 consumption is the existence of even higher biodiesel blends. Since 2014, Minnesota has mandated B10 in summer months; it now requires B10 from April through September.<sup>315</sup> Illinois has a history of selling B11 due to certain tax incentives.<sup>316</sup> Moreover, B20 has substantial potential. As EPA recognizes, "most medium and heavy-duty engine manufacturers warrant the use of blends up to

B20 in their most recent models”<sup>317</sup>; these vehicles make up over 90% of on-road consumption of diesel.<sup>318</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.53]

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307 See Stratas Report at 11 (attached as Exhibit 2); see also <http://noraweb.org/wp-content/uploads/2015/05/Developing-a-Renewable-Biofuel-Option-May-2015-R1.pdf> (noting that in 2008, definition of No. 2 oil, most common heating oil grade, “was changed to allow up to 5% biodiesel content with the resulting blend being considered fully equivalent to No.2 oil”).

308 80 Fed. Reg. at 33,128.

309 Stratas Report at 15 (attached as Exhibit 2).

310 80 Fed. Reg. at 33,128.

311 See Minnesota Department of Natural Resources, Minnesota Facts & Figures—Climate, at <http://www.dnr.state.mn.us/faq/mnfacts/climate.html> (average winter temperature 6 degrees Fahrenheit in northern part and 16 degrees Fahrenheit in southern part) (last accessed: July 17, 2015).

312 Stratas Report at 13 (attached as Exhibit 2).

313 Id.

314 Id. at 12-13.

315 Id. at 13; see also Minnesota Department of Agriculture, “About the Minnesota Biodiesel Program,” <http://www.mda.state.mn.us/renewable/biodiesel/aboutbiodiesel.aspx> (last accessed July 17, 2015).

316 Stratas Report at 12 (attached as Exhibit 2); see Ron Kotrba, “Illinois supports state B11 tax incentive through 2018,” Biodiesel Magazine (Dec. 14, 2011), at <http://www.biodieselmagazine.com/blog/article/2011/12/illinois-supports-state-b11-tax-incentive-through-2018>.

317 80 Fed. Reg. at 33,128 (noting further that “B20 could be used in a number of centrally-fueled fleets composed of newer engines without violating manufacturer warranties”).

318 Stratas Report at 11-12 (attached as Exhibit 2).

### **Iowa Renewable Fuels Association**

The fact is, according to the National Biodiesel Board, more than 75 percent of diesel engine and vehicle manufacturers approve the use of up to B20, and these vehicles consume the vast majority of diesel sold in the U.S.<sup>35</sup> In addition, diesel engine and vehicle manufacturers only make fuel “recommendations;” they do not “warranty” any type of fuel, biodiesel or otherwise (warranties only cover materials and workmanship). Therefore, fuel-related damage would not be covered by a warranty, regardless of the fuel involved. And based on millions of miles of use in the real world, there is no evidence to suggest biodiesel blends are more likely to cause engine problems. [EPA-HQ-OAR-2015-0111-1957-A2 p. 9]

Most importantly, Iowa drivers simply haven’t had any issues using increasingly higher blends of biodiesel—even in the cold winter months. As stated above, the average biodiesel blend sold in Iowa in 2014 contained 9.4 percent biodiesel, an 88 percent increase above B5. If higher biodiesel blends can be successfully utilized in Iowa, as well as other cold weather states such as Minnesota and Illinois, then there is no reason that this model cannot be replicated nationwide with the right policy framework in place. [EPA-HQ-OAR-2015-0111-1957-A2 p. 9] [EPA-HQ-OAR-2015-0111-1044 p.75]

Iowa has clearly been a case-study on the success of higher biodiesel blends, demonstrated by the remarkable growth in the availability and use of higher biodiesel blends in Iowa since the implementation of the expanded RFS. In addition, the U.S. biodiesel industry has a perfect record of exceeding EPA's annual biomass-based diesel targets. These are two compelling reasons that EPA can and should increase its proposed biomass-based diesel volumes for 2016 and 2017 to at least 2 billion and 2.3 billion gallons respectively. [EPA-HQ-OAR-2015-0111-1957-A2 p. 10] [EPA-HQ-OAR-2015-0111-1044 p.75]

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35. National Biodiesel Board. "Biodiesel and the U.S. diesel vehicle market: 2015." Jan 2015  
[http://biodiesel.org/docs/default-source/ffs-engine\\_manufacturers/2013-diesel-vehicle-list.pdf?sfvrsn=6](http://biodiesel.org/docs/default-source/ffs-engine_manufacturers/2013-diesel-vehicle-list.pdf?sfvrsn=6)

### **MARC-IV Consulting**

Over the last 20 years, the biodiesel industry has worked to put into place the practices and options for successful use of higher biodiesel blends in cold weather, such as blending with Number 1 diesel fuel, use of cold-flow additives, or use of the relatively new Number 1 B grade of B100, which we just recently put in the D6751 standard. As an example of this success, B5 has been mandated over the entire year in Minnesota, one of our coldest States, with great success. In addition, data from the Illinois Bureau of Weights and Measures from 2011 to 2013 indicated 55 percent of the diesel fuel sold in Illinois, logging an estimated 15 billion miles, ran blends over B10 with no increase in consumer complaints. One railroad company recently tracked cloud point results, which showed no significant differences in reported cloud points for batches containing biodiesel versus those containing no biodiesel in the fuel they purchased. This data indicates there's no technical basis to say cold-flow impacts of biodiesel blends should in any way be a limiting factor for higher biodiesel volumes being contemplated in the RFS. Many may not know that biodiesel is also being used in home heating oil applications as bioheat in increasing amounts in the 8 billion gallon per year heating oil market. The National Oil Heat Research Alliance sees ultra low sulfur, ultra low carbon biodiesel in increasing concentrations as the future of their industry to help them transition to a 21st century fuel with the eventual goal of reaching full B100 penetration by 2050, 2050. To facilitate these higher volumes, 5 percent biodiesel was incorporated in the ASTM D396 fuel oil standard in 2008. A new B6 to B20 grade was recently approved just this year in ASTM D396, and ASTM will start balloting up to B100 in the D396 fuel oil standard beginning in 2016. But the market is not waiting for the ASTM standards to use higher blends of biodiesel. Worley & Obetz, a leading fuel oil dealer in the northeast, has been selling B20 blends without incident to their customers since for over 14 years, and the National Oil Heat Research Alliance Survey recently indicated over 2,500 customers are already using B21 to B100 blends in their existing equipment. This is proof positive that just because equipment companies haven't formally tested or approved higher blends doesn't mean higher blends can't be used or that higher blends are incompatible with new equipment.

In closing, the biodiesel industry is doing our part to address technical issues or barriers to the use of higher biodiesel blends and will continue to do so in the future, and that should give EPA increasing confidence of the biodiesel volumes and increasing biodiesel volumes as part of the RFS2.

## National Biodiesel Board

Sufficiency of Infrastructure to Deliver and Use Renewable Fuels. EPA correctly states that the “blending and distribution infrastructure has demonstrated the ability to respond” to the incentives provided by Congress. EPA-HQ-OAR-2015-0111-0008 at 7. Although EPA continues to improperly reference warranties for the “5% level,” [EPA-HQ-OAR-2015-0111-1953-A2 p.54]

Thus, these warranties and so-called limits are red herrings and, in fact, irrelevant to EPA’s analysis. [EPA-HQ-OAR-2015-0111-1953-A2 p.54]

As further discussed below, manufacturers are also increasingly supporting the use of B20 or higher blends of biodiesel in their cars, trucks, and other equipment. Currently, nearly 80 percent of U.S. manufacturers support B20 or higher blends in at least some of their equipment, and over 90 percent of medium- and heavy-duty truck models support B20. NBB, Biodiesel Industry Overview & Technical Update, *supra*, Slide 42. The range of different vehicles in which manufacturers support B20 use is continually expanding. For example, Chrysler recently supported B20 in its new 2015 Ram 1500 light-duty diesel pickup. *Id.* at Slide 46. And the 2015 Chevrolet Cruze recently became the first light-duty passenger car approved for B20 use nationwide. *Id.* at Slide 48. [EPA-HQ-OAR-2015-0111-1953-A2 p.71]

Biodiesel is fully registered under the Clean Air Act and, thus, there are no “limitations” to its use. [EPA-HQ-OAR-2015-0111-1953-A2 p.122]

Although not a factor it can consider under the statute, EPA continues to discuss purported limits on biodiesel consumption. EPA has recognized the work of the NBB in addressing these purported concerns, but, nonetheless, continues to rely on misperception. [EPA-HQ-OAR-2015-0111-1953-A2 p.122]

There are two statements in EPA’s proposal related to this area that are simply incorrect; and NBB urgently requests EPA to correct these statements moving forward. A correction is important because the incorrect statements perpetuate a myth and harmful misunderstanding about OEM warranties and how they apply to fuels. The first incorrect statement is regarding engine manufacturers “warranting” fuel, whether that be B5, B20, or petrodiesel. Engine manufacturers do not manufacture fuel and they do not “warranty” any fuel or any product that they do not manufacture including petrodiesel. The second incorrect statement is EPA’s assertion that a “majority” of diesel vehicles on the road “are warranted for no more than 5% biodiesel.” 80 Fed. Reg. at 33,116. This statement is doubly incorrect. As stated above an OEM does not “warrant” any fuel or any product that it does not manufacture. [EPA-HQ-OAR-2015-0111-1953-A2 p.122] [EPA-HQ-OAR-2015-0111-1044 pp.53-54]

In addition, it should be clarified that engine manufacturers warranty the materials and workmanship of their engines only; they do not warranty fuel of any kind. The question is whether an engine manufacturer will (or even can) find its parts and workmanship warranty inapplicable if biodiesel is used, and most major engine companies have stated formally that the use of blends up to B20 will not void their parts and workmanship warranties. [EPA-HQ-OAR-2015-0111-1953-A2 p.123]

Nearly 80 percent of major OEMs recommend use of B20 and higher blends in their equipment, including nearly 90 percent of the medium & heavy duty truck OEMs. See National Biodiesel Board, OEM Support, available at <http://biodiesel.org/docs/default-source/ffs-enginemanufacturers/oem-support-summary.pdf?sfvrsn=16> (Attachment 16). The biodiesel component must meet ASTM D6751 and the B20 blends must meet ASTM D7467 specifications. [EPA-HQ-OAR-2015-0111-1953-A2 p.123]

EPA then states that “biodiesel concentrations in the winter months are sometimes kept to lower levels by engine owners due to cold weather operability and storage concerns.” 80 Fed. Reg. at 33,116. But B20 can be treated for winter use, in similar ways that No. 2 diesel is treated.<sup>110</sup> Using B20 throughout the winter months just takes a little preparation and good fuel management practices. Some of the largest biodiesel facilities are in the Northwest and Midwest where temperatures can drop significantly, and production remains year round. These plants, for example, have been able to find feedstocks that provide added cold weather benefits, such as canola in Washington and North Dakota. [EPA-HQ-OAR-2015-0111-1953-A2 p.127]

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<sup>110</sup> Both petroleum diesel and biodiesel have nearly identical cloud points and in severely cold weather both must be treated with additives. Michael Whitney of Musket Corp. testified at the public hearing that biodiesel increases the overall supply of fuel for their customers, including during extreme weather events such as hurricanes and severe winter storms. [EPA-HQ-OAR-2015-0111-1044.]

### **Sprague Operating Resources LLC**

The heating oil market, a nearly 8 billion gallon per year market, is particularly important in the Northeast, where Sprague's business is concentrated. The National Oilheat Research Alliance (NORA) sees ultra low sulfur, ultra low carbon biodiesel in increasing concentrations as the future of their industry to help transition this industry to a 21<sup>st</sup> century fuel. To facilitate these higher volumes, 5% biodiesel was incorporated into the ASTM D396 fuel oil standard in 2008, a new B6-B20 grade in D396 was approved earlier this year.

As the federal and state governments increasingly move to regulate heating oil in homes (such as New York) and in stationary diesel engines (such as recent EPA Section 112 standards), demand for using biodiesel in heating should continue to grow. New York City is setting an important example for the entire Northeast by embracing ultra-low sulfur BioHeat® blends as a cost effective means to reduce carbon emissions while providing a more reliable, environmentally friendly heating option. [EPA-HQ-OAR-2015-0111-1924-A1 p.1-2]

### **Response:**

A commenter stated that because biodiesel is fully registered under the Clean Air Act that there are no limitations to its use. We acknowledge biodiesel's registration status, however we also note that many diesel engine manufacturers continue to approve the use of diesel fuel containing up to, and not more than, 5% biodiesel in the engines they produce. We also acknowledge the substantial work done by NBB and other parties to address limitations to the use of biodiesel. Despite this work, however, not all of the potential limitations associated with the use of higher level biodiesel blends have been overcome. The degree to which these issues may constrain the use of biodiesel in 2016 is a factor which must be considered in our projection of the potential supply of biodiesel and renewable diesel in 2016.

Commenters stated that there is a significant untapped demand for BBD and stated that the majority of diesel vehicles being produced today support blends of up to B20. While NBB's claims that 80% of Original Equipment Manufacturers (OEMs) support the use of B20 or higher blends in at least some of their equipment may be true, this does not mean that the majority of the current in-use diesel fleet support biodiesel blends of B20 or greater. First, the fact that 80% of OEMs support B20 or higher blends in some of their equipment does not mean that 80% of all equipment being sold today is designed and warranted to be compatible with B20. In a number of cases only a portion of the engines they produce support higher level biodiesel blends. Second, not all OEM's have equal market share, therefore even if 80% of them supported the use of B20 blends in all of their new equipment, it is not the case that 80% of the diesel engines produced today support higher level biodiesel blends. For example, Detroit Diesel currently produces approximately 30% of the class 8 truck diesel engines sold in the United States and does not currently support the use of biodiesel blends higher than B5 in any of the engines they produce. No stakeholder provided data on the fraction of actual current engine sales that are designed and warranted to be compatible with B20, but it is clearly less than the 80% value referenced by the commenters. Finally, there are many older diesel engines still in the in use fleet that do not support biodiesel blends greater than B5. According to EPA estimates, the average age of an in-use heavy duty diesel vehicle in 2015 was just over 11 years. In that year approximately one third of the heavy duty diesel fleet was over 15 years old, and nearly 7 percent of the fleet was over 25 years old. Given the long life of many engines, the fraction of the engines on the road today that are designed and warranted to use biodiesel blends greater than B5 is much lower than the fraction of new engines compatible with these blends. Even if all engines were warranted tomorrow to run on B20, it would still be many years before the fleet turns over and such engines dominated the in-use fleet. Again, no stakeholder provided data on the fraction of the actual in-use fleet of diesel vehicles that are designed and warranted to be compatible with B20, but it is clearly far less than the 80% referenced by the commenter. This Warranty coverage may constrain the market's ability to expand beyond B5 blends, as fuel retailers that wish to offer blends that exceed 5% biodiesel must either offer two different diesel blends, or offer only fuel that is not supported by the manufacturers of the engines of a significant number of their customers. See Section II.E.3.vi of the final rule for a further discussion of the consumption capacity for biodiesel and renewable diesel in the United States.

Some commenters stated that engine compatibility should not constrain biodiesel and renewable diesel usage in 2016, as essentially all diesel engines can operate on B5. If all diesel in the United States contained 5% biodiesel, then approximately 2.7 billion gallons of biodiesel could be consumed. They further stated that cold weather concerns were not a limiting factor since Minnesota and Oregon require the use of B5 blends even in winter months, and other states such as Iowa and Illinois regularly use biodiesel blends that exceed B5. Finally, they claimed that there was substantial opportunity for B20 blends to further expand biodiesel use. While B5 could theoretically be used nationwide, we note that this would require a significant expansion of the fuel distribution and delivery infrastructure, as B5 blends are not currently available in all parts of the US. This is not likely to occur in 2016 (see Section II.E.3.iv and II.E.3.v of the final rule for a further discussion of biodiesel distribution and retail infrastructure constraints). While some states do require B5 blends to be used year-round, this does not mean that there are no concerns using biodiesel blends in cold weather environments. The measures highlighted that some parties take to allow blending of B5 or even higher blends in winter are not without cost or limit (e.g., canola supplies, cold flow additives). EPA also received comments from a party that

does not blend biodiesel in winter months because of these concerns. The commenter noted the poor cold weather properties of biodiesel in comparison to conventional diesel, stating that they do not purchase biodiesel from November through the middle of March. Expansion of biodiesel blends up to B20 is possible, but face certain challenges, as discussed above. This is one of the potential constraints considered in our assessment of the maximum achievable supply of biodiesel and renewable diesel in the U.S. in 2016.

We received comments specifically discussing several steps that can be taken to address the challenges associated with using biodiesel blends in cold weather and examples of situations where biodiesel blends are used successfully during the winter months, such as in locomotive and bio-heat applications, and in several states. We acknowledge that there are options available to overcome the challenges to using biodiesel blends in cold weather, and we do not believe that the cold temperature properties of biodiesel are an absolute barrier to its use in cold weather environments. As one commenter noted, biodiesel produced from canola has superior cold weather performance to biodiesel produced from other feedstocks. We acknowledge that biodiesel produced from certain feedstocks may perform better in cold weather environments, and that biodiesel produced from these feedstocks may be preferentially used in regions that experience cold temperatures. We do believe, however, that because in many cases special care must be taken to enable the use of biodiesel blends in cold weather environments, such as blending with Number 1 diesel, using biodiesel produced from specific feedstocks, or the use of heated or indoor storage tanks for bio-heat, that the cold weather properties of biodiesel are, and in the near term future will continue to be, a potential constraint on its use in the United States.

Some commenters also stated that vehicle manufacturers only make fuel recommendations, they do not warranty any type of fuel. We never intended to suggest that vehicle and engine manufacturers warrant anything other than the products they sell. The point is that many manufacturer vehicle and engine warranties do not cover damage that results from using fuels that are not recommended or approved by the vehicle manufacturer, including fuels containing greater than 5% biodiesel in many older and some newer vehicles. Because of this, owners of vehicles with such warranty coverage will likely be hesitant to use fuels containing higher biodiesel levels.

### **3.2.5 Federal Tax Credit for Biodiesel**

#### **Comment:**

#### **Independent Fuel Terminal Operators Association (IFTOA)**

##### VI. Biomass-Based Diesel Mandate

Congress left it to EPA to determine the RFS mandate for biomass-based diesel after 2012. Accordingly, EPA has proposed, using actual production and import data, mandates that continually increase through 2017 but are not the “maximum achievable volumes.” EPA has stated that it wants to encourage the development of other advanced renewable fuels. [EPA-HQ-OAR-2015-0111-1947-A1 p. 5]

However, it should be noted that the production of biomass-based diesel is not only a function of production and import capacity, but is spurred, to a significant degree, by the biodiesel mixture tax credit. As EPA is aware, that credit expired as of December 2014, and its fate is uncertain. It may be extended in its current form through 2016; it may be converted, beginning January 1, 2016, into a producers tax credit that only is applicable to domestic production, thereby discouraging imported biodiesel from entering the U.S. market; or it may not be renewed. Therefore, while it is reasonable to increase the biomass-based diesel mandate above 2013 levels, EPA should be cautious in setting the mandates and conduct a more detailed analysis of predicted production in light of anticipated action in Congress regarding the tax credit. EPA should recognize that a high mandate, in a market with lower than expected production and imports, would raise the price of biodiesel RINs, and, in turn, the cost of fuel for commercial and industrial entities. It would have a broad effect on the nation's economy. At the same time, the Agency should recognize that many marketers/blenders have made substantial investments in blending operations. [EPA-HQ-OAR-2015-0111-1947-A1 p. 5-6]

Recommendation: EPA should make every effort to achieve a proper balance between the cost of RINs for biomass-based diesel and the desire to preserve the investments made in the biodiesel industry, including investments made in blending and distribution systems. [EPA-HQ-OAR-2015-0111-1947-A1 p. 6]

Specifically, the Association recommends the following: [EPA-HQ-OAR-2015-0111-1947-A1 p. 8]

7. EPA should reassess anticipated production and imports of biomass-based diesel because of recent action in Congress on the biodiesel mixture tax credit (e.g. the Senate Finance Committee action to make the biodiesel credit, beginning January 1, 2016, only applicable to domestic biodiesel). It should carefully balance the proposed mandates based on the revised production and imports analysis and the need to support investments already made in biodiesel production, blending and distribution facilities; and [EPA-HQ-OAR-2015-0111-1947-A1 p. 9]

### **National Association of Truck Stop Operators (NATSO)**

Additionally, Congress has passed a biodiesel blenders tax credit that has further enabled biodiesel blenders – including NATSO members – to earn a profit by selling biodiesel. Although this credit has a turbulent history of expiring and then being reinstated (sometimes retroactively), the blenders credit undoubtedly makes buying, blending, and selling biodiesel more cost advantageous. This increases consumer demand and thus fosters a market environment that enables EPA to require heightened RVOs and come closer to satisfying the RFS's objectives. [EPA-HQ-OAR-2015-0111-2478-A1 p.5]

At the same time, federal policies can also impose an upward pressure on biodiesel prices. The biodiesel blenders credit for example expired at the end of 2014. Although it may be extended retroactively later this year, the uncertainty surrounding the credit diminishes its positive impact on prices.

Similarly, the Senate Finance Committee recently proposed eliminating the biodiesel blenders tax credit and replacing it with a biodiesel producers credit. If this change were to become law, the credit would only apply to biodiesel produced in the United States, negating the downward

pressure that foreign supply imposes on domestic prices, while giving domestic producers greater leverage to increase prices (because they would have an artificial advantage over imported product).<sup>[1]</sup> Additionally, this change would incentivize domestic producers to export product, thereby diminishing U.S. supply and increasing the price of biodiesel in the United States. This would lower consumer demand for biodiesel, and restrict EPA's ability to set ambitious RVOs. [EPA-HQ-OAR-2015-0111-2478-A1 p.5-6]

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<sup>[1]</sup> Areas of the U.S. that have been primarily served by product from offshore sources will be especially hard-hit by this development, and would likely see a marked increase in diesel consumption (and an associated diminution of any air-quality benefits associated with biodiesel consumption).

**Response:**

A commenter stated that while it is reasonable to increase the BBD standard beyond 2013 levels (1.28 billion gallons), EPA should be cautious in increasing the standard, especially in light of uncertainty related to the biodiesel tax credit. They requested that EPA reassess the anticipated production and imports of BBD in light of recent actions by Congress related to the tax credit, and set the BBD standard at the level needed to support investments already made in biodiesel production, blending and distribution facilities, but not so high as to have a negative impact on the economy. Another commenter also discussed the potential impact of the expiration of the biodiesel blenders' tax credit, or its replacement with a producers' credit, noting that either outcome may result in an increase in the price of biodiesel.

EPA has reviewed the available information, including comments submitted on our proposed rule, and we believe the BBD standards for 2016 and 2017 strike the balance requested by the commenter. We note that the biodiesel tax credit is currently not in place, and its renewal remains uncertain. For the purposes of this rule we therefore have not assumed that there will be a BBD tax credit in 2015 or 2016, either a blenders credit or a producers credit. We believe, however, that BBD RINs can provide much of the same financial incentive for increasing production, import, distribution, and use of BBD in the absence of a tax credit, and therefore whether or not a BBD tax credit is in place for these years would not appreciably impact our assessment of the available supply of biodiesel and renewable diesel. If the blenders tax credit were replaced with a producers' tax credit we believe that this would likely make foreign produced BBD less competitive relative to BBD produced in the United States. We believe that changes in the market, combined with the impact of the BBD RIN price, would likely limit much of the potential price impact on biodiesel and biodiesel blends, and would thus not have an appreciable impact on the available supply of biodiesel and renewable diesel in 2016. For example, we could see increasing imports of BBD feedstocks for use in domestic BBD production facilities, which currently have significant excess capacity (see Section II.E.3.ii of the final rule for a discussion of the domestic BBD production capacity).

### **3.3 Determination of Applicable Volumes**

#### **Comment:**

#### **Advanced Biofuels Association (ABFA)**

The biomass-based diesel pool has also helped to achieve overall compliance under the current nested RVO system. The last several years of production from the biomass-based diesel pool and its contribution to meeting the RVO requirements of the advanced pool and overall renewable fuel requirements is substantial. When one considers that the existing annual diesel fuel demand in the U.S. is approximately 50 billion gallons, the contribution in 2014 of 1.63 billion gallons in the D-4 pool is well below any blend wall issues impacting the blenders of biomass-based diesel fuels. It is well below 5% of the total pool, yet creates well over 2.5 billion RINs usable towards meeting the targets in the Advanced Pool. In 2013, the year ended with 3.23 billion RINs generated to be backed against the 2.75 billion RIN target and the overall renewable fuel RIN requirements. [EPA-HQ-OAR-2015-0111-2498-A1 p.5]

#### **Ag Processing, Inc.**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 220-222.]

Thus, we appreciate and pleased with the proposed 2014, '15, '16, and '17 biomass-derived diesel renewable volume obligation proposals detailed in your current RFS rulemaking. The rulemaking appropriately recognizes the vital contribution biodiesel plays in our nation's energy and agricultural economies, and the proposed growth of the obligations over a multiyear period for the biomass-derived diesel RVO beyond 1.28 billion gallons is appreciative. However, we believe the biodiesel industry can grow beyond 1.9 billion gallons and that it was Congress' specific intent to provide the EPA with options to stimulate the domestic biodiesel industry. Various mechanisms inside the statute recognize that the RFS RVOs should accurately reflect our current industry's realities and production capability levels in future years.

In addition, in the terms of volume, if the RVO numbers do not reflect the actual import levels from foreign biodiesel producers or massively underestimate them, then the RVO numbers are not the right numbers and, in fact, could lead to many bad outcomes, such as loss of jobs and a decrease in commodity prices.

#### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

EPA's biomass-based diesel proposals for 2014, 2015 and 2016 ignore specific statutory language that prohibits the Agency from increasing the biomass-based diesel standard without first applying specifically enumerated statutory criteria and providing obligated parties 14 months' lead-time before compliance is required. We also note that EPA would be acting outside of its statutory authority if it altered the biomass-based diesel standard for 2017, unless it issued such standard prior to November 1, 2015. [EPA-HQ-OAR-2015-0111-1948-A1 p.3] [EPA-HQ-OAR-2015-0111-1044 p.22]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 23.]

Far too much lead time is required by the Clean Air Act to set a different value for biomass-based diesel. Therefore, the agency cannot promulgate a volume for biomass-based diesel for 2014 or 2015 or 2016 that's higher than 1.28 billion gallons, the regulatory value for 2013. The law is clear on this point.

### **Baker Commodities**

Congress and the EPA have been very clear that the RFS Program is intended to push for greater and greater volumes of advanced biofuels with an aim towards reducing the greenhouse gas profile of the fuel supply. However, the RFS Proposal covering 2014-2017 falls very short of the market potential for biomass-based diesel. In 2013, the industry produced 1.8 billion gallons, exceeding the biomass-based diesel pool and contributing significantly to the advanced pool. Had the EPA proposed a reasonable increase in the RVO for 2014/2015 based on 2013 production instead of a proposal of 1.28 billion gallons, the industry would have easily produced 2.1 billion gallons in 2014. The 2014-2017 biomass-based diesel mandates are only 1.63, 1.7, 1.8 and 1.9 billion gallons, respectively, If these numbers are finalized, the market will constrict, resulting in less innovation and less use of ultra-low carbon feedstocks.[EPA-HQ-OAR-2015-0111-1907-A1 p.1]

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i EPA also asserts that it is 'important to provide support to existing successful biofuels and to provide incentives for those fuels, especially advanced biofuels that produce the greatest reductions in greenhouse gases.' BO Fed. Reg. at 33,102.

### **Canola Council of Canada**

The Canola Industry Provides Significant Contributions to the RFS2 Program and Can Continue to Do So.

In proposing the standards for 2014-2016 under the program and the minimum applicable volume for biomass-based diesel for 2014-2017, EPA stated that “the approach we take to setting the standards must be consistent with Congress’ clear goal of compelling the industry to make dramatic changes to increase renewable fuel use.” 80 Fed. Reg. at 33,118. In 2013, 7% of the feedstock used for U.S. biodiesel production came from canola oil.<sup>1</sup> Canola oil used in biodiesel production increased in 2014 from 2013, and the first four months of 2015 show a continued trend upward.<sup>2</sup> The canola industry has helped the biomass-based diesel program make the advancements sought by Congress. [EPA-HQ-OAR-2015-0111-2484-A1 p.2]

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1 National Biodiesel Board, Biodiesel Industry Overview & Technical Update, at Slide 6 (Mar. 2015), available at <http://biodiesel.org/docs/default-source/ffs-basics/biodiesel-industry-and-technical-overview.pdf?sfvrsn=12>.

2 U.S. Energy Information Administration, Monthly Biodiesel Production Report, Table 3: U.S. Inputs to biodiesel production (June 2015), available at <http://www.eia.gov/biofuels/biodiesel/production/biodiesel.pdf>.

### **Chevron**

Regarding biomass based diesel, we do not agree with EPA’s proposal to retroactively increase the volume standards for any year prior to 2017. This is based on the statutory timeline for EPA to finalize an increase in biomass based diesel standards at least 14 months prior to the start of a compliance year. EPA has missed the deadline for 2014, 2015, and 2016 and therefore should not propose to increase the biomass based diesel standards for these years. The standard should

be set at 1.28 billion gallons for each of these three years. [EPA-HQ-OAR-2015-0111-1911-A1 p. 2]

### **Crimson Renewable Energy LP**

It is especially troubling and illogical that the EPA has said repeatedly that it sets the standards based on “maximum achievable” volumes elsewhere in the RFS program, and then set the biomass-based diesel volume at a minimum volume, arguing somehow that doing so would actually benefit the overall program. The opposite is true. Since the industry already has capacity to more than meet the proposed increases, there is simply little incentive to continue to invest in an uncertain, and clearly slow moving, future. [EPA-HQ-OAR-2015-0111-1823-A1 p.2]

### **Darling Ingredients Inc.**

The EPA argues persuasively that BBD cannot create adequate volume to supplant the shortfall in Cellulosic for 2016 and 2017 which are VOLUMES SPECIFIED BY THE STATUTE (emphasis added). The EPA also questions whether adequate supplies of Brazilian sugar cane ethanol will be available to meet the VOLUMES SPECIFIED BY THE STATUTE. While both of these may be valid arguments for the EPA to exercise its waiver authority under the statute NEITHER is a reason to limit the achievable volume of BBD. Darling believes the EPA has incorrectly used the argument it has made for exercising its waiver authority in determining the volumes of BBD and Advanced Biofuels for 2016 and 2017. [EPA-HQ-OAR-2015-0111-1929-A1 p.3]

The EPA forecasts a variety of potential BBD volumes which could be available for the market in 2016. The annual range is from a low of 1.898 billion gallons to a high of 2.131 billion gallons<sup>7</sup>. The low end of the EPA's own analysis is almost 100 million gallons over the proposed volume of 1.8 billion gallons for 2016. The high end of the range is over 400 million gallons above the proposed 2016 volumes. The apparent logic for this inconsistency is the excess BBD is to help fulfill the Advanced Biofuel obligations. Darling agrees that BBD is a key component of fulfilling the Advanced Biofuel targets. Indeed it is the only Advanced Biofuel which has provided significant domestic supplies. [EPA-HQ-OAR-2015-0111-1929-A1 p.3]

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<sup>7</sup> Id., Pg. 33132 — 33133.

### **Linn & Associates**

And we also believe we should increase corn ethanol and biodiesel targets 100 million gallons each year to a maximum 15 for corn ethanol and 2.0 for biodiesel. This allows people to make long-term projections.

### **Marathon Petroleum Company**

The law in clear and plain wording states that the EPA must utilize a six factor analysis to set the biomass-based diesel requirements at least 14 months in advance of the standard being enforced [CAA section 211(o)(2)(B)(ii)]. The standard for 2014 should have been set by October 31, 2012; the 2015 standard by October 31, 2013; and the 2016 standard by October 31, 2014. Because the EPA did not meet these deadlines, the biomass-based diesel standard for 2014, 2015, and 2016 cannot be set any higher than 1.28 BGY which is the last standard set by the

agency using the required procedure. Obligated parties may still blend more because the regulatory volumes are the minimum required. The RINs generated from blending more than the RVO can be used for the Advanced Biofuel or Total Renewable requirements for the year or carried over for compliance in the following year. Regardless of the potential ability to meet a higher biomass-based diesel standard, the EPA is prohibited from increasing the volumes for 2014-2016 because the EPA failed to complete the six factor analysis and establish the volumes within its statutory deadline. [EPA-HQ-OAR-2015-0111-1932-A1 p. 6]

### **Mass Comment Campaign sponsored by soybean farmers (email) - (8)**

I want to express my view that EPA should support more aggressive, but achievable, Renewable Fuel Standard (RFS) volume targets for biodiesel. Given the many benefits of biodiesel and the capability for increased production, EPA should, at a minimum, support biomass-based diesel volumes of at least 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-1480-A1 p.1]

As an industry, we have always advocated for RFS volumes that are modest and achievable and the biodiesel has met or exceeded the targets each and every year that the program has been in place. This has been accomplished without any significant disruption or adverse impacts to consumers, while also reducing greenhouse gas emissions and providing jobs. [EPA-HQ-OAR-2015-0111-1480-A1 p.1-2]

When determining the appropriate volume standards for biomass-based diesel, the EPA can and should mitigate the potential for increased imports of sugar cane ethanol from Brazil and account for the likelihood of increased imports of biodiesel from Argentina. EPA should increase the biomass-based diesel volumes relative to the total Advanced Biofuels volumes in order to promote the use of domestically produced biodiesel over imported sugar-cane ethanol. The intent of Congress when they established and expanded the RFS program was clearly to increase and promote domestic energy production and U.S. energy independence. This is clearly reflected by the title of the 2007 law - the Energy Independence and Security Act (EISA) - which expanded the RFS and established the biomass-based diesel program. [EPA-HQ-OAR-2015-0111-1480-A1 p.3]

Wherever possible, EPA should seek to promote domestic biofuel sources to fulfill the RFS volume requirements. However, when determining the appropriate volume standards for biomass-based diesel, the EPA must also account for the likelihood of increased imports of biodiesel from Argentina. Prior to the EU imposing anti-dumping tariffs, Argentina was exporting over 400 million gallons to that market and they are seeking new markets for those volumes. The EPA has approved a streamlined process for Argentine biodiesel to comply with the RFS and should expect Argentine imports into the U.S. to increase significantly in future years. Given the many benefits that biodiesel provides, I ask that you reconsider the biomass-based diesel standards in the Proposed Rule and finalize stronger standards, particularly for 2016 and 2017. The biodiesel industry has previously requested volumes of 2.4 billion gallons in 2016 and 2.7 billion gallons in 2017. While those volumes are readily achievable and sustainable, particularly with rising imports, at a minimum EPA should set the standards at not less than 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-1480-A1 p.3]

### **Minnesota Soybean Processors (MnSP)**

We believe EPA has formulated future biomass based diesel volumes based on EPA's incorrect reading of the 2014 biodiesel marketplace. Essentially the "leak" in the Fall of 2013 of EPA's potential rulemaking compounded by the lengthy delay until EPA finally withdrew their 2013 proposed RVO rule confused and stymied the biodiesel marketplace resulting in significant reduction of biodiesel sales and production during 2014. For EPA to base future volumes on analysis of the 2014 market is incorrect; EPA should have recognized the cumulative impact of both the "leaked" proposed rule and their delayed 2013 rulemaking for 2014 and later years RVO and instead looked to the 2013 biodiesel market which was much more robust and a truer picture of the market. Using 2013 biodiesel production, EPA's analysis would have shown that the biodiesel industry could easily, and quickly, produce in excess of 2 billion gallons annually for years 2014 and highly significant annual increases for 2015, 2016 and beyond. We believe EPA needs to acknowledge this faulty 2014 market analysis and recognize the 2013 market as the baseline market in which to formulate forthcoming 2015, 2016 and 2017 biodiesel volume obligations. [EPA-HQ-OAR-2015-0111-2505-A1 p.2]

### **National Association of Truck Stop Operators (NATSO)**

EPA faces a delicate balance with respect to biodiesel: On the one hand, increasing mandates under the RFS can enable NATSO members to sell the product to consumers and lower prices and thereby increase consumer demand for biodiesel; at the same time, if RVOs are set too high, it could lead to increased prices for diesel fuel, which would have an adverse effect on NATSO members and the U.S. economy as a whole. [EPA-HQ-OAR-2015-0111-2478-A1 p.2]

While NATSO members sell gasoline and gasoline blended with ethanol to their customers, their primary interest in the RFS pertains to biodiesel.

EPA faces a delicate balancing act with respect to biodiesel: On the one hand steady, increasing biomass-based diesel and advanced biofuel mandates under the RFS create the demand for RINs; this can serve to lower the costs of acquiring and blending biodiesel, enabling NATSO members to sell the product to consumers at lower prices and thereby increasing consumer demand for biodiesel. At the same time, if these RVOs are set too high, it will increase obligated parties' operating costs so as to impose upward pressure on the cost of diesel fuel – obligated parties will want to recover their costs of acquiring and retiring the necessary RINs, and/or will be incentivized to export diesel fuel (and thus avoid incremental RVO increases) and the diminished domestic supply will lead to higher diesel prices. [EPA-HQ-OAR-2015-0111-2478-A1 p.4]

### **National Biodiesel Board**

Congress did not require this to be an annual review process. 42 U.S.C. § 7545(o)(2)(B)(ii). It referenced the operation of the program "during calendar years specified in the tables," indicating that EPA has authority to set the volumes over a multi-year period after the years listed. Id. [EPA-HQ-OAR-2015-0111-1953-A2 p.23]

While EPA may contend that the phrase "based on" is ambiguous and, thus, does not preclude EPA from considering other factors, the statute must be interpreted with its purposes in mind. In *API v. EPA*, the D.C. Circuit found that the phrase "based on" did not require "slavish adherence" to the EIA projections when setting the cellulosic biofuel volume under Section

211(o)(7)(D). 706 F.3d at 478. But, here, the statutory provision requires EPA to consider the implementation of the program in prior years and to conduct an analysis of six factors, which are specific and detailed. “The level of specificity” provided by Congress “effectively closes any gap the Agency seeks to find and fill with additional criteria.” *Ethyl Corp. v. EPA*, 51 F.3d 1053, 1060 (D.C. Cir. 1995). “Congress was explicit in its direction. ... EPA has failed to give effect to the unambiguously expressed intent of Congress.” *Id.* EPA cannot use the phrase “based on” to broaden its discretion under this provision. Moreover, EPA’s analysis must be guided by its obligation to ensure that transportation fuel increasingly contains renewable fuel. Further, the statute already provides for flexibility in meeting the volume requirements through a credit program and the deficit carryover. This is all evidence that the volume setting process should not be based on easing compliance for obligated parties. [EPA-HQ-OAR-2015-0111-1953-A2 p.26]

NBB does not dispute that other advanced biofuels should participate in the program, but EPA has chosen to keep the volumes low rather than strive to achieve the volumes sought by Congress. EPA does not explain why it cannot provide greater increases in biomass-based diesel and further increase the advanced biofuel volume to address its purported concerns about ensuring “other” advanced biofuels. Keeping a lower overall advanced biofuel volume when there is more than enough capacity of biodiesel does not meet the goals of Congress or provide the certainty for investors that EPA is purporting trying to create for other biofuels. [EPA-HQ-OAR-2015-0111-1953-A2 p.27]

Biomass-based diesel has been the only successful advanced biofuel produced in the United States on a commercial basis, yet rather than continue to promote its production, as required, EPA has artificially kept the biomass-based diesel numbers low. It provides no support or explanation why only 100 million gallon annual increases (and only 8 million gallon monthly increases) are appropriate given the ability of the industry to grow at much higher levels and EPA’s prior assessment that an almost 300 million gallon increase is appropriate based on statutory factors. EPA fails to answer how this minimal increase supports growth when the volumes are substantially less than production capacity, and requires less than 10 million gallons more a month to achieve, a less than 5 percent increase. [EPA-HQ-OAR-2015-0111-1953-A2 p.27-28]

Congress intended to promote increasing volumes of advanced biofuels including biomass-based diesel. “[I]ncreasing and extending the existing RFS—with specific incentives for the production of biofuels from new sources of renewable biomass—is required, to provide market certainty to both the existing ethanol industry and the next generation of advanced biofuel producers.” S. Rep. No. 110-65 at 3. The expanded RFS “represents a major advance in our commitment to renewable, home grown fuels that reduce emissions, mitigate global warming, and improve farmer income. This is a strong market signal to ethanol, biodiesel, and other renewable energy investors that the Federal Government supports fuels that are more environmentally friendly and help to reduce our dependence on oil.” 153 Cong. Rec. S15421, S15429 (Dec. 13, 2007) (statement of Sen. Durbin). Congress acknowledged that biodiesel, as a domestic advanced biofuel with numerous available and potential feedstock sources, more than meets these goals. See 153 Cong. Rec. H2233-02, H2233 (Mar. 6, 2007) (statement of Rep. King) (“And so our approach here needs to be the expansion and the continued promotion of these energy supplies that we have that we can develop here in the United States. The most obvious of those are the

biodiesel components, which have been expanding rapidly here in the United States, ....”). [EPA-HQ-OAR-2015-0111-1953-A2 p.28-29]

Indeed, Congress intended to expand the RFS to include increased participation by the diesel transportation fuel pool where biomass-based diesel is the advanced biofuel substitute.<sup>30</sup> [EPA-HQ-OAR-2015-0111-1953-A2 p.29]

The inclusion of credits for “additional renewable fuel” further evidences congressional intent to increase use of biofuels beyond motor vehicles and into those markets dominated by diesel fuel products. [EPA-HQ-OAR-2015-0111-1953-A2 p.30]

Legislative history also shows that Congress intended EPA’s authority to result in continued volume increases in biomass-based diesel through 2022 balancing all of the considerations outlined in the statute. [EPA-HQ-OAR-2015-0111-1953-A2 p.30]

EPA previously pointed to the “trend” in the biomass-based diesel statutory volumes for 2009-2012 as supporting an increase of 280 million gallons (or 28 percent) from the required 2012 volume for 2013. 77 Fed. Reg. at 59,461.35 If Congress intended to simply let biomass-based diesel remain underutilized throughout the program and let the overall advanced biofuel volume drive the market for diesel fuel substitutes, it would not have needed to give EPA authority to set the biomass-based diesel volumes starting in 2013. Similarly, here, the modest statutory volumes for biomass-based diesel are well under current capacity, and biodiesel production has exceeded the mandated volumes each year.<sup>36</sup> [EPA-HQ-OAR-2015-0111-1953-A2 p.31]

Despite the proven production and available capacity of biomass-based diesel, EPA is expecting to increase cellulosic biofuel production by 221 percent and almost 100 percent in 2015 and 2016, respectively, but only purports to provide a 4-6 percent increase each year for biomass-based diesel (see table below).<sup>38</sup> [EPA-HQ-OAR-2015-0111-1953-A2 p.32] [The table can be found on page 32 of docket number EPA-HQ-OAR-2015-0111-1953-A2]

While EPA’s new proposal refers to allowing for “competition” for other advanced biofuels, EPA is falling into the same errors it did in the November 2013 proposal by trying to set the volumes to provide obligated parties more flexibility in meeting compliance (i.e., purported costs outweighing the benefits). Even if not prohibited by the statute, EPA’s focus on only one factor to decline to increase the required volumes for biomass-based diesel based on these considerations is arbitrary and capricious and counter to the statute’s purposes. See *Ctr. for Biological Diversity v. NHTSA*, 538 F.3d 1172, 1197 (D.C. Cir. 2008). [EPA-HQ-OAR-2015-0111-1953-A2 p.37]

The notion of “competition” among advanced biofuels, and compliance costs, are not specifically included in the listed statutory factors. [EPA-HQ-OAR-2015-0111-1953-A2 p.37]

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<sup>29</sup> This can be contrasted against the proposed increase in the cellulosic biofuel requirements by 221% and almost 100% in 2015 and 2016. See Section V.B.3.

<sup>30</sup> While other advanced biofuels continue to emerge (including cellulosic diesel), sugarcane ethanol is the only other commercially available advanced biofuel available on a larger scale that EPA has identified to fill the advanced biofuel requirement. However, sugarcane ethanol, like conventional ethanol, is not a substitute for diesel fuel. Moreover, it is an imported fuel, rather than domestically produced.

36 In finalizing the 1.28 billion gallons for 2013, EPA noted: “Others expressed their belief that Congress intended for the statutory minimum volume of 1.0 billion gallons to be used to set the applicable volume for all years after 2012, with higher volumes being required only if EPA could demonstrate that those higher volumes were already being produced.” 77 Fed. Reg. at 59,460 (emphasis added). This is incorrect. EPA was to demonstrate that the factors support increasing volumes, which they do.

38 As shown, this does not represent a real increase for biomass-based diesel.

### **Newport Biodiesel**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 208-209.]

We appreciate that EPA has improved the RVO numbers and that the volumes increase with time. However, these volumes remain well below what the industry can produce, and they are far from an aggressive approach to expanding biodiesel production. There is little we can do regarding 2014 and '15, but we can take a more aggressive stance on 2016 and '17. NBB has proposed a very reasonable 2.4 billion gallons for 2016 and 2.7 for 2017. I feel these volumes should be strongly considered. Anything less than 2 billion gallons per year certainly misses the opportunity to help meet the climate change objectives of this administration.

### **Phillips 66 Company**

The API/AFPM comments construct the argument that EPA is limited to setting the standards for 2014, 2015, and 2016 to no higher than 1.28 billion gallons. In fact, this volume is what EPA proposed for 2014 and 2015 in the proposed rule published in November, 2013. EPA acknowledged in that proposal that “the statute requires that we finalize these biomass-based diesel volume requirements no later than 14 months before the first year for which that volume requirement will apply.” We agree that given the statutory language, EPA cannot increase the biomass-based diesel standards prior to 2017. [EPA-HQ-OAR-2015-0111-2039-A1 p.2]

### **Renewable Energy Group, Inc. (REG)**

We share many of the concerns articulated by the National Biodiesel Board, we incorporate their comments by reference where they do not conflict with our own. [EPA-HQ-OAR-2015-0111-1952-A1 p.2]

In addition, the heating oil industry is using ever increasing volumes of biodiesel in the nearly 8 billion gallon heating oil market. Residential, commercial and industrial boilers (combined) account for the second leading consumption of diesel fuel behind the on-highway segment, according to the EIA. The National Oilheat Research Alliance (NORA) sees biodiesel in increasing concentrations with the eventual goal of reaching full B100 penetration by 2050. To facilitate these higher volumes, 5% biodiesel was incorporated into the ASTM D396 fuel oil standard in 2008, a new B6-B20 grade in D396 was approved earlier this year, and ASTM will start balloting up to B100 in D396 beginning in 2016. These increasing volumes of biodiesel in heating oil should be accounted for with additional increases in the biomass-based diesel volume requirements. [EPA-HQ-OAR-2015-0111-1952-A1 p.3]

**Response:**

EPA received numerous comments concerning the proposed applicable BBD 2014-2017 volume requirements.

**Applicable Volume - Biodiesel Industry:**

In general, the biodiesel industry believes that while the proposed 2014 and 2015 applicable biomass-based diesel volumes were appropriate, they were unanimous in pushing for significantly higher BBD volume requirements for 2016 and 2017 arguing that they should be set upwards to 2.4 and 2.7 billion gallons, respectively. With regard to these concerns we believe that we followed the procedural and substantive requirements set forth in the statute to set the final BBD volume requirements, and that the levels we are finalizing are appropriate. Raising the guaranteed BBD volume beyond the volumes in this rule so that it approaches the volume of overall advanced biofuel could undercut investment needed to grow volumes of other renewable fuels and result in a less competitive advanced biofuels market. Our decision to finalize the BBD volumes for 2016 – 2017 at 1.90 and 2.0 billion gallons per year respectively, would not be expected to lead to such an adverse result. We believe that the final BBD volume requirements for 2016 – 2017 will both contribute to market stability for the renewable fuels program and continue to promote a growing and competitive advanced biofuels marketplace, one which encourages the growth and development of diverse biofuels along with additional volumes of BBD beyond the volumes required by the BBD standards.

**Applicable Volume and Congressional Intent- Biodiesel Industry:**

NBB and other biodiesel industry stakeholders argued that Congressional intent is clear that Congress intended EPA's authority to result in continued volume increases in biomass-based diesel through 2022 balancing all of the considerations outlined in the statute. We disagree that Congressional intent is clear in this instance. We do believe that in establishing the BBD and cellulosic standards as nested within the advanced biofuel standard, Congress clearly intended to support development of BBD and cellulosic biofuels, while also providing an incentive for the growth of other non-specified types of advanced biofuels. That is, the advanced biofuel standard provides an opportunity for other advanced biofuels (advanced biofuels that do not qualify as cellulosic biofuel or BBD) to be used to satisfy the advanced biofuel standard after the cellulosic biofuel and BBD standards have been met. Indeed, Congress specifically directed growth in BBD only through 2012, leaving development of volume targets for BBD to EPA for later years while also specifying substantial growth in the cellulosic and general advanced categories through 2022. We believe that Congress clearly intended for EPA to evaluate the appropriate volume requirement for BBD within the advanced biofuel standard as described in CAA section 201(o)((2)(B)(ii). We note that Congress could have set ambitious targets for BBD for years after 2012, as it did for cellulosic biofuel, but did not do so. Section 3.3.1 of the RTC also addresses this issue.

NBB also stated that Congress did not require an annual review process to occur and that 42 U.S.C. § 7545(o)(2)(B)(ii) referenced the operation of the program, "during calendar years specified in the tables," indicating that EPA has authority to set the volumes over a multi-year period after the years listed. As the commenter suggests, for setting applicable volumes for years beyond those enumerated in the statute, EPA has the flexibility to do so for more than one year at

a time. At present, this applies only to the applicable BBD volume, but after 2022 will apply to other applicable volumes as well. At the same time, the statute requires that we set the percentage standards on an annual basis, reflecting the gasoline and diesel fuel volume projections for the following year. Given that we must set the advanced biofuel, and total renewable fuel standards on a yearly basis (as well as cellulosic) and the BBD standard is nested within those standards, we believe it is most appropriate at the present time to set the applicable volume for BBD only through 2017 in this rulemaking

### **Applicable Volume and Imports- Biodiesel Industry:**

Some BBD industry commenters argued that the 2016-2017 BBD volume requirements were too low because we failed to take into account imports of biodiesel from Argentina and did not seek to promote domestic biofuel sources over imports of biodiesel or sugarcane ethanol from Brazil. EPA disagrees with these comments. EPA did in fact take into account potential levels of imports. Section II.E.3 (iii) of the final rule reviews the data and trends regarding imports of biodiesel into the U.S. In summary, the amount of biodiesel and renewable diesel that can be imported into the United States in response to the standards that we set is difficult to predict, as the incentives to import biodiesel and renewable diesel to the U.S. are a function not only of the RFS and other U.S. policies and economic drivers, but also those in the other countries around the world. These policies and economic drivers are not fixed, and change on a continual basis. Over the years there has been significant variation in both the imports and exports of biodiesel and renewable diesel as a result of varying policies and relative economic policies.

EPA acknowledges that if we were to increase the BBD volume standard we would increase the guaranteed market for BBD, reduce the room under the advanced standard for the use of non-BBD advanced biofuels, and thereby reduce the likelihood that volumes of sugar cane ethanol would be imported to satisfy the advanced and total renewable fuels standards. We do not agree, however, that this is a necessary step to promote the viability and growth of the BBD industry, or an appropriate approach for implementing the RFS program. In reviewing the history of the program, (see section III.B-D of the final rule) EPA notes that BBD production, import, and consumption has been strong and increasing each year since 2011. In particular, we note that while sugarcane ethanol was fairly high in 2012, in 2014 sugarcane ethanol imports declined slightly relative to 2013 while in 2015 we have been experiencing some upward growth in imports of biodiesel and renewable diesel. Much of the increase in biodiesel imports in 2015 has been from grandfathered facilities that are exempt from the 20% lifecycle GHG reduction requirement. Fuel from these facilities qualifies for D6 RINs that can be used to satisfy the total renewable fuel standard.

As discussed in section II.E.3 and II.F of the final rule, we believe that the volume of biodiesel and renewable diesel imported from Argentina in 2016 is likely to be far less than the several hundred million gallons suggested by some commenters. We continue to believe that despite the ongoing potential for competition from sugarcane ethanol and biodiesel imports, the BBD industry, supported by the advanced and total renewable fuel standards, has achieved and can continue to achieve production volumes beyond levels needed to satisfy the BBD volume requirement. Finally, in light of the broad programmatic objective of the RFS program to increase the content of biofuels in U.S. transportation fuel, we believe that it would not only be counterproductive to design the standards in such a way as to intentionally discourage or

disincentivize the import of foreign biofuels but also contrary to the statute. See Section 3.2.3 for further discussion of imports including comments on impact of Argentinian imports.

#### **Applicable Volume and Maximum Achievable Levels- Biodiesel Industry:**

We received a number of comments from the biodiesel industry stating that the BBD requirements should be set at the maximum achievable levels rather than at the lower volumes proposed. EPA disagrees with this approach. While we believe that the potential available volume of BBD in 2016 and 2017 exceeds the BBD volume requirements we are finalizing in this rule, and have considered multiple scenarios where additional volumes of BBD are used to comply with the advanced and total renewable fuel standards. We do not believe it is in the best interest of the RFS program to set the BBD volume requirement at the maximum available volume of BBD as suggested by these commenters. Doing so would reduce the opportunity for other advanced biofuels to compete for market share within the context of the advanced biofuel standard, and would send market signals that would hinder the long term development of these fuels. Our review of the history of the RFS program strongly suggests that the advanced and total renewable fuel standards can provide sufficient incentives for the production and use of increased volumes of BBD beyond levels required to satisfy the BBD standard. We also believe that the BBD standards we are finalizing today will provide appropriate support to the BBD industry and incentivize its continued growth.

Various biodiesel industry commenters expressed concern that final standards that were lower than the maximum amount of BBD available would undercut certainty for biodiesel producers, particularly smaller producers, causing them to have to shut down. While our standards cannot protect companies from shutting down for the many different reasons companies close (inefficient, high cost, poor market conditions, availability of feedstocks, other unfortunate events, etc.) the final BBD volume requirements provide a guaranteed floor that provides certainty for greater volumes of BBD volumes than today, and the total renewable fuel and advanced biofuel standards are expected to drive even higher volumes of BBD. As a result, we believe the final RFS standards will create the right market conditions for biodiesel companies to grow, and create jobs.

#### **Applicable Volume and Waiver- Biodiesel Industry:**

One commenter stated that EPA had incorrectly used the argument it has made for exercising its waiver authority in determining the volumes of BBD and Advanced Biofuels for 2016 and 2017. EPA disagrees with this comment. This commenter appears to conflate issues related to setting the BBD standard with those associated with setting the advanced biofuel and total renewable fuel standards. The RFS standards are nested within each other, with the BBD standard being a subset of the advanced biofuel standard and the advanced biofuel standard being a subset of the total renewable fuel standard. In exercising our general waiver authority we have set the total renewable fuel standard at the maximum reasonably achievable level considering all potential supplies of biodiesel and renewable diesel as discussed in section II.E. of the final rule. Thus, our final standards already require as much biodiesel and renewable diesel as the market can be expected to provide. Once the total renewable fuel volumes was set at the maximum reasonably achievable level, we then assessed what portion of it was appropriate to be met with advanced biofuels. In exercising our cellulosic waiver authority, we have set the advanced biofuel standard at the reasonably attainable level considering all the potential supplies of advanced

biodiesel and renewable diesel as discussed in section II.F of the final rule. While the market can choose to meet the standards in a variety of ways as shown in Table II.G-2. of the final rule, we anticipate that the vast majority of the advanced biofuel standard will be met with advanced biodiesel and renewable diesel. Once the advanced biofuel volume was established we then could assess what portion of it should be mandated to be BBD. Here the statute prescribes that we consider a variety of factors, which we have done, though it does not limit the factors that we could consider.

#### **Applicable Volume Is Restricted Due to Lateness of Final Rule- Obligated Parties:**

With regard to oil industry comments suggesting the EPA is prohibited from increasing the biomass-based diesel standard above 1.28 billion for 2014, 2015 and 2016 because obligated parties did not have timely notice of EPA's intention to increase the biomass-based diesel standard above the amount required in the 2013 production year and proposed (for 2014 and 2015) in November, 2013, we disagree. We believe that obligated parties were on notice that the BBD volume requirement could be higher than 1.28 billion gallons. First, in proposing 2014 volumes, in the November 2013 NPRM we said that we believed 1.60 billion gallons of biomass-based diesel was the upper-end of BBD volume range for use in deriving the proposed total renewable fuel volume for 2014 (78 Fed. Reg. 71732, 71767 (November 29, 2013)). While we proposed a 2014 and 2015 BBD volume requirement of 1.28 billion, we also requested comment on alternative approaches and higher volumes (78 Fed Reg 71732, 71734). We also noted in the NPRM that total biodiesel production by the end of 2013 could be as high as 1.7 billion gallons and that the facilities contributing to this production collectively had a capacity of well over 2 billion gallons (78 Fed Reg 71732, 71752). Thus, stakeholders were certainly on notice by November 2013 that a final BBD volume requirement greater than 1.28 billion gallons was possible and could be used in deriving the final 2014 and 2015 BBD standard. In addition, they were provided with further notice that the final volume requirements could be higher than 1.28 billion gallons through the June 10, 2015 NPRM. The volumes in the final rule are somewhat higher than proposed in June, but are a logical outgrowth of the proposal. In addition to obligated parties having been provided adequate notice, we note that the final rule provides obligated parties with substantial time to come into compliance with 2014 and 2015 requirements. For 2014, the deadline in today's rule is August 1, 2016, two months later than proposed and a full 8 months after signature of this rule. For 2015 the compliance demonstration deadline is December 1, 2016, or 12 months from signature of this rule. Since compliance can be achieved through acquisition of RINs in the marketplace, and does not require capital investments or actual renewable fuel blending, we believe that this amount of lead time for parties to come into compliance is adequate and reasonable.

With respect to the 2016 BBD volume requirement, we acknowledge that we are late in finalizing the rule establishing the requirement, but note that EPA's first proposal regarding the BBD applicable volume for 2016 was the NPRM issued in June, 2015, wherein we proposed a significant increase over 1.28 billion gallons. We do not believe obligated parties had any reasonable expectation that the requirement would be maintained at 1.28 billion gallons. Furthermore, in light of the flexibilities noted above, and the fact that compliance need not be demonstrated until three months after the close of 2016, we believe that the final volume requirement is both reasonable and, for the reasons discussed in Section III of the preamble,

appropriate. For additional discussion of the stator deadlines and lateness of the rule refer to RTC Sections 3.5.2 and 10.2.2.

### **3.3.1 Balance between Supporting the Biomass-Based Diesel Industry and Ensuring Opportunities for Other Advanced to Grow**

#### **Comment:**

#### **Baker Commodities**

The EPA acknowledges that the biodiesel industry can produce at higher rates than offered in the proposal, but then justifies the lower mandate based on a desire to encourage competition amongst advanced biofuels. [EPA-HQ-OAR-2015-0111-1907-A1 p.1-2]

#### **Crimson Renewable Energy LP**

The biomass-based diesel program has been the most successful part of the RFS Program, yet it arguably received the most unfavorable ramp up of all of the other fuels. And this is in spite of the EPA's own calculations showing that biodiesel delivers more significant greenhouse gas emissions reductions than any other domestic, commercial-scale fuel on the national market. [EPA-HQ-OAR-2015-0111-1823-A1 p.2]

To reiterate, we at Crimson object to EPA's methodology for the reasons set forth by NBB in its comprehensive comments (Improper encouragement of "competition" amongst advanced biofuels, cost of compliance, incorrect interpretation of "nesting" provision, arbitrary assessment of 6 factors, etc.). [EPA-HQ-OAR-2015-0111-1823-A1 p.2]

It is especially troubling and illogical that the EPA has said repeatedly that it sets the standards based on "maximum achievable" volumes elsewhere in the RFS program, and then set the biomass-based diesel volume at a minimum volume, arguing somehow that doing so would actually benefit the overall program. The opposite is true. Since the industry already has capacity to more than meet the proposed increases, there is simply little incentive to continue to invest in an uncertain, and clearly slow moving, future. [EPA-HQ-OAR-2015-0111-1823-A1 p.2]

#### **Darling Ingredients Inc.**

Unfortunately, the Proposed Rule then concludes that it would be inappropriate for the EPA to increase Biomass Based Diesel volume obligations because 'Increasing the guaranteed market for BBD, rather than allowing excess BBD to compete for market share with other advanced biofuels within the advanced biofuel standard, would likely reduce competition and thus result in increased cost associated with the RFS program with no additional GHG reductions. While an interesting statement of general economic theory the EPA (1) provides no historical or analytical justification to support that general theory nor does it (2) establish any basis in the statute providing the EPA the authority to utilize this consideration. Further, given the cost effective manner in which BBD reduces GHG the final justification for the EPA's comment relating to 'no additional GHG reductions' is simply wrong. [EPA-HQ-OAR-2015-0111-1929-A1 p.3]

As far as the first argument is concerned, EPA's own analysis fails to articulate any reasoning for the theory that additionally mandated BBD volumes will limit competition and increase cost. Indeed, the EPA proposed volumes fail to meet even historical supply availability. It is hard to imagine that a proposed volume standard less than historical production could lead to an uncompetitive situation. [EPA-HQ-OAR-2015-0111-1929-A1 p.8]

The second consideration put forward on why Biomass Based Diesel volumes should be limited is that if the BBD is dictated then there would be no incentive for the development of Cellulosic and other Advanced Fuels. Darling agrees with the EPA's conclusion. The BBD mandate should not represent all of the Advanced Fuel mandate. However, this goal can be met and there can be an incentive for other Advanced Biofuels. EPA could increase the BBD AND increase Advanced Biofuels volume. That is the reason that Darling is suggesting that Advanced Biofuels should be increased above the levels proposed by the EPA for 2016 and 2017. The EPA in the Proposed Rule establishes that it anticipates 200 million gallons of Cellulosic in 2016 and provides for 500 million gallons of Unspecified Advanced in 2016. Darling proposes to increase Advanced Biofuels by 350 million RIN's in 2016 which would mean an increase of 200 million gallons of BBD (resulting in approximately 310 million RIN's) and the same incentive for development of Cellulosic would exist as the EPA has in its Current Proposed Rule. The same logic applies for Darling's suggested 2017 Advanced Biofuel goal of 4.25 billion RIN's; note the Darling proposal for 2017 Advanced RIN's slightly increases the available bucket for undifferentiated advanced in compliance with the aspirational spirit of spurring advanced biofuel production. [EPA-HQ-OAR-2015-0111-1929-A1 p.9]

### **Minnesota Soybean Processors (MnSP)**

EPA contends that it is setting the biomass based diesel volume at a level that will allow other advanced biofuels to compete in the advanced biofuel marketplace: "Competition is good for obligated parties and consumers, as it permits the market to determine the most efficient, lowest cost, best performing fuels for meeting the increasingly higher volume requirements anticipated year to year under the program." 80 Fed. Reg. at 33,103. The simple problem that EPA fails to recognize is that of EPA is trying to create a false marketplace between marketplace products, gasoline and diesel, which simply cannot be substituted for each other. EPA must remember that the only currently renewable Advanced Biofuel fuel products available, now and at least for the time period this proposed rulemaking is for, on a commercial scale are biomass based diesel and sugarcane ethanol. These fuels have different customers, uses and marketplace factors that affect their individual markets. We urge EPA to very carefully reconsider the lack of interaction between fuels intended to replace gasoline and those intended to replace diesel fuel. MnSP further contends that it is not EPA's role to determine "competition" or "flexibility" within the marketplace. EPA has acknowledged its role at 80 Fed. Reg. 33,110 is to simply increase renewable fuel use over time. [EPA-HQ-OAR-2015-0111-2505-A1 p.2-3]

### **NAFA Fleet Management Association**

The U.S. biodiesel and advance biodiesel industry has the ability and capacity to increase production above and beyond the standards called for in your recent proposal, particularly when you consider the potential for sharply increased imports qualifying for the RFS. We should be building our domestic industry, and doing so requires strong policy signals. [EPA-HQ-OAR-2015-0111-3171-A1 p.1]

## National Biodiesel Board

NBB appreciates the work EPA has done to get the RFS2 program back on track. It is supportive of EPA's attempts to get the program right and meet the goals of Congress, and to get the standards issued on time to give the industry the certainty sought to continue making the needed investments. NBB also recognizes that the new proposal stands as an improvement over the highly flawed November 2013 proposal. Unfortunately, though, EPA continues to implement the program in a manner that places a ceiling on the renewable fuels industry, a ceiling well below the floors Congress intended to set. While EPA attempts to read the statute as including considerations of getting fuel to the consumer, Congress made the policy determination for the consumer, as it did with, for example, requiring the elimination of leaded gasoline and requiring an oxygenate in fuels to address air quality. EPA must now effectuate that determination. Indeed, Congress determined the appropriate growth for renewable fuels, and EPA must still "ensure" statutory volumes are met. [EPA-HQ-OAR-2015-0111-1953-A2 p.11]

EPA asserts that its proposal seeks to "achieve an appropriate and reasonable balance" to support "more established" biofuels and "emerging biofuels." 80 Fed. Reg. at 33,102. NBB does not dispute that the minimum statutory volumes and categories established by Congress were intended to "provid[e] opportunities ... for emerging biofuels." But, NBB disagrees that EPA's job is to identify "an appropriate and reasonable balance" among biofuels. EPA's proposal is supposed to provide certainty and ensure the incentives sought by Congress for all biofuels to achieve continued growth overall and reduce the dependence and use of fossil fuels. EPA recognizes that the standards set for advanced biofuels "must be ambitious to be consistent with the intent of Congress in establishing the RFS program." Id. at 33,105. [EPA-HQ-OAR-2015-0111-1953-A2 p.11]

While the new proposal has higher volumes than EPA had proposed in the November 2013 proposal, EPA continues to impermissibly assert its own policy objectives in setting the volumes here. The new proposal talks of "competition," "compliance flexibility," "market liquidity," and "reduce[d] compliance costs." See, e.g., 80 Fed. Reg. at 33,102, 33,120, 33,130, 33,135. None of these is a consideration found in the statute. Despite recognizing the clear goals of Congress to promote biofuel production, EPA appears to base the proposed volumes at limited levels on "constraints" in distribution and in the retail market to consumers and on "[c]ompetition," asserting it "is good for obligated parties and consumers," rather than focus on available biofuels ready to step up to the plate. Id. at 33,102. But, EPA cites to no authority to indicate that any such constraint or "competition" among biofuels is an appropriate consideration. Nor can it. Indeed, in letting such concepts dictate the volumes EPA is setting, EPA is rewarding the recalcitrance of obligated parties. The statute here controls, and obligated parties should have planned on EPA fulfilling its statutory obligations, notwithstanding its erroneous November 2013 proposal. When EPA has enforced the volumes, the parties have met them. Until they cannot be met, there is no rationale for EPA to identify some purported "balance" to identify the appropriate volumes. Congress already weighed these concerns and identified the appropriate balance. Higher volumes can be met, and EPA needs to set standards to meet those volumes. [EPA-HQ-OAR-2015-0111-1953-A2 p.12]

EPA now contends, however, that, because it is "nested" within the advanced biofuel category, EPA should allow any greater increases in biomass-based diesel to compete with other advanced biofuels, finding that such "competition" would assist obligated parties in reducing compliance

costs. 80 Fed. Reg. at 33,102. In so doing, EPA proposes increases of only 100 million gallons for the 2016 and 2017 calendar years.<sup>26</sup> But the statute does not require, suggest or encourage EPA to require biomass-based diesel fuels to compete with other “undifferentiated” advanced biofuels. EPA cites to no factor or legal authority that allows it to eschew the factors in the statute in favor of reducing costs of obligated parties. [EPA-HQ-OAR-2015-0111-1953-A2 p.25-26]

While EPA may contend that the phrase “based on” is ambiguous and, thus, does not preclude EPA from considering other factors, the statute must be interpreted with its purposes in mind. In *API v. EPA*, the D.C. Circuit found that the phrase “based on” did not require “slavish adherence” to the EIA projections when setting the cellulosic biofuel volume under Section 211(o)(7)(D). 706 F.3d at 478. But, here, the statutory provision requires EPA to consider the implementation of the program in prior years and to conduct an analysis of six factors, which are specific and detailed. “The level of specificity” provided by Congress “effectively closes any gap the Agency seeks to find and fill with additional criteria.” *Ethyl Corp. v. EPA*, 51 F.3d 1053, 1060 (D.C. Cir. 1995). “Congress was explicit in its direction. ... EPA has failed to give effect to the unambiguously expressed intent of Congress.” *Id.* EPA cannot use the phrase “based on” to broaden its discretion under this provision. Moreover, EPA’s analysis must be guided by its obligation to ensure that transportation fuel increasingly contains renewable fuel. Further, the statute already provides for flexibility in meeting the volume requirements through a credit program and the deficit carryover. This is all evidence that the volume setting process should not be based on easing compliance for obligated parties. [EPA-HQ-OAR-2015-0111-1953-A2 p.26]

Congress anticipated increases in the diesel fuel market, not to require Biomass-based Diesel to compete with other advanced biofuels. [EPA-HQ-OAR-2015-0111-1953-A2 p.28]

Rather than move the country toward greater energy independence as envisioned by Congress, EPA misconstrues the “nested” aspect of the biodiesel-based diesel volume requirement to contend that any additional volumes would be allowed based on “competition.” But, the implementation of the program in prior years establishes the ability of biomass-based diesel to help meet the advanced biofuel statutory volumes, which are required, and has increased the availability of other volumes. EPA now impermissibly focuses on “competition” and so-called “real-world limitations,” penalizing biomass-based diesel’s success and limiting its further contributions. This is contrary to a statute seeking to reward those successes. [EPA-HQ-OAR-2015-0111-1953-A2 p.32-33]

While EPA’s new proposal refers to allowing for “competition” for other advanced biofuels, EPA is falling into the same errors it did in the November 2013 proposal by trying to set the volumes to provide obligated parties more flexibility in meeting compliance (i.e., purported costs outweighing the benefits). Even if not prohibited by the statute, EPA’s focus on only one factor to decline to increase the required volumes for biomass-based diesel based on these considerations is arbitrary and capricious and counter to the statute’s purposes. See *Ctr. for Biological Diversity v. NHTSA*, 538 F.3d 1172, 1197 (D.C. Cir. 2008). [EPA-HQ-OAR-2015-0111-1953-A2 p.37]

The notion of “competition” among advanced biofuels, and compliance costs, are not specifically included in the listed statutory factors. [EPA-HQ-OAR-2015-0111-1953-A2 p.37]

Here, EPA purports to create a competitive market (which it is not) merely to provide additional flexibility. While EPA says that it wants to provide “flexibility” to the obligated parties towards meeting their obligations, this flexibility is already available to them and does not justify keeping the biomass-based diesel volume at an artificially low level. The system allows for an increase of the biomass-based diesel volume to augment and enhance the overall objectives of RFS2. [EPA-HQ-OAR-2015-0111-1953-A2 p.38]

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26 EPA proposes even less of an increase from 2014 to 2015, presumably because its proposal is late and will not be finalized until toward the end of the year

### **Western Canada Biodiesel Association**

We are writing to urge you to include additional biodiesel growth in the Renewable Fuel Standard (RFS) volumes to be finalized later this year. While the recent proposal for biodiesel under the program was a step in the right direction, we believe that additional growth can be responsibly delivered by the US industry. [EPA-HQ-OAR-2015-0111-0265-A1]

We are keenly aware that that the North American energy industry is highly integrated, and that stability of policy in both our countries is critical to investor confidence in building out alternatives to petroleum fuels. The US biodiesel industry has worked tirelessly to ensure that biodiesel is fully functional in the diesel fuel pool, and the experience of state governments that have mandated mid-level blends of biodiesel show that the federal Renewable Volume Obligation has ample room for growth. [EPA-HQ-OAR-2015-0111-0265-A1]

### **Response:**

A number of biofuel industry commenters including NBB urged EPA to send strong policy signals by finalizing BBD volumes that were significantly higher than what was proposed. Some of these same commenters also disagreed with EPA’s characterization of the nested nature of the advanced and the BBD standards as well as the need to balance among competing interests to ensure that there is room within the advanced volume requirement for other biofuels to potentially develop.

EPA disagrees with these comments. In their comments they often conflate issues related to setting the BBD standard with those associated with setting the advanced biofuel and total renewable fuel standards. The RFS standards are nested within each other, with the BBD standard being a subset of the advanced biofuel standard and the advanced biofuel standard being a subset of the total renewable fuel standard. In exercising our general waiver authority we have set the total renewable fuel standard at the maximum reasonably achievable level considering all potential supplies of biodiesel and renewable diesel as discussed in section II.E. of the final rule. Thus, our final standards already require as much biodiesel and renewable diesel as the market can be expected to provide. Once the total renewable fuel volumes was set at the maximum reasonably achievable level, we then assessed what portion of it was appropriate to be met with advanced biofuels. In exercising our cellulosic waiver authority, we have set the advanced biofuel standard at the reasonably attainable level considering all the potential supplies of advanced biodiesel and renewable diesel as discussed in section II.F of the final rule. While the market can choose to meet the standards in a variety of ways as shown in Table II.G-2. of the final rule, we anticipate that the vast majority of it will be met with advanced biodiesel and

renewable diesel. Once the advanced biofuel volume was established we then could assess what portion of it should be mandated to be BBD. Here the statute prescribes that we consider a variety of factors, which we have done, though it does not limit the factors that we could consider.

We believe the final rule strikes the appropriate balance as envisioned by the RFS statute, between providing a market environment where the development of other advanced biofuels is incentivized, while also realizing the benefits associated with increasing the required volume of BBD. Given our final volumes for advanced biofuel in these years, setting the BBD standard in this manner continues to allow a considerable portion of the advanced biofuel volume to be satisfied by either additional gallons of BBD or by other unspecified types of qualifying advanced biofuels (see Table III.D.4-1 in the final rule). While we have not yet determined the applicable volume of total advanced biofuel for 2017, we anticipate the continued growth in the advanced biofuel standard such that the advanced standard will provide an incentive for both increasing volumes of BBD and other advanced biofuels. We believe maintaining this unspecified or other advanced biofuel volume will provide the incentive for development and growth in other types of advanced biofuels. At the same time, allowing the portion of the advanced biofuel volume requirement that is dedicated to BBD to increase concurrently with the increase in the overall advanced biofuel volume requirement will contribute to market certainty for both the BBD industry and the renewable fuels program in general.

In establishing the BBD and cellulosic standards as nested within the advanced biofuel standard, Congress clearly intended to support development of BBD and cellulosic biofuels, while also providing an incentive for the growth of other non-specified types of advanced biofuels. That is, the advanced biofuel standard provides an opportunity for other advanced biofuels (advanced biofuels that do not qualify as cellulosic biofuel or BBD) to be used to satisfy the advanced biofuel standard after the cellulosic biofuel and BBD standards have been met. Indeed, since Congress specifically directed growth in BBD only through 2012, leaving development of volume targets for BBD to EPA for later years while also specifying substantial growth in the cellulosic and general advanced categories through 2022. We believe that Congress clearly intended for EPA to evaluate the appropriate volume requirement for BBD within the advanced biofuel standard as described in CAA section 201(o)(2)(B)(ii). We note that Congress could have set ambitious targets for BBD for years after 2012, as it did for cellulosic biofuel, but did not do so.

When viewed in a long-term perspective, BBD can be seen as competing for investment dollars with other types of advanced biofuels for participation as advanced biofuels in the RFS program. In addition to the long-term impact of our action in establishing the BBD volume requirements, there is also the potential for short-term impacts during the compliance years in question. Although we are setting the advanced standard at a level that reflects growth in volumes that is reasonably attainable, we are not setting the standard at the maximum theoretical level that reflects the highest potential for domestic production plus import. As described in Section II.F, there is substantial uncertainty, especially regarding import volumes, that cautions against such an approach. Therefore, by setting the BBD volume requirement at a level lower than the advanced biofuel volume requirement (and lower than the expected production of BBD to satisfy the advanced biofuel requirement), we are allowing the potential for some competition between BBD and other advanced biofuels (including imported advanced biofuels) to satisfy the advanced

biofuel volume standard. We believe that this competition will also help to encourage, over the long term, the development and production of a variety of advanced biofuels that will be needed for the long-term growth of RFS volumes. However, in the short term it could also result in lower cost advanced biofuels for consumers.

We also disagree with comments that the consideration of competition within the advanced biofuel pool between BBD and other advanced biofuels, and the potential for lower compliance costs cited in our proposed rule, are not included in the list of factors in 42 U.S.C. § 7545(o)(2)(B)(ii)(V) that EPA is to consider in establishing the volume requirement for BBD. EPA respectfully disagrees. Three of the factors specified in the statute are indeed related to the considerations discussed above. The “impact of the use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods” referenced in CAA 211(o)(2)(B)(ii)(V) is relevant, since we believe a diverse advanced biofuel pool will potentially result in decreased costs associated with the use of advanced biofuels and, consequently, decreased costs to consumers. Similarly, the “impact of the production and use of renewable fuels on the environment” referenced in CAA 211(o)(2)(B)(ii)(I) is relevant, since we believe that incentivizing research, development, and commercialization of a variety of advanced biofuels could lead to the development of biofuels that have more benign effects on the environment than those that are currently available. As noted above, “the impact of renewable fuels on the energy security of the United States” referenced in CAA 211(o)(2)(B)(ii)(II) is relevant, since we believe that incentivizing the development of a diverse array of biofuels will increase energy security. Finally, we note that the list of factors specified in the statute is not exclusive; that is EPA is not precluded from considering additional factors that advance the statutory objectives when it sets applicable volumes for years not specified in the statute.

Finally, we disagree with the commenter who asserted that we continue to implement the program in a manner that places a ceiling on the renewable fuels industry, a ceiling well below the floors Congress intended to set. With the considerations discussed in sections III.D.1-3 of the final rule in mind, as well as our analysis of the factors specified in the statute and described below, and in coordination with the Departments of Agriculture and Energy, we are finalizing the applicable volume of BBD at 1.9 billion gallons for 2016 and 2.0 billion gallons for 2017. These volumes are higher than the 1.8 and 1.9 billion gallons proposed for 2016 and 2017, and reflect the fact that we are finalizing an increase in the advanced biofuel requirement for 2016, from the 3.4 billion gallons we proposed, to 3.61 billion gallons in the final rule. We have decided to dedicate a portion of this increase to BBD, and leave the remainder as unspecified advanced biofuel, and thus available for any advanced biofuel to fill, for the same reasons reflected in the proposal and this final rule for establishing the BBD volume requirements: to provide additional support for the BBD industry while allowing room within the advanced biofuel volume requirement for the participation of non-BBD advanced fuels. Although we are not establishing an advanced biofuel applicable volume for 2017 at this time, we anticipate that the 2017 advanced biofuel requirement will be larger than the 2016 requirement, and the final 2017 BBD volume requirement reflects this fact. We believe this final rule strikes the appropriate balance, between providing a market environment where the development of other advanced biofuels is incentivized, while also realizing the benefits associated with increasing the required volume of BBD.

Additional relevant comments and our responses can be found in RTC sections 3.4, 3.4.3, 7 and 8.

### **3.3.2 Applicable Biomass-Based Diesel Volume for 2014**

#### **Comment:**

#### **456Archer Daniels Midland Company (ADM)**

Previously, ADM encouraged EPA to use its discretion to increase the biodiesel volume to 1.7 billion gallons in 2014. EPA has instead proposed to set the 2014 level based on actual production. However, EPA's calculation appears to understate those volumes and should be corrected. [EPA-HQ-OAR-2015-0111-2262-A1 p. 2]

#### **California Biodiesel Alliance (CBA)**

For 2014, the EPA proposed to use its waiver authority to reduce the 3.75 billion statutory mandate set by Congress for the advanced category, and rather, set the advanced and biomass-based diesel based on "available RIN supply." CBA disagrees with this approach for the reasons spelled out in the NBB comments (Inappropriate use of waiver authority, EPA's lack of consideration of the prior-year RINS, improper consideration of "RIN supply" as opposed to "actual production," etc.) [EPA-HQ-OAR-2015-0111-1910-A1, pp.1-2]

Based on the actual production of biomass-based diesel, EPA should set the 2014 biomass-based diesel RVO at 1.8 billion and should hold the statutory volume for advanced at 3.75 billion. [EPA-HQ-OAR-2015-0111-1910-A1, p.2]

#### **Crimson Renewable Energy LP**

Based on the *actual production* of biomass-based diesel, EPA should set the 2014 biomass-based diesel RVO at 1.8 billion and should hold the statutory volume for advanced at 3.75 billion. [EPA-HQ-OAR-2015-0111-1823-A1 p.1]

#### **Governors' Biofuels Coalition**

Despite meeting or exceeding the RFS Biomass-based diesel volume requirements every year, the proposed biomass-based diesel RVO of 1.28 billion gallons is less than the amount produced in 2013. This level is unnecessarily low and will stifle the growth and job creation potential of the industry, which is on track to produce nearly 2 billion gallons of biodiesel in 2014. [EPA-HQ-OAR-2015-0111-1722-A1 p.6]

#### **Imperium Renewables and Renewable Biofuels**

Toward that end, the recent draft proposal for the BBD 2014-2017 volumes does send a more positive signal to the markets, and industry appreciates the difficult process EPA has undertaken to withdraw the earlier proposal and produce a proposal that better reflects the industry's capabilities. However, the proposed rule still falls well short of the demonstrated production levels of domestic producers. [EPA-HQ-OAR-2015-0111-2043-A1 p.2]

## **Phillips 66 Company**

The API/AFPM comments construct the argument that EPA is limited to setting the standards for 2014, 2015, and 2016 to no higher than 1.28 billion gallons. In fact, this volume is what EPA proposed for 2014 and 2015 in the proposed rule published in November, 2013. EPA acknowledged in that proposal that “the statute requires that we finalize these biomass-based diesel volume requirements *no later than 14 months* before the first year for which that volume requirement will apply.” We agree that given the statutory language, EPA cannot increase the biomass-based diesel standards prior to 2017. [EPA-HQ-OAR-2015-0111-2039-A1 p.2]

## **Shell Oil Products US**

The 14 month lead time requirement serves an important purpose. This provision applies to years where the volumes are not listed in the statute and therefore neither producers nor anyone else in the supply chain knows what the requirement will be. The purpose of the 14 month lead time requirement is to provide all parties in the supply chain the opportunity to plan their compliance and make investments, if necessary. [EPA-HQ-OAR-2015-0111-2716-A2 p.5]

## **Response:**

Some biofuel stakeholders commented that EPA should finalize a BBD volume requirement of 1.8 billion gallons for 2014 and should include carryover RINs in determining supply for the year. Other biofuel industry commenters indicated the EPA had incorrectly calculated the actual supply for 2014. Oil industry commenters argued that EPA was precluded from finalizing a BBD volume higher than 1.28 billion gallons for 2014 since it did not provide notice to obligated parties as required under the statute since we failed to finalize 14 months from the time that the requirement applies.

We do not agree with comments suggesting we finalize a higher BBD volume requirement than 1.63 for 2014. As we did for advanced and total renewable fuel in 2014, we believe that it is appropriate to establish the 2014 volume requirements of BBD to reflect actual supply. Therefore, we are finalizing a BBD applicable volume requirement of 1.63 billion gallons for 2014, which represents our estimate of actual BBD supply in 2014. We define supply for 2014 as the number of BBD RINs generated in 2014 that were available for compliance. (This focus on RINs generated in 2014 is consistent with our general approach to carryover RINs for this rulemaking, as described in Section II.H of the final rule and Section 6.1.) Supply would thus include RINs that were generated for renewable fuel produced or imported in 2014 as recorded in the EMTS, minus any RINs that have already been retired or would be expected to be retired to cover exports of renewable fuels or for any purpose other than compliance with the RFS percentage standards. RINs that have already been retired for such circumstances as RINs being invalid, spills, corrected and replaced RINs, etc. are recorded in EMTS on an ongoing basis. However, complete information on RINs that are retired to cover exports of renewable fuel and foreign generated renewable fuel that is exported to another country is not available through EMTS until after the 2014 compliance demonstration deadline. Since compliance cannot occur until the standards are set, we are using biodiesel export information from EIA for 2014 to estimate the number of 2014 BBD RINs that will be retired to satisfy obligations associated with exported BBD.

As we previously stated in RTC section 3.3 and 3.5.2 (and discussed in in section 10.2.2 of this RTC), we disagree with those commenters who suggested the EPA was prohibited from increasing the biomass-based diesel standard above 1.28 billion for 2014 because obligated parties did not have notice of EPA's intention to increase the biomass-based diesel standard above this amount during the 2014 production year. We believe that obligated parties were on notice that the BBD volume requirement could be higher than 1.28 billion gallons. First, in proposing 2014 volumes, in the November 2013 NPRM we said that we believed 1.60 billion gallons of biomass-based diesel was the upper-end of BBD volume range for use in deriving the proposed total renewable fuel volume for 2014. While we proposed a 2014 BBD volume requirement of 1.28 billion, we also requested comment on alternative approaches and higher volumes. We also noted in the NPRM that total biodiesel production by the end of 2013 could be as high as 1.7 billion gallons and that the facilities contributing to this production collectively had a capacity of well over 2 billion gallons. Thus, stakeholders were certainly on notice by November 2013 that a final BBD volume requirement greater than 1.28 billion gallons was possible and could be used in deriving the final 2014 BBD standard. Furthermore, they were provided with notice of the precise volume requirement being finalized today through the June 10, 2015 NPRM, and parties will have until August 1, 2016, more than a full year from that NPRM, to submit their compliance demonstrations for 2014.

Another commenter stated that the 14 month lead time requirement serves an important purpose in those years where the volumes are not listed in the statute providing all parties in the supply chain the opportunity to plan their compliance and make investments. EPA acknowledges the missed statutory deadlines which have caused us to set the 2014 and 2015 standards at the levels of actual supply. We acknowledge that investors, producers, distributors, and retailers seek certainty in the standards for decision-making. With this rulemaking, we place the standards back on track, and seek to maintain this for future annual standards to alleviate many of the issues presented by commenters due to untimely standard setting.

### **3.3.3 Applicable Biomass-Based Diesel Volumes for 2015-2017**

#### **Comment:**

#### **Bates White**

The EPA's current proposal for biodiesel volumes of 1.9 billion gallons in 2017, however, does not represent a particularly significant change from the status quo, as it represents just a 4 percent annual growth rate relative to 2014 actual volumes.

#### **California Biodiesel Alliance (CBA)**

CBA is very concerned with the RFS proposal for advanced and biomass-based diesel for 2015-2017. The biodiesel industry has consistently demonstrated its ability to expand production, year after year. In fact, EPA acknowledges in the RFS Proposal that the proposed volumes for biomass-based diesel through 2017 remain well below domestic capacity. In 2013, the biodiesel industry produced approximately 1.8 billion gallons of fuel, and would have easily produced 2.1 billion in 2014 but for the EPA's action in 2013. 2015 was off to a poor start as a result of EPA's continued delay, but in May and June, the two months since the announcement of the current

RFS proposal, the industry produced or imported 169 and 176 million, respectively, which can be annualized to 2.1 billion gallons. [EPA-HQ-OAR-2015-0111-1910-A1, p.2]

Again, CBA objects to EPA's methodology for the reasons set forth by NBB in its comprehensive comments (Improper encouragement of "competition" amongst advanced biofuels, cost of compliance, incorrect interpretation of "nesting" provision, arbitrary assessment of 6 factors, etc.) It is particularly troubling that the EPA purports to set the standards based on "maximum achievable" volumes elsewhere in the RFS program, and then set the biomass-based diesel volume at a minimum volume, arguing somehow that doing so would actually benefit the overall program. The opposite is true. Since the industry already has capacity to more than meet the proposed increases, there is simply little incentive to continue to invest in an uncertain, and clearly slow moving, future. [EPA-HQ-OAR-2015-0111-1910-A1, p.2]

We ask that you reconsider the biodiesel volumes in your May proposal and finalize stronger standards, particularly for 2016 and 2017. The biodiesel industry has previously requested volumes of 2.4 billion gallons in 2016 and 2.7 billion gallons in 2017. While we continue to believe those volumes are readily achievable and sustainable, particularly with rising imports, I ask now that you set the standards for not less than 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-1910-A1, p.3]

#### **Crimson Renewable Energy LP**

We ask that you reconsider the biomass-based diesel volumes in your May proposal and finalize stronger standards, particularly for 2016 and 2017. The biodiesel industry has previously requested volumes of 2.4 billion gallons in 2016 and 2.7 billion gallons in 2017. While we continue to believe those volumes are readily achievable and sustainable, particularly with rising imports, I ask now that you set the standards for not less than 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-1823-A1 p.3]

#### **Darling Ingredients Inc.**

Darling submits comments concerning the proposed obligations proposed for Biomass Based Diesel (BBD) and Advanced Biofuel for both 2016 and 2017. While Darling is encouraged that the proposed rule substantially increases those volumes previously proposed, we believe the proposed volumes for both BBD and Advanced Biofuel are inadequate and should be further increased as the proposed volumes neither (1) fulfill the clearly defined goals established by the EPA in its current written proposal nor (2) provide adequate volumes using the statistical information provided by the EPA in its current written proposal. All the information contained in these comments comes directly from the current proposed rule submitted by the EPA. [EPA-HQ-OAR-2015-0111-1929-A1 p.1]

Darling agrees with both the perspective of the EPA regarding the intent of Congress to grow Advanced Biofuels and that it should take into consideration the ability of the market to respond to the Proposed Volumes. indeed the Proposed Rule does provide for growth in both BBD and Advanced Biofuels for 2016 and 2017. However, Darling contends the EPA failed to propose volumes for both BBD and Advanced Biofuels that are consistent with its own interpretation of the statute. [EPA-HQ-OAR-2015-0111-1929-A1 p.2-3]

The EPA argues persuasively that BBD cannot create adequate volume to supplant the shortfall in Cellulosic for 2016 and 2017 which are VOLUMES SPECIFIED BY THE STATUTE (emphasis added). The EPA also questions whether adequate supplies of Brazilian sugar cane ethanol will be available to meet the VOLUMES SPECIFIED BY THE STATUTE. While both of these may be valid arguments for the EPA to exercise its waiver authority under the statute NEITHER is a reason to limit the achievable volume of BBD. Darling believes the EPA has incorrectly used the argument it has made for exercising its waiver authority in determining the volumes of BBD and Advanced Biofuels for 2016 and 2017. [EPA-HQ-OAR-2015-0111-1929-A1 p.3]

The proposed rule sets out its recommended approach in setting standards for 2015-2016. Since the volume obligations established for 2014 and 2015 are simply set at the actual (2014) and estimated (2015) RIN's available (expressed in gallons of BBD), Darling agrees it was appropriate for the EPA to consider exports in determining mandated volumes. History cannot be changed. However, Darling argues that exports of BBD should not be considered in establishing the volume mandates for 2016 and 2017. The issue of exports is NOT identified as a criteria to be used by the EPA in determining BBD volumes. The proposed rule appears silent on whether the EPA is factoring exports in its determination of BBD volumes, but in the Proposed Rule when discussing Current and Future shortfalls in supply the EPA states, '...the market supplied 1.63 billion gallons...of BBD (referring to 2014). That statement is incorrect as the market supplied 1.705 billion gallon in 2014 (production plus imports) with a small volume being exported resulting in a net supply of 1.63 billion gallons. [EPA-HQ-OAR-2015-0111-1929-A1 p.5]

Darling believes, supported by a clear policy direction established by both the plain meaning of the statute and EPA's interpretation of the statute as well as EPA's clear understanding of both the historical productivity of the BBD industry and its current/future capabilities, that the Proposed Rule fails to take advantage of the current Biomass Based Diesel industry infrastructure to meet the clearly defined goals of the statute. BBD is available in quantities greater than those proposed for 2016 and 2017 and the industry has demonstrated a proven track record of achieving higher volume growth. The volumes currently proposed by the EPA do not even attain the level of historical production by the industry let alone provide a growth path to an industry that has proven its ability to provide more cost-effective, renewable fuel. Simply stated the current proposed volumes for both BBD and Advanced Biofuel fail to comport with the rationale stated by the EPA for deriving those volumes. The logic used for invocation of the waiver authority is not rational and should not be used to limit the mandates for BBD or Advanced Biofuels. Indeed the EPA has an opportunity to support the supply of an Advanced Biofuel accomplishing all of the objectives of Cellulosic while maintaining Advanced Biofuel mandates that continue to stimulate further production of Cellulosic. There are no COMPETING FACTORS and it is clear the EPA should raise the volumes for both Biomass Based Diesel and Advanced Biofuels conforming them to both the rationale and the facts established by the EPA IN ITS OWN PROPOSED RULE. [EPA-HQ-OAR-2015-0111-1929-A1 p.6]

The EPA clearly establishes in the Proposed Rule that all elements of the supply chain exist to provide substantially greater volumes than those proposed in the rule. [EPA-HQ-OAR-2015-0111-1929-A1 p.8]

## **Imperium Renewables and Renewable Biofuels**

Toward that end, the recent draft proposal for the BBD 2014-2017 volumes does send a more positive signal to the markets, and industry appreciates the difficult process EPA has undertaken to withdraw the earlier proposal and produce a proposal that better reflects the industry's capabilities. However, the proposed rule still falls well short of the demonstrated production levels of domestic producers. [EPA-HQ-OAR-2015-0111-2043-A1 p.2]

## **Indiana Soybean Alliance and American Soybean Association**

The EPA should implement the RFS in a way that helps build our domestic industry, and doing so requires strong policy signals that promote fulfilling volume requirements with domestically produced biofuels to the greatest extent possible. Increasing the biomass-based diesel requirements relative to the overall Advanced Biofuels requirements is a way to accomplish that mission. [EPA-HQ-OAR-2015-0111-A1 p.2]

Wherever possible, EPA should seek to promote domestic biofuel sources to fulfill the RFS volume requirements. However, when determining the appropriate volume standards for biomass-based diesel, the EPA must also account for the likelihood of increased imports of biodiesel from Argentina due to some factors beyond the RFS volume requirements. [EPA-HQ-OAR-2015-0111-A1 p.2]

reconsider the biomass-based diesel standards in the Proposed Rule and finalize stronger standards, particularly for 2016 and 2017. [EPA-HQ-OAR-2015-0111-A1 p.3]

## **Iowa Biodiesel Board (IBB) and Iowa Soybean Association (ISA)**

Your decision on this matter has broad implications. Again, I ask that you set a final rule that is closer to the industry's initial request of 2.4 billion gallons for 2016, and 2.7 billion gallons for 2017. We are more than capable of achieving and using these volumes. [EPA-HQ-OAR-2015-0111-1942-A1 p. 2] [EPA-HQ-OAR-2015-0111-1043, pp./ 45-46]

## **National Biodiesel Board**

Congress did not require this to be an annual review process. 42 U.S.C. § 7545(o)(2)(B)(ii). It referenced the operation of the program "during calendar years specified in the tables," indicating that EPA has authority to set the volumes over a multi-year period after the years listed. Id. [EPA-HQ-OAR-2015-0111-1953-A2 p.23]

NBB does not dispute that other advanced biofuels should participate in the program, but EPA has chosen to keep the volumes low rather than strive to achieve the volumes sought by Congress. EPA does not explain why it cannot provide greater increases in biomass-based diesel and further increase the advanced biofuel volume to address its purported concerns about ensuring "other" advanced biofuels. Keeping a lower overall advanced biofuel volume when there is more than enough capacity of biodiesel does not meet the goals of Congress or provide the certainty for investors that EPA is purporting trying to create for other biofuels. [EPA-HQ-OAR-2015-0111-1953-A2 p.27]

Biomass-based diesel has been the only successful advanced biofuel produced in the United States on a commercial basis, yet rather than continue to promote its production, as required, EPA has artificially kept the biomass-based diesel numbers low. It provides no support or explanation why only 100 million gallon annual increases (and only 8 million gallon monthly increases) are appropriate given the ability of the industry to grow at much higher levels and EPA's prior assessment that an almost 300 million gallon increase is appropriate based on statutory factors. EPA fails to answer how this minimal increase supports growth when the volumes are substantially less than production capacity, and requires less than 10 million gallons more a month to achieve, a less than 5 percent increase. [EPA-HQ-OAR-2015-0111-1953-A2 p.27-28]

In short, EPA is supposed to ensure the minimum statutory volumes, not EPA's assessment of an appropriate volume. As EPA recognized, Congress intended the mandates to increase investment and diversification to make it cheaper and more attractive to use renewable fuels, not through EPA's arbitrary setting of volumes at levels it believes to be most economic. EPA admits that the proposed volumes are "at levels below what we anticipate can actually be produced and used for compliance." 80 Fed. Reg. 33,108 n.19. EPA fails to grasp that the market will not reach what it does not require. EPA seems to think the supply will cause demand when the fundamental logic of any mandate is the opposite, that is that the demand will cause the supply response. Higher volumes are "within reach of the market." *Id.* at 33,118. By failing to set requirements at levels established by Congress, but rather setting those that are "below what... can actually be produced" EPA is sending a clear market signal of reduced demand and therefore causing reduced supply. Thus, EPA is bringing in consideration of factors outside those specified by Congress, giving them precedence over all other considerations. If not prohibited, at a minimum, such a proposal is an about face from its prior determinations, wholly inconsistent with the statutory scheme, and arbitrary and capricious. [EPA-HQ-OAR-2015-0111-1953-A2 p.28]

Congress intended to promote increasing volumes of advanced biofuels including biomass-based diesel. "[I]ncreasing and extending the existing RFS—with specific incentives for the production of biofuels from new sources of renewable biomass—is required, to provide market certainty to both the existing ethanol industry and the next generation of advanced biofuel producers." S. Rep. No. 110-65 at 3. The expanded RFS "represents a major advance in our commitment to renewable, home grown fuels that reduce emissions, mitigate global warming, and improve farmer income. This is a strong market signal to ethanol, biodiesel, and other renewable energy investors that the Federal Government supports fuels that are more environmentally friendly and help to reduce our dependence on oil." 153 Cong. Rec. S15421, S15429 (Dec. 13, 2007) (statement of Sen. Durbin). Congress acknowledged that biodiesel, as a domestic advanced biofuel with numerous available and potential feedstock sources, more than meets these goals. See 153 Cong. Rec. H2233-02, H2233 (Mar. 6, 2007) (statement of Rep. King) ("And so our approach here needs to be the expansion and the continued promotion of these energy supplies that we have that we can develop here in the United States. The most obvious of those are the biodiesel components, which have been expanding rapidly here in the United States, ...."). [EPA-HQ-OAR-2015-0111-1953-A2 p.28-29]

Indeed, Congress intended to expand the RFS to include increased participation by the diesel transportation fuel pool where biomass-based diesel is the advanced biofuel substitute.<sup>30</sup> [EPA-HQ-OAR-2015-0111-1953-A2 p.29]

The inclusion of credits for “additional renewable fuel” further evidences congressional intent to increase use of biofuels beyond motor vehicles and into those markets dominated by diesel fuel products. [EPA-HQ-OAR-2015-0111-1953-A2 p.30]

Legislative history also shows that Congress intended EPA’s authority to result in continued volume increases in biomass-based diesel through 2022 balancing all of the considerations outlined in the statute. [EPA-HQ-OAR-2015-0111-1953-A2 p.30]

EPA previously pointed to the “trend” in the biomass-based diesel statutory volumes for 2009-2012 as supporting an increase of 280 million gallons (or 28 percent) from the required 2012 volume for 2013. 77 Fed. Reg. at 59,461.35 If Congress intended to simply let biomass-based diesel remain underutilized throughout the program and let the overall advanced biofuel volume drive the market for diesel fuel substitutes, it would not have needed to give EPA authority to set the biomass-based diesel volumes starting in 2013. Similarly, here, the modest statutory volumes for biomass-based diesel are well under current capacity, and biodiesel production has exceeded the mandated volumes each year.<sup>36</sup> [EPA-HQ-OAR-2015-0111-1953-A2 p.31]

Despite the proven production and available capacity of biomass-based diesel, EPA is expecting to increase cellulosic biofuel production by 221 percent and almost 100 percent in 2015 and 2016, respectively, but only purports to provide a 4-6 percent increase each year for biomass-based diesel (see table below).<sup>38</sup> [EPA-HQ-OAR-2015-0111-1953-A2 p.32] [The table can be found on page 32 of docket number EPA-HQ-OAR-2015-0111-1953-A2]

In the new proposal, “EPA’s primary assessment of the statutory factors for years 2015 through 2016” is based on its presumption that the proposed advanced biofuel volume requirements for 2015–2016 “reflect the maximum volumes of all advanced biofuels (including BBD) that can reasonably be expected to be produced and consumed.” 80 Fed. Reg. at 33,136 (emphasis added). According to EPA, because the biomass-based diesel requirement is nested within the advanced biofuel volume requirement, “the advanced biofuel volume requirement will determine the level of BBD production and import.” Id. at 33,137. In other words, under EPA’s assessment, “the same volume of BBD will be produced and imported regardless of the BBD applicable volumes that we require for 2015–2016.” Id. As described above, this is a significant change from EPA’s prior interpretation where it found that increasing the biomass-based diesel volume can better ensure the advanced biofuel requirement is met. It also is inconsistent with the statute that makes clear Congress sought to increase the renewable fuel use in the diesel fuel pool. [EPA-HQ-OAR-2015-0111-1953-A2 p.35]

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29 This can be contrasted against the proposed increase in the cellulosic biofuel requirements by 221% and almost 100% in 2015 and 2016. See Section V.B.3.

30 While other advanced biofuels continue to emerge (including cellulosic diesel), sugarcane ethanol is the only other commercially available advanced biofuel available on a larger scale that EPA has identified to fill the advanced biofuel requirement. However, sugarcane ethanol, like conventional ethanol, is not a substitute for diesel fuel. Moreover, it is an imported fuel, rather than domestically produced.

36 In finalizing the 1.28 billion gallons for 2013, EPA noted: “Others expressed their belief that Congress intended for the statutory minimum volume of 1.0 billion gallons to be used to set the applicable volume for all years after 2012, with higher volumes being required only if EPA could demonstrate that those higher volumes were already being produced.” 77 Fed. Reg. at 59,460 (emphasis added). This is incorrect. EPA was to demonstrate that the factors support increasing volumes, which they do.

38 As shown, this does not represent a real increase for biomass-based diesel.

### **National Renderers Association (NRA)**

For biomass-based diesel, we strongly recommend that EPA adopt RFS volume levels of at least 2 billion gallons annually in 2015 and 2016, and 2.3 billion gallons in 2017. The industry has the ability and capacity to exceed the RFS volumes in the agency's proposal, as demonstrated by the fact that production has consistently outpaced RFS volumes since the start of the program.

Notably, EPA's proposal would only grow volumes to 1.9 billion gallons by 2017, which is just slightly higher than the industry's actual production of more than 1.8 billion gallons in 2013.

[EPA-HQ-OAR-2015-0111-2496-A1 p.2]

### **New Leaf Biofuel, LLC**

Between biodiesel, renewable diesel, sugarcane ethanol, and all other advanced fuels, foreign and domestic, the market is large enough for the EPA to establish a minimum of 1.8 billion gallons of biomass-based diesel in 2015, with at least 300 million gallon increases in 2016 and 2017. [EPA-HQ-OAR-2015-0111-1909-A1,p.3]

### **Northern Canola Growers Association**

Given the many benefits that it provides, EPA should reconsider the biodiesel standards in the Proposed Rule and finalize stronger standards, particularly for 2016 and 2017. The biodiesel industry has previously requested volumes of 2.4 billion gallons in 2016 and 2.7 billion gallons in 2017. While those volumes are readily achievable and sustainable, particularly with rising imports, at a minimum EPA should set the standards at not less than 2 billion gallons for 2016 and 2.3 billion gallons for 2017.[EPA-HQ-OAR-2015-0111-2036-A1 p.3]

Biodiesel is an American success story, and we strongly encourage you to continue the momentum by including these modest volume increases for Biomass-based diesel in the Final Rule. [EPA-HQ-OAR-2015-0111-2036-A1 p.3]

### **Phillips 66 Company**

The API/AFPM comments construct the argument that EPA is limited to setting the standards for 2014, 2015, and 2016 to no higher than 1.28 billion gallons. In fact, this volume is what EPA proposed for 2014 and 2015 in the proposed rule published in November, 2013. EPA acknowledged in that proposal that "the statute requires that we finalize these biomass-based diesel volume requirements no later than 14 months before the first year for which that volume requirement will apply." We agree that given the statutory language, EPA cannot increase the biomass-based diesel standards prior to 2017. [EPA-HQ-OAR-2015-0111-2039-A1 p.2]

Notwithstanding the 14 month lead-time requirement for setting the biomass-based diesel standard, the proposed BBD volume of 1.8 billion gallons in 2016 is more reasonable than the advanced biofuel standard of 3.4 billion gallons that is likely only achievable through additional, significant increased volumes of biomass-based diesel. [EPA-HQ-OAR-2015-0111-2039-A1 p.4]

### **San Diego Regional Clean Cities Coalition**

The San Diego Regional Clean Cities Coalition encourages the EPA increase the biomass-based diesel volume under the Renewable Fuel Standard (RFS) to production of no less than 2 billion gallons in 2016 and no less than 2.3 billion gallons in 2017. Low carbon biodiesel from corn oil, waste greases, and animal fats will make a significant contribution towards California's Low Carbon Fuel Standard compliance if there is sufficient production and infrastructure. [EPA-HQ-OAR-2015-0111-1719-A1 p. 1]

Biodiesel is key to meeting our sustainability goals, and a strong RFS is needed to support continued growth in the industry. SDRCCC encourages EPA to increase the biomass-based diesel volume standard to the 2016 production level of 2 billion gallons and the 2017 production level of 2.3 billion gallons. [EPA-HQ-OAR-2015-0111-1719-A1 p. 1]

### **South Dakota Soybean Association**

SDSA urges you to increase the biomass-based diesel volumes for 2016 and 2017 to 2 billion and 2.3 billion gallons, respectively. [EPA-HQ-OAR-2015-0111-1308-A1 p.1]

I urge you to increase the biomass-based diesel volumes for 2016 and 2017 to 2 billion and 2.3 billion, respectively. [EPA-HQ-OAR-2015-0111-1308-A1 p.2]

### **Sprague Operating Resources LLC**

We ask that you reconsider the biodiesel standards in your May proposal and finalize stronger standards, particularly for 2016 and 2017. The biodiesel industry has previously requested volumes of 2.4 billion gallons in 2016 and 2.7 billion gallons in 2017. While we continue to believe those volumes are readily achievable and sustainable, particularly with rising imports, we ask now that you set the standards for not less than 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-1924-A1 p.2]

### **St. Louis Clean Cities Program**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 49.]

I want to thank you for the most recent proposal. It is a step in the right direction, and it provides continued growth. But I feel it doesn't go far enough. The proposed increase for '17 is only slightly higher than the 1.8 billion that was produced in '13. For the final rule, I'm asking that you increase that to at least 2.4 for '16 and 2.7 for '17, or even more. I know the biodiesel industry can handle it, not to mention we're seeing sharp increases in imported biodiesel from places like Argentina that qualify for this RFS. I'd like to ask for some safeguards that gives the U.S. biodiesel an upper hand over foreign imports. Remember jobs.

### **U.S. Canola Association (USCA)**

EPA should reconsider the biodiesel standards in the Proposed Rule and finalize stronger standards, particularly for 2016 and 2017. The biodiesel industry has previously requested volumes of 2.4 billion gallons in 2016 and 2.7 billion gallons in 2017. While those volumes are readily achievable and sustainable, particularly with rising imports, at a minimum EPA should

set the standards at not less than 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-1819-A1 p.4]

### **Unilever**

However, we are concerned with the proposal for 2016 as it represents a 14% increase from projected 2015 biodiesel usage. [EPA-HQ-OAR-2015-0111-2273-A2 p.1]

### **Union of Concerned Scientists**

Our specific recommendations include:

Reduce the growth of bio based diesel (BBD) to 30 million gallons (Mgal) in 2015, 29 Mgal in 2016 and 25 Mgal in 2017, consistent with the attached analysis of feedstock growth. [EPA-HQ-OAR-2015-0111-2260-A1 p.2]

Generally the arguments in section III on the proposed BBD volumes are well thought out and clearly explained. In particular, it is important that a significant portion of the advanced mandate should be left open to competition, even if current market conditions suggest BBD is the most likely source of additional advanced RIN generation. While the motivation to provide the biodiesel industry the predictability of a steadily growing mandate is reasonable, the proposed rate of growth of 100 Mgal a year is too high and gives inadequate consideration to the long term trends in BBD feedstock availability (discussed below). A more sustainable growth rate of 30 million gallons (Mgal) in 2015, 29 Mgal in 2016 and 25 Mgal in 2017, consistent with the attached analysis of feedstock growth (Borsen 2015) will provide a baseline rate of stable and sustainable growth for the BBD industry while also providing an incentive to other advanced biofuel producers and preserving flexibility in case market conditions change. As is discussed below, a slower rate of growth for BBD mandates will not prevent BBD from providing a significant share of advanced biofuels needed to meet the advanced mandate if market conditions support this, as it has done in recent years.[EPA-HQ-OAR-2015-0111-2260-A1 p.3] [The commissioned study can be found in docket number EPA-HQ-OAR-2015-0111-2260-A2]

One of the biofuel market dynamics that has emerged clearly over the last few years is the competition between BBD and E85 to provide compliance for advanced and renewable mandates that cannot be met within E10 blends. This competition has been illuminated by several studies from Scott Irwin at the University of Illinois published on FarmDocDaily. In light of this competition between E85 and BBD, it seems likely that absent exercise of general waiver authority, a 2016 renewable mandate of 18 Bgal (the statutory minimum) plus the cellulosic volume, would result in a dramatic increase the use of biodiesel rather than steady progress on availability and competitive pricing of higher ethanol blends. As discussed earlier, the supply of BBD is already straining to meet the non-cellulosic advanced mandate, and is clearly insufficient to increase by a further 667 Mgal to make up for the missing 1 Bgal worth of D6 RINs that would be required absent exercise of general waiver authority. Such a dramatic increase in the use of biodiesel would be destabilizing and not supportive of steady growth of fuel production and distribution capacity over time. In this sense, the availability of additional corn ethanol in the US is irrelevant if the markets will not support its use as fuel. [EPA-HQ-OAR-2015-0111-2260-A1 p.6]

Thus EPA is justified in using the inadequate supply argument to reduce the 2016 mandate, although it is the supply of BBD rather than ethanol that is inadequate. EPA should determine the extent of the general waiver to support the maximum realistic potential use of ethanol in various blends while limiting spillover that increases demand for BBD and other biofuels beyond available supplies (taking feedstocks into consideration). This should provide fuel market participants the assurance that as infrastructure to distribute ethanol at cost effective prices is deployed, EPA will administer the RFS standards in a manner that supports the sale of these higher blends. EPA's arguments and analysis are generally sound, and quantitatively the proposal seems quite aggressive in its support for higher ethanol blends. [EPA-HQ-OAR-2015-0111-2260-A1 p.6]

### **Western Canada Biodiesel Association**

We encourage you to reconsider the biodiesel standards in your May proposal and finalize stronger standards, particularly for 2016 and 2017. We support the proposal of the US biodiesel industry for volumes of not less than 2 billion gallons for 2016 and 2.3 billion gallons for 2017.[EPA-HQ-OAR-2015-0111-0265-A1]

### **Western Dubuque Biodiesel**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 217-219.]

Our company and its 557 local investors is disappointed in the EPA's proposed biodiesel RVO for 2015 and '16. EPA's most recent proposal is a step in the right direction, provides some growth for biodiesel, but it does not go far enough. The proposed increase to 1.9 billion gallons in 2017 is only slightly higher than the biodiesel industry's record production of 1.8 billion gallons in 2013. For the final rule, I'm asking you for additional growth of at least 2 billion gallons for 2016 and 2.3 billion gallons for 2017 to account for these added imports.

Place more gallons in the biomass-based category with less in the advanced. This will minimize the sugarcane imports and provide market certainty for U.S. biodiesel plants.

### **American Soybean Association (ASA)**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-0143, p.25.]

We are glad that compared to last year's proposal, which called for just 1.28 billion gallons for 2014 and '15, EPA's new proposed rule increases volumes for biomass-based diesel, starting at 1.63 gallons in 2016 and increasing to 1.9 billion in 2017. We see no reason why EPA should not at a minimum support biomass- based diesel volumes of at least 2 billion gallons for 2016 and 2.3 billion gallons for 2017.

### **Response:**

EPA received a number of comments concerning the level of the 2015-2017 BBD volume requirements. In general, the biodiesel industry and various biodiesel stakeholders believe that the BBD volume requirements should be set higher than what was proposed for each of these

years and pointed to the continued growth of the industry, the availability of feedstocks, existing production capacity, the increasing level of imports including Argentinian biodiesel and Brazilian sugarcane ethanol, threatening the domestic biofuels industry, along with the fact that there exists no diesel blendwall as reasons for more aggressively setting the standard for BBD in each of these years. The oil industry believes that for 2015 and 2016, EPA is precluded from setting the BBD volume requirement above 1.28 billion gallons due to lack of notice and lateness of the rulemaking. In addition, industry commenters reiterated their belief that BBD should compete with other advanced fuels and not continue to see increasing set-asides. One environmental group stated its belief that the impact of growing the BBD volume requirement is that over the last few years there has developed competition between BBD and E85 to provide compliance for advanced and renewable mandates that cannot be met within E10 blends. They believe that EPA's proposed BBD volumes are appropriate and that EPA must continue to ensure that higher blends of ethanol, such as E85 continue to be part of the response to the blendwall dilemma. One NGO commenter generally expressed support for the approach to setting the BBD volumes, even though they supported lower volumes than proposed for the BBD mandate. Specifically, they stated that the analysis found in section II of the NPRM was well thought out and clearly explained. In particular, they supported reserving a significant portion of the advanced mandate for open to competition, even if current market conditions suggest BBD is the most likely source of additional advanced RIN generation.

EPA acknowledges comments it has received which provide data suggesting that sufficient BBD feedstocks, production facilities, and fuel distribution infrastructure exist to produce, import, and consume greater volumes of BBD in 2016 – 2017 that exceed the volume requirements established in this rule. EPA believes that the potential available volume of BBD in 2016 and 2017 exceeds the BBD volume requirements we are finalizing in this rule, and have considered multiple scenarios where additional volumes of BBD are used to comply with the advanced and total renewable fuel standards. However, we do not believe it is in the best interest of the RFS program to set the BBD volume requirement at the maximum available volume of BBD as suggested by some commenters. Doing so would reduce the opportunity for other advanced biofuels to compete for market share within the context of the advanced biofuel standard, and would send market signals that would hinder the long term development of these fuels. Our review of the history of the RFS program strongly suggests that the advanced and total renewable fuel standards can provide sufficient incentives for the production and use of increased volumes of BBD beyond levels required to satisfy the BBD standard.

EPA also received comments from biofuel industry groups stating that increasing the BBD volume requirement to reflect actual BBD available volumes would have the advantage of helping to ensure that BBD, rather than imported sugarcane ethanol, would be used to satisfy the advanced standard. The commenters claimed that this was preferable because BBD does not contribute to the renewable fuel consumption challenges associated with the E10 blendwall, and because BBD is generally produced in the United States, while sugarcane ethanol is almost exclusively an imported product. They claimed that requiring additional volumes of a domestic product rather than an imported one would have positive impacts on the economy of the United States and aid rural economic development, and that these benefits justified a higher BBD standard.

EPA acknowledges that if we were to increase the BBD volume standard beyond what we are finalizing today we would increase the guaranteed market for BBD, and reduce the likelihood that additional volumes of sugarcane ethanol might be imported to satisfy the advanced biofuel standard. We do not however, believe, as one commenter asserted, that increasing level of the BBD volume requirement in recent years means that BBD is in competition with E85. In reviewing the history of the program, as shown above, EPA notes that BBD production, import, and consumption has been strong and increasing each year since 2011. In particular, we note that in 2013, BBD volumes rose sharply, and ethanol imports simultaneously fell and have stayed low. The reduction in ethanol imports was likely due to a combination of factors including poor sugarcane harvests, increased demand for sugarcane ethanol in the countries where it was produced, increased competition for sugarcane ethanol imports from other countries, and challenges relating to increasing the consumption of ethanol beyond E10 in the US.

The data EPA has presented in section II.E.3 (iii) of the final rule strongly suggests that despite the ongoing potential for competition from sugarcane ethanol and biodiesel imports, the BBD industry, supported by the advanced and total renewable fuel standards, has achieved and can continue to achieve production volumes beyond levels needed to satisfy the BBD volume requirement. Given the constraints on ethanol use associated with the E10 blendwall even if sugarcane ethanol imports were to increase, it is still likely that there would be a strong market for BBD to help satisfy the total renewable fuel requirements. Finally, in light of the broad programmatic objective of the RFS program to increase the content of biofuels in U.S. transportation fuel, we believe that it would not only be counterproductive to design the standards in such a way as to intentionally discourage or disincentivize the import of foreign biofuels, but also contrary to the statute.

With regard to the commenter suggesting EPA raise the BBD volume requirement to the maximum achievable level, EPA disagrees with this approach. Raising the guaranteed BBD volume beyond the volumes in this rule so that it approaches the maximum possible volume could result in a less competitive advanced biofuels market, increasing RIN prices, and a less efficient market-driven renewable fuels program. Our decision today to finalize the BBD volumes for 2016 – 2017 at 1.90 and 2.0 billion gallons per year respectively, would not be expected to lead to such an adverse result. We believe that the final BBD volume increases for 2016 – 2017 will both contribute to market stability for the renewable fuels program and continue to promote a growing and competitive advanced biofuels marketplace, one which encourages the growth and development of diverse biofuels along with additional volumes of BBD beyond the volumes required by the BBD standard.

Various commenters expressed concern that the standards would undercut certainty for biodiesel producers, particularly smaller producers, causing them to have to shut down. While our standards cannot protect companies from shutting down for the many different reasons companies close (inefficient, high cost, poor market conditions, unfortunate events, etc.) the final BBD standards provide a floor that provides certainty for greater volumes of BBD volumes than today, and the total renewable fuel and advanced biofuel standards are expected to drive even higher volumes. As a result, we believe the final RFS standards will create the right market conditions for biodiesel companies to grow, flourish, and create jobs.

One commenter stated that EPA had incorrectly used the argument for exercising its waiver authority in determining the volumes of BBD and Advanced Biofuels for 2016 and 2017. EPA

disagrees with this comment. This commenter appears to conflate issues related to setting the BBD standard with those associated with setting the advanced biofuel and total renewable fuel standards. The RFS standards are nested within each other, with the BBD standard being a subset of the advanced biofuel standard and the advanced biofuel standard being a subset of the total renewable fuel standard. In exercising our general waiver authority we have set the total renewable fuel standard at the maximum reasonably achievable level considering all potential supplies of biodiesel and renewable diesel as discussed in section II.E. of the final rule. Thus, our final standards already require as much biodiesel and renewable diesel as the market can be expected to provide. Once the total renewable fuel volumes was set at the maximum reasonably achievable level, we then assessed what portion of it was appropriate to be met with advanced biofuels. In exercising our cellulosic waiver authority, we have set the advanced biofuel standard at the reasonably attainable level considering all the potential supplies of advanced biodiesel and renewable diesel as discussed in section II.F of the final rule. While the market can choose to meet the standards in a variety of ways as shown in Table II.G-2. of the final rule, we anticipate that the vast majority of it will be met with advanced biodiesel and renewable diesel. Once the advanced biofuel volume was established we then could assess what portion of it should be mandated to be BBD.

One commenter argued that while it was appropriate for EPA to consider exports in setting the volume requirement for BBD in 2014 and 2015, exports of BBD should not be considered in establishing the BBD volume requirements for 2016 and 2017. EPA did not consider exports in setting BBD volume requirements for 2016 and 2017. We do not believe that the existence of biodiesel and renewable diesel overseas, or domestically produced biodiesel and renewable diesel that is currently being exported to other countries means this fuel is available to the U.S. As discussed in Section II.E.3 of the final rule, competing mandates for the use of biodiesel and renewable diesel in other countries, incentives for the use of these fuels, existing contracts, limitations on export and import capability, and constraints on the ability of the market to distribute and use greater volumes of biodiesel and renewable diesel must all be taken into consideration in determining the available supply of biodiesel and renewable diesel in the United States in 2016 and 2017. For example, biodiesel and renewable diesel volumes flow back and forth across the Canadian border in different directions in different locations as a result of the fact that available supply is on the opposite side of the border for the location where it is required to be used.

### **3.4 Consideration of Statutory Factors 470**

#### **Comment:**

#### **American Soybean Association (ASA)**

Biodiesel provides numerous benefits for consumers and society as a whole, including:

- a more diversified energy market increased *domestic* energy production
- significant reductions in greenhouse gas emissions resulting in improved air quality
- new jobs and economic development, particularly in rural America

-expanded markets for soybean farmers and a market for soy oil displaced from food markets due to trans fat issues

-Reduced soy meal feed costs for livestock producers [EPA-HQ-OAR-2015-0111-1818-A1 p.1-2] [EPA-HQ-OAR-2015-0111-1043, pp.24-25]

### **Darling Ingredients Inc.**

The Proposed Rule states the six considerations which the EPA is authorized by Congress to utilize in determining BBD volume obligations'. While the Proposed Rule does not directly address each of the six criteria, it does conclude that BBD reduces GHG emissions (criteria #1), project the expected rate of future commercial production of Biomass Based Diesel at volumes higher than the volumes in the Proposed Rule (criteria #3), determine that there is more than adequate infrastructure to distribute volumes exceeding even those proposed by Darling in this submission (criteria #4), and provide a complete analysis that BBD provides renewable fuel at a cost savings compared to sugar based ethanol (criteria #5). [EPA-HQ-OAR-2015-0111-1929-A1 p.3-4]

### **American Petroleum Institute and American Fuel & Petrochemical Manufacturers**

EPA also has not undertaken an adequate analysis of the six factors specified in CAA section 211(o)(2)(B)(ii) for 2014, 2015, 2016 or 2017. Consideration of these factors is a statutory requirement precedent to revising the applicable volume of biomass-based diesel for years after 2012. EPA should, for example consider such things as impacts on water use, fertilizer run-off into the Gulf of Mexico, food prices, as well as energy security (in light of the reliance upon imported fuel). The Agency should also consider land use impacts and whether it is appropriate to continue to exempt domestically-produced crop-based biofuels like soy-based biodiesel (and corn-based ethanol) from EISA's land use restrictions especially given recent information indicating that EPA's assumptions underlying that exemption were incorrect.<sup>20</sup> [EPA-HQ-OAR-2015-0111-1948- p.13]

### **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

The statute bars EPA from setting advanced and total volume requirements premised on the production of a greater volume of biomass based diesel than EPA has found appropriate to require under Section 7545(o)(2)(B)(ii).

Even if the economy were capable of producing biomass-based diesel in the volumes that would be needed to comply with EPA's proposed advanced and total mandates, EPA would still be prohibited from setting volume requirements premised on that level of biomass-based diesel production. Congress specifically carved biomass-based diesel production out of the general RFS program for years following 2012, and has required EPA to decide on the "applicable volume" of biomass-based diesel based on consideration of six specific factors.<sup>95</sup> These include factors evidencing Congress' concern that excessive production may cause environmental harm. For example, EPA is directed to consider "the impact of the production and use of renewable fuels on the environment, including on air quality, climate change, conversion of wetlands, ecosystems, wildlife habitat, water quality, and water supply." Congress also charged EPA to consider the "impact of the use of renewable fuels on other factors, including job creation, the price and supply of agricultural commodities, rural economic development, and food prices."

Likewise, Congress recognized that an excessive biomass-based diesel requirement could cause economic harm. Thus, Congress directed EPA to consider “the impact of renewable fuels on the infrastructure of the United States, including deliverability of materials, goods, and products other than renewable fuel, and the sufficiency of infrastructure to deliver and use renewable fuel.” EPA also must consider “the impact of the use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods.” [EPA-HQ-OAR-2015-0111-2603-A2, pp.34-35]

Applying these factors and the others listed in the relevant statutory subsection, EPA concluded that the “applicable volume” of biomass-based diesel for 2016 is 1.63 billion gallons. Having so determined, EPA cannot then set volume requirements for advanced and total renewable fuels that contemplate the need for biomass-based diesel in excess of that amount, without regard to any of the statutory factors. Yet that is exactly what EPA has done – thereby circumventing the carefully channeled discretion that Congress afforded to EPA in setting biomass-based diesel volumes in the years subsequent to 2012. [EPA-HQ-OAR-2015-0111-2603-A2, pp.35-36]

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95 See 42 U.S.C. § 7545(o)(2)(B)(ii)(I)-(VI).

### **National Biodiesel Board**

Although EPA purports to be providing for annual increases of Biomass-based Diesel, EPA improperly limits those increases based on factors not provided in the Statute. [EPA-HQ-OAR-2015-0111-1953-A2 p.25]

Even if EPA somehow now contends that providing (even) more flexibility to obligated parties is an appropriate consideration, such a consideration clearly cannot be used to trump consideration of the other factors. It is evident that EPA is essentially concerned with costs versus benefits. [EPA-HQ-OAR-2015-0111-1953-A2 p.27]

The statute requires EPA to make the determination of the applicable volume for biomass-based diesel after 2012 based on the factors outlined in Section 211(o)(2)(B)(ii). Under that provision, this determination must be (a) “in coordination with the Secretary of Energy and the Secretary of Agriculture,” and (b) “based on a review of the implementation of the program during calendar years for which the statute specifies the applicable volumes and on analysis of” six listed factors. 80 Fed. Reg. at 33,132; *see also* Denial of API/AFPM Reconsideration Petitions at 3-4.<sup>40</sup> Except for the minimum requirement of 1 billion gallons, EPA asserts that the statute does not “establish any other numeric criteria, or provide any guidance on how the EPA should weigh the importance of the often competing factors, and the overarching goals of the statute when the EPA sets the applicable volumes in years after those for which the statute specifies applicable volumes.” 80 Fed. Reg. at 33,132. As explained above, Congress did provide guidance on how to weigh the factors. EPA is to do so in a manner that promotes renewable fuel production for the particular category of fuel at issue and overall. [EPA-HQ-OAR-2015-0111-1953-A2 p.34-35]

Asserting that biomass-based diesel is “nested” within advanced biofuel, EPA ignores the fact that Section 211(o)(2)(B)(ii) applies to all the mandates for the years not specified in the tables. Although biomass-based diesel was the first category to be subject to the statutory factor analysis, there is no indication that Congress intended to have advanced biofuel dictate the

volumes after 2012. While Congress referenced the applicable volume for advanced biofuel under Section (o)(2)(B)(i)(II) in (o)(2)(B)(i)(IV)—the biomass-based diesel table, this provision only applies through 2012. 42 U.S.C. § 7545(o)(2)(B)(i)(IV). Section (o)(2)(B)(ii), on the other hand, requires EPA to set the volumes for “the purposes of subparagraph (A).” *Id.* § 7545(o)(2)(B)(ii). Subparagraph (A) requires that EPA ensure “at least the applicable volume” for biomass-based diesel is met separate from the advanced biofuel and renewable fuel categories. It is true that biomass-based diesel is an advanced biofuel (and a renewable fuel) and can be used to fill that category, but this means that Congress did not necessarily intend biomass-based diesel to always be “nested” within the advanced biofuel category. Moreover, the advanced biofuel volumes provide room for continued growth and, similarly, are minimum volumes. As such, it cannot be that Congress intended EPA to compare increasing the biomass-based diesel category with the potential effect of reducing other advanced biofuels. [EPA-HQ-OAR-2015-0111-1953-A2 p.35]

In an attempt to bring its new approach within the strictures of the statute, EPA asserts its “assessment is based *in part* on our review of implementation of the RFS program to date.” 80 Fed. Reg. at 33,137. But, implementation of the program has shown that the biomass-based diesel industry has been able to make up the gap for *lost production* of cellulosic biofuel. [EPA-HQ-OAR-2015-0111-1953-A2 p.36]

Rather it is relying on factors outside the statute based on its purported authority under the cellulosic biofuel waiver provision. The cellulosic biofuel waiver authority does not give EPA the authority to reduce the biomass-based diesel volume in light of the reduced cellulosic biofuel volume, but that is what EPA is essentially doing in declining to further increase the biomass-based diesel applicable volume where more volumes could be produced and required consistent with the statutory factors.<sup>41</sup> EPA cannot circumvent the requirements of Congress in this manner. EPA admits as much in noting that “we do not expect our decision to result in a difference in any of the factors we are required to evaluate pursuant to CAA section 211(o)(2)(B)(ii)(I)–(VI).” *Id.* Thus, its approach essentially renders the statutory factors meaningless. [EPA-HQ-OAR-2015-0111-1953-A2 p.36]

EPA’s new approach essentially renders statutory requirements null and void, which EPA cannot do. *See Whitman v. Am. Trucking Ass’n*, 531 U.S. 457, 484 (2001) (“Whatever effect may be accorded the gaps in Subpart 2 as implying some limited applicability of Subpart 1, they cannot be thought to render Subpart 2’s carefully designed restrictions on EPA discretion utterly nugatory once a new standard has been promulgated, as the EPA has concluded.”); *see also Sierra Club v. EPA*. [EPA-HQ-OAR-2015-0111-1953-A2 p.37]

Even if EPA is correct that consideration of implementation of the program shows that the advanced biofuel volumes drive higher volumes of biomass-based diesel, EPA has clearly chosen one factor over the other six factors Congress outlined. Contending it has discretion in how to weigh each of the factors, EPA’s balancing of the statutory factors cannot undermine the fundamental purposes of the statute. In its Denial of the API/AFPM Reconsideration Petitions, EPA recognized that the primary considerations in setting the volume are production capacity and availability of sufficient feedstocks (at 13). EPA increased the required volume from 2012 to 2013 by 280 million gallons because production capacity of the industry far exceeded the applicable volume, and there were sufficient feedstocks. Indeed, EPA considered this increase to be “moderate.” “While this term is subjective, and may mean different things to different parties,

EPA continues to believe that it is an appropriate descriptor given the capacity of the industry, availability of feedstock, and likely reaction of the industry to the guaranteed market provided by the RFS program.” Denial of API/AFPM Reconsideration Petitions at 13. These increases brought benefits to the rural economy, moved the country closer toward energy security and independence, and provided greater environmental benefits. Other factors, particularly those outside the factors Congress specifically identified, cannot outweigh this straightforward analysis. [EPA-HQ-OAR-2015-0111-1953-A2 p.38-39]

EPA improperly bases its consideration of the factors required as compared to other advanced biofuels, rather than diesel fuel. [EPA-HQ-OAR-2015-0111-1953-A2 p.46]

Presumably, because its “primary assessment” does not comport with the statutory requirements, EPA provides “an additional supplementary assessment” that purports to consider each of the statutory factors listed. 80 Fed. Reg. at 33,137. But, this supplementary assessment similarly is counter to the Act and, in any event, arbitrary and capricious. [EPA-HQ-OAR-2015-0111-1953-A2 p.46]

This supplementary assessment is faulty from the start. EPA bases its review of the statutory factors “on the assumption that in guaranteeing BBD volumes at any given level there could be greater use of BBD and a corresponding decrease in the use of other types of advanced biofuels for years 2015–2017.” [EPA-HQ-OAR-2015-0111-1953-A2 p.46]

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<sup>40</sup> Judicial challenges to the 1.28 billion gallon requirement were voluntarily dismissed, and none was filed regarding EPA’s denial of the petitions for reconsideration of the 2013 biomass-based diesel volume.

### **Renewable Energy Group, Inc. (REG)**

It was noted, however, that the primary considerations in setting the standards are **production capacity** and **availability of feedstocks**. [EPA-HQ-OAR-2015-0111-1952-A1 p.2]

### **Western Canada Biodiesel Association**

The six criteria for biodiesel growth outlined in the RFS statute have clearly been met [EPA-HQ-OAR-2015-0111-0265-A1]

### **Response:**

A number of commenters asserted that EPA had improperly or inadequately undertaken the statutory factors analysis and pointed to specific factors that they felt EPA had failed to consider or had not adequately considered. (Comments on specific factors can also be found in RTC sections 3.4.3, 7 and 8.) Each of these commenters claim that EPA would have arrived at a different BBD volume requirement for 2016 and 2017 if it had correctly considered various factors.

EPA believes it properly considered the statutory factors both in the NPRM and in the final rule. Our primary assessment of the statutory factors set forth in CAA section 211 (o)(2)(B)(ii)(I)-(VI) is as follows: since we are basing the 2016 advanced biofuel volume of 3.61 billion ethanol equivalent gallons on our projection of the a reasonably attainable volume of BBD (2.1 billion

gallons – 3.15 billion ethanol equivalent gallons) as well as available volumes of other advanced biofuels in 2016, we do not expect that the BBD volume requirement under CAA section 211 (o)(2)(B)(ii) will be the primary driving factor in the amount of biomass-based diesel actually produced in 2016. Instead, the advanced and total biofuel volume requirement under CAA section 211 (o)(2)(B)(i)(I)-(II) will be the driving factor, similar to the way in which other standards drove production of BBD above the 1.28 billion gallon volume in 2013 (see also section 3.3.1). Given this, there would be no real-world impact of a higher standard for the volume of biomass-based diesel produced in 2016 and no change in any of the impacts specified in CAA section 211(o)(2)(B)(ii)(I)-(VI).

However, we also recognized that our expectation regarding use of BBD could prove inaccurate. By increasing the volume requirement to 1.90 billion gallons, there is little doubt that all of that volume will in fact be achieved. Similarly, were we to increase the standard to require the use of 2.20 billion gallons of biomass-based diesel in 2016, there would be no doubt as to the outcome. Therefore, we have, as a secondary tier of our evaluation, considered the impacts of offsetting marginal volumes of other advanced biofuels with marginal volumes of BBD. In other words, assuming that our raising or lowering the applicable volume of biomass-based diesel would in fact result in greater or lesser use of that fuel type, what would be the impacts of that change and corresponding change in use of other advanced biofuels? This secondary tier of our analysis, including a review of each of the statutory factors, is described in Section III.E of the final rule and is found in a memo to the docket titled, "Final Statutory Factors Assessment for 2016-2017 Biomass-Based Diesel (BBD) Applicable Volumes". Setting BBD volume requirements at a higher level in 2016, while still at a volume level lower than anticipated overall production and consumption of BBD, is consistent with our evaluation of statutory factors 211(o)(2)(B)(ii) (I), (II) and (III), since we believe that our decision on the BBD volume requirement can have a positive impact on the future development and marketing of other advanced biofuels and can also result in potential environmental and energy security benefits, while still sending a supportive signal to potential BBD investors, consistent with the objectives of the Act to support the continued growth in production and use of renewable fuels.

#### **Responding to specific NBB comments on statutory factors analysis:**

NBB stated that we improperly based our consideration of the statutory factors on a comparison of BBD to other advanced biofuels, rather than to diesel fuel. They asserted that BBD would not compete with other advanced biofuels because EPA proposed to set the advanced biofuel volume at maximally achievable levels, and that no competition would be present if all available advanced biofuels had to be used. They suggested that setting the BBD standard at a higher level than proposed would actually result in BBD competing against diesel fuel, and therefore, EPA should analyze the impacts of displacing diesel fuel with BBD. We disagree. In setting the advanced biofuel volume requirement, we have assumed reasonably attainable volumes in advanced biofuels. After determining that it is in the interest of the program, as described in Sections III.D.1–D.3 of the final rule, to set the BBD volume requirement at a level below anticipated BBD production and imports, so as to provide continued incentives for research, development, and commercialization of alternative advanced biofuels, it is apparent that excess BBD above the BBD volume requirement will compete with other advanced biofuels, rather than diesel. The only way for EPA's action on the BBD volume requirement to result in a direct displacement of petroleum-based fuels, rather than other advanced biofuels, would be if the BBD

volume requirement were set larger than the total renewable fuel requirement. However, since BBD is a type of advanced biofuel, and advanced biofuel is a type of renewable fuel, the BBD volume requirement could never be larger than the advanced requirement and the advanced biofuel requirement could never be larger than the total renewable fuel requirement. Thus, EPA continues to believe that it is appropriate to evaluate the impact of its action in setting the BBD volume requirements by evaluating the impact of using BBD as compared to other advanced biofuels to determine what increment of the advanced biofuel standard that is not guaranteed to BBD.

NBB also asserted that our analysis of the desirability of setting the BBD volume requirement in a manner that would promote the development and use of a diverse array of advanced biofuels is prohibited by statute. We disagree with these comments and continue to believe that the statutory volumes of renewable fuel established by Congress in CAA section 211(o)(2)(B) provide an opportunity for other advanced biofuels (advanced biofuels that do not qualify as cellulosic biofuel or BBD) to be used to satisfy the advanced biofuel standard after the cellulosic biofuel and BBD standards have been met. Because the BBD standard is nested within the advanced biofuel and total renewable fuel standards, when an obligated party retires a BBD RIN (D4) to satisfy their obligation, this RIN also counts towards meeting their advanced biofuel and total renewable fuel obligations. It also means that obligated parties may use BBD RINs in excess of their BBD obligations to satisfy their advanced biofuel and total renewable fuel obligations. To the extent that obligated parties are required to achieve compliance with the overall advanced biofuel standard using higher volumes of BBD D4 RINs, they forego the use of other biofuels that qualify as advanced biofuels. Therefore, the higher the BBD volume standard is, the lower the opportunity for other non-BBD advanced biofuels to compete for market share within the context of the advanced biofuel standard. When viewed in a long-term perspective, BBD can be seen as competing for investment dollars with other types of advanced biofuels for participation as advanced biofuels in the RFS program.

NBB and others also stated that the consideration of competition within the advanced biofuel pool between BBD and other advanced biofuels, and the potential for lower compliance costs cited in our proposed rule, are not included in the list of factors in 42 U.S.C. § 7545(o)(2)(B)(ii)(V) that EPA is to consider in establishing the volume requirement for BBD. EPA respectfully disagrees. Three of the factors specified in the statute are indeed related to the considerations discussed above. The “impact of the use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods” referenced in CAA 211(o)(2)(B)(ii)(V) is relevant, since we believe a diverse advanced biofuel pool will potentially result in decreased costs associated with the use of advanced biofuels and, consequently, decreased costs to consumers. Similarly, the “impact of the production and use of renewable fuels on the environment” referenced in CAA 211(o)(2)(B)(ii)(I) is relevant, since we believe that incentivizing research and development in a variety of advanced biofuels could lead to the development of biofuels that have more benign effects on the environment than those that are currently available. In addition, “the impact of renewable fuels on the energy security of the United States” referenced in CAA 211(o)(2)(B)(ii)(II) is relevant, since we believe that incentivizing the development of a diverse array of biofuels will increase energy security. Furthermore, we note that the list of factors specified in the statute is not exclusive; that is EPA is not precluded from considering additional factors that advance the statutory objectives when it sets applicable volumes for years not specified in the statute.

NBB also states that EPA improperly relied on the cellulosic biofuel waiver provision to reduce the biomass-based diesel volume in light of the reduced cellulosic biofuel volume. EPA disagrees with this view. The cellulosic biofuel waiver authority can be used to reduce the total advanced and the total renewable fuel volumes but EPA acts in accordance with the direction in the Act to set the BBD standard independently of the total advanced standard. EPA also separately determined what reasonably attainable volumes of BBD and other advanced biofuels would be available for purposes of using the cellulosic biofuel waiver provision to set the advanced biofuel requirement. Also, the CAA calls for a minimum of 1 billion gallon of BBD. Our standards are higher than that so not only haven't we not reduced the BBD, but we have increased it.

Finally, NBB stated that the EPA previously found statutory factors supported greater annual increases in BBD volume requirement for 2013 and the statutory factors analysis developed to justify the 2016 and 2017 BBD volume requirements contradicts the analysis EPA put forward in 2013. We disagree. As in 2013, we have determined that incremental increases in the 2016 and 2017 BBD volume requirement are appropriate to provide continued support to the BBD industry. We did this in 2013, acknowledging the important role the industry thus far had played in providing advanced biofuels to the marketplace, and in furthering the GHG reduction objectives of the statute. We did not in 2013, and are not today, setting the BBD volume requirement at the maximum potential production volume of BBD.

#### **Responding to Specific Monroe Energy Comments:**

Monroe's Energy's comments raised a number of issues regarding the legality of allowing additional amounts of biomass-based diesel, beyond the mandated level under 211(o)(2)(B)(ii), to count toward the total advanced biofuels requirement. EPA disagrees with the commenter's assertion that the biomass-based diesel volume mandate calculated pursuant to CAA 211(o)(2)(B)(ii) acts as a ceiling on the amount of BBD that can be used to satisfy the advanced and total renewable fuel volume requirements, or which EPA may determine to be available for purposes of the exercise of its waiver authorities regarding advanced and total renewable fuel. It is important to note that the biomass-based diesel volume requirement is nested within both the applicable advanced biofuel and the total renewable fuel volume requirements, as specified in CAA §211(o)(2)(B)(i) so that any "excess" biomass-based diesel produced beyond the mandated biomass-based diesel volume can be used to satisfy both these applicable volume requirements. This is appropriate since CAA section 211(o)(1)(B)(ii) broadly defines "advanced biofuels" as a renewable fuel, other than ethanol derived from corn starch, that has lifecycle greenhouse gas emissions that are at least 50 percent less than baseline lifecycle greenhouse gas emissions. The definition goes on to specifically include and list biomass-based diesel as one of seven types of fuels eligible for consideration as an advanced biofuel. See, also, the broad definition of "renewable fuel" in CAA 211(o)(1)(J). Consequently, the biomass-based diesel applicable volume that the Agency is required to set is the minimum volume that must be met for 2014, and it is appropriate that we evaluate whether higher quantities of biomass-based diesel will be available to meet the advanced biofuel and total renewable fuel volume requirements, which historically, as seen in 2013, have played a significant role in determining the total volume of biomass-based diesel that has been supplied.

### 3.4.1 Advanced Biofuel as the Driver for Biomass-Based Diesel Demand 478

**Comment:**

**Advanced Biofuels Association (ABFA)**

In addition to the RFS2, the Low Carbon Fuel Standard (LCFS) in California provides an additional driver for biomass-based diesel. As with Brazilian ethanol discussed below, LCFS incentivizes the production or importation of high performing, low GHG fuels. The ICF International report 'California's Low Carbon Fuel Standard: Compliance Outlook for 2020' (see **Appendix 3**) notes in the Executive Summary that:

*The diesel sector will likely generate more than its fair share of credits. ICF developed scenarios that reflect the flexibility of the LCFS guidelines: namely, credits are fungible. It does not matter if credits are generated using fuels that substitute for gasoline or fuels that substitute for diesel. Forecasted diesel consumption in California indicates that diesel will generate about 20 percent of deficits in the LCFS program. However, fuels that substitute for diesel, including biodiesel, renewable diesel, and natural gas, have the potential to generate 40-55percent of LCFS credits. [EPA-HQ-OAR-2015-0111-2498-A1 p.5]*

**Response:**

With regard to the commenter who asserts that California's Low Carbon Fuel Standard (LCFS) provides an additional driver for biomass-based diesel that EPA did not consider when weighing production without the tax credit, EPA disagrees. For this final rulemaking, EPA took into account a broad range of factors into consideration when developing the biomass-based diesel mandate. These factors included a consideration of the factors in CAA 211(o)(2)(B)(ii) including the fact that the California's LCFS may create some demand for biomass-based diesel.

### 3.4.2 Increases in Biomass-Based Diesel Displace Other Advanced, Not Diesel

**Comment:**

**Darling Ingredients Inc.**

The second consideration put forward on why Biomass Based Diesel volumes should be limited is that if the BBD is dictated then there would be no incentive for the development of Cellulosic and other Advanced Fuels. Darling agrees with the EPA's conclusion. The BBD mandate should not represent all of the Advanced Fuel mandate. However, this goal can be met and there can be an incentive for other Advanced Biofuels. EPA could increase the BBD AND increase Advanced Biofuels volume. That is the reason that Darling is suggesting that Advanced Biofuels should be increased above the levels proposed by the EPA for 2016 and 2017. The EPA in the Proposed Rule establishes that it anticipates 200 million gallons of Cellulosic in 2016 and provides for 500 million gallons of Unspecified Advanced in 2016. Darling proposes to increase Advanced Biofuels by 350 million RIN's in 2016 which would mean an increase of 200 million gallons of BBD (resulting in approximately 310 million RIN's) and the same incentive for development of Cellulosic would exist as the EPA has in its Current Proposed Rule. The same logic applies for

Darling's suggested 2017 Advanced Biofuel goal of 4.25 billion RIN's; note the Darling proposal for 2017 Advanced RIN's slightly increases the available bucket for undifferentiated advanced in compliance with the aspirational spirit of spurring advanced biofuel production. [EPA-HQ-OAR-2015-0111-1929-A1 p.9]

### **National Biodiesel Board**

EPA states that, because biomass-based diesel is nested within the advanced biofuel standard, “the higher the BBD standard is, the lower the opportunity for other non-BBD fuels to compete for market share within the context of the advanced biofuel standard.” 80 Fed. Reg. at 33,135. EPA ignores, however, that it is EPA’s proposed reduction in the statutory advanced biofuel volume that is limiting the “other” advanced biofuel category, not the increase in biomass-based diesel. As discussed above, the biomass-based diesel standard is no longer necessarily “nested” within the advanced biofuel program and, in any event, there is more than enough room under the statutory volumes to allow for continued growth of “other” advanced biofuels even with greater increases in biomass-based diesel. Indeed, if EPA does truly believe there is insufficient supply for the statutory volumes, all EPA has to do, as it should, is increase its proposed advanced biofuel volumes corresponding to the increase in biomass-based diesel to recognize the potential for additional “other” advanced biofuel. In other words, EPA should determine the advanced biofuel in an additive manner, collecting information on potentially available supply of “other” advanced biofuel on top of the potential available supply of biomass-based diesel. Although NBB believes it is irrelevant that the “other” advanced biofuel volume might shrink when assessing the biomass-based diesel volumes, this argument must fail. Congress created the biomass-based diesel category for a reason, not to keep biomass-based diesel in the more general pool competing with fuels in other markets. [EPA-HQ-OAR-2015-0111-1953-A2 p.39]

The problem with EPA’s assumption is that the diesel fuel market is distinct from the gasoline market. The “competition” EPA is purporting to support likely would only be for sugarcane ethanol, which is the other main contributor to the advanced biofuel market aside from biodiesel. Sugarcane ethanol gallons, as well as any ethanol gallons from other feedstock sources, are used in gasoline and not in the distillate fuel markets. These are not the same markets, and EPA’s “competition” is based on a false market of “advanced biofuels.” In describing the constraints on ethanol use, EPA has recognized the gasoline market involves different legal, policy and practical restrictions that are not implicated in the diesel fuel pool. The gasoline market is also larger than the diesel fuel market, while the diesel fuel market services a broader category of uses, including heating oil. EPA estimates gasoline use in 2015 to be 138.37 billion gallons compared to 56.77 billion gallons of diesel fuel. EPA, Calculation of % standards for 2014, 2015, and 2016, EPA-HQ-OAR-2015-0111-0005. It cannot be said that these fuels are “competing” with each other due to these distinct markets and market forces. Indeed, it is these market forces that Congress was trying to affect in imposing a greater mandate than EPA is apparently willing to implement. [EPA-HQ-OAR-2015-0111-1953-A2 p.39]

EPA also fails to identify any “other” advanced biofuel that the biomass-based diesel program is negatively affecting. EPA asserts that increasing the biomass-based diesel volume would affect other advanced biofuels, including sugarcane ethanol; ethanol from grain sorghum, food waste or cover crops; renewable diesel from food waste or cover crops; renewable naphtha from food waste or cover crops; CNG/LNG from non-cellulosic sources; and cellulosic biofuel. EPA Mem., Assessment of Statutory Factors for 2015-2017 biomass-based diesel (BBD) Applicable

Volumes pursuant to CAA section 211(o)(2)(B)(ii)(I)-(VI) at 2 (EPA-HQ-OAR-2015-0111-0008). As noted above, this is a false assumption since they are not all replacements for each other. Like ethanol, Naphtha is also largely used in the gasoline market. CNG/LNG from non-cellulosic sources require retrofits or special vehicles to use, and, thus, are not easily diesel fuel replacements. The markets for these fuels also are very different than the diesel fuel market in which biomass-based diesel is used, including heating oil. Again if EPA would like to promote these other advanced biofuels then it must do so by increasing the advanced biofuels program volume, rather than unreasonably limiting the biomass-based diesel program. [EPA-HQ-OAR-2015-0111-1953-A2 p.40]

Shockingly, EPA asserts: “Increasing the BBD standard above 1 billion gallons, as we did in 2013, reduces the potential market for other advanced biofuels to contribute towards meeting the advanced biofuel standard. Conversely, reducing the cellulosic biofuel standard while simultaneously maintaining the advanced biofuel standard (or reducing it by a lesser amount), as we have done each year since 2010, increases the potential market for other advanced biofuels.” 80 Fed. Reg. at 33,135. This is shocking because, unlike biomass-based diesel, cellulosic biofuel has not fulfilled the expectations of Congress. It also is shocking because it appears to be a complete 180° turn from its prior findings where EPA recognized that increasing the biomass-based diesel volume has been able to make up for the gap left by the lack of production of cellulosic biofuel to “ensure” the statutory advanced biofuel volumes are met and the sought after GHG emissions reductions, among other benefits, realized. While in Table IV.D.1-1 EPA attempts to show that the biomass-based diesel category is unnecessary, the implementation of the program shows it has been vital to ensuring the total advanced biofuel volumes are met. For the first several years the biomass-based diesel category has allowed the industry to meet “at least” the total advanced volumes despite the reduced cellulosic biofuel volume. It is only in increasing biomass-based diesel volumes in the future will the statutory volumes for advanced biofuel even come close to becoming a reality. [EPA-HQ-OAR-2015-0111-1953-A2 p.40-41]

Moreover, EPA is simply wrong. Biomass-based diesel volumes can increase, while other advanced biofuels continue to enter and grow in the market. In 2013, EPA increased the minimum applicable volume for biomass-based diesel by 280 million gallons. The biomass-based diesel industry actually increased production from 2012 by over 600 million gallons, and there was enough production of biomass-based diesel to meet 99 percent of the advanced biofuel category. The same concerns about increased RIN prices were heard then. Yet, based on EMTS data, 44 biogas production went from 2.9 million ethanol-equivalent gallons to almost 26 million from 2012 to 2013. Naphtha similarly went from 0 to over 3.4 million ethanol-equivalent gallons. Production of renewable diesel with D5 RINs also increased from 12 million gallons to 41 million gallons. Thus, when EPA retained the statutory volume for advanced biofuel and increased the biomass-based diesel volume, there was excess advanced biofuel production and newer fuels entering the market.<sup>45</sup> The program was working and, as such, the actual implementation of the program, then, belies EPA’s assumption. [EPA-HQ-OAR-2015-0111-1953-A2 p.41]

EPA has advanced no evidence that other advanced biofuels have been, or would be, in any way “crowded out” by an expansion of U.S. biomass-based diesel production and consumption. As such, it provides no explanation why it should change that trend except to purportedly create a more “efficient” market system (which is really the RIN market that EPA appears to truly care

about). Again, this is a consideration outside those identified by Congress. [EPA-HQ-OAR-2015-0111-1953-A2 p.41]

Although renewable diesel generating D5 RINs is also used in the diesel market,<sup>46</sup> it cannot be said that increasing the biomass-based diesel volume will necessarily reduce use of those volumes. There is no limit on the amount of biomass-based diesel that can be used or blended in the diesel fuel market, nor is there a limit in the amount of D5 renewable diesel that could be used. In fact, EPA does not explain why both biomass-based diesel and D5 renewable diesel—a “drop in” fuel—could not be used in conjunction with one another, particularly as refiners move toward co-processing with renewable biomass. Thus, EPA’s premise that increasing the biomass-based diesel volume will necessarily replace another advanced biofuel is incorrect. Nor does it make sense when EPA is also lowering the advanced biofuel volume to a level below the potential availability of both biomass-based diesel and D5 renewable diesel. Rather than unreasonably limiting the usage of both biomass-based diesel and D5 renewable diesel EPA should be striving to grow both volumes at least to the statutory volumes for advanced biofuel (and even total renewable fuel). [EPA-HQ-OAR-2015-0111-1953-A2 p.41-42]

In any event, there is ample room in the diesel fuel market to accommodate both D4 biomass-based diesel and D5 renewable diesel fuel. According to the numbers used by EPA to set the 2015 standards, diesel fuel makes up 29 percent of the total transportation fuel market subject to the RFS2. The biomass-based diesel volume is only at 2.9 percent of this diesel fuel market (not including heating oil), compared to the 9.66 percent of renewable fuel in the gasoline market (as estimated by EPA). Increasing the biomass-based diesel volume to 2 billion gallons would still only be 3.5 percent of the diesel fuel market. In fact, as noted above, the diesel fuel market is expected to continue to grow for several more decades.<sup>47</sup> See, *supra*, n.2. Thus, there is more than ample room to bring additional renewable fuel into this market. The issue remains if they can be competitive, not with each other, but with petroleum-based fuels. As noted, Congress wanted to eliminate this concern in setting the mandates. It is wholly arbitrary for EPA to decline to increase the biomass-based diesel volume further based on some false notion of competition in an artificial “advanced biofuel” market. [EPA-HQ-OAR-2015-0111-1953-A2 p.42]

EPA previously recognized that the statutory factors were intended to ensure increased renewable fuel use compared to diesel fuel. For the 2013 biomass-based diesel volume, EPA looked at the benefits of increasing biomass-based diesel as a replacement for diesel fuel. 77 Fed. Reg. at 59,469-59,483. This is consistent with the statute that sought to increase use of renewable fuel, which is defined as fuel “used to replace or reduce the quantity of fossil fuel.” 42 U.S.C. § 7545(o)(1)(A), (J). [EPA-HQ-OAR-2015-0111-1953-A2 p.46]

The volumes are a floor not a ceiling. As such, the volumes should be additive, not creating a ceiling and pitting one advanced biofuel over another, as EPA has proposed. As noted above, the factors could warrant biomass-based diesel eclipsing the advanced biofuel statutory volumes (which it did in 2011). Given the purposes of the statute, it cannot be that Congress intended EPA to compare increasing the biomass-based diesel category with the potential effect of reducing other advanced biofuels. [EPA-HQ-OAR-2015-0111-1953-A2 p.47]

Even if EPA were properly trying to utilize its cellulosic biofuel waiver authority to address both advanced biofuels and biomass-based diesel, it is not following its own purported standard. For determining adequate domestic “supply,” EPA contends that it is seeking to set the volumes at

the “maximum achievable” amount. But, “competition” by definition requires a choice between two or more options which ends up excluding one or more viable options. “Maximum” by definition requires the inclusion of all viable options and necessitates that nothing is excluded. Thus, competition (an EPA idea) cannot be an objective where EPA is purporting to use a standard of “maximum” achievability when evaluating available supply of the categories in which biomass-based diesel is purportedly “nested.” [EPA-HQ-OAR-2015-0111-1953-A2 p.47]

“At the margin, increased biodiesel production has used distillers corn oil or waste grease feedstocks.” [EPA-HQ-OAR-2015-0111-1953-A2 p.49]

[National Biodiesel Board presented testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, pp. 23-25.]

Thank you for your recent efforts to get the RFS program back on schedule and growing and for your approach in proposing to set category targets at maximum achievable volumes. It's a common sense approach that was abandoned on the biomass-based diesel category. You stated that -- that where you set those volumes doesn't matter because production will ultimately be driven by the total advanced category. You also acknowledge Congress intended for biomass-based diesel to have its own category and that increasing that category can add confidence and stability. But you proposed small increases in '16 and '17, stating that these volumes will serve as a minimum. It is inconsistent to propose maximum achievable volumes for all categories in the program, but only minimum volumes for biomass-based diesel. Your concern over competition among non-cellulosic advanced biofuels can be addressed by increasing D4s and D5s by the same amount. You proposed 1.8 billion gallons for 2016. We hit that in 2013. We can easily supply 2.4 billion gallons in '16, but it would be unreasonable for you to set it below 2 billion gallons in 2016.

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43 See EPA-HQ-OAR-2010-0133-0159 at 27-29. In its recent notices, EPA has not appeared to identify, pennycress, camelina or carinata (all of which are used or can be as rotational crops), which are being developed for biofuel use, as “annual cover crops.”

44 This is based on EPA’s EMTS data, RIN Generation and Renewable Fuel Production by Fuel Type for 2012 and 2013, data are current as of July 10, 2015.

45 Indeed, for 2014, when EPA first proposed not to increase the biomass-based diesel volume and to reduce the advanced biofuel volume, production of biogas and renewable diesel dropped from the 2013 levels.

46 As with the reference to cover crops, EPA does not identify the food waste that is being used to produce renewable diesel. We consider, however, the D5 RINs that have been reported as generated through EPA’s EMTS data.

47 EPA’s calculations for the 2015 and 2016 standards show an increase in transportation fuel use from 2014. EPA-HQ-OAR-2015-0111-0005. For 2016, gasoline consumption appears to be lower than in 2015, based on EPA’s estimates, yet overall transportation fuel use still increases due to the increases in diesel fuel consumption. Id. Renewable fuel use in diesel fuel, however, appears to be lower than in 2014. Id.

## **Response:**

Darling Ingredients agrees with EPA that the BBD standard should not be set in such a way as to fill the entire non-cellulosic portion of the advanced biofuel volume requirements. However, they suggest that both the BBD volume requirement and the advanced biofuel volume

requirement could be increased. As discussed in more detail in Section 2.5 of the RTC, we have determined that increases in the volume requirements for both advanced biofuel and BBD in comparison to the proposed volumes are warranted.

NBB suggests that EPA can raise the BBD standard without taking up the whole advanced standard. NBB adds that there is more than enough room under the *statutory* volumes to allow for continued growth of “other” advanced biofuels even with greater increases in biomass-based diesel standard. EPA is raising both the advanced biofuel and the BBD standards in comparison to the proposed volumes in this RFS rule making. In doing so we have preserved roughly the same space for other advanced biofuels under the advanced biofuel standard that we had for the proposal in order to allow the growth of “other” advanced biofuels. We acknowledge that there is sufficient room in the diesel pool for greater volumes of biodiesel and renewable diesel.

NBB further recommended that EPA should determine the advanced biofuel in an additive manner, collecting information on potentially available supply of “other” advanced biofuel *on top of* the potential available supply of biomass-based diesel. NBB suggested that all BBD be accounted for, and then EPA should just add all the rest of the available supply of advanced biofuels on top of that in setting the RFS renewable fuel volumes. As the commenter suggests, we have set the total renewable fuel standard at the maximum reasonably achievable level, taking into consideration potential supply of all renewable fuels, including advanced biofuels and biodiesel. We have set the advanced biofuel standard at the reasonably attainable level taking into consideration various factors, including the available supply of all those advanced biofuels used in determining the total renewable fuel standard. We have set the BBD standard at a level that will ensure growth in BBD volumes, while still preserving space under the advanced biofuel standard for other advanced biofuels to grow.

NBB goes on to suggest that the EPA fails to identify any “other” advanced biofuel that the biomass-based diesel program is negatively affecting. NBB said it disagrees with EPA’s assertion that increasing the biomass-based diesel volume would affect other advanced biofuels, including sugarcane ethanol; ethanol from grain sorghum, food waste or cover crops; renewable diesel from food waste or cover crops; renewable naphtha from food waste or cover crops; CNG/LNG from non-cellulosic sources; and cellulosic biofuel. The commenter states that this is a false assumption since they are not all replacements for each other. Like ethanol, naphtha is also largely used in the gasoline market. CNG/LNG from non-cellulosic sources require retrofits or special vehicles to use, and, thus, are not easily diesel fuel replacements. The markets for these fuels also are very different than the diesel fuel market in which biomass-based diesel is used, including heating oil. We disagree with the commenter. To the extent that the BBD standard takes up almost all or all of the whole advanced biofuel standard, this would limit the ability of other advanced biofuels to compete in fulfilling the advanced standard. This would send a signal to the marketplace to limit investment in the development and production of “other” advanced fuels besides BBD, hindering the benefits of the RFS program particularly over the long term.

NBB argues that there is no competition between BBD and other advanced biofuels that are used in the gasoline market, namely ethanol. While the legal, policy, and practical issues are different for renewable fuels used in the diesel pool versus those used in the gasoline pool, and thus for BBD versus advanced ethanol, nevertheless these two categories do compete with one another given that they are both potential ways of complying with the advanced biofuel standard. That is,

more of one fuel results in less of a need for the other fuel. As described in the NPRM, we determined that such competition is an important element of ensuring that renewable fuel volumes grow as intended by the statute:

"In this proposed rule we have worked to achieve an appropriate and reasonable balance between setting volume requirements that would provide support for biofuels that are more established, while also providing opportunities under those volume requirements for emerging biofuels." (80 FR 33102)

It is appropriate for us to consider this balance between the volume requirement for BBD, which guarantees minimum market demand for advanced biodiesel and renewable diesel, and other advanced biofuels, because we are making reductions to the statutory target for advanced biofuel under the cellulosic waiver authority. Since this waiver authority does not specify the factors we must consider, we can and have considered not only volumes of different forms of advanced biofuel that can be supplied, but also the GHG impacts of those fuels, and our responsibility to continue to help the advanced biofuel industry as a whole to grow.

NBB asserts that increasing the BBD volume requirement provides greater assurances that the advanced standard can be met by providing the biodiesel industry with assurances of a fixed market, reducing uncertainty and enabling that industry to plan and grow. NBB also points to EPA's final rulemaking setting the BBD standard of 1.28 billion gal for 2013, in which we said:

"If we do not set the biomass-based diesel standard above 1.0 billion gallons, biodiesel producers will be less certain of the demand for their product given the opportunities that are also created by the advanced biofuel standard for imported sugarcane ethanol ... Thus in setting the biomass-based diesel volume requirement at 1.28 billion gallons rather than at the statutory minimum of 1.0 billion gallons, we are creating greater certainty for both producers of biomass-based diesel and obligated parties and increasing certainty that the intended GHG emissions reductions and energy security benefits associated with the use of advanced biofuels will be realized." (77 FR 59462).

However, circumstances for 2016 are different than they were in 2012 when the 2013 BBD standard was set. At that time, we believed that the biodiesel industry was motivated primarily by the BBD standard and less by the advanced biofuel standard. However, the biodiesel industry supplied considerably more volume in 2013 than the BBD standard required, strongly suggesting that the BBD standard itself play a minor role, and that the advanced biofuel and total renewable fuel standards played a larger role in providing the market assurances needed for the biodiesel industry to increase supply. Moreover, biodiesel successfully competed with other advanced biofuels, primarily imported sugarcane ethanol, for access to that portion of the advanced biofuel standard that was not required to be cellulosic biofuel or BBD (the "undifferentiated volume" of 824 million gal), supplying more than the minimum 1.28 billion gal of BBD required.

Based on these results, the concerns expressed by EPA in the quotes above no longer carry the same weight. While we continue to believe that it is important to support growth in the BBD industry, we also believe that the BBD industry will be motivated more by the advanced biofuel

and total renewable fuel standards and do not believe that we should support the growth of the BBD industry at the expense of other advanced biofuel industries. As a result, it is appropriate to ensure opportunities for other advanced biofuels as described in RTC Section 3.3.1.

For further discussion of comments related to how BBD competes with other advanced biofuels, see RTC Section 3.3.1.

For responses to comments suggesting that the E10 blendwall can be addressed by increasing the required volumes of BBD, see RTC Section 2.5.

### 3.4.3 Comments on Specific Statutory Factors

#### Comment:

#### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

Biodiesel is known to increase tailpipe NO<sub>x</sub> emissions, an ozone precursor, from diesel engines.<sup>128</sup> Consequently, EPA's proposal to increase the biomass-based diesel standard by over 48% from 1.28 billion gallons in 2013 to 1.9 billion gallons in 2017 will make efforts to meet ozone NAAQS standards more difficult for state and local air quality planners. If ozone standards are further tightened in the future, the air quality impact of biodiesel relative to other sources could become even more significant. [EPA-HQ-OAR-2015-0111-1948-A1 p.56]

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<sup>128</sup> See, for example:

- US Environmental Protection Agency, *A Comprehensive Analysis of Biodiesel Impacts on Exhaust Emissions*, EPA420-P-02-001, October 2002
- Coordinating Research Council, *Investigation of Biodiesel Chemistry, Carbon Footprint and Regional Fuel Quality*, CRC Report No. AVFL-17a, January 2011
- California Air Resources Board, *NO<sub>x</sub> Emission Impacts of Biodiesel Blends*, <http://www.arb.ca.gov/fuels/diesel/altdiesel/meetings/20141024LyonsStatistics.pdf>

#### **Bates White**

As result of advances in biodiesel production with the increased ability to use low-carbon footprint feedstocks, such as waste greases, animal fats, and distiller's corn oil, biodiesel currently reduces CO<sub>2</sub> emissions by 81 percent, compared with petroleum diesel. While the biodiesel accounts for only 3 percent of total U.S. petroleum diesel consumption, biodiesel reduced U.S. CO<sub>2</sub> emissions by over 16 million tons in 2014, equivalent to eliminating 3.6 million cars. If U.S. biodiesel volumes were to grow by 350 million gallons annually, by 2025, it would still amount to less than 9 percent of U.S. diesel consumption, but it would provide 18 percent of the entire transportation sector's share of the U.S. commitment to reduce CO<sub>2</sub> emissions. The cost-effectiveness of biodiesel as a means of reducing CO<sub>2</sub> emissions can be measured as a difference between the cost to produce biodiesel and the wholesale price of petroleum diesel. In recent years, this cost differential has narrowed as a result of investments in

processing technology and production capacity. In 2011, the cost of using biodiesel to reduce CO2 emissions was approximately \$158 per avoided ton of CO2 emissions. By 2014, this cost had declined by 78 percent to \$34 per ton of CO2. These estimates are highly conservative, as they do not account for biodiesel's substantial other benefits, from energy security and reduced particulate emissions. Although this cost of reducing CO2 emissions increased in 2015, this was not due to increased biodiesel production costs, but rather to a sharp decline in world petroleum prices. And as petroleum prices recover, the cost of using biodiesel to reduce CO2 emissions will drop back to their 2014 level or below. The recent rapid growth of biodiesel as a low- carbon alternative fuel represents a major success of the RFS2 program. In 2010 at the start of RFS2, the U.S. produced only 340 million gallons of biodiesel. By 2013, it produced fully 1.4 billion gallons. While biodiesel was almost an afterthought in the initial RFS policy formulation, the industry's response has resulted in a widely available product that contributes significantly to U.S. CO2 reduction goals while also promoting retail competition at the pump.

### **Crimson Renewable Energy LP**

Also, the six criteria for biodiesel growth outlined in the RFS statute have clearly been met. The benefits are clear in terms of cost-effective pollution reduction, job creation, tax revenues and energy security.

We have already seen what happens when there biodiesel market become artificially constrained due to EPA actions —investment stops, plants close down, people lose jobs, and the lowest carbon fuels are affected first, and more dramatically. It is EPA's job to ensure that there is a growing market for advanced biofuels, including biomass-based diesel. This RFS Proposal does not do that. [EPA-HQ-OAR-2015-0111-1823-A1 p.2-3]

### **Darling Ingredients Inc.**

The other two criteria which are not specifically addressed are criteria 2 and 6. While it is incontrovertible that incremental production of BBD is consistent with criteria #2, which calls for the renewable fuels to increase the energy security of the United States, it is interesting to note the EPA failed to take the clear guidance of Congress into consideration in its recent ruling allowing Argentinian Biodiesel to meet less stringent supervisory standards than those required for U.S. producers of BBD. The EPA did not directly address criteria 6 and has consistently failed to take into consideration the increasing importance of BBD for the U.S. agricultural market (Darling previous submission). [EPA-HQ-OAR-2015-0111-1929-A1]

### **National Biodiesel Board**

The impact of the production and use of renewable fuels on the environment, including on air quality, climate change, conversion of wetlands, ecosystems, wildlife habitat, water quality, and water supply.

It also attempts to argue that its assessment considers the “future development and marketing of non-BBD advanced biofuels” under factor (III), *id.*, but this factor considers expected annual rate of future commercial *production*.” 42 U.S.C. § 7545(o)(2)(B)(ii)(III). [EPA-HQ-OAR-2015-0111-1953-A2 p.36]

As further evidence that EPA is not reading the factors as Congress intended, EPA also states its determination “can also be seen as sending a supportive *or nonsupportive* signal to potential investors in BBD.” *Id.* (emphasis added). Under EPA’s own explanation, therefore, its new approach ignores the directives of Congress and undermines the purpose of the statute. [EPA-HQ-OAR-2015-0111-1953-A2 p.36]

EPA references its assessment of supply in Section II.C. of the preamble as its discussion of the expected annual rate of future commercial production. But, this assessment discusses the need to reduce the statutory volumes due to *constraints on ethanol*. In capping the purported supply of advanced biofuel based on *constraints on ethanol*, EPA then contends it must balance between providing a market for advanced biofuels and providing “support” for the biomass-based diesel industry. EPA-HQ-OAR-2015-0111-0008 at 6. EPA further inexplicably states that this “approach does not limit additional BBD production.” *Id.* [EPA-HQ-OAR-2015-0111-1953-A2 p.53]

As explained above, increasing the biomass-based diesel volume eases the pressure of any purported ethanol blend wall, and, thus, even if there were such a thing, this factor would indicate that there would be a drop in expected annual rate of future commercial production of ethanol advanced biofuels. Rather than require EPA to limit biomass-based diesel to allow for competition with these fuels, this factor requires EPA to increase the biomass-based diesel volume to compensate. Applying any potential limitations on ethanol use to the entire advanced biofuel program does, in fact, negatively impact the ability of the industry to participate in the program. Indeed, based on EPA’s own contentions, if the advanced biofuel volume is the driver for biomass-based diesel, and EPA is reducing the advanced biofuel volumes based on concerns with respect to ethanol use, this is limiting the amount of additional biomass-based diesel that would likely be produced. EPA is not allowing the amount that *can* be produced, rather it is setting a lower number that it thinks the obligated parties will tolerate. But that is not consistent with the statute. [EPA-HQ-OAR-2015-0111-1953-A2 p.53]

*Water Quality and Water Supply.* EPA again finds that the other advanced biofuel that might replace soybean oil biomass-based diesel are likely to have impacts on water quality and water supply which are comparable to those of soy-based biomass-based diesel. Given the relatively small amount of these other biofuels, EPA does not find this factor to provide a good reason for setting a higher or lower nested volume requirement. *Id.* As with the other considerations, this renders the entire analysis Congress required pointless. Moreover, EPA identifies no assessment of these issues for these other biofuels by which the public can assess the accuracy of this conclusory statement. Again, EPA admits that its proposal would allow other advanced biofuels with similar impacts on water supply and water quality as soybean oil biodiesel, but then asserts that certain advanced biofuels “will have little or no impact on water quality and water supply,” and keeping the biomass-based diesel volume down would provide a “continuing incentive” for further development and marketing of such fuels. *Id.* Again, EPA simply makes a conclusory statement. [EPA-HQ-OAR-2015-0111-1953-A2 p.51]

While soybean oil has not been found to have significant impacts on water quality or water supply, EPA also ignores that increasing the biomass-based diesel volume requirement supports use of other feedstocks, including waste oils. For example, certain of the feedstocks approved for biomass-based diesel are used as rotational crops which, in fact, allow for less use of fertilizer and pesticides and help retain moisture, reducing water needs. As noted, soybeans are not grown

for the oil and, as such, any purported impacts are likely to occur without any increases in biomass-based diesel volumes. Again, it makes little sense to compare the impacts of certain advanced biofuels over others. They are, by definition, advanced biofuels, and Congress wanted them all in the market. [EPA-HQ-OAR-2015-0111-1953-A2 p.51]

*Wetlands, Ecosystems and Wildlife Habitats.* EPA finds that the other advanced biofuel that might replace soybean oil biomass-based diesel are likely to have impacts on wetlands, ecosystems, and wildlife habitats which are roughly comparable to those of soy-based biomass-based diesel. Given the relatively small amount of these other biofuels, EPA does not find this factor to provide a good reason for setting a higher or lower “nested volume” requirement. *Id.* Similar to the air quality analysis, this renders the entire analysis Congress required pointless. Moreover, EPA identifies no assessment of these issues for these other biofuels. For example, EPA does not explain how sugarcane produced in more sensitive ecosystems in Brazil than soybean oil in the United States would not have a greater impact on wetlands, ecosystems and wildlife habitats. While soybean oil has not been found to have significant impacts on wetlands, ecosystems and wildlife habitats, EPA also ignores that increasing the biomass-based diesel volume requirement supports use of other feedstocks, including waste oils. For example, canola used as a rotational crop has been identified as serving as habitat for wildlife. [EPA-HQ-OAR-2015-0111-1953-A2 p.50]

Again, EPA admits that its proposal would allow other advanced biofuels with similar impacts on wetlands, ecosystems and wildlife habitats as soybean oil biodiesel, but then asserts that other advanced biofuels are not made directly from crops and “would therefore likely have significantly lower impacts on wetlands, ecosystems, and wildlife habitats than soy biodiesel,” and keeping the biomass-based diesel volume down would provide a “continuing incentive” for further development and marketing of such fuels. As an initial matter, there is simply no support to state that a feedstock from a crop will necessarily have “significantly [higher] impacts” than other feedstocks. Getting CNG/LNG to market, for example, likely requires newer and greater infrastructure than soybean oil, resulting in land use impacts. Moreover, soybeans are not grown for the oil and, as such, any purported impacts are likely to occur without any increases in biomass-based diesel volumes. Regardless, it is utterly counter to Congressional intent that EPA (and even proponents of certain biofuels) be required to undergo the process of comparing the impacts of certain advanced biofuels over others. They are, by definition, *advanced* biofuels, and Congress wanted them *all* in the market. [EPA-HQ-OAR-2015-0111-1953-A2 p.50]

### **c. Wetlands, ecosystems and wildlife habitats.**

EPA does not present any new information regarding the potential impacts of increased biodiesel production on wetlands, ecosystems, and wildlife habitats. As an initial matter, EPA continues to find that cropland in the United States is on the decline. Thus, as NBB has continually maintained, there is no evidence of land use impacts as a result of increased biofuel production.<sup>58</sup> As was noted by scientists at Oak Ridge National Labs, the findings in the draft report relied on by EPA in assessing these impacts for the 2013 volume “about what is occurring or could possibly occur” is contradicted by the actual data on land use and environmental changes in the United States since 2001 during the period of rapid biofuel expansion. [EPA-HQ-OAR-2015-0111-1953-A2 p.63]

Improved farming practices generally reduce the potential impacts of agricultural production. See NBB Comments on Draft Report to Congress at 26-40 (EPA-HQ-ORD-2010-1077-0022); H2O'C Engineering, *Water Quantity and Quality Issues Related to Biodiesel*, at 5 (2010) (Attachment 6 to NBB Comments on 2012 RFS, EPA-HQ-OAR-2010-0133-0159). This is unlike the impacts that continue to occur as a result of runoff from developed land. NBB Comments on Draft Report to Congress at 26-40 (EPA-HQ-ORD-2010-1077-0022). In particular, studies have shown that, where soybeans are grown, sediment and phosphorus is ten times greater from non-agricultural land than from agricultural land. *Id.* at 43-44. Biofuel production gives the rural economy additional incentives not to convert their lands for purposes of development. The American Farmland Trust has found that the United States loses nearly 50 acres of farmland every hour. American Farmland Trust, *Farmland*, <https://www.farmland.org/our-work/areas-of-focus/farmland> (last visited July 26, 2015). This loss of valuable farmland is due to the economic hardships faced by farmers and pressures to convert productive land into shopping malls, parking lots, and subdivisions. This trend has a devastating impact on ecology, and habitat, including but not limited to high peak surface water discharge rates, decreased perennial flow, and decreased groundwater recharge as a result of increased impervious surfaces. These disrupted stream flows also carry high concentrations of chemical pollutants and excess nutrient loads from industrial, and residential sources including lawn fertilizers and leaking or ineffective sanitary sewers. The Natural Resource Conservation Service (NRCS) and others have established that developed land contributes significantly more to nutrient loading of streams than agricultural land. NBB Comments on Draft Report to Congress at 16 (EPA-HQ-ORD-2010-1077-0022). [EPA-HQ-OAR-2015-0111-1953-A2 p.63-64]

While biodiesel helps make rotational farming of soybeans more economically sustainable, that economic benefit does not drive expansion beyond the historical footprint of row crop agriculture. In addition the RFS2 land use restrictions on renewable biomass, existing laws, regulations, and basic economic principles already result in restraining U.S. agriculture to its historical footprint. Federal requirements administered through the USDA's NRCS and the Farm Service Agency provide many barriers to farmers who might otherwise expand production of commodity crops onto lands that do not have a historical record of crop production. Some of these restrictions are known as the Sodbuster and Swamp Buster provisions of the Food Security Act of 1985. Those requirements specifically limit conversion of wetlands, grass lands, or highly erodible soil. Farmers ignoring these requirements forfeit the benefit of USDA programs for crop assistance, and are also unlikely to receive crop insurance on new ground. The ability to secure crop insurance on land with a prior history of farming and the inability to secure crop insurance on new land is a significant barrier to planting crops on new land. These factors combine to restrain soybean production to the previously established footprint of row crop agriculture in the United States. [EPA-HQ-OAR-2015-0111-1953-A2 p.64]

Conservation practices continue to be adopted by U.S. farmers with increased effectiveness in protecting soil health, reducing impacts to water quality and enhancing wildlife habitat and biodiversity. A trend in the implementation of conservation practices is to target specific areas to achieve optimum gains. The strategic pairing of conservation practices alongside production agriculture provides the optimum balance of environmental stewardship while producing food for the world and maintaining agriculture as the economic backbone of this country. The environmental benefits of biodiesel and advanced biofuels and the economic benefits of the

RFS2, which enhance the conservation efforts in rural communities, are reasons why the National Association of Conservation Districts supports the RFS2 and why the association leader of 3,000 locally led conservation districts warned that adoption of EPA's November 2013 proposal to reduce advanced biofuels would be a step back in ongoing conservation and environmental efforts. EPA-OAR-2013-0479-3945. Recognizing that the United States has the most efficient farming practices and the most advanced commitment to conservation reminds us that the United States should retain its leadership role in production agriculture. [EPA-HQ-OAR-2015-0111-1953-A2 p.64]

Moreover, there are significant land use impacts of petroleum production, including loss of critically important land and wetland areas. NBB Comments on Draft Report to Congress at 50-51 (EPA-HQ-ORD-2010-1077-0022); *see also* Jason Dearen and Jennifer Kay, *New Hunt for oil in Florida raises environmental concerns*, The Washington Post, July 25, 2015, <http://www.washingtonpost.com/national/energy-environment/new-hunt-for-oil-in-florida-raises-environmental-concerns/2015/07/25/86bb5432-32e6-11e5-a879-213078d03dd3story.html> (“Renewed hunts for oil in sensitive Florida ecosystems have environmental groups raising questions about the state’s regulation of the oil and gas industry.”); Mark Schleifstein, *Wetlands loss linked to Outer Continental Shelf oil and gas pipelines in new study*, The Times-Picayune, Oct 5, 2009, <http://www.nola.com/business/index.ssf/2009/10/wetlandslosslinkedtoouter.html>. These losses could be avoided with increased use of biofuels, particularly as new crops are being developed that can be used as rotational crops or that can be used during fallow periods that provided benefits to the primary crops, including improving moisture and protections against pests. [EPA-HQ-OAR-2015-0111-1953-A2 p.64-65]

A key difference between the assessment conducted by EPA for the 2013 volume from today is the increased use of waste fats, oils and greases for biodiesel production. As noted above, these feedstocks, including distillers corn oil, now account for about half of U.S. biodiesel production. EPA recognized that increasing use of corn oil from dry mill ethanol plants will reduce the “potential agricultural impact of biodiesel production.” 77 Fed. Reg. at 59,474. It also found that “waste fats, oils and greases are expected to have negligible environmental impact as a feedstock since they do not impact agricultural land use and would otherwise be used for some lower value purpose or simply discarded.” *Id.*

*Deliverability of Materials, Goods, and Products Other Than Renewable Fuels.* EPA states that it does not anticipate any significant impacts on deliverability of materials of other renewable fuels “that might result from devoting a larger or smaller portion of the advanced biofuel standard to BBD.” EPA-HQ-OAR-2015-0111-0008 at 6. [EPA-HQ-OAR-2015-0111-1953-A2 p.53]

While EPA’s finding is correct, its ultimate conclusion that this “factor does not provide a basis for selecting any particular BBD applicable volume” is not. *Id.* This analysis shows that additional increases are possible without negative impacts. The program is not at the statutory volumes analyzed by EPA. As such, further increases in biomass-based diesel can be done and should be required, thereby allowing greater increases in the advanced biofuel volume. Thus, even if this factor does not provide a basis for any specific volume, it does support additional increases than proposed by EPA. [EPA-HQ-OAR-2015-0111-1953-A2 p.53-54]

EPA's supplemental analysis also purports to consider job creation and rural economic development, price and supply of agricultural commodities and food prices related to proposed increases in the biomass-based diesel applicable volume. EPA-HQ-OAR-2015-0111-0008 at 8-10. For each, however, EPA continues the fallacy that the renewable fuels industry is a zero sum game. In so doing, it simply finds that these factors are a wash because there would be offsetting impacts. This again illustrates why EPA's consideration cannot be what Congress had in mind. [EPA-HQ-OAR-2015-0111-1953-A2 p.55]

EPA also focuses on soybean oil, as opposed to recognizing the ability of the industry to expand its use of other feedstocks. As further explained below, each of these considerations supports continued, and greater, increases in biomass-based diesel requirements. [EPA-HQ-OAR-2015-0111-1953-A2 p.55]

The expected annual rate of future commercial production of renewable fuels, including advanced biofuels in each category (cellulosic biofuel and biomass-based diesel). [EPA-HQ-OAR-2015-0111-1953-A2 p.69]

The largest growth in advanced biofuel production has been in biomass-based diesel. EPA has found that increasing the biomass-based diesel standard "will provide more certainty that the applicable volume of advanced biofuel set forth in the statute will not need to be reduced." 77 Fed. Reg. at 59,462; *see also* 76 Fed. Reg. at 38,874; 77 Fed. Reg. at 59,483. As described above, increases in biomass-based diesel are necessary to meet the advanced biofuel volume requirements, as cellulosic biofuel production continues to lag behind the statutory levels. [EPA-HQ-OAR-2015-0111-1953-A2 p.69]

To be sure, obligated parties are likely to argue that the ethanol blend wall is a changed circumstance from EPA's prior assessment, affecting prices and diesel supply. We address these specious claims in response to their petitions for a waiver. In any event, limits on the ability to produce and use ethanol only supports substantially increasing the required volumes for biomass-based diesel. [EPA-HQ-OAR-2015-0111-1953-A2 p.69]

EPA admits that the "wider use of any advanced biofuels, including BBD and sugar cane or sorghum ethanol, diversify the U.S. liquid fuel mix and provide energy security benefits." EPA-HQ-OAR-2015-0111-0008 at 5. As such, EPA simply asserts that the supplemental analysis "does not appear to suggest a distinct energy security advantage associated with selecting any particular BBD applicable volume." *Id.* at 5-6. Again, EPA's supplemental analysis lacks any actual analysis. Rather it is a mere conclusory statement based on the fallacy that increasing the biomass-based diesel requirement will only shift the advanced biofuels used. [EPA-HQ-OAR-2015-0111-1953-A2 p.52]

Instead, increasing the biomass-based diesel requirement will "diversify the U.S. liquid fuel mix and provide energy security benefits" in allowing for greater advanced biofuel volumes.<sup>53</sup> "While securing accessible and affordable feedstock is a challenge to the industry, the range of different feedstocks serves as a strength to an industry that is working to diversify transportation fuel choices." E2 2014 Advanced Biofuel Report at 17; *see also* Denial of API/AFPM Reconsideration Petitions at 15-16 ("Energy security does not solely relate to the amount of imported oil but also to the ability of the U.S. to diversify and rely on domestic sources of energy to meet the energy needs of the U.S. ... Creating a new fuel supply that has a different, and likely

reduced, probability of disruptions provides an energy security benefit because it reduces ‘financial and strategic risks caused by potential sudden disruptions in the supply of imported petroleum to the U.S.’”). [EPA-HQ-OAR-2015-0111-1953-A2 p.52]

It cannot be disputed that increased use of biodiesel promotes energy security, and biodiesel production and use will contribute to a U.S. energy security benefit. See, e.g., 76 Fed. Reg. at 38,869 77 Fed. Reg. at 59,470-59,471. Biodiesel plays a major role in expanding domestic refining capacity and reducing this country’s reliance on foreign oil. In addition, biodiesel is an extremely efficient fuel that creates 5.5 units of energy for every unit of fuel that is required to produce the fuel. [EPA-HQ-OAR-2015-0111-1953-A2 p.68]

As stated by the EPA, a higher applicable volume “will assure an increased use of biomass-based diesel in the U.S. and help to improve U.S. energy security. Reducing U.S. petroleum imports and increasing the diversity of U.S. liquid fuel supplies lowers both the financial and strategic risks caused by potential sudden disruptions in the supply of imported petroleum to the U.S.” 77 Fed. Reg. at 59,470. Further, EPA recognized “[e]nergy security does not solely relate to the amount of imported oil but also to the ability of the U.S. to diversify and rely on domestic sources of energy to meet the energy needs of the U.S. ... Therefore, ‘regardless of the incremental effect of this proposal on net imports, increasing the diversification of the U.S. and global diesel fuel pools would likely confer some reduction in the severity of a future potential disruption in the world oil market.’” Denial of API/AFPM Reconsideration Petitions at 15 (citation omitted). [EPA-HQ-OAR-2015-0111-1953-A2 p.68]

When analyzing the 2013 biomass-based diesel volume, EPA found 280 million gallons of biodiesel equals about 255 million gallons of diesel equivalent. Based on analysis of historical and projected future variation in U.S. petroleum consumption and imports, EPA estimated that approximately 50 percent of the reduction in fuel consumption resulting from adopting renewable fuels is likely to be reflected in reduced U.S. imports of refined fuel, while the remaining 50 percent is expected to be reflected in reduced domestic fuel refining. Of the latter, 90 percent was anticipated to reduce U.S. imports of crude petroleum for use as a refinery feedstock, while the remaining 10 percent was expected to reduce U.S. domestic production of crude petroleum. EPA then estimated each gallon of fuel saved due to the RFS reduces total U.S. imports of petroleum by 0.95 gallons, providing approximately \$0.15/gallon benefit. 77 Fed. Reg. at 59,470-59,471. The 300 million gallon increase proposed by NBB would provide at least \$42.75 million in additional energy security benefits. [EPA-HQ-OAR-2015-0111-1953-A2 p.68]

53 Soybean oil remains a significant feedstock for the U.S. biodiesel industry, and “U.S. farmers planted a record 85.1 million acres of soybeans this year.” Mark Ash, Oil Crops Outlook (July 14, 2015), available at <http://www.ers.usda.gov/media/1869335/ocs15g.pdf>; see also id. at Table 3. Canola oil and animal fats also represent significant feedstocks used for biodiesel production, and the use of corn oil from ethanol production and of recycled greases has substantially increased since 2010. See EIA, Monthly Biodiesel Production Report, With Data for December 2012, Tables 3 and 3a (Feb. 2013); EIA, Monthly Biodiesel Production Report, With Data for April 2015, Tables 3 and 3a (June 2015), available at <http://www.eia.gov/biofuels/biodiesel/production/>. Certain of these feedstocks continued to increase in 2014.

EPA's supplemental analysis also purports to consider job creation and rural economic development, price and supply of agricultural commodities and food prices related to proposed increases in the biomass-based diesel applicable volume. EPA-HQ-OAR-2015-0111-0008 at 8-10. For each, however, EPA continues the fallacy that the renewable fuels industry is a zero sum game. In so doing, it simply finds that these factors are a wash because there would be offsetting impacts. This again illustrates why EPA's consideration cannot be what Congress had in mind. [EPA-HQ-OAR-2015-0111-1953-A2 p.55]

EPA also focuses on soybean oil, as opposed to recognizing the ability of the industry to expand its use of other feedstocks. As further explained below, each of these considerations supports continued, and greater, increases in biomass-based diesel requirements. [EPA-HQ-OAR-2015-0111-1953-A2 p.55]

As outlined in LMC International, *The Economic Impact of the Biodiesel Industry on the U.S. Economy* (Nov. 2013) (Attachment 10), there are substantial direct and indirect economic benefits from increasing the volume obligation for biomass-based diesel. Although EPA refers to biodiesel as one of the "existing successful biofuels" fuels that it must "support," 80 Fed. Reg. at 33,102, the biomass-based diesel industry is relatively new compared to ethanol and, certainly, the petroleum industry. [EPA-HQ-OAR-2015-0111-1953-A2 p.74]

As with many young industries, there will be job opportunities created with the increased development and deployment of advanced biofuels. Jobs associated with advanced biofuel production include temporary construction jobs for facilities, permanent production employees, and numerous employees for research and development. There is also substantial potential for job creation along the supply chain, including in feedstock development and distribution. [EPA-HQ-OAR-2015-0111-1953-A2 p.74]

The impact of the use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods. [EPA-HQ-OAR-2015-0111-1953-A2 p.71]

For the 2013 volume, EPA found that the 1.28 billion gallon mandate translated into a per gallon cost over the diesel pool of between \$0.006 and \$0.008. 77 Fed. Reg. at 59,479. EPA provides cost estimates in the new proposal, which translate into purported increases in per gallon costs of approximately \$0.004 per gallon for 2015 and \$0.008-\$0.011 per gallon for 2016. Although obligated parties continue to claim that the requirement to use renewable fuel is resulting in increased costs to the consumer, this is simply incorrect. In fact, the program has resulted in providing the public with an alternative fuel source at a lower cost. Each gallon of RFS2-qualified biodiesel is accompanied by a RIN credit. The value of that credit, which is traded on the open market, is factored into the value of each gallon of biodiesel. This added value allows biodiesel to be sold at a lower price to fuel distributors or fleet managers, who can then pass along savings to consumers.<sup>59</sup> [EPA-HQ-OAR-2015-0111-1953-A2 p.71]

Testimony at the June 25, 2015 hearing support this finding. Michael Whitney of Musket Corp., which provides diesel fuel through Love's Travel Stops directly to consumers, testified that "we put biodiesel in our fuel because it is cheaper than diesel," and that RINs help his company obtain additional revenue to reduce the prices at the pump. [EPA-HQ-OAR-2015-0111-1953-A2 p.71]

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<sup>55</sup> Based on EPA’s diesel fuel estimate use for those years in “Calculation of % standards for annual rulemaking” (EPA-OAR-2015-0111-0005).

<sup>58</sup> The RFS2 itself restricts the use of new lands for production of crops, such as soybeans, for biodiesel production, and decisions regarding planting of soybean acres are largely based on demand for livestock feed and other uses. If soybean oil was not used for biodiesel production, soybeans would continue to be produced to satisfy this demand.

<sup>59</sup> See Terminal Pricing Sheet (Attachment 3).

### **National Renderers Association (NRA)**

The process of rendering animal byproducts sequesters about four times as much CO<sub>2</sub>e as it emits, creating a significant net carbon credit. CO<sub>2</sub>, methane and other GHG emissions from natural decomposition in a compost pile or landfill are avoided

Rendered animal fats and used cooking oil/grease are rich (76 percent carbon on average) in recycled carbon which, when used as feedstocks for biomass based diesel, can contribute significantly to biomass-based diesel’s reduced CO<sub>2</sub> emission level compared to that of petroleum diesel.

### **Northern Canola Growers Association**

Well beyond the canola and agricultural sector, biodiesel provides numerous benefits for consumers and society as a whole, including:

-significant reductions in greenhouse gas emissions resulting in improved air quality [EPA-HQ-OAR-2015-0111-2036-A1 p.2]

### **Phillips 66 Company**

With respect to logistics, biodiesel is transported from the production facilities via truck or rail car to the product terminals for blending with petroleum distillate. A 30% increase in the blending requirement at the terminals, and thus a 30% increase in the truck/rail car unloading, may be problematic at some locations. Biodiesel blending capability does not exist at every product terminal. The 2014 biomass-based diesel volume of 1.63 billion gallons is approximately 3% of the transportation diesel demand. Rather than every terminal blending 3% biodiesel into the diesel, fewer terminals typically blend at 5% (with some limited higher volumes). Continued mandated increases in biomass-based diesel volumes will require expansion of blending infrastructure, which will necessitate capital expenditures and time to complete. One of the criteria that EPA is required to evaluate in setting the biomass-based diesel standard is the sufficiency of the infrastructure to deliver renewable fuel. Absent the evaluation, it is difficult to ascertain if existing terminal blending could increase by 30% from the historical maximums experienced in 2014 or whether infrastructure expansion would be required. [EPA-HQ-OAR-2015-0111-2039-A1 p.4-5]

### **Renewable Energy Group, Inc. (REG)**

The steady growth of biodiesel use has allowed blending and distribution infrastructure to increase at a steady pace to meet increasing demand. Biodiesel is distributed utilizing the existing fuel distribution infrastructure with blending occurring at both fuel terminal and “below the rack” by fuel jobbers. Biodiesel is also being distributed through the petroleum terminal

system. Retail locations offering biodiesel and biodiesel blends have also expanded dramatically. As of March 2015, there were at least 2,168 public locations where biodiesel is available. National Biodiesel Board, Biodiesel Industry Overview & Technical Update, Mar. 2015, <http://biodiesel.org/docs/default-source/ffs-basics/biodiesel-industry-and-technical-overview.pdf?sfvrsn=12> (noting availability of biodiesel at 1,088 retailers, 469 truck stops, and 611 distributors). Currently, the two largest travel centers in the U.S. have consistently increased their biomass-based diesel blending capabilities and now have over 500 blending locations where fuel is blended with biodiesel in concentrations up to 20% (B20). These blends are offered to fleet and other diesel consumers for use in existing engines. Blends of B20 are typical in many markets, biodiesel is readily available, cheaper than diesel and allows B20 blends to be competitively priced to conventional petroleum diesel fuel. In fact, it is more common to see biodiesel blends in the market over 5% (B5), especially with state incentives for higher blends (Iowa, Illinois, Minnesota, Texas). *See* U.S. Department of Energy, Alternative Fuels Data Center, Search Federal and State Laws and Incentives (Biodiesel), available at [www.afdc.energy.gov](http://www.afdc.energy.gov). [EPA-HQ-OAR-2015-0111-1952-A1 p.2]

But, there are more blending and distribution capabilities available in the market with more than 2,500 travel center locations in the U.S. serving the over the road trucking industry (<http://trucker.com/truck/stops>). **The continued development and evolution of biodiesel blending in the travel center industry indicates there is room for increasing consumption of biodiesel in the market thereby supporting higher RVO volumes for biomass based diesel.** [EPA-HQ-OAR-2015-0111-1952-A1 p.3]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 51.]

In fact, the two major travel centers in the U.S. have more than 500 locations combined across the country where they provide blends of up to B20. And with a number of State incentives for blends of B5 to B11 and higher, we see more infrastructure growth ahead.

### **The George Washington University**

The literature is mixed on the environmental effects of biofuel production, with many estimates indicating that the production of ethanol and biodiesel may significantly increase emissions, specifically of the greenhouse gases carbon dioxide (CO<sub>2</sub>) and nitrous oxide (N<sub>2</sub>O) and criteria pollutants such as particulate matter.

### **U.S. Canola Association (USCA)**

Since biodiesel provides a greenhouse gas benefit compared to the petroleum-based diesel it is replacing, increasing its use will contribute to reduced climate change impacts. [EPA-HQ-OAR-2015-0111-1819-A1 p.2]

### **Response:**

#### **Comments on Statutory Intent:**

NBB highlights various excerpts from the NPRM which discuss the proposed BBD volume requirement and the statutory analysis to argue that EPA's approach to the statutory factors

analysis ignores Congressional intent and undermines the purpose of the statute. We disagree and believe that our final rule is consistent with statutory intent and appropriately sets BBD volume requirement for 2014-2017. As we noted in the section III.A of the final rule, the statute does not establish numeric criteria or provide guidance on how the EPA should weigh the importance of the various factors along with the overarching goals of the statute. As discussed in Section III.D. of the final rule, the BBD volume requirement is nested within both the advanced biofuel and the total renewable fuel volume requirements; so that any BBD produced beyond the mandated BBD volume can be used to satisfy both these other applicable volume requirements. The result is that in considering the statutory factors we appropriately consider the potential impacts of increasing BBD in comparison to other advanced biofuels. Greater or lesser applicable volumes of BBD do not change the amount of advanced biofuel used to displace petroleum fuels; rather, increasing the BBD applicable volume may result in the displacement of other types of advanced biofuels that could have been used to meet the advanced biofuels volume requirement.

Therefore, EPA's approach was to review the implementation of the program to date, undertake an assessment of the factors found in CAA 211(o)(2)(B)(ii) (I)-(VI), and coordinate with DOE and USDA, as required by the statute. EPA's primary assessment of the statutory factors for years 2014 is that given the fact that the 2014 compliance year has passed, we believe that our action in setting the 2014 BBD volume requirement will result in no real-world impacts, including no impacts with respect to the factors listed under CAA section 211(o)(2)(B)(ii)(I)-(VI). As discussed in section III.E.1 of the final rule, we believe the assessment is the same for the 2015 BBD volume requirement, since this rule will be issued too late to influence the market in 2015. For 2016-2017 our primary analysis for this rule is that because the final advanced biofuel volume requirements reflects the advanced biofuel volumes (including BBD) that can be reasonably attained, and because the BBD requirement is nested within the advanced biofuel volume requirement, we expect that the advanced volume requirements for 2016-2017 will determine the level of BBD supplied to the marketplace; the same volume of BBD will likely be supplied regardless of the BBD volume that we require for any given year. As a result, there will be no real world impacts, including no impacts with respect to the factors listed under CAA section 211(o)(2)(B)(ii)(I)-(VI), in EPA's establishment of BBD applicable volumes for 2016 and 2017. EPA also undertook a supplemental analysis based on the assumption that our decision with respect to the BBD applicable volume could make a difference in the amount of BBD and other advanced biofuels used to meet the advanced biofuel standard. This analysis, including a review of each statutory factor, is described in in a memorandum to the docket, entitled, "Final Statutory Factors Assessment for 2016-2017 Biomass-Based Diesel (BBD) Applicable Volumes." As a result of our analyses we conclude that there does not appear to be a good reason for setting a higher or lower volume standard for BBD than 1.90 billion gallons in 2016, and 2.0 billion gallons in 2017. The reasons EPA has decided to finalize those volume requirements is described in the preamble.

Below we respond to comments submitted on various statutory factors. Sections 7 and 8 of the RTC also contain additional responses to comments on issues contained in the statutory factors. Interested parties may also review the Final Statutory Factors Assessment memorandum found in the docket for this rulemaking.

### **Comments on Increasing BBD Volumes to Address the Ethanol Blendwall:**

NBB argues that the statutory factors require that EPA increase the BBD volume to compensate for the blendwall issues. They state that increasing the biomass-based diesel volume eases the pressure of any purported ethanol blend wall, and that if, as EPA contends, the advanced biofuel volume is the driver for biomass-based diesel, and EPA is reducing the advanced biofuel volumes based on concerns with respect to ethanol use, this is limiting the amount of additional biomass-based diesel that would likely be produced. EPA disagrees with NBB's suggestion that the statutory factors require that EPA increase the BBD volume to compensate for the blendwall issues. We also disagree with their assertion that we are reducing the advanced biofuel volume due to ethanol blendwall constraints and therefore limiting the amount of BBD that might otherwise be produced and used. The E10 blendwall and the amount of ethanol that can be consumed is only one factor in assessing the maximum reasonably achievable volume for the total renewable fuel standard, and is unrelated to our assessment of the maximum achievable volume of biodiesel and renewable diesel for the total renewable standard as discussed in section II.E. of the final rule. It is also not a factor that limits the portion of the total renewable fuel volume that is advanced biofuel. Advanced biofuel volumes are set at a level we have determined to be reasonably attainable.

In fact, for 2016 and 2017, in recognition of the important role that BBD plays in the RFS program and to provide continuing support for the industry, as well as to help ensure that higher volume requirements for advanced biofuel can be reached, we are increasing the BBD volume requirement for each year to 1.9 and 2.0 billion gallons, respectively. However, we also believe that it is of ongoing importance that opportunities for other types of advanced biofuel, such as renewable diesel co-processed with petroleum, renewable gasoline blend stocks, and renewable heating oil, as well as others that are under development be incentivized and expanded. We believe establishing the volumes at these levels will encourage BBD producers to manufacture higher volumes of fuel that will contribute to the advanced biofuel and total renewable fuel requirements, while also leaving considerable opportunity within the advanced biofuel mandate for investment in and production of increasing volumes over time of other types of advanced biofuel with comparable or potentially superior environmental or other attributes.

### **Comments on Infrastructure Impacts of Increasing BBD Volumes:**

We received a number of comments regarding the ability of the current infrastructure to accommodate the proposed increases in BBD volume requirements for 2015-2017. One oil industry commenter indicated that logistics associated with a 30% increase in the blending requirement may be problematic at some terminal locations. They explained that since biodiesel is transported from the production facilities via truck or rail car to the product terminals for blending with petroleum distillate, a 30% increase in the blending requirement at the terminals, and thus a 30% increase in the truck/rail car unloading, may be problematic at some terminal locations and that biodiesel blending capability does not exist at every product terminal. Biofuel industry stakeholders, including NBB, commented that the steady growth of biodiesel use had allowed blending and distribution infrastructure to increase at a steady pace to meet increasing demand. They noted that biodiesel is distributed utilizing the existing fuel distribution infrastructure with blending occurring at both fuel terminal and "below the rack" by fuel jobbers. In addition, they stated that biodiesel was also being distributed through the petroleum terminal system and that retail locations offering biodiesel and biodiesel blends had expanded

dramatically. As of March 2015, they stated there were at least 2,168 public locations where biodiesel is available. These commenters stated that there would not be any significant impacts on deliverability of materials at the levels of BBD volumes that EPA had proposed, and they asserted that in fact the statutory analysis demonstrated that additional increases in the BBD volume requirement were possible without negative impacts on infrastructure.

In finalizing the BBD volume in 2016 and 2017 at 1.9 and 2.0 billion gallons, respectively, after assessing a variety of factors EPA believes that these volume requirements are justified. We believe that the distribution system that we expect to be in place for 2016 and 2017 is able to address the level of BBD volumes we are finalizing in this rule. We also acknowledge that there continues to be distribution and constraints associated with the overall level of BBD that can be distributed in the U.S. at this time and these constraints informed our decision on the final levels of BBD volume that are reasonably attainable for 2016-2017 under the advanced biofuel volume requirement and overall maximum achievable level of biodiesel and renewable diesel under the total renewable fuel requirement. In our assessment of the distribution capabilities found in section II.E.3.iv-v of the final rule, we acknowledge that biodiesel cannot currently be distributed through most pipelines due to contamination concerns with jet fuel, and often requires specialized storage facilities to prevent the fuel from gelling in cold temperatures.

Another factor potentially constraining the supply of biodiesel is the number of terminals and bulk plants that currently distribute biodiesel. Transportation of biodiesel to and from the terminals and bulk plants is also an important consideration. In lieu of pipeline transport, biodiesel currently relies primarily on rail car, barge, and especially tanker truck fleets for distribution from production and import facilities to blending terminals and bulk plants. Due to the unique properties of biodiesel, such transport typically has required the use of heated/insulated tanks, especially in winter to keep the product from gelling or freezing. This requirement for specialized equipment further limits the speed at which biodiesel distribution can grow. The net result is that the expansion of terminals and bulk plants selling biodiesel and biodiesel blends, and the distribution infrastructure necessary to transport biodiesel to and from these facilities may be one of the biggest challenges facing the rapid expansion of biodiesel. This is an area in which the biodiesel industry has made steady progress over time, and we anticipate that this steady progress can and will continue into the future, particularly with the ongoing incentive for biodiesel growth provided by the RFS standards. As with many of these potential supply constraints, however, increasing the biodiesel distribution capacity will require time.

For biodiesel blends we also expect that refueling infrastructure (e.g. refueling stations selling biodiesel blends) will be a limiting factor in 2016. Biodiesel is typically distributed in blended form with diesel fuel as varying blends from B2 up to B20. Biodiesel blends up to and including B20 can be sold using existing retail infrastructure. Expanding the number of refueling stations offering biodiesel blends is therefore constrained less by the retail facilities themselves, and more by the lack of nearby wholesale distribution networks that can provide the biodiesel blends to retail.

Based on currently available information, biodiesel blends greater than B5 are still only available in a very small fraction of possible refueling locations. Of the approximately 4,800 truck stops nationwide, and the approximately 50,000 diesel retail stations, USDA data shows that just 717 stations offer biodiesel in blends of B20 or greater, and NBB's website shows just 1090 biodiesel

stations of all types nationwide, though in their comments they reference a higher number of 2,168 public locations. While the number of refueling stations offering higher level biodiesel blends is relatively small, the fact that diesel sales volumes in the United States are dominated by truck stops and the very large centrally fueled fleets, suggests that expanding the refueling infrastructure for these biodiesel blends (B5-B20) will be relatively straightforward as production and distribution allow. The biggest challenge may be the reluctance of retailers and fleets to switch to biodiesel blends due to concerns over fuel quality, vehicle warranties, liability, or other factors.

Section II. E.3.iv-vii in the final rule provides a comprehensive discussions of the infrastructure and distribution situation in the U.S. today and constraints associated with the overall level of BBD that can be distributed in the U.S. at this time.

### **Comments on Supplemental Analysis Regarding Job Creation and Rural Economic Development, Price and Supply of Agricultural Commodities and Food Prices:**

NBB commented that EPA's supplemental analysis with regard to job creation and rural economic development, price and supply of agricultural commodities and food prices related to proposed increases in the biomass-based diesel applicable volume is incorrect because EPA's analysis finds that there are offsetting impacts with regard to other advanced biofuels and therefore concludes that these factors are a wash. EPA disagrees that our assessment is incorrect. As noted elsewhere, it is appropriate to consider the impacts of variations in the BBD volume requirement as potentially leading to greater or lesser displacement of other advanced biofuels. In finding no advantage to use of BBD with respect to these factors as compared to the use of other advanced biofuels, EPA appropriately considered the potential impacts of its decision in setting the BBD applicable volume. . Sections 7.2., 7.7 and 7.8 discuss additional comments received on the impacts of the BBD volume requirements and the statutory factors analysis with regard to job creation, rural economic development, agricultural commodities and food price issues. See also the Memorandum to docket: "Final Statutory Factors Assessment for 2015-2017 BBD Applicable Volumes".

### **Comments on Cost to Consumers of Transportation Fuel:**

Regarding biodiesel, the NBB believes that EPA overestimated the cost of additional biodiesel volumes. They claim that "the program has resulted in providing the public with an alternative fuel source at a lower cost", and they provided documentation of a testimony in which a diesel provider claims to use biodiesel because it's cheaper than diesel fuel.

These and other commenters, along with commenters on RIN prices and retail fuel prices discussed in Sections 7.5 and 7.6, tend to confuse prices with the costs of the RFS program to consumers. Biodiesel has lower energy content than the diesel fuel it replaces by about 10%, but the real issue in the comments is that the commenters are ignoring the distortionary impact of the RIN. The RIN from the RFS program is reducing the price of biodiesel blends and increasing the price for diesel fuel in the marketplace, but that doesn't mean that biodiesel is costing consumers less. One needs to look at the costs to produce and deliver to market renewable fuels without the distortionary impact of the RIN on their prices to assess the overall cost. If one does this it is obvious that biodiesel costs considerably more than the diesel fuel it displaces on a per gallon basis. Section 7.8 provides a discussion on the issue of biodiesel cost.

### **Comments on Feedstocks Availability:**

NBB commented that the EPA focuses only on soybean oil, as opposed to recognizing the ability of the BBD industry to expand by using other feedstocks. In support of its position, NBB provided new data that they argue suggests that sufficient BBD feedstocks existed to produce, import, and consume volumes of BBD in 2016 – 2017 that exceed the volume requirements established in the proposed rule. A number of other commenters also provided EPA additional new studies which discussed feedstock availability issues with regard to BBD. This information is discussed in section II.E.3-4 of the final rule. While these studies provide differing assessments of feedstock availability, on the whole, the EPA acknowledges that the supply of oils, fats, and greases that are suitable feedstocks for biodiesel and renewable diesel production are likely to continue to grow over time. However, much of these sources have already been tapped to a considerable degree due to their favorable economics. As a result, much of the growth in volume in the future is likely to also be derived from virgin vegetable oil feedstocks (e.g., soy oil and canola oil) in the U.S. and abroad. In fact, their comments also highlighted potential increases in soy biodiesel from Argentina and soy biodiesel in the U.S. due to a recent FDA ruling

### **Comments on Energy Security:**

NBB suggested that “increasing the biomass-based diesel requirement will “diversify the U.S. liquid fuel mix and provide energy security benefits” in allowing for *greater* advanced biofuel volumes.” EPA believes that given the nested nature of the RFS standards, extra BBD produced above the BBD standard can be used to comply with the advanced and total renewable fuel standards. Thus, the analysis of energy security impacts associated with increasing the BBD standard to devote a larger portion of the advanced biofuel standard to biodiesel is a comparison of the energy security impacts of BBD to other types of advanced biofuels, not a comparison to diesel fuel. Other advanced biofuels, excluding BBD, currently include sugarcane ethanol (primarily from Brazil), sorghum ethanol, ethanol from food waste, renewable diesel co-processed with petroleum diesel fuel, CNG/LNG from certain waste digesters, and renewable naphtha. All of these fuels displace U.S. imports of petroleum and diversify the U.S. fuel supply. Also, all of the biofuels that displace petroleum help reduce the impacts of periodic supply disruptions or “oil shocks.” Setting a BBD standard that required that all or virtually all of the advanced biofuel standard be made up of BBD would reduce diversity of fuel supply and therefore reduce energy security.

### **Comments on Expected Annual Rate of Future Commercial Production:**

NBB also states that our assessment failed to consider the expected annual rate of future commercial production of renewable fuels including advanced biofuels in each category (cellulosic biofuel and biomass-based diesel) as required under the statutory factors. EPA disagrees with these comments. For this final rule, sections II.E and II.F of the final rule provide an assessment of the maximum reasonably achievable volumes of total renewable fuels for 2016. Reasonably attainable volumes of advanced biofuel, including BBD, for 2016 are also discussed in the preamble, as is our projected production volume of cellulosic biofuel.

With regard to advanced biodiesel and renewable diesel, as discussed in section II. F of the final rule, past experience suggests that a high percentage of the supply of biodiesel and renewable

diesel to the United States qualifies as advanced biofuel. In previous years biodiesel and renewable diesel produced in the United States has been almost exclusively advanced biofuel. It is likely that some advanced biodiesel will be imported in 2016, as discussed in Section II.E.3.iii of the final rule, however we believe that the volume of biodiesel imported from Argentina in 2016 is likely to be less than the several hundred million gallons suggested by some commenters (see Section II.E.3.iii of the final rule for more detail on biodiesel and renewable diesel imports).

Due to the nested nature of the standards, all cellulosic biofuel qualifies to help meet the advanced biofuel volume requirement. As described in Section II.E.4 of the final rule we have also estimated that about 25 million gallons of advanced biofuel other than ethanol, biodiesel, and renewable diesel can be supplied in 2016. We estimate that the combination of all these sources results in a reasonably attainable volume of advanced biofuel for 2016 of 3.61 billion gallons (ethanol equivalent). As we note in the final rule in section II.F, the volumes actually used to satisfy this requirement may be different than those listed in Table II.F-1.

In summary, the domestic BBD industry coupled with foreign production available for import to the U.S. already has sufficient production capacity to meet the full 1.90 billion gallons being adopted for 2016 and to meet the 2.1 billion gallons of advanced biodiesel and renewable diesel assumed in setting the 2016 advanced biofuel standard. As noted earlier, EPA continues to respond to industry requests, expanding the number of advanced renewable fuel pathways including those producing BBD. Based on comments received and further analysis, we believe that an increase in the BBD volume to 1.90 billion gallons in 2016, and 2.00 billion gallons in 2017 strikes the appropriate balance between providing a market environment where other types of advanced biofuels are incentivized and providing support and a degree of certainty for the BBD industry. This approach does not limit additional BBD production.

#### **Comments on Environmental Benefits:**

We received a number of comments pointing out the environmental benefits of replacing petroleum-based fuels with biomass-based fuels. Generally identifying improvements to air emissions and more specifically GHG reduction benefits. Below is a brief response to those comments. Air quality impacts of replacing petroleum-based fuel with biofuel are treated in section 8.3, while climate change benefits are discussed in Section 8.2.

#### **Air Quality:**

The Agency received several comments on the air quality and climate change impacts of biodiesel. Some commenters stated that biodiesel resulted in air quality benefits while the other commenters criticized the Agency for pursuing a policy of increasing biodiesel volumes that results in negative air quality impacts. (Note: comments related to air quality impacts are also found in sections 8.0 and 8.3).

We continue to believe that the air quality assessment that supports the RFS2 rule, which is the result of years of rigorous analysis and modeling, remains the Agency's best estimate of the air quality impacts associated with the renewable fuel standards, including the BBD component. Prior studies summarized in the RFS2 RIA indicate that the impacts of biodiesel on VOC, PM and air toxics emissions at the tailpipe are generally favorable compared to petroleum diesel fuel, but the impact on NO<sub>x</sub> is slightly detrimental. However, that work was done on

engines without NO<sub>x</sub> or PM aftertreatment, so the important impacts on new engines is less well understood. Of greater importance, the RFS2 RIA also indicates that the upstream emissions (PM, VOC, NO<sub>x</sub>, CO, and SO<sub>2</sub>) of biodiesel production (emissions associated with the upstream production and distribution of biodiesel) are detrimental to air quality. Upstream air toxics emissions impacts are negligible to slightly detrimental to air quality. Taking both tailpipe and upstream emissions into account, the net impacts yield increases in the pollutants that contribute to both ambient concentrations of ozone and particulate matter as well as air toxics. At the same time, other advanced biofuels such as sugarcane ethanol (primarily from Brazil), sorghum ethanol, ethanol from food waste, renewable diesel co-processed with petroleum diesel fuel, CNG/LNG from certain waste digesters, and renewable naphtha also have impacts on air quality. While the RFS2 rule focused primarily on corn ethanol the vehicle emission impacts from other sources of ethanol will be the same, though the upstream impacts may vary in type, quantity, location, and impact. CNG/LNG vehicles would have to meet the same emission standards but it's upstream emissions would be primarily limited to methane. All this indicates that some emissions increases or decreases might be associated with any changes between the volume of BBD and other advanced biofuels used to meet the advanced biofuel standard. As we stated above, the overall impacts of marginal shifts between BBD and other advanced biofuels is expected to be small. Therefore, we do not believe that air quality impacts by itself, or in consideration with other factors warrants higher or lower BBD volumes than 1.90 billion gallons for 2016 and 2.0 billion gallons for 2017.

### **Climate Change:**

A number of commenters stated that there is a GHG (and therefore climate) benefit of replacing petroleum-based fuel with biodiesel. This is consistent with EPA's findings in the context of analyzing a number of biodiesel production pathways using various feedstocks.

A number of commenters cited the lower GHG emissions associated with biodiesel to argue that EPA should finalize higher volumes of BBD. As EPA discusses in section II.E.3 of the final rule we are finalizing a volume requirement for advanced biofuels that reflects volumes that we believe are reasonably attainable. This advanced standard is expected to lead to use of all reasonably attainable volumes of BBD, as well as other advanced biofuels. Also, the final volume requirements for BBD specifically in 2016 and 2017 reflect considerable increases over the volume requirements being finalized for 2014 and 2015. While NBB and others noted that expanded feedstock availability for biodiesel production, in particular the expanding use of waste fats, oils and greases provides a greater opportunity for producing lower GHG BBD, as noted above, the advanced biofuel standard was designed to require all reasonably available volumes of BBD; feedstock availability is only one consideration. Setting the nested BBD volume requirement sufficiently below the advanced biofuel requirement, as reflected in the final volumes, should provide a continuing incentive for the further development and marketing of other advanced biofuels, and may result in potentially increased GHG reductions through RFS implementation over the long term. For further discussion of the climate change impacts associated with the RFS program refer to RTC Section 8.2 and the Memorandum to the Docket: "Final Statutory Factors Assessment for 2016-2017 Biomass Based Diesel Applicable Volumes,"

## **Water Quality:**

In their comments, the National Biodiesel Board (NBB) claims a variety of water quality advantages of biodiesel or lack of the disadvantages associated with other biofuels, particularly those types of concerns often raised with corn ethanol, a conventional biofuel. NBB criticized EPA's assessment of impacts on water usage and water quality, suggesting in particular that EPA should instead compare soy-oil biodiesel to potential petroleum impacts on water use and water quality rather than to other biofuels for determining the BBD standard. We disagree. We have set the total renewable fuel standard at the maximum reasonably achievable level considering all potential supplies of biodiesel, renewable diesel and other qualifying renewable fuels, and have set the advanced biofuel standard at the reasonably attainable level of advanced biofuels considering all the potential supplies of advanced biodiesel and renewable diesel as discussed in section II of the final rule. In setting the BBD standard then, biodiesel volumes are not further displacing petroleum, but rather competing with other advanced biofuels to satisfy that market's demands. In the context of displacing other advanced biofuels such as sugarcane ethanol (primarily from Brazil), sorghum ethanol, ethanol from food waste, renewable diesel co-processed with petroleum diesel fuel, CNG/LNG from certain waste digesters, and renewable naphtha there would not appear to be any basis for claiming a significant advantage with respect to water quality and water quantity for biodiesel. The majority of it, and especially the majority of the increase going forward is expected to come from soy oil and other virgin vegetable oils. The growth of the feedstocks and their processing into biodiesel raise both water consumption and effluent/runoff concerns, providing no meaningful advantage for biodiesel relative to the other alternatives.

## **Wetlands, ecosystems and wildlife habitats:**

The comments from the NBB note that farming practices continue to evolve and crop yields continue to improve, mitigating potential adverse impacts including those impacting wetlands, ecosystems and wildlife habitats. We noted in the first triennial report to Congress an increase in biofuel production could have adverse impacts due to monoculture production adversely impacting biodiversity and the potential adverse impact of runoff from crop lands on wetland pollution. To the extent that increasing crop yields and improved farming practices over time are able to mitigate the potential adverse impacts on wetlands, ecosystems and wildlife habitat, it does not eliminate such concerns.

NBB criticized EPA's analysis of the impacts of higher biodiesel volumes for setting the BBD standard, arguing that its wetland, ecosystem, and wildlife habitat impacts were better for BBD than for other biofuels and therefore warranted higher BBD standards. In doing so, however, their comments highlighted specific issues associated with individual competing biofuels while ignoring similar or analogous issues with biodiesel (e.g., infrastructure for CNG/LNG vs infrastructure for feedstocks, production, distribution, etc. of biodiesel). They highlighted all the progress being made to improve farming practices to reduce their negative consequences, but did not acknowledge that they nevertheless exist. They also suggested EPA ignored the minimal impacts of waste fats, oils, and greases. While we acknowledge the reduced impacts of such feedstocks, we also believe that much of the future near term growth in feedstocks will be from virgin vegetable oil feedstocks. To the extent that increases in advanced biofuels are derived from non-crop feedstocks such as ethanol from food waste and CNG/LNG from certain waste

digesters, they would clearly have less of an impact on wetlands, ecosystems and wildlife habitats than biodiesel.

Further discussion of comments related to the environmental impacts of the proposed rule can be found in RTC section 8. Regarding the adequacy of our assessment for the statutory factors for the range of biodiesel feedstocks refer to the Memorandum to the Docket: “Final Statutory Factors Assessment for 2016-2017 Biomass Based Diesel (BBD) Applicable Volumes”.

### **3.5 General Comments on Increasing the BBD Standard Above 1.28 Billion Gallons 504**

#### **Comment:**

##### **New Leaf Biofuel, LLC**

We have been counting the days waiting for the new proposed rule, hoping that the EPA would finally come out with a proposal that would stimulate the growth of the industry again. Unfortunately, we were disappointed. While we appreciate that EPA increased the volumes over 1.28 billion, this proposal still falls well short of a mandate that will stimulate growth. [EPA-HQ-OAR-2015-0111-1909-A1 p.2]

#### **World Agricultural, Economic, and Environmental Analysis**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 212-213.]

Today, I'd like to briefly highlight the implications of an alternative scenario to the proposed biodiesel volume obligations. The alternative scenario included a biodiesel volume obligation of 2.1 billion gallons in 2015, 2.4 billion gallons in 2016, and 2.7 billion gallons in 2017. As you are aware, the biodiesel industry has greatly diversified its feedstock mix over the past few years, and most notably, distillers corn oil is a growing source of supply for biofuels. Distillers corn oil is primarily used as an energy source in livestock rations and with falling grain prices is expected to find higher value in biodiesel production. In addition, as per your January 2015 announcement, the Argentine biodiesel sector now has increased ability to earn D4 RINs, even as other international markets for Argentine biodiesel have diminished. The available Argentine supply, in combination with abundant distillers corn oil and other feedstocks, lessens the impact of increased volume obligations on feedstock prices. In this scenario, with a 2.7 billion gallon volume obligation in 2017, the WAEES model simulates soybean oil prices in the range of 34 to 35 cents per pound. By comparison, soybean oil prices exceed 50 cents per pound in 2011-'12 and 2012-'13 marketing years. The prices have fallen in the past few years and are expected to average 33 cents for 2014 and '15.

#### **Response:**

One commenter expressed disappointment with the BBD volumes proposed in the NPRM indicating that, while the volumes were better than what had originally been proposed in November 2013, the volumes proposed in June 2015 would not stimulate growth in the industry.

EPA acknowledges these and other comments which expressed the hope that the final rule would incorporate higher volume requirements for BBD. However, in finalizing this rulemaking we believe that it is appropriate to establish the 2014 and 2015 volume requirements of BBD to reflect actual supply (including a projection for the latter part of 2015 that is primarily based on supply in the earlier part of the year for which data is available). For 2016 and 2017, to preserve the important role that BBD plays in the RFS program, as well as to ensure that higher volume requirements for advanced biofuel can be reached, we believe that it is appropriate to increase the BBD volume requirement for each year beyond what we had proposed in the June 2015 NPRM. Thus, based on a review of the implementation of the program to date and all the factors required under the statute, we are not only finalizing the 2014 and 2015 BBD volume requirement at the actual volumes of 1.63 and 1.73 billion gallons, respectively, but we are also finalizing increases in the applicable volume of BBD to 1.9 and 2.0 billion gallons for years 2016 and 2017, respectively. We believe that these increases support the overall goals of the program while also maintaining the incentive for development and growth in production of other advanced biofuels. We believe establishing the volumes at these levels will encourage BBD producers to manufacture higher volumes of fuel that will contribute to the advanced biofuel and total renewable fuel requirements, while also leaving considerable opportunity within the advanced biofuel mandate for investment in and production of other types of advanced biofuel with comparable or potentially superior environmental or other attributes.

Finally, one commenter reviewed the various scenarios presented in the NPRM and highlighted the fact that feedstocks for biodiesel have greatly diversified in recent years lowering overall prices and making higher biodiesel volume obligations of 2.1 in 2015, 2.4 in 2016, and 2.7 billion gallons in 2017 attainable. While diverting biodiesel and renewable diesel feedstocks from current uses and increasing total feedstock availability will take time, we acknowledge that the world supply of oils, fats, and greases that are suitable feedstocks for biodiesel and renewable diesel production has continued to grow over time. We believe that this supply can continue to grow as more oilseed crops are planted, productivity from existing crops increases, and recovery rates of waste, fats, oils, and greases add to the total available supply. The recent development and commercialization of the non-food grade corn oil extracted from distillers dried grains at ethanol plants has added to the total supply of biodiesel and renewable feedstocks.

It is also worth highlighting that over time the opportunity for continued growth in the feedstocks currently used to produce biodiesel and renewable diesel may begin to plateau, and the volumes of these fuels along with it unless there is a breakthrough in the development of new feedstocks. The bump up in supply brought about by large increases in palm oil production, corn oil extraction, and the increased recovery of waste fats, oils, and greases is limited, and may soon near its practical limit. There has been considerable research and development for many years in the potential for algal bio-oils and other new oilseed crops that could be grown on marginal lands that could serve as a feedstock for biodiesel and renewable diesel. However, the promise of large volumes of algal bio-oils and alternative oilseed crops remains in the future, well beyond the timeframe of the 2016 standards, and near term feedstock supply increases are likely to be incremental from existing sources.

Therefore, while we disagree with the specific volume levels this commenter believes is feasible for 2016-2017 (2.4 to 2.7 billion gallons), we do believe that higher levels than what were

proposed in the June 2015 NPRM are appropriate and are finalizing BBD volume requirements of 1.9 and 2.0 billion gallons for 2016 and 2017, respectively.

### **3.5.1 Comments Supporting Biomass-Based Diesel Volume Requirement Above 1.28 Billion Gallons**

#### **Comment:**

#### **American Council on Renewable Energy (ACORE)**

While the BBD RVOs are a step in the right direction, ACORE believes these RVOs do not fully capitalize on BBD's benefits and potential for growth. According to USEPA's own calculations, biodiesel delivers more significant GHG emissions reductions than any other domestic, commercial-scale fuel on the national market. Biodiesel is produced in nearly every state in the country and is supporting more than 62,000 jobs, 49 while helping to reduce our dangerous dependence on petroleum. The six criteria for biodiesel growth, outlined in the RFS statute, have clearly been met. The benefits are clear in terms of cost-effective pollution reduction, job creation, tax revenues and energy security. [EPA-HQ-OAR-2015-0111-1926-A1 p.15-16]

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49 "Biodiesel supporters to press EPA on renewable fuel standard." The National Biodiesel Board, June 24, 2015, <http://www.biodieselmagazine.com/articles/429869/biodiesel-supporters-to-press-epa-on-renewable-fuel-standard>

#### **American Soybean Association (ASA)**

As we have identified in these comments, there are a number of factors that will result in additional feedstock and biodiesel for the U.S. market and there are numerous benefits that would be gained from implementing volume requirements that would ensure these additional levels are realized. The ASA believes these factors and the benefits derived from biodiesel provide justification for EPA to modestly increase the biomass-based diesel volumes from the levels in the Proposed Rule. As it is consistent with the intent of the statute and with the goals and objectives of this Administration, the ASA sees no compelling reason why the EPA would not support more aggressive, yet readily achievable, biomass-based diesel volumes. [EPA-HQ-OAR-2015-0111-1818-A1 p.4]

Given these factors and the many benefits that biodiesel provides, the ASA asks that you reconsider the biomass-based diesel standards in the Proposed Rule and finalize stronger standards, particularly for 2016 and 2017. The biodiesel industry has previously requested volumes of 2.4 billion gallons in 2016 and 2.7 billion gallons in 2017. While those volumes are readily achievable and sustainable, particularly with rising imports, at a minimum EPA should set the standards at not less than 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-1818-A1 p.4]

#### **American Soybean Association (ASA)**

On behalf of the American Soybean Association, I want to express my view that EPA should support more aggressive, but achievable, Renewable Fuel Standard (RFS) volume targets for biodiesel. Given the many benefits of biodiesel and the capability for increased production, EPA

should, at a minimum, support biomass-based diesel volumes of at least 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-1818-A1 p.1]

#### **Anonymous Citizen 6**

Biomass-based diesel, on the other hand, seems to have more similar properties to its authentic counterpart than gasolines. It is created from oils of seeds, algae, and animal fats. However, it would not affect engine wear the same way that to which cellulosic biofuels have been shown.

Further, its emissions output is fifty percent less than fossil diesel. This will help reduce emissions typically associated with fossil fuel pollution. This form is also drastically cheaper, usually running about a third of the cost of cellulosic fuel. (5) By being more energy efficient, biomass-based diesel is the clear winner in the direction that the EPA should progress as opposed to cellulosic biofuels. It is more profitable and less harmful to the environment as well as engines, which should delight farmers around the world. [EPA-HQ-OAR-2015-0111-0113 p.2]

#### **Archer Daniels Midland Company (ADM)**

To accommodate a growing biodiesel industry, while encouraging demand to support further investment, ADM urges EPA to set volumes at 2.1 billion gallons for 2015, 2.4 billion gallons in 2016, and 2.7 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-2262-A1 p. 2]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, pp. 38-39.]

We support the National Biodiesel Board's recommendations to accommodate a growing industry while encouraging demand to further support investment. The NBB originally urged the EPA to set volumes at 2.4 billion gallons for 2016 and 2.7 billion gallons for 2017. We now request that this standard be set at least 2 billion gallons for 2016 and 2.3 billion for 2017, levels that we believe are realistic, achievable, and reflective of the underlying legislation.

#### **Baker Commodities**

The biodiesel industry has previously requested volumes of 2.4 billion gallons in 2016 and 2.7 billion gallons in 2017. While we continue to believe that those volumes are readily achievable and sustainable, particularly with rising imports, I ask now that you set the standards for not less than 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-1907-A1 p.3]

#### **Canola Council of Canada**

Two of the largest U.S. biodiesel facilities run, in significant part, on canola from Canada. As such, the canola industry has been a significant contributor to the success of the RFS2's biomass-based diesel program, which has exceeded expectations every year. The Canola Council supports EPA's attempt to get the RFS2 program back on track, and agrees that the biomass-based diesel industry can continue to grow and contribute meaningfully to the objectives of the program. As such, the Canola Council submits these comments to support continued and greater increases in the volume requirements for biomass-based diesel and advanced biofuel. [EPA-HQ-OAR-2015-0111-2484-A1 p.1-2]

### **Darling Ingredients Inc.**

Darling submits comments concerning the proposed obligations proposed for Biomass Based Diesel (BBD) and Advanced Biofuel for both 2016 and 2017. While Darling is encouraged that the proposed rule substantially increases those volumes previously proposed, we believe the proposed volumes for both BBD and Advanced Biofuel are inadequate and should be further increased as the proposed volumes neither (1) fulfill the clearly defined goals established by the EPA in its current written proposal nor (2) provide adequate volumes using the statistical information provided by the EPA in its current written proposal. All the information contained in these comments comes directly from the current proposed rule submitted by the EPA. [EPA-HQ-OAR-2015-0111-1929-A1 p.1]

Darling submits the EPA should increase BBD to 2.0 billion gallons for 2016 and to 2.3 billion gallons for 2017 with a corresponding increase in Advanced Biofuels to 3.75 billion gallons for 2016 and to 4.25 billion gallons for 2017. These volumes are based solely on the facts and rationale presented by the EPA in its proposed rule. These increases still represent minimum volume levels for what the industry can do if the EPA empowers it to respond. [EPA-HQ-OAR-2015-0111-1929-A1 p.2]

Darling believes, supported by a clear policy direction established by both the plain meaning of the statute and EPA's interpretation of the statute as well as EPA's clear understanding of both the historical productivity of the BBD industry and its current/future capabilities, that the Proposed Rule fails to take advantage of the current Biomass Based Diesel industry infrastructure to meet the clearly defined goals of the statute. BBD is available in quantities greater than those proposed for 2016 and 2017 and the industry has demonstrated a proven track record of achieving higher volume growth. The volumes currently proposed by the EPA do not even attain the level of historical production by the industry let alone provide a growth path to an industry that has proven its ability to provide more cost-effective, renewable fuel. Simply stated the current proposed volumes for both BBD and Advanced Biofuel fail to comport with the rationale stated by the EPA for deriving those volumes. The logic used for invocation of the waiver authority is not rational and should not be used to limit the mandates for BBD or Advanced Biofuels. Indeed the EPA has an opportunity to support the supply of an Advanced Biofuel accomplishing all of the objectives of Cellulosic while maintaining Advanced Biofuel mandates that continue to stimulate further production of Cellulosic. There are no COMPETING FACTORS and it is clear the EPA should raise the volumes for both Biomass Based Diesel and Advanced Biofuels conforming them to both the rationale and the facts established by the EPA IN ITS OWN PROPOSED RULE. [EPA-HQ-OAR-2015-0111-1929-A1 p.6]

### **Governor of Iowa, et al.,**

We recognize that you made some positive changes for the biodiesel levels in the recent proposed rule; however, we remain concerned that the proposed biodiesel volumes for 2016 and 2017 fail to adequately recognize the domestic biodiesel industry's production capacity and underestimate the biodiesel industry's ability to increase production beyond current capacity. Specifically, we urge the EPA to increase its biomass-based diesel targets to at least 2 billion gallons for 2016 and at least 2.3 billion gallons for 2017 in the final rule. [EPA-HQ-OAR-2015-0111-1915-A1 p.1]

## **Illinois Soybean Growers (ISG)**

ISG supports higher Renewable Fuel Standard (RFS) volume targets for biomass-based diesel than what the EPA has proposed through 2017. The EPA should set RFS guidelines to at least 2 billion gallons for 2016 and 2.3 billion gallons for 2017 based on predicted production numbers. [EPA-HQ-OAR-2015-0111-3428 p.1]

Given the many benefits biodiesel provides to Illinois farmers, consumers, animals and others, we ask that you reconsider the RFS standards in the proposed rule and finalize stronger standards. Again, we encourage setting the 2016 standard to at least 2 billion gallons and 2017 to 2.3 billion gallons. [EPA-HQ-OAR-2015-0111-3428 p.2]

## **Imperium Renewables and Renewable Biofuels**

A review of past production demonstrates the proven potential both of industry to produce significantly higher volumes and of the market to absorb these higher volumes. EPA's EMTS reports the following production of RIN-eligible volumes for the years 2011 through 2014. [EPA-HQ-OAR-2015-0111-2043-A1 p.2]

### RIN Generating Biomass-based Diesel Production

| Year | Volume               |
|------|----------------------|
| 2011 | 1.1 billion gallons  |
| 2012 | 1.1 billion gallons  |
| 2013 | 1.79 billion gallons |
| 2014 | 1.63 billion gallons |

[EPA-HQ-OAR-2015-0111-2043-A1 p.2]

The chart shows a steady increase in domestic BBD production, peaking in 2013 at just under 1.8 billion gallons. In the following year, despite the uncertainty of both the tax credit and the proposed and withdrawn rule, production dropped only slightly. [EPA-HQ-OAR-2015-0111-2043-A1 p.2]

The most instructive production figures for projecting production capabilities are the BBD volumes for the final months of 2013 and 2014, when the industry produced nearly 220 and 213 million gallons of BBD respectively. Projecting that monthly production level throughout a year, industry demonstrated the capability to produce well in excess of 2.6 billion gallons a year. That final month was not wholly anomalous — production for the second half of 2013 averaged over 181 million gallons per month. [EPA-HQ-OAR-2015-0111-2043-A1 p.2]

Reviewing these production figures, one can only draw the conclusion that the industry is capable of producing, and the nation's diesel pool is capable of absorbing, far more than the volumes proposed in the current EPA proposed rule for 2014-2017. Industry's extensive review of feedstock availability also concludes there is more than enough RIN-eligible feedstock to produce at significantly increased volumes. [EPA-HQ-OAR-2015-0111-2043-A1 p.2]

We reiterate that we are appreciative of the EPA's efforts in the proposed rule to send a positive message to the industry and investors. However, with this clear record of facts, we call upon the EPA to make appropriate upward adjustments to the proposed BBD volumes for each of the years 2015 through 2017. [EPA-HQ-OAR-2015-0111-2043-A1 p.4]

Specifically, we request that in the final rule the EPA increase the BBD volume requirement to 2.0 billion gallons in 2015, to 2.4 billion gallons in 2016, and to 2.7 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-2043-A1 p.4]

We believe these volumes reflect a conservative assessment of the capability of domestic producers to deliver -- even without the additional imported volumes -- and of the market to absorb such volumes. Overall demand for diesel is increasing and there are no blend wall issues with BBD at these volumes, so significant additional volumes could be blended without affecting infrastructure or vehicle engine performance. [EPA-HQ-OAR-2015-0111-2043-A1 p.4]

Toward that end, the BBD industry already has clearly demonstrated the capacity to produce well in excess of 2.4 billion gallons of biomass-based diesel, and eligible capacity far exceeds that volume. In fact, registered capacity of domestic and foreign BBD facilities alone could reach the statutory advanced biofuels volume for 2016. Additionally, other fuels are and will be increasingly available to meet requirements within the advanced biofuels category, including Brazilian sugar-cane ethanol, as well as next generation fuels entering the market in increased volumes. (For more detail analysis, please see the NBB submission.) [EPA-HQ-OAR-2015-0111-2043-A1 p.4-5]

#### **Indiana Soybean Alliance and American Soybean Association**

reconsider the biomass-based diesel standards in the Proposed Rule and finalize stronger standards, particularly for 2016 and 2017. [EPA-HQ-OAR-2015-0111-A1 p.3]

#### **Iowa Biodiesel Board (IBB) and Iowa Soybean Association (ISA)**

I want to thank you for hearing the biodiesel industry's concerns regarding the Renewable Fuel Standard Biomass-based Diesel volumes, and for all the hard work you put into your recent proposal. While this latest proposal represents a step in the right direction, I believe the volumes proposed in the later years are too flat and will unnecessarily stifle growth. I ask that you set a final rule that is closer to the industry's initial request of 2.4 billion gallons for 2016, and 2.7 billion gallons for 2017. We are more than capable of achieving and using these volumes. [EPA-HQ-OAR-2015-0111-1942-A1 p. 1]

Additionally, the recent FDA decision to ban trans-fats will create a glut of 1.5 billion pounds of soybean oil. Biodiesel provides a timely market for this oil. We need to ensure that the biodiesel industry has ample room to use it by setting the biodiesel RFS target higher. [EPA-HQ-OAR-2015-0111-1942-A1 p. 2] [EPA-HQ-OAR-2015-0111-1043, p. 45]

## **Iowa Renewable Fuels Association**

Bump Up Biodiesel [EPA-HQ-OAR-2015-0111-1957-A2 p. 8]

EPA's proposal for biomass-based diesel volumes under the RFS for 2014-2017 is an improvement over the November 2013 proposal, but it still falls short in providing the growth targets necessary in 2016 and 2017 to capture biodiesel's full potential. Biodiesel has been an unmitigated success under the RFS, as the U.S. biodiesel industry has produced over and above EPA's annual biomass-based diesel targets each and every year since 2010, even amidst excessive federal policy uncertainty. While it's a positive that the current proposal allows for graduated volume increases, we firmly believe those increases are unnecessarily limited due to EPA's flawed rationale. Specifically, IRFA urges EPA to increase its biomass-based diesel targets to at least 2 billion gallons for 2016 and at least 2.3 billion gallons for 2017 in the final rule. [EPA-HQ-OAR-2015-0111-1957-A2 p. 8] [EPA-HQ-OAR-2015-0111-1044 pp.72-73]

In support of this request, we would like to share some Iowa-specific data (Figure 1), courtesy of the Iowa Department of Revenue, to demonstrate the remarkable growth in availability and use of higher biodiesel blends in our state over the past few years—data which runs contrary to the inaccurate suggestion that there are engine warranty limitations on the use of biodiesel for the current in-use fleet. [EPA-HQ-OAR-2015-0111-1957-A2 p. 8] [EPA-HQ-OAR-2015-0111-1044 p.73]

Since 2010, when the expanded RFS went into effect, both biodiesel production and biodiesel sales in Iowa have soared, multiplying by a factor of roughly four and a half. Biodiesel production has jumped from 48 million gallons in 2010 to 227 million gallons in 2014, 32 while total B100 sales in Iowa have expanded from 7.4 million gallons in 2010 to 33.3 million gallons in 2014. In addition, biodiesel-blended gallons in Iowa have increased from 239.8 million gallons in 2010 to 354.7 million gallons in 2014, a 48 percent jump. [EPA-HQ-OAR-2015-0111-1957-A2 p. 8] [EPA-HQ-OAR-2015-0111-1044 pp.73-74]

Even more remarkable is the growth in the average blend level of biodiesel-blended gallons sold. In 2010, the average blend level of biodiesel-blended gallons sold in Iowa was 3.1 percent. By 2014, the average biodiesel blend level in Iowa had more than tripled to 9.4 percent—a level that simply could not have been reached without selling a significant amount of B10 and B20. See Figure 1 for further details illustrating the dramatic growth in biodiesel production and sales in Iowa since 2010.<sup>33v</sup> [EPA-HQ-OAR-2015-0111-1957-A2 p. 8-9] [EPA-HQ-OAR-2015-0111-1044 p.74]

[Figure 1 can be found on p. 9 of docket number EPA-HQ-OAR-2015-0111-1957-A2]

If there was ever any question on whether blends above B5 can be sold year round, the Iowa data referenced in Figure 1 should put that argument to rest. However, EPA, in its recent proposed rule, made the inaccurate suggestion that “the majority of highway and nonroad diesel engines in use today are warranted for no more than 5% biodiesel.” The Agency then used this suggestion as part of its rationale to limit the increases in biomass-based diesel levels for 2016 and 2017. [EPA-HQ-OAR-2015-0111-1957-A2 p. 9] [EPA-HQ-OAR-2015-0111-1044 p.74]

Further, by properly accounting for U.S. biodiesel production and consumption capacities along with the high likelihood for significant biodiesel imports, IRFA urges the Agency to set the

biomass-based diesel levels for 2016 and 2017 at no less than 2.0 and 2.3 billion gallons respectively. [EPA-HQ-OAR-2015-0111-1957-A2 p. 21] [EPA-HQ-OAR-2015-0111-1044 p.75]

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32. “2014 Iowa Biodiesel Production of 227 Million Gallons.” Iowa Renewable Fuels Association 8 Jan 2015  
<http://www.iowarfa.org/2014IowaBiodieselProduction.php>

33. McAninch, Kathy. “2014 Retailers Motor Fuel Gallons Annual Report.” Iowa Department of Revenue April 2015  
[https://tax.iowa.gov/sites/files/idr/2014%20Motor%20Fuel%20Retailers%20Gallons%20Annual%20Report\\_0.pdf](https://tax.iowa.gov/sites/files/idr/2014%20Motor%20Fuel%20Retailers%20Gallons%20Annual%20Report_0.pdf)

### **Iowa Soybean Association**

While it is true that biodiesel levels were increased from the earlier proposed rule, proposed volumes for 2016 and 2017 fail to recognize our current and future production capacity. While Iowa can produce up to 315 million gallons per year, last year they produced only 227 million gallons because of the uncertainty under the RFS. Biodiesel utilizes soybean oil, which would otherwise be a waste product, increasing the price for soybeans but also decreasing the price for soy meal which is a staple of livestock feed. Biodiesel is also a recognized advanced biofuel. [EPA-HQ-OAR-2015-0111-3424 p.1]

Increasing the levels of biodiesel within the RFS is one action that can support rural Iowans and rural Americans. [EPA-HQ-OAR-2015-0111-3424 p.2]

We ask that EPA set standards of not less than 2 billion gallons of biodiesel for 2016 and 2.3 billion gallons for 2017. We are capable of achieving 2.4 billion gallons in 2016 and 2.7 billion gallons in 2017. [EPA-HQ-OAR-2015-0111-3424 p.2]

### **John Deere**

As such, we ask that you consider the opportunity for additional growth in biomass-based diesel standards. Minimum levels closer to 2.0 billion gallons in 2016 and 2.3 billion gallons in 2017 are definitely achievable and sustainable. What’s more, biodiesel delivers significant greenhouse-gas emission reductions. Establishing higher biomass-based diesel volumes would be one step that effectively demonstrates EPA’s resolve to adhere to the congressional intent referenced above. [EPA-HQ-OAR-2015-0111-2042-A1 p.2]

### **Kansas Farm Bureau**

Biomass diesel on the other hand is a proven renewable fuel source that supports tens of thousands of jobs across the country and according to EPA’s own calculations, delivers more significant greenhouse gas emission reductions than any other domestic, commercial-scale fuel on the national market. While we applaud EPA for increasing the biodiesel use targets, we believe the industry has the capacity to increase production above and beyond the standards called for in the proposed rule, and ask that the agency consider setting the standards for not less than 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-1195-A1 p.2]

## **Kansas Soybean Association**

I also strongly believe that EPA should increase the biomass-based diesel volumes relative to the total Advanced Biofuels volumes in order to promote the use of domestically produced biodiesel over imported sugar-cane ethanol. The intent of Congress when they established and expanded the RFS program was clearly to increase and promote domestic energy production and U.S. energy independence. This is clearly reflected by the title of the 2007 law the Energy Independence and Security Act (EISA) - which expanded the RFS and established the biomass-based diesel program. [EPA-HQ-OAR-2015-0111-2340 p.1-2]

Given the many benefits of biodiesel and the capability for increased production, EPA should, at a minimum, support biomass-based diesel volumes of at least 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-2340 p.1]

Given the many benefits that it provides, I ask that you reconsider the biodiesel standards in the Proposed Rule and finalize stronger standards, particularly for 2016 and 2017. The biodiesel industry has previously requested volumes of 2.4 billion gallons in 2016 and 2.7 billion gallons in 2017. While those volumes are readily achievable and sustainable, particularly with rising imports, at a minimum EPA should set the standards at not less than 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-2340 p.3] [EPA-HQ-OAR-2015-0111-1044 p.28]

## **Mass Comment Campaign sponsored by Biodiesel.org (email) - (93)**

I ask that you reconsider the biodiesel standards in your May proposal and finalize stronger standards, particularly for 2016 and 2017. The biodiesel industry has previously requested volumes of 2.4 billion gallons in 2016 and 2.7 billion gallons in 2017. While I continue to believe those volumes are readily achievable and sustainable, particularly with rising imports, I ask now that you set the standards for not less than 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-0211-A1 p.1]

## **Mass Comment Campaign sponsored by employees of Western Dubuque Biodiesel (web) - (1)**

We, the undersigned dedicated employees of Western Dubuque Biodiesel, respectfully request that the proposed biomass-based diesel volume under the federal Renewable Fuel Standard (RFS) for 2016 and 2017 be increased to at least 2.0 billion gallons and 2.3 billion gallons, respectively. My job and the welfare of my family depends upon it. [EPA-HQ-OAR-2015-0111-1961-A1 p.1]

While the EPA's proposal for biomass-based diesel volumes under the RFS for 2014 -2017 are an improvement over the November 2013 proposal, we believe there is justification for further increasing these volumes. We are proud of the productivity and efficiencies we've achieved at our biodiesel production facility, and are certain that the higher targets of at least 2.0 billion gallons for 2016 and 2.3 billion gallons for 2017 are achievable. [EPA-HQ-OAR-2015-0111-1961-A1 p.1]

The success of the RFS validates an increase in the proposed biomass-based diesel volumes for 2016 and 2017 to at least 2.0 billion and 2.3 billion gallons respectively. [EPA-HQ-OAR-2015-0111-1961-A1 p.2]

**Mass Comment Campaign sponsored by Indiana Soybean Alliance (email) - (250)**

I believe the domestic biodiesel industry is fully capable of additional growth and I strongly urge you to revise and increase the volumes in the final rule. [EPA-HQ-OAR-2015-0111-2569-A2 p.1]

Biodiesel is exceeding the goals that Congress envisioned when it created the RFS with bipartisan support in 2005. Biodiesel has created jobs, generated tax revenues, reduced pollution, and increased energy security. I urge you to support continued growth in the soy biodiesel industry by making reasonable and sustainable increases in the biodiesel volumes for 2016 and 2017 in the final rule. [EPA-HQ-OAR-2015-0111-2569-A2 p.1]

**Mass Comment Campaign submitted by employees of New Leaf Biofuel (web) - (24)**

The RFS was working. The renewable fuels industry was growing. New Leaf was growing. And then it stopped. You have the power to stimulate that growth again. Your proposal for 1.8 billion gallons in 2016 is not growth. It is simply taking us back to where we already were in 2013. We want to move forward, not stay in the same place. We want to create more of the fuel that will most effectively meet the EPA's carbon-cutting goals. We simply ask that you raise the RVO to 2.4 billion gallons for 2016 and 2.7 billion for 2017. We're ready to prove it can be done. [EPA-HQ-OAR-2015-0111-2048-A1 p.1]

**Metropolitan Energy Center**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 47.]

I ask that you reconsider the biodiesel standards and urge you to set the standards for no less than 2 billion gallons for 2016 and 2.3 billion gallons for 2017.

**Minnesota Soybean Processors (MnSP)**

Our industry has prepared compelling comments which provide the EPA with the appropriate legal analysis and data supporting an increase in the Renewable Volume Obligation for biomass based diesel significantly greater than that EPA proposes. [EPA-HQ-OAR-2015-0111-2505-A1 p.1-2]

To MnSP's reading of this rulemaking, the tenor of this proposal seems to be one of trying to find every possible means of increasing the RVO of ethanol to set its maximum usage while at the same time simply placing a cap or minimum usage of biomass based diesel. EPA provided in this and previous rulemakings significant and detailed data of all working, construction phase and potential cellulosic ethanol plants while at the same time we can find no such effort in detailing the biodiesel industry in a like manner. Thus it appears EPA fails to document and fully acknowledge that the biodiesel industry has a proven track record and that the biodiesel industry

has, can and will successfully meet significantly increased biodiesel obligations in the upcoming year, increases much greater than what EPA proposes. [EPA-HQ-OAR-2015-0111-2505-A1 p.3]

While EPA may believe that its proposal to increase biodiesel volumes by 100 million gallons per year to 1.7 billion gallons in 2015, 1.8 billion gallons in 2016 and 1.9 billion gallons in 2017 is a satisfactory expansion of renewable fuel usage, the existing biodiesel industry can easily surpass these very lackluster increases. MnSP's existing soybean processing plant alone yields enough soybean oil feedstock to make 60 million gallons annually. With a simple biodiesel refining expansion from its current 30 million gallon per year refinery capacity MnSP could produce 60 million gallons at its existing site. That potential 30 million gallons of new biodiesel refining from existing feedstock, increased refining dependent on market signals given through this rulemaking, is one-third of EPA's proposed 100 million gallon increase of biodiesel. As MnSP testified in EPA's June 25 hearing in Kansas City, KS, MnSP is also considering expansion of its current soybean processing which could yield feedstock for up to another 15 million gallons of biodiesel; in reality our single, existing soybean processing plant has the potential to produce nearly one-half of EPA's proposed 100 million gallon increase in biodiesel. [EPA-HQ-OAR-2015-0111-2505-A1 p.3-4]

MnSP believes that the minimum biomass based diesel RVO for 2016 should be 2 billion gallons and 2.3 billion gallons for 2017. Increases less than that simply do not acknowledge the ability of the biodiesel industry to replace petroleum products as EPA is charged to do by Congress. [EPA-HQ-OAR-2015-0111-2505-A1 p.4]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 47.]

While EPA's proposed volumes are appreciated, they are by no means spectacular. Absent clear market signals, our company had no appetite to increase its biodiesel refining to consume all of our soybean oil production, which is essentially like leaving 30 million gallons of domestically refined biodiesel on the table. Long-contemplated refining expansion to consume all of our soybean oil production, largely dependent on the signals given through EPA rulemaking, if completed would consume about one third of EPA's proposed 100 million gallon increase, about another 30 million gallons we'd be able to produce. We're also considering expansion of our existing soybean meal processing plant to satisfy export demand for animal soybean protein. An expansion of our plant would result in about a third more soybean oil available for biodiesel refining, another 10 to 15 million gallons of biodiesel per year. [EPA-HQ-OAR-2015-0111-1143, p. 47]

### **Missouri Soybean Association (MSA)**

MSA respectfully requests EPA to reconsider the biodiesel standards in its May proposal and finalize stronger standards, particularly for 2016 and 2017. The biodiesel industry has previously requested volumes of 2.4 billion gallons in 2016 and 2.7 billion gallons in 2017. While we continue to believe those volumes are readily achievable and sustainable, particularly with rising imports, we ask now that you set the standards for not less than 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-3304 p.2]

## **NAFA Fleet Management Association**

The RFS proposal provides modest growth for biodiesel over several years. The proposal would increase the biomass-based diesel sector of the RFS by about 100 million gallons per year to 1.9 billion gallons in 2017. I ask that the Agency reconsider the biodiesel standards in the May proposal and finalize stronger standards, particularly for 2016 and 2017. The biodiesel industry has previously suggested volumes of 2.4 billion gallons in 2016 and 2.7 billion gallons in 2017. While those volumes are readily achievable and sustainable, particularly with rising imports, I ask now that you set the standards for not less than 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-3171-A1 p.1]

## **National Biodiesel Board**

A plain reading of the statute requires increasing volumes of renewable fuels. The statute's explicit reference to a "[m]inimum applicable volume of biomass-based diesel" and statement that the applicable volume "shall not be less" than the 2012 volume plainly demonstrate that Congress expected the applicable volumes of biomass-based diesel to increase from that "minimum." 42 U.S.C. § 7545(o)(2)(B)(v). Furthermore, the statute requires the Administrator to "ensure ... at least the applicable volume ... determined in accordance with subparagraph (B)." *Id.* § 7545(o)(2)(A)(i). The term "at least" again demonstrates that EPA must increase the volume of renewable fuels. The applicable volumes are not caps, but floors. [EPA-HQ-OAR-2015-0111-1953-A2 p.24]

It is a "fundamental canon of statutory construction that the words of the statute must be read in their context and with a view to their place in the overall statutory scheme." *Intercollegiate Broadcast System, Inc. v. Copyright Royalty Bd.*, 571 F.3d 69, 91 (D.C. Cir. 2009) (quoting *Davis v. Mich. Dep't of Treasury*, 489 U.S. 803, 809 (1989)). Although the statute only provided set volumes for biomass-based diesel through 2012, the "overall statutory scheme" is to steadily increase the use of renewable fuels, particularly advanced biofuels, and the factors EPA is to consider in setting the volumes after 2012 are consistent with this scheme. The statute sets forth an increasing volume requirement for advanced biofuels—an increasing requirement that can statutorily, and practically, be filled by biomass-based diesel. [EPA-HQ-OAR-2015-0111-1953-A2 p.24]

EPA also asserts that it is "important to provide support to existing successful biofuels and to provide incentives for those fuels, especially advanced biofuels that produce the greatest reductions in greenhouse gases." 80 Fed. Reg. at 33,102. The proposed program certainly does not support biomass-based diesel that has already exceeded 1.7 billion gallons in production. Rather, it keeps the program stagnant for the third consecutive year (much like the earlier proposal that EPA withdrew). Since the industry already has capacity to more than double the proposed increases, there is simply little incentive to continue to invest in an uncertain, and clearly slow moving, future. [EPA-HQ-OAR-2015-0111-1953-A2 p.44-45]

EPA Previously Found Statutory Factors Support Greater Annual Increases in the Biomass-Based Diesel Volume. Although EPA has expressed concerns with the timing of its final determination for 2015, the industry has produced more than 1.7 billion gallons in one year and, more importantly, has shown that it can ramp up production quickly. Thus, the minimal increase from 2014 to 2015 should be reassessed. Moreover, EPA cannot override the statutory factors

and only provide for 100 million gallon increases in the biomass-based diesel category for 2016 and 2017. Indeed, based on its review of the statutory factors, EPA increased the minimum volume of 1 billion gallons in 2012 by 280 million gallons in 2013. This increase was viewed by EPA as “moderate” in light of the evidence. EPA does not provide a reasoned explanation for moving away from this analysis and precedent to now support only 30 million gallon increase in 2015 and 100 million gallon increases in 2016 and 2017. [EPA-HQ-OAR-2015-0111-1953-A2 p.55-56]

EPA’s Denial of the API/AFPM Reconsideration Petitions provides further support that actual and meaningful increases are warranted. For example, EPA referenced additional analyses of the impacts of the drought conditions on soybean crops in 2012/2013, which confirmed that cost considerations do not override the benefits of establishing a higher volume for biomass-based diesel (at 6). EPA recognized a number of feedstocks can be used in the production of biomass-based diesel, but also found that an increase of 280 million gallons of solely soybean-based biodiesel would not unreasonably impact other markets for soybeans such as the livestock/food industries.<sup>56</sup> *Id.* at 7-10. Much of the increase in production is from other feedstocks, particularly corn oil from dry mill ethanol plants and recycled waste oils. EPA further found that a waiver of the biomass-based diesel volumes would very likely increase feed costs. *Id.* at 8. Thus, EPA found reducing the biomass-based diesel volumes, which EPA is essentially doing by proposing a volume that will likely result in less biomass-based diesel production, “would cause more economic harm than it would alleviate in food and feed markets.” *Id.* at 8-9 (internal quotation and citation omitted). [EPA-HQ-OAR-2015-0111-1953-A2 p.57]

While noting that EPA considered increased employment as part of idled facilities coming online, EPA’s Denial of the API/AFPM Reconsideration Petitions (at 18) also referenced more recent EIA monthly reports which supported EPA’s “assessment that increasing the biodiesel requirement would result in new producers coming on line increasing employment.” EPA confirmed that “[b]ringing online idle biodiesel plants and expanding biodiesel distribution infrastructure in the U.S. will increase both employment and promote rural economic development.” *Id.* at 16-17. EPA previously found that this evidence supports continued increases in the biomass-based diesel required volumes. EPA, however, now ignores the potential for idled plants or plants not running at full capacity will continue to do so without the expected increase in the biomass-based diesel requirements. [EPA-HQ-OAR-2015-0111-1953-A2 p.57-58]

Although EPA purports to provide an explanation as to why it believes “competition” (a new consideration not found in the statute) should trump all these other statutory considerations, EPA’s revised approach at assessing these volume requirements are rendered arbitrary and capricious in light of EPA’s prior assessment. EPA provides no real evidence to support any of its conclusory statements in support of its new approach that keeping the biomass-based diesel volume artificially low will result in decreased costs. Even if it could, EPA cannot explain, in light of its prior analysis, how those costs outweigh the substantial benefits that are being lost or why larger annual increases in the biomass-based diesel program are not reasonable. Since production in 2013 was over 1.7 million gallons, EPA’s prior analysis shows why any applicable volume for biomass-based diesel below 2 billion is unreasonable. [EPA-HQ-OAR-2015-0111-1953-A2 p.58]

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56 EPA rejected claims that a 10% variance in projected prices of soybeans and soybean oil is “significantly higher,” because observed soybean oil prices have fluctuated significantly over the last several years. Denial of API/AFPM Reconsideration Petitions at 9-10.

### **Northern Canola Growers Association**

As a canola farmer and director of the Northern Canola Growers Association (NCGA), I urge EPA to support biomass-based diesel volumes of at least 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-2036-A1 p.1]

Furthermore, for canola and other farmers, a viable biodiesel industry helps maintain a link between vegetable oil and energy values, creates a floor for commodity values, and serves as a hedge against energy inflation. Continued growth in the biodiesel industry is needed to realize and optimize these benefits, and that growth can be prompted by increasing the RFS volumes for biomass-based diesel beyond the levels in the Proposed Rule. [EPA-HQ-OAR-2015-0111-2036-A1 p.1-2]

The EPA itself has determined that biodiesel reduces lifecycle greenhouse gas emissions by 57 percent to 86 percent compared to petroleum diesel. Substituting higher amounts of biodiesel for traditional diesel fuel is a simple, effective way to immediately reduce diesel emissions. Since biodiesel provides a greenhouse gas benefit compared to the petroleum-based diesel it is replacing, increasing its use will contribute to reduced climate change impacts. [EPA-HQ-OAR-2015-0111-2036-A1 p.2]

Biodiesel has and will continue to create and sustain jobs in the United States, including many in rural America. An economic study conducted for the National Biodiesel Board estimates that the biodiesel industry, at 1.7 billion gallons of production, supports more than 62,000 jobs, \$2.6 billion in wages, and \$16.8 billion in overall economic impact. The industry’s economic impact is poised to grow significantly with continued production increases. The industry supports jobs in a variety of sectors, from manufacturing to transportation, agriculture and service. [EPA-HQ-OAR-2015-0111-2036-A1 p.2]

While this Proposed Rule is a step in the right direction for biomass-based diesel, it does not fully capitalize on biodiesel’s benefits and potential for growth. The U.S. biodiesel industry has the capacity and has demonstrated its ability to increase production above the levels in the Proposed Rule, particularly when you consider U.S. production capacity, feedstock availability, and the potential for increased imports of biodiesel qualifying for the RFS. [EPA-HQ-OAR-2015-0111-2036-A1 p.3]

### **Petroleum Marketers Association of America (PMAA)**

PMAA has no concerns regarding the proposed biodiesel blending volumes for 2014, 2015, 2016 and 2017 in the proposed rule. PMAA supports the use of biodiesel blends with motor fuel and promotes its use in heating oil which produces lower CO2 emissions than natural gas at a 20% blend. [EPA-HQ-OAR-2015-0111-1197-A1 p.1]

## **Renewable Energy Group, Inc. (REG)**

It is clear that the U.S. biodiesel industry has the ability and capacity to increase production above and beyond the standards called for in your recent proposal, particularly when you consider the potential for sharply increased imports qualifying for the RFS. [EPA-HQ-OAR-2015-0111-1952-A1 p.2]

## **South Dakota Soybean Association**

According to the EPA, the U.S. biodiesel production capacity currently exists at 2.8 billion gallons. Setting expectations far below 2.8 billion sends a signal to the industry that the U.S. government doesn't want to grow its only commercially available advanced biofuel. Not setting ambitious and aggressive goals for cleaner alternative fuels only deepens the hardships of future generations. It is time that we make stronger policy signals for increasing our capacity to produce cleaner fuels for a better tomorrow. [EPA-HQ-OAR-2015-0111-1308-A1 p.1]

## **U.S. Canola Association (USCA)**

I am writing to urge EPA to support biomass-based diesel volumes of at least 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-1819-A1 p.1]

EPA should reconsider the biodiesel standards in the Proposed Rule and finalize stronger standards, particularly for 2016 and 2017. The biodiesel industry has previously requested volumes of 2.4 billion gallons in 2016 and 2.7 billion gallons in 2017. While those volumes are readily achievable and sustainable, particularly with rising imports, at a minimum EPA should set the standards at not less than 2 billion gallons for 2016 and 2.3 billion gallons for 2017. [EPA-HQ-OAR-2015-0111-1819-A1 p.4]

## **W2Fuel LLC**

W2Fuel LLC is a small producer of biodiesel and glycerin with three biodiesel plants in Iowa and Michigan. Our owner's investment in this business, as well as the jobs of 45 people, are at risk due to the failure of the US Environmental Protection Agency to follow the statutory requirements of the Renewable Fuel Standard, specifically as it relates to biodiesel renewable volume obligations. The US Energy Information Administration has published data which shows that the US biodiesel industry capacity is over 2 billion gallons per year; and yet the US EPA published RVOs which are significantly below this annual capacity. [EPA-HQ-OAR-2015-0111-2053 p.1]

The publication of volumes less than the statutory amounts for biodiesel; in combination with allowing imports of biodiesel from other countries (including Argentina) greatly reduces the ability of small producers to compete in a sector which is dominated by a few large companies. Our company depends upon stable RIN values and the May 29th publication of volumes below the industry capacity and statutory levels had an immediate impact in reducing RIN prices and making our business immediately unprofitable. [EPA-HQ-OAR-2015-0111-2053 p.1]

Our company has completed significant investment in processing crude glycerin to make refined specialty products. The viability of this business venture depends upon a robust biodiesel industry to produce high quantities of glycerin at low cost. This is one of the spin-off benefits of

a thriving biodiesel industry and this also now is threatened by not following the statutory mandates. [EPA-HQ-OAR-2015-0111-2053 p.2]

We encourage the US EPA to reinstate the full mandated biodiesel volumes as per the statutory requirements. [EPA-HQ-OAR-2015-0111-2053 p.2]

**Response:**

EPA received many comments supporting an increase in the BBD volume requirement for 2014-2017. A number of commenters asserted that a proper reading of the statute, along with Congressional intent, provides for yearly increases in the BBD volume requirement. Some commenters stated that an increased mandate was needed so that new bio-based diesel conversion technologies would be developed, thus increasing cost-effective and competitive production. Commenters asserted that increasing the BBD requirement will allow small producers to have a chance, not only to survive, but to grow and thrive. Commenters also stated that biodiesel is helping to achieve our nation's goals for creating a stronger energy economy, while strengthening energy security, reducing harmful emissions and helping consumers by diversifying fuel supplies. A few commenters asserted that increasing BBD is currently the best option we have for significantly reducing greenhouse gas emissions from fuels by 50% while at the same time spurring local and regional economic growth across the U.S. Many of these comments, however, were not specific to the BBD volume requirement, but touted the virtues of biodiesel and the desire to increase the requirements for it more broadly.

Some commenters challenged EPA's statement that BBD could continue to grow in the undifferentiated advanced biofuels pool. Many commenters supported an increase of the BBD volume requirement to 1.7-2.0 billion gallons in 2015, 2.1-2.3 billion gallons in 2016, thereafter increasing to 2.4-2.7 billion gallons in 2017. While many commenters asserted that not raising the BBD volume requirement beyond 1.8 in 2016 and 1.9 in 2017 would be a huge set-back and ill advised, and contrary to Congressional intent, EPA disagrees. EPA notes that in 2012, and again in 2013, the BBD industry met and exceeded the applicable BBD volume requirement of 1.0 and 1.28 billion gallons, respectively. The actual amount of BBD available for compliance in 2013 totaled 2.36 billion RINs, representing approximately 1.55 billion gallons of BBD. This is 430 million more BBD RINs than were required for compliance with the BBD standard in 2013 (see section II.B of the final rule for further discussion). Based on these facts, we believe that the primary driving forces in 2012 and 2013 were the advanced biofuel and total renewable fuel standards rather than the BBD standard itself. We also believe that same dynamic will continue to be true in 2016 and 2017. Based on the analysis for the final rule, we are establishing a total renewable fuel volume requirement of 18.11 billion gallons for 2016 and have used a volume of roughly 2.5 billion gallons of biodiesel and renewable diesel as the supply available in determining total renewable fuel volume for 2016. We further anticipate that 2.1 billion gallons of this will be able to be advanced biofuel and have assumed so in establishing the advanced biofuel standard. As in earlier years, our expectation is that in 2016, we are setting a guaranteed floor for BBD volume at 1.9 billion gallons and fully expect that additional BBD volumes will be produced to fulfill the overall advanced biofuel volume requirement.

NBB stated that the EPA previously found statutory factors supported greater annual increases in BBD volume requirement for 2013 and the statutory factors analysis developed to justify the 2016 and 2017 BBD volume requirements contradicts the analysis EPA put forward in 2013.

We disagree. As in 2013, we have determined that incremental increases in the 2016 and 2017 BBD volume requirement are appropriate to provide continued support to the BBD industry. We did this in 2013, acknowledging the important role the industry thus far had played in providing advanced biofuels to the marketplace, and in furthering the GHG reduction objectives of the statute. We did not in 2013, and are not today, setting the BBD volume requirement at the maximum potential production volume of BBD.

With regard to Congressional intent and statutory language requiring that we increase the BBD volume, EPA also disagrees. Congressional intent and statutory interpretation is discussed in RTC Section 2.3.1. In summary, the statute does not, establish any numerical criteria, or other means of weighing the importance of the often competing factors, nor does it provide any overarching goals for EPA to achieve in setting the applicable volumes in years after those specifically set forth. Rather, EPA is required under 211(o)(2)(B)(ii) to determine the applicable volume, in coordination with the Secretary of Energy and the Secretary of Agriculture, based on a review of the implementation of the overall renewable fuel program during calendar years for which the statute specifies the applicable volumes and an analysis of six (6) statutory factors. However, as we state in the final rule, EPA recognizes that BBD is not merely a component of advanced biofuel and total renewable fuel, but that Congress intended that it have its own specific standard.

NBB also asserts that EPA's proposal makes "competition" (a new consideration not found in the statute) the deciding factor in the statutory analysis and that this approach is arbitrary and capricious in light of EPA's prior assessment. Further they believe that EPA provides no real evidence to support this new approach. EPA disagrees with these comments. When viewed in a long-term perspective, BBD can be seen as competing for investment dollars with other types of advanced biofuels for participation as advanced biofuels in the RFS program. In addition to the long-term impact of our action in establishing the BBD volume requirements, there is also the potential for short-term impacts during the compliance years in question. Although we are setting the advanced standard at a level that reflects growth in volumes that is reasonably attainable, we are not setting the standard at the maximum theoretical level that reflects the highest potential for domestic production plus import. As described in Section II.F of the final rule, there is substantial uncertainty, especially regarding import volumes, that cautions against such an approach. Therefore, by setting the BBD volume requirement at a level lower than the advanced biofuel volume requirement (and lower than the expected supply of BBD to be used to satisfy the advanced biofuel requirement), we are allowing the potential for some competition between BBD and other advanced biofuels (including imported advanced biofuels) to satisfy the advanced biofuel volume standard. We believe that this competition will help to encourage, over the long term, the development and production of a variety of advanced biofuels. In the short term it could also result in lower cost advanced biofuels for consumers.

BBD, like all non-cellulosic advanced biofuels, must, by definition, achieve lifecycle greenhouse gas reductions of at least 50% relative to the petroleum fuels it displaces. Thus, the environmental benefits of BBD are comparable to those of other non-cellulosic advanced biofuels. Increasing the portion of the advanced standard that comprises a guaranteed market for BBD would over time likely reduce competition among advanced biofuels and could disincentivize research and development of advanced biofuels that are potentially more economical or environmentally preferable (including for non-GHG related reasons) than BBD. Having a

more limited assortment of biofuels participate in the RFS program could also reduce the potential energy security benefits of the program, since energy security is enhanced through fuel diversity. Thus, we believe that the long term success of the RFS program, as envisioned by Congress, is best served by growth in a variety of advanced biofuels. The standards we set today are intended to provide a signal to the market to move forward with research, development, and commercialization of a variety of types of advanced biofuels beyond just BBD.

We also believe that consideration of competition within the advanced biofuel pool between BBD and other advanced biofuels, and the potential for lower compliance costs cited in our proposed rule, are included in the list of factors in 42 U.S.C. § 7545(o)(2)(B)(ii)(V) that EPA is to consider in establishing the volume requirement for BBD. Indeed, three of the factors specified in the statute are related to the considerations discussed above. The “impact of the use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods” referenced in CAA 211(o)(2)(B)(ii)(V) is relevant, since we believe a diverse advanced biofuel pool will potentially result in decreased costs associated with the use of advanced biofuels and, consequently, decreased costs to consumers. Similarly, the “impact of the production and use of renewable fuels on the environment” referenced in CAA 211(o)(2)(B)(ii)(I) is relevant, since we believe that incentivizing research and development in, and commercialization of a variety of advanced biofuels could lead to the development of biofuels that have more benign effects on the environment than those that are currently available. As noted above, “the impact of renewable fuels on the energy security of the United States” referenced in CAA 211(o)(2)(B)(ii)(II) is relevant, since we believe that incentivizing the development of a diverse array of biofuels will increase energy security. Finally, we note that the list of factors specified in the statute is not exclusive; that is EPA is not precluded from considering additional factors that advance the statutory objectives when it sets applicable volumes for years not specified in the statute.

One stakeholder quoted the following text from EPA's final decision denying a request for reconsideration of the 2013 BBD volume requirement of 1.28 billion gallons: “[T]he fact that the statute provides a mechanism for increasing the required volume of biomass-based diesel above the 1.0 billion gallon minimum level is a clear indication that Congress intended EPA to increase the applicable volume of this fuel.” By quoting this text out of context, the stakeholder implies that EPA views the provision at CAA 211(o)(2)(B)(ii) as defaulting to annual increases in the volume requirement for BBD unless there is a compelling reason not to increase it. However, the full text makes it clear that EPA does not hold this view.

The American Soybean Association noted that there are a number of factors that will result in additional feedstock and biodiesel for the U.S. market and there are numerous benefits that would be gained from implementing volume requirements of at least 2.0 for 2016 and 2.3 for 2017. Specifically, they pointed out that demand for U.S. soybean oil for food use began to decline following the U.S. Food and Drug Administration’s (FDA) action in 2003 to require food manufacturers to include trans-fats on nutrition labels. They stated that the likely continued displacement of additional soy oil from food use would make additional soy oil available for biodiesel feedstock. We acknowledge the trend of declining soybean oil use in food, and believe it will continue as a result of a June 2015 FDA determination requiring the elimination by 2018 of all partially hydrogenated oil in food use. To the extent that soy oil is being phased down for food purposes, some supply of soy oil will likely become available for other uses, such as

biodiesel production. However, the impact on biodiesel production volumes is not likely to be substantial, particularly for 2016, for two reasons. First, the FDA action will not be complete until 2018. Second, as mentioned above, the removal of some soy oil from food will likely be offset by an increase in the use of other oils in food, with a corresponding reduction in the availability of those other oils for use in making biodiesel. Regardless, it is worth highlighting that while we have set the applicable volume for the BBD standard at 1.9 billion gallons for 2016, we anticipate at least 2.1 billion gallons will be required to comply with the advanced biofuel standard, even greater than the 2.0 billion gallons referenced by the commenter.

After considering all comments received, past implementation of the program, and the statutory factors, we have determined that an increase in the BBD standard to 1.9 billion gallons in 2016 and 2.0 billion gallons in 2017 would support the overall goals of the program while also maintaining the incentive for other advanced biofuels to participate in the RFS program. We believe this final rule strikes the appropriate balance as envisioned by the RFS statute, between providing a market environment where the development of all advanced biofuels is incentivized, while also realizing the benefits associated with increasing the required volume of BBD. Given our final volume for advanced biofuel in 2016, setting the BBD standard in this manner continues to allow a considerable portion of the advanced biofuel volume to be satisfied by either additional gallons of BBD or by other unspecified types of qualifying advanced biofuels. While we have not yet determined the applicable volume of total advanced biofuel for 2017, we anticipate the continued growth in the advanced biofuel standard such that the advanced standard will provide an incentive for both increasing volumes of BBD and other advanced biofuels. We believe maintaining this unspecified or other advanced biofuel volume will provide the incentive for development and growth in other types of advanced biofuels. At the same time, allowing the portion of the advanced biofuel volume requirement that is dedicated to BBD to increase concurrently with the increase in the overall advanced biofuel volume requirement will contribute to market certainty for both the BBD industry and the renewable fuels program in general.

### **3.5.2 Comments Supporting Biomass-Based Diesel Volume Requirement No Higher Than 1.28 Billion Gallons**

#### **Comment:**

#### **Countrymark Cooperative Holding Corporation**

[W]e average just under 2% biodiesel in all of our diesel fuel on an annual basis. We have a customer base that desires renewable fuels; however, we still cannot meet our obligation purely through blending renewable fuels. Therefore, we are a net purchaser of RINs and as such we must plan for our compliance at the start of each calendar year. [EPA-HQ-OAR-2015-0111-2264-A1 p.2]

#### **II. 2014 Standards**

Since there was no other planning resource to use and EPA did not finalize the standards in a timely manner, we were forced to plan to use those standards that were proposed in 2013 as our planning guide for 2014 compliance.

Even though EPA reduced the total renewable fuel requirement in this new proposed standard, they raised the advanced biofuel percentage and subsequently the nested requirements for biomass-based diesel and cellulosic biofuels. The change in cellulosic is almost double and will cost over \$35,000 for additional waiver credits. This is small compared to the financial impact on changing the advanced and total categories. Biodiesel is the only advanced biofuel that we can blend on a commercial scale to satisfy the obligation for both the biomass-based diesel and the advanced biofuel categories. At the end of 2014, we had either blended and/or purchased nearly all of our D4, D5, and D6 RINs for compliance. With the new standards, we became short on D4 and D5 RINs and long on D6 RINs. In addition, D6 RIN price dramatically decreased while D4 and D5 stayed the same or increased. Both of these combined have a real economic impact of over \$1.1 million which is a direct impact on CountryMark income.

CountryMark nor any company should be financially penalized because EPA did not set the compliance standards in a timely fashion. Therefore, we recommend that the 2014 standards remain the same as those proposed in November 2013 which is closer to the intended timeline set by the law. [EPA-HQ-OAR-2015-0111-2264-A1 p.2-3]

If the annual obligation continues to increase as indicated by the EPA there are only two options for compliance at this time:... 2) Blend additional biodiesel. Diesel fuel specification, ASTM D-975, allows for up to 5% biodiesel to be blended within the specification. One approach would be to blend 5% biodiesel from March through November and not provide a choice to our customers. This lack of choice may negatively impact diesel sales volumes. Plus, this approach would still require purchasing additional RINs for compliance. [EPA-HQ-OAR-2015-0111-2264-A1 p.7]

In addition, EPA should reduce the biomass-based mandate to reflect an annual average of 2% biodiesel in the diesel fuel market. [EPA-HQ-OAR-2015-0111-2264-A1 p.8]

### **Unilever**

Another concern for Unilever is the significant reduction in the mandates for cellulosic biofuels (0.2 billion gallons in 2016). Unilever fully supports the development of cellulosic biofuels and believes EPA should direct resources to support the scaling up of that market. The consequence of cellulosic biofuels being unable to meet its intended production levels is that biodiesel has been called upon to fulfill an increasingly large portion of the advanced biofuels RFS. We urge EPA to adjust down the total advanced biofuel mandate in tandem with reductions in the cellulosic mandate. [EPA-HQ-OAR-2015-0111-2273-A2 p.2]

In conclusion, we would urge EPA to issue a final rule that maintains the advanced and biomass-based biodiesel levels included in the proposal for 2014/2015 and reduce the proposed mandate for 2016 to the level proposed for 2015. [EPA-HQ-OAR-2015-0111-2273-A2 p.3]

### **Phillips 66**

As EPA is aware, biomass-based diesel (BMBD) differs from the other categories as the statute does not prescribe biomass-based diesel volumes after 2012. The statute sets a 1 billion gallon minimum or floor and EPA must establish the volume standard based on an analysis of six different criteria. The statute also requires EPA to provide 14-months lead time when establishing the biomass-based diesel standard. Obviously, EPA cannot meet the 14 month

window for the 2014, 2015 or 2016 BMBD standards therefore they are limited from increasing the volume requirement. The API/AFPM comments construct the argument that EPA is limited to setting the standards for 2014, 2015, and 2016 to no higher than 1.28 billion gallons. In fact, this volume is what EPA proposed for 2014 and 2015 in the proposed rule published in November, 2013. EPA acknowledged in that proposal that “the statute requires that we finalize these biomass-based diesel volume requirements no later than 14 months before the first year for which that volume requirement will apply.” We agree that given the statutory language, EPA cannot increase the biomass-based diesel standards prior to 2017.

### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute (API)**

#### **EPA Does Not Have the Authority to Increase the Biomass-Based Diesel Requirements for 2014, 2015 or 2016**

In this regard, section 211(o)(2)(B)(ii) is clear: EPA cannot alter its most recent determination for 2013 of 1.28 billion gallons, because this is the highest volume for which obligated parties have had the requisite advance notice and an opportunity to comment on EPA’s application of the six statutory criteria.<sup>21</sup> Indeed, the soonest that EPA can go beyond the 1.28 billion gallons would be 2017, providing it complies with the statute’s 14-month lead time requirement and issues a final rule prior to November 1, 2015. Any higher applicable volume for biomass-based diesel (or percentage standard based on this volume) for any year covered by the Proposed Rule would be contrary to the plain language of the statute.

In the re-proposal, however, EPA willfully ignores both the plain language of the law and the Agency’s own understanding of that statutory text by proposing to increase the biomass-based diesel standards for 2014-2016. As explained below, obligated parties require the certainty of having final RFS standards prior to the start of the compliance year – as the Clean Air Act clearly requires in order to make operational, logistics, and investment decisions that are necessary to comply with the final standards. Setting RFS standards retroactively or without proper lead time is directly converse to the statutory scheme and objectives of the program. [EPA-HQ-OAR-2015-0111-1948- p 14]

We note that setting the biomass-based diesel RFS at 1.28 billion gallons for 2014-2016 does not restrict additional biomass-based diesel from being sold in the market. Biomass-based diesel producers are able to sell as much of their product as consumers demand. The nesting of renewable fuel requirements in the EISA mandate allows discretionary volumes of biomass-based diesel to be consumed, if biomass-based diesel is cost-competitive with alternative advanced biofuels and renewable biofuels. Setting a higher level for the biomass-based diesel standard within the advanced biofuels mandate achieves no incremental benefit, while limiting compliance flexibility and potentially increasing compliance costs. As incremental volumes of biomass-based diesel can be used to demonstrate compliance in the advanced biofuel category, EPA cannot and should not go beyond 1.28 billion gallons in 2014, 2015 or 2016. [EPA-HQ-OAR-2015-0111-1948- p 15]

We note also that it is inappropriate for EPA to conclude that there is no harm to obligated parties because the number of RINs from biodiesel consumption in 2014-2016 would exceed 1.28 billion gallons. The RFS puts obligations on specific obligated parties, not on the industry as a whole. Thus, although there was apparently excess biodiesel consumed in 2014 when compared with the 1.28 billion gallon proposed standard, this does not mean that all obligated

parties have sufficient biomass-based diesel RINs to meet the increased standards. EPA's disregard for the plain language of the law, upon which such obligated parties may have justifiably relied, harms those obligated parties. [EPA-HQ-OAR-2015-0111-1948-p16]

**Response:**

Some commenters suggested the EPA was prohibited from increasing the biomass-based diesel standard above 1.28 billion for the 2014 through 2016 time period because obligated parties did not have notice of EPA's intention to increase the biomass-based diesel standard above this amount at the times EPA missed the statutory deadlines for establishing applicable BBD volume requirements for these years

We disagree with those commenters who argued we were prohibited from finalizing BBD volume requirements above 1.28 for 2014-2016. We also disagree with Countrymark's request to finalize the 2014 RFS standards, including the BBD standard, as proposed in 2013. After review of comments submitted by obligated parties, while we receive comments theorizing potential adverse impacts from some, we received specific comment only from Countrymark stating they would be adversely impacted by increasing the 2014 BBD standard.

We believe that obligated parties, including Countrymark, were on notice that the BBD volume requirements for 2014 could be higher than 1.28 billion gallons. First, while in the November 2013 NPRM we proposed 2014 and 2015 BBD volume requirements of 1.28 million, we also requested comment on alternative approaches and higher volumes. We noted in the NPRM that total biodiesel production by the end of 2013 could be as high as 1.7 billion gallons and that the facilities contributing to this production collectively had a capacity of well over 2 billion gallons. Thus, Countrymark and other obligated parties, were certainly on notice by November 2013 that a final BBD volume requirement greater than 1.28 billion gallons was possible and could be used in deriving the final 2014 BBD standard. Furthermore, they were provided with notice of the precise volume requirement for 2014 being finalized today through the June 10, 2015 NPRM. Thus, we believe that parties had adequate notice. We further note that the standard is being set at the production level the market actually reached, so while individual parties may need to acquire RINs, the market collectively should have no difficulty supplying the requisite number of RINs. Finally, to provide those parties who may need additional time to engage in RIN trading to obtain the right number and balance of RINs for 2014 compliance, EPA is providing very extensive extensions of the normal compliance demonstration deadlines. For 2014, the deadline in today's rule is August 2, 2016, two months later than proposed and a full 8 months after signature of this rule. Since compliance can be achieved through acquisition of RINs in the marketplace, and does not require capital investments or actual renewable fuel blending, we believe that this amount of lead time for parties to come into compliance is adequate and reasonable.

Countrymark asserts that they relied on the November 2013 NPRM in planning 2014 compliance for all four of the renewable fuel standards, and requesting that in fairness EPA not now impose a higher obligation for that year. In reply we reiterate that parties were on notice through the November 2013 NPRM that EPA could finalize higher volume requirements than proposed. It is the nature of proposed rules that EPA review comments and consider changes, so our doing so should not come as a surprise to anyone. In addition, the tables of applicable volumes in the statute have long provided notice with respect to advanced biofuel, total renewable fuel and

cellulosic biofuel that volume requirements could be as high for those fuels as are specified there. We believe that once this commenter complies with the 2014 advanced biofuel and total renewable fuel volume requirements regarding which such extensive notice was available, that compliance with the 2014 BBD volume requirement will likely either be satisfied, or easily satisfied. Even if the party needs to adjust the types of advanced biofuel RINs they own to ensure sufficient BBD RINs, they will be able to see the non-BBD advanced RINs for a nearly identical price. (See “RIN Prices in 2015 (January – October)” memorandum from Dallas Burkholder to docket EPA-HQ-OAR-2015-0111). And as noted above, EPA is extending the compliance demonstration deadline for 2014 from that which was proposed, allowing this party and any other similarly situated sufficient time to engage in the needed RIN transactions.

Even if Countrymark or any other obligated party faced compliance challenges for 2014, CAA 211(o)(2)(5)(A)-(D) provides two compliance flexibility options that any obligated party may utilize if they are unable to meet any of the 2014 standards, including their 2014 BBD volume obligation, with RINs generated in 2014. First, to the extent that any shortfall of BBD RINs might exist, an obligated party, could utilize carryover BBD RINs (D4) to meet their compliance obligation. As we discussed in Section II.H of the final rule, carryover RINs were intended to provide flexibility for obligated parties in complying with the RFS standards in a variety of circumstances. Certainly, if an obligated party experiences a shortfall in complying with the BBD 2014 volume standard it would be an appropriate use of carryover RINs to meet compliance obligations. Based on available data in the EMTS system, we estimate that there are about 600 million carryover BBD RINs available for use in 2014. This number of BBD carryover RINs should be available for purchase on the RIN market (since if they are not used in 2014 they will expire), and together with available RINs generated in 2014 make up a substantial RIN pool from which obligated parties may acquire needed RINs. However, if an obligated party was either unable to generate or purchase the necessary carryover RINs to meet its compliance obligation, they could alternatively use the carry-forward deficit provision of CAA 211(o)(2)(5)(D) to carry forward the deficit for one year on the condition that it be met the following year.

In addition, the same number of BBD RINs will likely be retired for compliance with the 2014 RFS standards whether we set the BBD volume requirement at 1.28 versus 1.63 billion gallons, because complying with the 2014 advanced and total renewable fuel standards will require retirement of the same number of RINs associated with 1.63 billion BBD gallons. In light of this fact, the ease with which RINs may be traded, as well as the availability of carryover RINs and the deficit carry-forward option, we are not persuaded that any obligated party will have more difficulty complying with a 1.63 billion gallon BBD volume requirement as compared to a 1.28 billion gallon BBD volume requirement. Therefore, we do not believe that sufficient justification has been presented by commenters for EPA to deviate from the proposed approach of setting the 2014 BBD volume requirement as equal to the 2014 BBD volume. We believe that lowering the proposed 2014 BBD volume requirement would send a potentially chilling message to investors in the BBD industry that would be contrary to the objectives of the CAA to incentivize the growth of renewable fuel volumes.

Furthermore, we believe the justification for setting BBD volumes for 2015-2017 above 1.28 billion gallons is even stronger, considering there was greater notice for these standards, the 2015 standards are also being set at the level of expected actual production with additional time for

compliance, and we expect that compliance with the total renewable fuel standard for 2015 and 2016 will have a significantly greater influence on RIN prices and parties' compliance strategies than the BBD standard.

Countrymark also states that they average just under 2% biodiesel in all of their diesel fuel on an annual basis due to customer preference and therefore they recommend that the EPA reduce the biomass-based mandate to reflect an annual average of 2% BBD volume in diesel fuel. We disagree with this recommendation. As discussed in section II.E.3.v of the final rule, biodiesel is typically distributed in blended form with diesel fuel as varying blends from B2 up to B20. Given that the fundamental objective of the RFS provisions under the CAA is to increase the use of renewable fuels in the U.S. transportation system every year through at least 2022 in order to reduce greenhouse gases (GHGs) and increase energy security, we believe that the increases being finalized for BBD are appropriate and that the compliance flexibilities afforded obligated parties allow individual refiners to determine what is the best strategy for their business over time. To the extent that consumer response to the availability low level biodiesel blends (B5 or less) has been generally positive, it does not appear that there is a significant impediment to growth in biodiesel. Section II.E of the final rule provides additional discussion on this topic.

Unilever called on EPA to direct resources to the development of cellulosic biofuel to reduce the demand for biomass-based diesel and to reduce the advanced volumes. The cellulosic volumes for 2016 in this final rule, which are equal to the expected production volumes, are intended to provide the appropriate incentives for the cellulosic biofuel industry. Any other support is beyond the scope of the rule. EPA has set the advanced volumes at reasonably attainable levels, rather than the maximum attainable levels, for the reasons described in the preamble.

## 4. Proposed Cellulosic Biofuel Standards

### 4.1 General Comments on Cellulosic Biofuels

#### Comment:

#### AJW, Inc.

EPA appears to assume as fact a “financial incentive provided by cellulosic biofuel RINs”<sup>26</sup> without evidence of any consideration given to the ways its proposal creates uncertainty around demand for D3/D7 RINs. Uncertainty about whether any premium exists for cellulosic biofuel would eliminate EPA’s assumed “incentive” to produce it. The NPRM lacks evidence that EPA carefully weighed its obligation to “provide appropriate certainty” for renewable fuel producers and “to limit any potential misuse of cellulosic biofuel credits”.<sup>27</sup> [EPA-HQ-OAR-2015-0111-2268-A1 p.15]

There is no question that EPA understands Congress “intended the RFS program to create incentives to increase renewable fuel supplies and overcome limitations in the market”.<sup>28</sup> Equally clear is that EPA aims to “put renewable fuel production and use on a path of steady, ambitious growth.”<sup>29</sup> “...particularly renewable fuels with the lowest lifecycle GHG emissions, in the transportation fuel supply.”<sup>30</sup> [EPA-HQ-OAR-2015-0111-2268-A1 p.15]

Less clear is why EPA offers no information about its consideration related to cellulosic biofuel growth analogous to the steps it proposes “in order to help provide stability to the BBD industry”<sup>31</sup> and to “allow these BBD production facilities to operate with greater certainty.”<sup>32</sup> [EPA-HQ-OAR-2015-0111-2268-A1 p.15]

To the extent that EPA considered the possibility that cellulosic biofuel production above its 2016 estimated levels will erode D3/D7 RIN value – and thus, the incentive to produce cellulosic biofuel – the NPRM reveals nothing about EPA’s views. Nor is it clear that EPA has given thought to ways in which CWC use could result in a similar negative effect on D3/D7 RIN value. Since the D3/D7 price spread versus D5 RINs is the primary incentive for cellulosic biofuel production, EPA’s silence regarding how best to maintain that spread suggests that it may not have fully met the obligations created by CAA § 211(o)(7)(D)(iii). [EPA-HQ-OAR-2015-0111-2268-A1 p.15]

EPA is clearly attempting to comply with the Court’s direction by using a “neutral methodology” in establishing applicable volumes. However, given the uncertainty regarding actual production and the possibility that cellulosic waiver credits (CWCs) may be used even when D3/D7 RINs are available in the market, EPA has proposed a system that is biased toward ensuring a surplus of D3/D7 RIN supply rather than a neutral balance between RIN availability and applicable volumes. [EPA-HQ-OAR-2015-0111-2268-A1 p.16]

As Table IV-1 illustrates, the EPA neutral methodology for establishing applicable volumes, combined with the use of CWCs, ensures that regulated entities are able to comply with the law even when supplies fail to meet EPA’s estimates. Conversely, when supply of RINs exceeds EPA’s estimate, or anytime CWC’s are used for compliance in lieu of available RINs, the market result is that some quantity of D3/D7 RINs will not be needed for compliance purposes. When EPA shifts all of the market risk onto a single class of market actors – renewable fuel producers

– its approach can hardly be thought of as “neutral”. [EPA-HQ-OAR-2015-0111-2268-A1 p.16-17] [The table can be found on p. 17 of Docket number EPA-HQ-OAR-2015-0111-2268-A1]

The problems of market uncertainty and instability would be particularly exacerbated if the methodology for determining applicable volume is based solely on projected production volume. In such circumstances, if it appeared that production volumes might exceed EPA’s “neutral” projection, current D3/D7 RIN prices would be depressed and there would be an anticipated overhang of available volume clouding the picture for future years, just as Stock describes. [EPA-HQ-OAR-2015-0111-2268-A1 p.18]

On the other hand, if EPA implements a methodology that will count all available D3/D7 RINs in its projection of volume available under CAA Sec 211(o)(7)(D)(i), it will materially stabilize D3/D7 RIN markets, reduce uncertainty and promote investment in cellulosic biofuel. This is because, if it appeared that production volumes would exceed EPA’s “neutral” projection of volume available in a given year, that year’s D3/D7 RIN prices would be stabilized by the knowledge that any surplus volume in the given year would be available to contribute to EPA’s projection of available volume in the next year. [EPA-HQ-OAR-2015-0111-2268-A1 p.18]

Furthermore, the material impact of EPA’s decision about its methodology for determining available volume will be felt in 2016 and will apply to 2016 D3/D7 RINs. This is because EPA’s decision on methodology will play a major role in determining the risk profile of acquiring and holding D3/D7 RINs in both 2016 and future years. [EPA-HQ-OAR-2015-0111-2268-A1 p.19]

We believe market participants cannot reasonably expect EPA to provide absolute certainty about how the market will develop. However, they certainly should be able to expect that EPA will inform them about the rules it will apply to the use of 2016 D3/D7 RINs that will be generated under the November 30, 2015 final rule on 2016 RVOs. In particular, EPA should certainly be able to inform market participants whether it intends to include surplus production, as represented by the amount of available carryover D3/D7 RINs, in its future projections of volume available and, where appropriate, soften the limit on the use of carryover D3/D7 RINs. This choice will have a substantial impact on market volatility and certainly falls within the scope of EPA’s statutory obligation to “provide appropriate certainty for regulated entities and renewable fuel producers”. [EPA-HQ-OAR-2015-0111-2268-A1 p.19]

As a result, in its final rulemaking in November 30, 2015, EPA should determine and report how it intends to treat carryover D3/D7 RINs generated in 2016. [EPA-HQ-OAR-2015-0111-2268-A1 p.19]

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<sup>27</sup> CAA §211(o)(7)(D)(iii).

<sup>28</sup> [EPA-HQ-OAR-2015-0111; FRL-9927-28-OAR] I. p.6.

<sup>29</sup> Ibid, p.7.

<sup>30</sup> Ibid.

<sup>31</sup> Ibid, III.D.3, pp. 76-77.

<sup>32</sup> Ibid.

## **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

*First*, the statute requires EPA to obtain the required EIA estimates for cellulosic biofuel production and place it in the docket for this rulemaking. *See* 42 U.S.C. § 7525(o)(7)(D)(i). These estimates are not only mandated by the statute, but they are intrinsic to the calculation of annual percentage standards. It is well settled that “[a]n agency commits serious procedural error when it fails to reveal . . . the technical basis for a proposed rule in time to allow for meaning commentary.” *Connecticut Power & Light Co. v. Nuclear Regulatory Comm’n*, 673 F.2d 525, 530-31 (D.C. Cir. 1982); *see also Chamber of Commerce of U.S. v. SEC*, 443 F.3d 890, 901-06 (D.C. Cir. 2006) (vacating a rule on that basis). EPA’s failure to obtain and publish the EIA estimates for cellulosic biofuel production renders the cellulosic biofuel volume requirements for 2015 and 2016 arbitrary and capricious. [EPA-HQ-OAR-2015-0111-1948-A1 p.48]

## **Anonymous Citizen 6**

Environmental concerns abound when discussing fuel emissions and their impact on the environment. Knowing what we know now, plans for alternative fuel run the gamut and choices are being made in an effort to preserve air quality. Currently, the Environmental Protection Agency (EPA) has a proposal that could alter this quandary. The plan is to impose standards regarding biofuels incorporated in imported gasoline and diesel. A problem exists because production performance is not up to par when using cellulosic biofuels.

The problem with cellulosic fuel is the definition has not remained static. When the EPA keeps redefining what cellulosic means, it causes confusion and an inability for conformation. The EPA recently amended the definition to include liquefied and compressed natural gas produced from biogas and landfills. (1) Before this change, what was deemed cellulosic fuel produced amounted to just over four thousand gallons in a seven month period. (2) Post-amendment, that number grew to over three million gallons in an eight month period. (3) So, before the EPA implements regulation on production, it should create a proper definition of what actually constitutes cellulosic fuels.

The problem is that, per legislative requirement, the technology still does not exist to economically produce cellulosic biofuels. (4) The EPA is getting away with this by redefining what constitutes cellulosic biofuels.

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(1) <http://www.epa.gov/otaq/fuels/renewablefuels/documents/420f14045.pdf>

(2) <http://dailycaller.com/2014/10/02/epa-expands-biofuels-definition-to-inflate-production-numbers/>

(3) <http://www.epa.gov/otaq/fuels/rfsdata/2014emts.htm>

(4) <http://instituteeforenergyresearch.org/analysis/epa-moves-goalposts-new-definition-cellulosic-biofuels/>

## **Clean Energy Renewables**

In order to help address this, we therefore request that EPA make a prominent and clear statement in the Final Rule that EPA intends the cellulosic RVOs to include all cellulosic biofuel projected volume available each year, up to the statutory volumes. [EPA-HQ-OAR-2015-0111-1908-A1 p.5]

We understand that EPA has the authority to adjust the RVO to account for actual biofuel production after the Final Rule is published if EPA receives new information that was not available to them at publication and the information substantially impacts the rule. We request that EPA include a statement about EPA's authority and description about this amendment process in the Final Rule. [EPA-HQ-OAR-2015-0111-1908-A1 p.5]

## **Governors' Biofuels Coalition**

If the EPA does not change its interpretation of the RFS2 for 2016 volumes, big ethanol companies won't build another cellulosic ethanol plant in the United States. Instead, they will look to China, South America, and other regions that have stable biofuels policies. In fact, DuPont announced just last week that it will build no new cellulosic ethanol production facilities in the United States because of "policy uncertainty" and will instead license the innovative technology used at its Iowa plant to overseas investors. [EPA-HQ-OAR-2015-0111-1722-A1 p.5-6]

## **ICM**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 314.]

Cellulosic ethanol must stand on the shoulders of a strong starch, corn-starched ethanol industry. We need the stability of the original, congressionally mandated RVO volumes. Allow the ethanol industry to do its job. Keep the RFS on track.

## **Independent Fuel Terminal Operators Association (IFTOA)**

Specifically, the Association recommends the following: [EPA-HQ-OAR-2015-0111-1947-A1 p. 8]

5. EPA's assessment of the availability of future cellulosic biofuel is optimistic; therefore, the Agency should give greater weight to the uncertainties identified in the proposed rulemaking and reduce the cellulosic biofuel mandate; [EPA-HQ-OAR-2015-0111-1947-A1 p. 9]

6. EPA should rescind the 2011 cellulosic biofuel mandate for the reasons stated in the proposed rulemaking; [EPA-HQ-OAR-2015-0111-1947-A1 p. 9]

## **Iowa Farm Bureau Federation (IFBF)**

This proposal would halt new investments in cellulosic biofuels and introduce detrimental ambiguity in a market that is still developing. A significant reduction in the 2015 and 2016 volume requirements would slow or halt investments in the infrastructure needed to distribute and dispense larger volumes of ethanol. As mentioned previously, Iowa has two state of the art

cellulosic ethanol plants in Iowa. Further investment in these facilities and new cellulosic facilities is essential to meeting the goals laid out in the RFS2. The proposed reduction of the RVO creates a signal that turns away and creates a disincentive for investments in these new technologies. [EPA-HQ-OAR-2015-0111-1717-A1 p. 1]

### **Iowa Renewable Fuels Association**

It may be worth noting that exactly 18 months ago (January 27, 2014) IRFA submitted comments to EPA on the original proposed rule for the 2014 volume requirement. While that proposal was ultimately pulled and the RFS has been “paused” in what amounts to “limbo” for the last year and a half, time in the real world did not stand still. It might be worthwhile to consider some of what has occurred during that time. [EPA-HQ-OAR-2015-0111-1957-A2 p. 1]

The comments submitted by IRFA 18 months ago remain relevant today and will be attached to this submission (attachment A). However, we would have to make some edits, mostly to the first paragraph. Back then we noted that Iowa was home to four cellulosic ethanol projects. Today, on the positive side, two of those projects<sup>1</sup> have begun operations<sup>2</sup> and a third should be operational in a matter of just a few months.<sup>3</sup> However, the fourth plant – an innovative trash-to-ethanol project – cited uncertainty over the future of the RFS when shifting the focus of its work and investments to other fields.<sup>4</sup> [EPA-HQ-OAR-2015-0111-1957-A2 p. 2]

Along the same lines, DuPont recently noted during a round of meetings in Washington, D.C., that despite its original business plan to focus licensing activity in the United States, it did not have a single serious discussion about licensing its cellulosic ethanol technology with any company in the U.S. due to uncertainty over the RFS. However, DuPont did have serious discussions ongoing in Europe, South America, and China. In fact, DuPont recently announced that the first license agreement for their cellulosic ethanol technology was signed with a Chinese firm.<sup>5</sup>

[Attachment A can be found on p. 22-90 of docket number EPA-HQ-OAR-2015-0111-1957-A2]

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<sup>1</sup> Eller, Donnelle. “Iowa has first gallon of cellulosic ethanol.” *The Des Moines Register* 2 Jul 2014 <http://www.desmoinesregister.com/story/money/business/2014/07/02/first-gallon-cellulosic-ethanol-produced-iowa/11955195/>

<sup>2</sup> Eller, Donnelle. “Emmetsburg cellulosic ethanol plant: Fuel for the future.” *The Des Moines Register* 4 Sep 2014 <http://www.desmoinesregister.com/story/money/agriculture/green-fields/2014/09/03/poet-dsm-celebrate-opening-cellulosic-ethanol-plant/15025949/>

<sup>3</sup> Gantz, Rachel. “DuPont Plant Late October Grand Opening for Cellulosic Ethanol Plant.” *Oil Price Information Service* 10 Jun 2015

<sup>4</sup> Smith, Rick. “Trash-to-biofuel takes new turn in Marion.” *The Gazette*. 16 Apr 2015 <http://thegazette.com/subject/news/trash-to-biofuel-takes-new-turn-in-marion-20150416>

<sup>5</sup> Doering, Christopher. “China to license DuPont technology to build ethanol plant.” *The Des Moines Register* 16 Jul 2015 <http://www.desmoinesregister.com/story/money/agriculture/green-fields/2015/07/16/dupont-china-cellulosic/30234437/>

## **Minnesota State Senate**

Furthermore, if EPA and the government turn their backs on the production of conventional biofuels, it will have a devastating effect on the full-scale commercialization of next generation biofuels, such as cellulosic biofuel from agricultural waste. The biofuels industry has just begun the commercialized production of next generation of biofuels. Now would be the worst possible time to take a step backward. [EPA-HQ-OAR-2015-0111-3284-A1 p.2]

## **Novozymes Americas**

There are limitations in supplying the statutory volumes of cellulosic biofuel to obligated parties in 2014, 2015 and 2016. [EPA-HQ-OAR-2015-0111-3277-A1 p.1]

Novozymes does not agree that the current proposal is forward-leaning and consistent with the statute's intent to promote growth in renewable fuel use. EPA-HQ-OAR-2015-0111-3277-A1 p.2]

## **POET-DSM Advanced Biofuels**

As we explain, the NPRM's proposed reductions in those RVOs will have a devastating impact on the cellulosic ethanol industry, and make it impossible for our industry to survive and prosper in the United States. [EPA-HQ-OAR-2015-0111-1943-A1 p.2]

Both at the time when the POET-DSM joint venture was formed and for the foreseeable future, the commercial value of cellulosic ethanol in the United States depends fundamentally on the price of corn-starch ethanol. [EPA-HQ-OAR-2015-0111-1943-A1 p.4]

Having now presented and documented what we believe to be the generally recognized commercial method of pricing cellulosic ethanol, and having provided a full range of Project LIBERTY's costs of production,<sup>25</sup> POET-DSM believes that EPA must explain why the proposed conventional biofuel RVOs will not have the impacts that we predict. We believe there is no gainsaying the evidence we have offered to predict those impacts, nor the experience of the producer who, in early 2014, pointed out that "fund[ing] the production of our cellulosic fuels ... at a significant loss relative to the prices we would expect to receive from our customers" is not sustainable.<sup>26</sup> [EPA-HQ-OAR-2015-0111-1943-A1 p.10]

In our analysis, there is a significant gap between the costs of producing cellulosic ethanol and value that the market assigns to cellulosic ethanol, which we believe cannot be ignored in assessing the economic impacts of the NPRM's proposed action. If EPA's analysis depicts a smaller gap between costs and prices, and on that basis the Agency finds no need to modify the NPRM's proposed conventional biofuel RVOs, how large a gap would EPA consider to be significant enough to warrant modification of the NPRM's proposal? If the Agency cannot provide a specific value or range of values that would warrant such a modification, how should stakeholders attempt to determine the type or level of disparity between costs and prices that, in EPA's view, would warrant a change in the NPRM's proposal? [EPA-HQ-OAR-2015-0111-1943-A1 p.12]

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<sup>25</sup> See Cummings Decl. ¶ 4.

<sup>26</sup> See note 16 above.

## **Poet, LLC**

### ***B. Undercutting the Base Renewable RVOs would destroy the future of cellulosic ethanol in the United States.***

POET – one of the world’s largest investors in cellulosic biofuels – expects to stop all future U.S. cellulosic investments if the NOPR’s Base Renewable fuel requirement is not strengthened.

As of 2013, POET had planned to extend cellulosic technology to 25 plants in the POET network (in addition to Project LIBERTY) and beyond that to other corn ethanol plants in the United States, a fact that EPA had previously noted with approval.<sup>8</sup> This NOPR – and EPA’s prior 2014 RVO proposal – have created barriers to these plans that can only be surmounted if EPA drastically changes its approach and requires improved Base Renewable volumes. [EPA-HQ-OAR-2015-0111-2481-A1 p.6]

Organizations representing dozens of stakeholders have commented to President Obama that EPA’s undercutting first generation biofuels would have serious collateral impacts that “scuttle U.S. investment in advanced, low-carbon biofuels.”<sup>21</sup> Numerous other reports and analyses have also demonstrated how undercutting first generation biofuels would undermine the development of advanced biofuels, including analysis by environmental and various third-party, non-partisan organizations.<sup>22</sup> Given the importance of the Base Renewable RVOs to cellulosic biofuel development, those Base Renewable targets for 2014 to 2016 must be raised. [EPA-HQ-OAR-2015-0111-2481-A1 p.8]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1044, pp. 199-201.]

In addition, the lack of infrastructure stifles investment in cellulosic production by creating uncertainty in market access for cellulosic ethanol gallons.

The reduction in the RFS volumes will also have a chilling effect on future investment in ethanol cellulosic production. To date, POET and other producers have invested hundreds of millions of dollars in this area in the belief that the RFS would remain intact and there would be a market for their production. These are long-term decisions based on consistent energy policy. By reducing the RFS volumes and providing no incentive for infrastructure development, the EPA has signaled that additional investment in cellulosic ethanol production is not justified.

## **Quad County Corn Processors Cooperative (QCCP)**

In recent years, the component of the above equation that has the largest effect on the final cellulosic biofuel value is the prevailing market price for corn starch ethanol. Thus, any action that weakens the market value of corn starch ethanol also has the unintended consequence of reducing the cellulosic biofuel value proposition. [EPA-HQ-OAR-2015-0111-1817-A1 p.3]

EPA's proposal to reduce the undifferentiated renewable fuel portion of the RFS by 8 percent in 2014, 11 percent in 2015, and 7 percent in 2016 has undoubtedly reduced demand and prices for corn starch ethanol (including the value of the D6 RIN). Indeed, D6 RIN prices averaged 71 cents in May, but plunged following the release of EPA's proposal on May 29, averaging just 44 cents in June and July. As such, prospective values for cellulosic biofuel have also suffered. [EPA-HQ-OAR-2015-0111-1817-A1 p.3]

### **Syngenta**

EPA's proposal has *already* cast a shadow of doubt over the soundness of future investments in biofuels. If finalized, EPA's rule will not only affect access to credit for ethanol plants for increased capacity expansions, new technologies and equipment, but there will also be no certainty for Syngenta and other companies to count on in order to continue making large investments in the biofuels space. [EPA-HQ-OAR-2015-0111-2493-A1 p.4]

### **ZeaChem Inc.**

Given that the actual cellulosic biofuel production capacity in 2013 was significantly less than what was prescribed under EISA, EPA is within its waiver authority as defined in the law at 42 U.S.C. 7545(o)(7)(D) to adjust the renewable volume obligations for cellulosic biofuels down to actual production volumes for 2014 and through the publishing date for the final rule in 2015 and reasonable projected volumes for the remainder of 2015 and 2016. [EPA-HQ-OAR-2015-0111-1906-A1 p.3]

### **Response:**

EPA believes that there are limitations to supplying the statutory volumes of cellulosic biofuel in 2014, 2015, and 2016, and that EPA's proposed cellulosic biofuel standard reductions were within its authority. We also affirm, as requested by a commenter, that we intend the cellulosic RVOs established in this final rule to include all cellulosic biofuel projected volume available each year, up to the statutory volumes.

One commenter claimed that EPA has assumed, without evidence, that the RFS program provided a financial incentive for the production of cellulosic biofuel, and that EPA had not appropriately considered the possibility that production exceeding our estimates could negatively impact the cellulosic biofuel RIN value. The commenter expresses concern that the uncertainty in the program could eliminate incentives for cellulosic biofuel production and questions why EPA does not consider putting in place analogous provisions to those for the BBD standard to provide greater certainty. EPA does not believe that the current structure of the RFS program is so uncertain as to eliminate incentives for the investment in and growth of cellulosic biofuels. This is supported by the reported cellulosic RIN prices of as much as a dollar providing a substantial subsidy for the growth that we are now seeing in cellulosic biofuel volumes and the increased standard we have finalized. Further, the commenter's statements that the support for the cellulosic standard is inferior to that for the BBD standard is flawed. For the BBD standard we are setting the standard below the volume we anticipate might be available to meet the advanced biofuel standard. In comparison, we are setting the cellulosic biofuel standard at 100% of the volume we anticipate will be available to meet the advanced biofuel standard. To date, the market has yet to meet or exceed the cellulosic standards that we have finalized, whereas the

market has typically exceeded the BBD standard and we expect it will do so again in 2016. Nevertheless, EPA has, and will continue to carefully monitor the cellulosic biofuel RIN market to determine whether or not the RFS program is having the intended effect with regard to incentivizing cellulosic biofuel production. EPA has reviewed cellulosic RIN price and sales volume data available through EMTS. This data strongly suggests that cellulosic biofuel RINs are trading at values in excess of other RIN types, and that obligated parties are actively purchasing cellulosic biofuel RINs, thus providing the intended incentives. Consequently, there does not appear to be any need for regulatory changes at the present time.

Several commenters suggested that the possibility that excess cellulosic RINs could be generated in any year, combined with the availability of cellulosic waiver credits, creates the possibility that there could be a surplus of cellulosic biofuel RINs in a given year, and that this could negatively impact the value of cellulosic RINs. One commenter states that EPA is attempting to comply with the court decision requiring a neutral methodology but is not ensuring a neutral balance between RIN availability and applicable volumes. To protect against this possibility, they requested that EPA state their intention to include any available carry over RINs in the cellulosic biofuel standard for the following year. EPA does not believe it would be appropriate to make such a statement at this time, especially in light of the insignificant number of cellulosic biofuel RINs we project will be available for use in 2016.<sup>29</sup> We are setting the 2014 and 2015 cellulosic biofuel standards at their actual and projected levels respectively, providing little to no opportunity for generation of carryover RINs that can be used in 2016. EPA disagrees that the court decision requiring a neutral aim at accuracy in its annual assessment of projected cellulosic biofuel production requires a neutral balance between RIN availability and applicable volumes. There were no cellulosic carryover RINs available at the time of the court decision, and the issue before the court was whether EPA had introduced an upward bias in its projection of the volume of cellulosic biofuel that would be produced in the coming year. Thus, we do not believe that the court decision resolves the issue of how cellulosic carryover RINs should be considered in the context of the setting the annual cellulosic biofuel volume requirement. EPA notes that EMTS data indicates that cellulosic RINs are generally being purchased by obligated parties, and that the number of RINs held by an obligated party reduces the number of waiver credits that can be purchased for compliance (See 40 CFR 80.1456(c)). Thus available evidence at this time does not appear to support the commenters' concern. Instead of taking any action now, EPA will reserve this issue for further consideration in the future when and if there are carryover cellulosic RINs in light of the information available at the time.

A commenter requested that EPA include a statement in this final rule about our authority to adjust the RVO after the final rule is published if we receive new information that was not available at the time of publication that substantially impacts the rule. We acknowledge that in a response to petition for reconsideration we adjusted the 2013 cellulosic biofuel standard after issuing the final rule. The grounds for petitions for reconsideration are described in CAA section

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<sup>29</sup> See "Estimating Carryover RINs Available for Use in 2014," memorandum from Dallas Burkholder to docket EPA-HQ-OAR-2015-0111. We estimate there are approximately 20,000 cellulosic carryover RINs available for use in 2014. Because we are establishing the 2014 standard at the number of RINs available for compliance and the 2015 standard at the level projected to be available for compliance it is unlikely that the number of carryover RINs available for use in 2016 will be appreciably different than the 20,000 RINs available for use in 2014. Including an additional 20,000 RINs in our projection of available volume of cellulosic biofuel for 2016 would have no impact on the percentage standard.

307(d)(7)(B). As a general matter, however, we do not have an amendment process for the annual rulemaking and we generally do not believe it appropriate or wise to reopen rules every time new information becomes available. We believe the need for market certainty generally outweighs the interest in adjusting final volumes to reflect new information, but this may depend on the significance of the new information. We will resolve such matters on a case-by-case basis in reviewing petitions for reconsideration, or in deciding on our own initiative if new information warrants an amendment of the regulations.

A commenter stated that because EPA had not published EIA estimates of cellulosic biofuel production in the docket that the cellulosic biofuel volume requirements for 2015 and 2016 were arbitrary and capricious. EPA had not yet received a projection of cellulosic biofuel production from EIA at the time of our proposal. In our proposed rule and supporting documentation we provided descriptions of the cellulosic biofuel producers we expected to produce cellulosic biofuel in 2015 and 2016, the relevant information on each company we used for the basis of our volume projections, and the manner in which we proposed to use this information to determine a final volume projection for each year. In this final rule, after receiving the estimate of cellulosic biofuel production from EIA, we have included this letter in the docket and considered EIA's projection as we determined final cellulosic biofuel volumes for 2015 and 2016. We believe the proposed rule provided adequate notice of our approach and supporting information, and the final rule is a logical outgrowth of the proposal. It is neither arbitrary nor capricious.

Several commenters suggested that EPA should change its interpretation of our general waiver authority to incentivize ethanol companies to build cellulosic ethanol plants in the United States. Another commenter stated that our proposal with respect to the total renewable fuel standard (waiving below statutory volumes) would halt new investment in cellulosic biofuels, and the infrastructure needed to distribute additional volumes of cellulosic ethanol. They argued that without strong support for increasing corn ethanol volumes, the cellulosic biofuel goals of the statute could not be achieved, or that investment would be made in foreign countries rather than in the United States. We do not believe it would be appropriate, nor in the best interest of the RFS program, to establish total renewable fuel requirements beyond the ability of the market to meet these volumes in an effort to support the market for cellulosic ethanol plants in the United States, nor do we think this would be effective in achieving the desired outcome (See below for a further discussion of this issue). Rather than taking a step backwards, as some commenters characterized our proposed rule, this rule is intended to provide incentives for continued growth in the renewable fuels market, while at the same time providing the market with the certainty necessary to achieve this growth, particularly in the advanced biofuel and cellulosic biofuel markets. We also note that fuels other than ethanol can and are being used to meet the cellulosic biofuel requirements and that there is no requirement in the statute that the cellulosic biofuel standard be met with ethanol. We nevertheless note that the cellulosic standard finalized includes 100% of the volume of cellulosic biofuel that we project will be produced, including all of the cellulosic ethanol projected to be produced, regardless of challenges of the market to go significantly beyond the E10 blendwall.

One commenter suggested that EPA's assessment of the availability of cellulosic biofuel in future years was optimistic, and that we should reduce the cellulosic biofuel volumes. We disagree that the volumes are optimistic, and note that cellulosic biofuel production in 2015 through September is on pace to exceed the projection in our proposal. For more information on

our updated projections of available volumes of cellulosic biofuel in 2014, 2015 and 2016 see Section IV.E and IV.F of the final rule.

Two commenters claimed that the proposed RFS standards are not high enough to incentivize cellulosic biofuel production. One stated that our proposal did not reflect that we considered the impact of the reductions in conventional biofuel volumes on the cellulosic industry. They assert that the price that can be obtained for cellulosic ethanol is tied to the value of conventional ethanol. They argue that we should take this impact into account in deciding the extent to which we should use our waiver authorities in the final rule. We acknowledge that use of either waiver authority is discretionary, and therefore we are authorized to consider possible impacts of our action on the cellulosic biofuel industry. We also acknowledge our decisions on final advanced biofuel and total renewable fuel volume requirements could influence the price renewable fuels and their associated RINs. However, the concern raised by the commenter appears to hinge on fears of depressed conventional ethanol prices leading to depressed cellulosic biofuel prices. We do not expect that our final action will depress conventional ethanol prices or D6 RIN prices, so even if the commenters' assessment of cellulosic biofuel pricing were accurate we do not expect our action would depress the values of cellulosic ethanol. Furthermore, while the information presented by the commenter on how obligated parties can comply with the cellulosic component of their RFS obligations is correct, we disagree with the equation presented to calculate the expected gross cellulosic price. This equation fails to consider that the corn starch ethanol futures price (which they use as part of the equation for calculating the expected price for cellulosic ethanol) includes the value of the D6 RIN. This value must be subtracted from the corn starch ethanol futures price before the advanced RIN price and CWC price are added. Further, we note that the price of the CWC assumed in the equation presented by the commenter is significantly lower than the CWC price for 2016 (\$0.30 rather than \$1.33). Because the value of the D6 RIN must be subtracted from the ethanol price in this equation, driving corn ethanol prices higher by increasing the value of the D6 RIN would not increase the value received for cellulosic ethanol. We also note that even if the equation presented by the commenter is corrected as discussed above it would only be a reasonable estimation of the value for cellulosic ethanol, not representative of all cellulosic biofuel. The expected value of non-ethanol cellulosic biofuels are not expected to be significantly impacted by the value of corn ethanol or D6 RINs, however the advanced RIN prices and CWC price are expected to impact the expected value for non-ethanol cellulosic biofuel.

As a final point, we do not believe it would be appropriate based on the information currently before us to increase the total renewable fuel standard in an effort to provide increased support to the cellulosic biofuel industry. Setting a higher total renewable fuel standard could lead to increased corn ethanol and conventional RIN prices, but would also potentially lead to noncompliance by obligated parties, or a substantial carry-forward of RVO obligations into future years. Furthermore, lowering the advanced biofuel standard to allow more use of conventional fuel under the total renewable fuel standard could result in less use of advanced biofuels, and therefore less GHG emissions reduction. We believe that our final action is appropriate since it will avoid these types of adverse consequences, provides substantial support to the cellulosic industry through a separate cellulosic biofuel standard, and is unlikely to lead to the consequences feared by the commenter.

The cellulosic waiver credit price was established by Congress, presumably to protect consumers in the case where cellulosic biofuels could in theory be produced, but were profitable only at prices Congress viewed as excessively high. This appears to be the commenter's view of the current situation. We do not believe it would be an appropriate exercise of our discretion to limit (or forgo) the exercise of our waiver authorities in an effort to cause a rise in the prices of corn ethanol, D6, and D5 RINs in an effort to make cellulosic ethanol production viable.

A commenter noted comments from a potential cellulosic biofuel producer stating that due to uncertainty over the RFS there were better market opportunities internationally than in the United States. The volumes in this final rule are intended to address the uncertainty related to the incentives provided by the RFS program. Despite this, we expect that potential cellulosic biofuel producers will continue to consider markets other than the United States and make investment decisions based on a number of different market factors.

A commenter objected to EPA's continuing evaluation and addition of potential cellulosic biofuel production pathways, specifically mentioning cellulosic biofuel produced for CNG/LNG derived from biogas. They claimed that this approval was motivated by the desire for increased cellulosic biofuel production in light of the limited production from previously approved pathways. EPA strongly disagrees with this comment. We believe it would be inappropriate to have a static list of pathways for the production of cellulosic biofuel that does not consider new feedstocks, production technologies, or fuel types. Doing so would limit innovation in the cellulosic biofuel market. We also note that we conducted a public notice and comment rulemaking process for the addition of CNG/LNG derived from biogas, and that this rulemaking was finalized on the basis of the available data and relevant statutory provisions rather than the desire for additional volumes of cellulosic biofuel.

EPA received support for rescinding the 2011 cellulosic biofuel standard, and we are finalizing this action in this rule.

## **4.2 Cellulosic Biofuel Volume Assessment**

### **Comment:**

#### **Abengoa Bioenergy**

EPA has proposed to violate this requirement. In an across-the-board fashion, EPA has unilaterally decided to treat its direct discussions with producers as inherently inaccurate, stating, '...we have decided to treat these company projections as the high end of a potential production range unless this volume exceeds the volume calculated using our six-month straight-line rampup period methodology, suggesting that these company projections are unreasonably high.' Such unilateral dismissal of company projections as 'unreasonably high' — without regard to the particular facts and circumstances relevant to each company at issue — is arbitrary and non-neutrally tilted toward inaccuracy in one particular direction. EPA should continue to hold discussions with the identified producers to update its projections; additionally, EPA should hold discussions with identified foreign cellulosic biofuel producers and with producers awaiting pathway approvals to assess their intentions and relevant factual circumstances and include them as appropriate in setting the cellulosic requirement. EPA has expressed its awareness that its

projections can change market behavior, and it should be as wary of setting the RVOs too low as it is of setting them too high. [EPA-HQ-OAR-2015-0111-2474-A1 p.9]

EPA also proposes to set the low-end of a projected range for cellulosic biofuel RVOs ‘based on the volume of RIN-generating cellulosic biofuel the company has produced in the most recent 12 months for which data is available.’ And for the 2014 and 2015 final rules, EPA states, ‘We intend to update the low end of the projected production range for each company using data from the most recent 12 months for which data is available.’ The American Fuel and Petrochemical Manufacturers advocated the adoption of this methodology for setting the cellulosic biofuel RVOs and it is not a neutral methodology. Because the advanced biofuel industry is currently starting up first-of-a-kind biorefineries, the past 12 months of production is an intentionally low estimate of future production. Only through consultation with the individual producer can EPA confirm an accurate and neutral pace of production scale up. [EPA-HQ-OAR-2015-0111-2474-A1 p.9]

EPA has also excluded volumes of cellulosic biofuels from pathways that have yet to be approved. This all-or-nothing exclusion decision, which tilts in a direction away from accurate prediction, chills investment for the identified companies and discourages these companies — and others — from completing the lengthy approval processes for pathways and renewable fuel producers. EPA should anticipate (and actively work to complete) the timely approval of pathways and registration processes and should accurately include in the 2015 and 2016 RVOs all reasonably anticipated volumes from companies that intend to begin producing during the compliance years.[EPA-HQ-OAR-2015-0111-2474-A1 p.10]

### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

*Second*, as noted above, EPA continues to employ the same flawed methodology for projecting cellulosic biofuel production in this proposal. EPA’s overall process is becoming increasingly complicated with the present inclusion of landfill biogas fuels, for which limited production data is currently available. As established above, EPA’s projections “fail to take neutral aim at accuracy” because they are inconsistent with the data that *are* available. [EPA-HQ-OAR-2015-0111-1948-A1 p.48]

### **Biotechnology Industry Organization**

With its newly proposed methodology, EPA deliberately sets the risk of underestimation to outweigh the risk of overestimation. Through the first six months of 2015, cellulosic CNG/LNG producers generated more than 48 million RINs. That is already equal to **69 percent** of the 70 million gallons that EPA estimates as the industry sector’s total production capacity for the entire year. EPA thus is demonstrably underestimating the cellulosic sector’s production potential, and the final rule should correct this undershooting problem. The final rule should use the most accurate, relevant, and reliable data available, and should not rely on stale information that may lead to inaccurate underestimation.<sup>205</sup> [EPA-HQ-OAR-2015-0111-1958-A2 p. 60]

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<sup>205</sup> Cf. *id.* at 33139 & n.107.

## **ExxonMobil Refining & Supply Company**

Take into account the history of low cellulosic biofuel production and remaining significant technical and economic challenges, and set the cellulosic standards at demonstrated, not projected volumes. [EPA-HQ-OAR-2015-0111-2270-A1 p.1]

### **Response:**

One commenter objected to EPA's treatment of cellulosic biofuel production projections from discussions with potential producers as the high end of a potential production range. They claimed that this suggested EPA viewed these projections as unreasonably high, and that this was arbitrary and tilted EPA's projections towards inaccuracy. As discussed in Section IV of the final rule, we note that historically the production projections obtained by EPA from potential producers have over-estimated actual production by a wide margin. Despite this, EPA has not chosen to dismiss these projections as unreasonable, but has instead treated them as the high end of a potential production range. For this final rule we have continued to collect and use this valuable information in this way. We believe that this is appropriate in light of the historic over-estimations from potential producers, including many expected to produce cellulosic biofuel in 2014 and 2015, and the inherent uncertainty associated with these projections.

This commenter also objected to using the production over the most recent 12 months as the low end of the range. They state that this is not a neutral methodology because the cellulosic biofuel industry is in the start-up stage, and that it would lead to intentionally low estimates of future production. Other commenters suggested that in light of the history of low cellulosic biofuel production volumes and significant technical and economic challenges EPA should extrapolate past projection (such as the 3 most recent months) to project future production. EPA believes that a simple projection of historical data is not an appropriate method for projecting future production from a new industry. Nevertheless, we do believe that the historical data provides a useful perspective and should be considered. We have therefore used the production of cellulosic biofuel over the past 12 months as the low end of a possible production range in the future, as we proposed (see Section IV of the final rule for a further discussion on this issue).

A commenter also stated that EPA should anticipate the approval of new pathways and included volumes from these yet to be approved pathways in our projection of cellulosic biofuel production. We do not believe this would be appropriate, as final decisions as to whether or not these fuels will qualify as cellulosic biofuel have not been made. We also note that very few, if any of the pathways that have been submitted for consideration as cellulosic biofuels would be in a position to produce fuel in 2016 even if their petitions were approved in the very near future. The time lag for production is such that it may be possible to consider volumes for them in 2017, but production of meaningful volumes from pathways that have not yet been evaluated in 2016 is highly unlikely.

A commenter claimed that EPA's projection methodology are growing increasingly complicated and that they are not neutral projections because they are inconsistent with the data that are available. We disagree with this comment. While projecting volumes of landfill biogas using a slightly different methodology does complicate our projections, it is appropriate in light of the significant differences in the uncertainties associated with liquid biofuel production and the production of CNG/LNG derived from biogas. It is also the case that past production data are

not the only data available, and we believe that considering supplemental data, such as the projected start-up dates and capacities of new production facilities, enhances our projections.

Another commenter stated that our projection methodology deliberately set the risk of underestimating potential production volumes higher than the risk of overestimating production volumes. To support this they noted that in the first six months of 2015 69% of the cellulosic biofuel RINs needed to satisfy the proposed cellulosic biofuel standards had already been generated. EPA's does not agree with the claim that our methodology is intentionally designed to underestimate potential volumes; rather, it is intended to be a neutral methodology. Based on the comments received on this rule and the production rates of cellulosic biofuel noted by this commenter we have adjusted the methodology used to project the production of CNG/LNG derived from biogas, which is by far the largest source of cellulosic biofuel in 2014 and 2015. We believe that increasing the percentile value within the projected range for CNG/LNG producers based largely on their production history relative to the company projections of the past year (the first year for which data is available for these facilities) is appropriate. This has resulted in higher projections of cellulosic biofuel production for 2015 and 2016. We continue to believe that an approach that considers both company specific projections and information, as well as previous production history in projecting likely production volumes of cellulosic biofuel is the best method available, and superior to methods suggested by commenters that consider only previous cellulosic biofuel production (and thus ignore the potential for production from new facilities or increased production from existing facilities) or information and projections provided by potential cellulosic biofuel producers (which ignores the history of over-estimation by these parties).

#### **4.2.1 Potential Domestic Producers**

##### **Comment:**

##### **Abengoa Bioenergy**

Finally, it should be noted that in proposing to exercise its waiver authority on the basis of infrastructure constraints (an approach that is subject to the defects explained above), EPA has not in fact considered the market's so-called ability to supply various fuels to the cars that can use them. In implementing the cellulosic waiver authority to reduce the advanced and overall volumes of biofuels, EPA states, 'Our proposed justification for doing so is a limitation in the availability of qualifying advanced biofuel and constraints on the ability to supply qualifying renewable fuels to the vehicles that use them.' Yet EPA has not done any analysis of the availability of vehicles that can utilize cellulosic CNG or LNG fuels or any other advanced biofuel. [EPA-HQ-OAR-2015-0111-2474-A1 p.10]

This is the case even though the Agency projects that cellulosic RVOs for 2014-2016 will be met primarily with CNG and LNG fuels. Nevertheless, BIO is confident that EPA has underestimated the cellulosic industry's ability to supply such fuels. According to DOE's Alternative Fuels Data Center and Clean Cities 2015 Vehicle Buyer's Guide, in the United States there are currently 143,000 vehicles that utilize LPG (representing 10 vehicle models) and 2,600 fuel stations to supply the fuel to the vehicles that can use them. There are additionally 150,000 vehicles that

utilize CNG (representing 17 vehicle models) and 750 fueling stations. EPA's inconsistency in applying its proposed approach further demonstrates that it has not adequately considered or justified the approach. Even if EPA's proposed approach were proper, EPA would be required to take full account of the actual capacity of the industry to supply CNG, LNG, and other fuels, and to adjust its volume predictions accordingly. [EPA-HQ-OAR-2015-0111-2474-A1 p.10-11]

### **American Council on Renewable Energy (ACORE)**

Historically, RNG projects have sent much of their gas to utilities for electricity generation. As long-term electricity contracts are coming off line, RNG producers are choosing to send their gas to its highest and best use – transportation fuel. This change of end use does not mean the project is new in the same way that a newly constructed project is new. USEPA needs to differentiate between these two types of “new” projects. Registration requires facility developers to show their contracts for the sale of their biogas to a compressed natural gas or liquefied natural gas facility, so there is no possibility that they would sell their gas to “non-transportation markets.” Registered facilities have sufficiently demonstrated their commitment to supply fuel under the program. USEPA should not discount them in the 25<sup>th</sup> percentile, as 25% likely to follow-through. [EPA-HQ-OAR-2015-0111-1926-A1 p.17]

### **American Farm Bureau Federation (Farm Bureau)**

For instance, a 20 million gallon per year cellulosic ethanol plant in North Carolina is currently being built and expected to be at full capacity by 2016. The plant’s main feedstocks will rely on cellulosic materials such as miscanthus, switchgrass and wood scraps and will be grown on approximately 30,000 acres of marginal land by farmers close to the refinery. In addition, North Carolina pork producers are part of the blueprint in the overall project plan, and the plan targets land used for spreading lagoon effluent. The energy grasses, switchgrass and miscanthus will be able to fully utilize the nitrogen and phosphorus derived from the manure and can help in producing good crop yields while helping with a farmer’s overall manure management system. By the time the plant is fully operational, it is expected to create more than 300 jobs, and USDA estimates that this project will help pork producers net \$4.5 million per year in increased revenue while continuing to help remove effluent from the state’s pork industry. Creating uncertainty around the RFS2 would put such current and future investments in question. It could erode investor confidence in producing new and efficient technologies that would provide market opportunities for all of agriculture, including both row-crop and livestock sectors. [EPA-HQ-OAR-2015-0111-2355-A1 p. 3]

### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

Furthermore, EPA’s projection of LNG/CNG includes several invalid assumptions in the estimation of potential future volumes. Specifically, the Proposed Rule uses a 25th percentile estimate of production for facilities that have not yet generated a cellulosic biofuel RIN. This approach is overly optimistic for the following reasons:

Not all new facilities are capable of producing transportation-grade biogas. Of the approximate 640 US landfill biogas projects, it is estimated that less than 8% produce a high BTU gas capable of being upgraded into a transportation-grade biogas.<sup>87,88</sup> An even smaller percentage of high

BTU projects exist for digester and other biogas projects. [EPA-HQ-OAR-2015-0111-1948-A1 p.46]

Facilities producing biogas-derived cellulosic fuel need to be located near an existing pipeline to enable movement to areas where biogas-derived cellulosic fuel will be utilized by the transportation fleet. Since most biogas-derived cellulosic fuel is consumed in California, pipeline transportation is required (except for small quantities currently used in local fleet use). It is unreasonable to assume that all facilities not currently generating cellulosic biofuel RINs would be located near a pipeline. [EPA-HQ-OAR-2015-0111-1948-A1 p.46]

There are alternative uses and competition for biogas-derived cellulosic fuel. State renewable portfolio standards (RPSs) require an increasing amount of renewable electricity. One cost-effective method of meeting the RPS requirements is through the use of biogas to generate electricity. Also, many biogas facilities use at least a portion of the generated biogas to generate local power. Any additional existing capacity would need to be diverted away from these uses. [EPA-HQ-OAR-2015-0111-1948-A1 p.46]

Given these factors, a more appropriate method for estimation of cellulosic-derived biogas RINs is to look at historic proven RIN generation and project cumulative volumes. The EPA proposal lists cellulosic-derived biogas RIN generation from August 2014 through May 2015. A cumulative total over the ten months of reporting shows that approximately 69 million cellulosic-derived biofuel RINs were reported (blue line in plot below). The 2015 data for January through May shows a cumulative production of 36 million cellulosic-derived biofuel RINs. Projecting this data out to December 2015 and using the slope of the total cumulative production since August 2014, gives a production estimate of 87 million cellulosic-derived biogas RINs for 2015 (green projection line). [EPA-HQ-OAR-2015-0111-1948-A1 p.46]

In a recent example, the Coalition for Renewable Natural Gas estimated that August 2014 to December 2014 Cellulosic Biogas Production would be 69 million equivalent gallons,<sup>89</sup> more than twice the actual production of less than 33 million equivalent gallons during that period. In this RFS proposal, EPA is basing its projections on input collected from the Coalition for Renewable Gas. We continue to recommend that EPA use historical production data when setting the annual cellulosic biofuel standard. Otherwise, the Proposed Rule will fail to “take neutral aim at accuracy.” [EPA-HQ-OAR-2015-0111-1948-A1 p.47]

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<sup>87</sup> Biogas Opportunities Roadmap, US Department of Agriculture, Aug 2014

<sup>88</sup> EPA Landfill Methane Outreach Program, <http://www.epa.gov/lmop/documents/xls/opprjlmopdata.xlsx>, Last Available July, 2015

<sup>89</sup> Presentation by Coalition for Renewable Natural Gas, Waste to Biogas & Clean Fuels Finance & Investment Summit, Santa Clara, CA March, 2015.

### **Biogas Researchers Inc. (BR)**

In order to apply a neutral methodology, EPA should develop similar methodologies to calculate projected cellulosic RINs that will be generated under the RE Pathway that it used to project cellulosic RINs that will be generated under the biogas to CNG/LNG pathway. That is, EPA should develop a RE Pathway equivalent of the Burkholder Biogas Memorandum (i.e. by collecting data on the magnitude of expected RIN generation from the RE Pathway).

EPA's approval of any registration application under the RE Pathway (such as, but not limited to, a forthcoming BTR registration application, described in further detail in Attachment 2 ) will significantly impact the production of cellulosic biofuel. [EPA-HQ-OAR-2015-0111-A1 p. 2-3]

To the extent that BTR has done so, EPA should include BTR's estimates for RIN generation under its pathway in an equivalent manner to how it considered pending registrants under the CNG/LNG pathway in the Burkholder Biogas Memorandum. [EPA-HQ-OAR-2015-0111-A1 p. 3]

EPA has not considered the extent to which increased renewable electricity production and increased EV sales will significantly increase the use of renewable fuels. The renewable electricity pathway—which has already been approved by EPA—can capitalize on existing vehicles (EVs) with highly efficient motors that utilize a new renewable fuel: renewable electricity. Moreover, EV battery improvements, reduced manufacturing costs, expansion of access to charging stations, and the actions described in the government's Biogas Opportunities Roadmap will all contribute to the increased production and consumption of renewable electricity within the timeframe of the 2014-2016 RVO Rule. In order to put D-3 RIN volumes “on a path of steady, ambitious growth,”<sup>11</sup> we request that EPA take the level of expected D-3 RIN generation from the RE Pathway into consideration when setting the cellulosic RVOs for 2014, 2015, and 2016. [EPA-HQ-OAR-2015-0111-A1 p. 4]

BR's equivalence value application has significant potential impacts on this proceeding. To the extent that EPA agrees with BR and modifies the equivalence value of electricity consumed by electric vehicles when assigning RINs under the RE Pathway, the oversupply of cellulosic RINs as compared to the proposed RVO will be even more significant.

Specifically, in Attachment 1, BR provides an estimate of the projected supply of D-3 RINs from the RE Pathway after properly accounting for an adjusted equivalence value. [EPA-HQ-OAR-2015-0111-A1 p. 7]

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<sup>11</sup> NOPR, 80 Fed. Reg. at 33102.

### **Biotechnology Industry Organization**

New cellulosic biofuel eligibility (e.g. biogas) and new cellulosic biofuel capacity creates an overarching risk (especially in the next few years) that D3 RIN production will exceed the annual RVOs on a year-to-year basis. EPA must instead set the cellulosic RVOs for 2015 and 2016 according to a neutral methodology that fully accounts for industry's intentions to produce the fuel. [EPA-HQ-OAR-2015-0111-1958-A2 p. 60]

### **California Dairy Campaign**

In 2013, the industry began producing commercial quantities of cellulosic biofuel at two different facilities. These facilities are now producing the world's lowest carbon fuels. There are six additional commercial-scale cellulosic facilities under construction around the country that are expected to go online in 2014. Unfortunately, billions of dollars of investment are on the line, and because of EPA's proposal investors are beginning to look toward other countries with more stable policy environments. [EPA-HQ-OAR-2015-0111-1816-A1 p.1]

The advanced biofuels industry has made progress in moving toward commercialization. The main argument against cellulosic biofuel is that it is too expensive to produce. However, production costs are falling and those costs will continue to fall as more facilities open and the industry matures. This nascent but growing industry promises to create thousands of jobs in rural America. It will also create economic development opportunities and increased investment in rural economies. [EPA-HQ-OAR-2015-0111-1816-A1 p.1-2]

### **Clean Energy Renewables**

The rocky history of cellulosic biofuel generation cannot and should not be attributed to the renewable natural gas industry, since RNG only received its D-3 status in July 2014, and has only been producing D-3 RINs since August 2014. The RNGC data submitted to EPA was not the 'best case scenario' for the RNG industry. The RNGC supplied EPA with conservative numbers that the RNG industry is on track to produce. Yet EPA 'decided to treat these company projects as the high end of a potential production range....' In an attempt to take a 'neutral aim', EPA has swung the pendulum to the point of under-representing cellulosic biofuel production [EPA-HQ-OAR-2015-0111-1908-A1 p.4]

EPA can improve its methodology by recognizing RNG project history. Projects with a proven track record of gas production and pipeline injection should be counted in the 50<sup>th</sup> percentile and not in the 25<sup>th</sup> percentile, regardless of whether they have a history of D-3 production. [EPA-HQ-OAR-2015-0111-1908-A1 p.4]

Historically, RNG projects have sent much of their gas to utilities for electricity generation. As long-term electricity contracts are expire or do not renew, RNG producers are choosing to send their gas to its highest and best use — transportation fuel. This change of end use doesn't mean the project is new in the same way that a newly constructed project is new. As such, EPA needs to differentiate between these two types of 'new' projects. [EPA-HQ-OAR-2015-0111-1908-A1 p.4]

EPA acknowledges RNG projects' proven track record by not using a six-month ramp-up period.<sup>10</sup> However, this does not go far enough as these proven projects are relegated to the 25th percentile grouping. Projects with significant operational history do not have an issue regarding their ability to reliably generate transportation fuel-quality RNG. [EPA-HQ-OAR-2015-0111-1908-A1 p.4-5]

Additionally, the RFS registration process requires considerable effort and expense. Registration requires facility developers to show their contracts for the sale of their biogas to a CNG or LNG facility. There is no possibility that a registered owner would sell their gas to 'non-transportation markets,' as EPA alleges. Registered facilities have sufficiently demonstrated their commitment to supply fuel under the program. EPA should not discount them as 25% likely to follow-through. Instead, we urge EPA to consider a project's gas production history and include proven projects in the 50% accounting. [EPA-HQ-OAR-2015-0111-1908-A1 p.5]

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<sup>10</sup>*Assessment of Cellulosic Biofuel Production from Biogas (2015-2016). Page 7-8.*

### **DriveGreen LLC**

EPA should select a higher percentile than 25% since new producers will always seek the option which provides the highest return and at least for the foreseeable future that will be transportation. The 50% level selected for existing producers will offer a much more accurate prediction. There is more than adequate demand for CNG and LNG which far exceeds the available supply of their renewable versions and EPA's concern that some producers will have difficulty in verifying transportation use is unfounded. As time has passed, EPA has clarified what it expects producers to use and replication of approved methods is simple. [EPA-HQ-OAR-2015-0111-1822-A1 p. 3]

### **International Council on Clean Transportation (ICCT)**

While we agree that there remains uncertainty associated with the capacity of new facilities to access the transport fuel market and start generating RINs, we do not agree that it is appropriate to set the same percentile expectations for new cellulosic technologies as for biogas supply. The cellulosic RIN represents a substantial incentive to supply biogas into the transport market, and the biogas industry has demonstrated its ability to rapidly scale up supply to take advantage of the RIN since it became available. We therefore believe that the 75th percentile of the EPA determined range is a more appropriate production estimate for the biogas facilities identified as already delivering RINs on a commercial scale, and that the 50th percentile would be appropriate for biogas facilities without that track record. Undue conservatism in the assessment of RIN generation by CNG/LNG could trigger a vicious circle in which commercialization of truly new technologies for cellulosic biofuel is undermined by low mandates and strong biogas supply, and in which low expectations become a self-fulfilling prophecy. We agree that it will be appropriate to reassess the percentiles used for future production projections when setting mandates in future years. [EPA-HQ-OAR-2015-0111-1923-A1 p.5]

### **Kansas Corn Growers Association**

EPA's proposed RVO level for ethanol will severely damage not only the conventional ethanol industry, but also the up and coming cellulosic ethanol industry. We support both types of renewable, homegrown ethanol, and we are proud to have one of the first operating cellulosic ethanol plants in the nation in Hugoton, Kansas. Simply put, the rise of the cellulosic ethanol industry depends on a strong market for conventional ethanol. [EPA-HQ-OAR-2015-0111-3172-A1 p. 1]

### **Mascoma LLC, Lallemand Inc.**

Since the early 2000's, much of my focus has been on working with scientists and innovative companies to bring enabling enzymes and yeasts to future second generation producers. It has been a struggle, yet since the RFS was put into place in 2006, great strides have been made and cellulosic based biofuels are now being produced on a large scale. A stable RFS without loopholes for the competition is an essential component for cellulosic biofuels to grow and realize commercial viability. [EPA-HQ-OAR-2015-0111-0263-A1 p. 1]

### **Response:**

Some commenters suggested that creating uncertainty around the RFS program could negatively impact investment in domestic cellulosic biofuel projects in the future. We acknowledge the potential harm caused by uncertainty surrounding the incentives provided by the RFS program. We believe the approach we have adopted to projecting cellulosic biofuel production is a neutral projection of the volume of cellulosic biofuel that will be produced in 2014, 2015, and 2016. We believe the projection methodology used in this final rule and the volumes we are finalizing will provide the stability and the incentives necessary for the development of the cellulosic biofuel industry, including investment in new commercial scale cellulosic biofuel production facilities in the United States. We will continue to monitor the progress of the cellulosic biofuel industry and will adjust our projection methodology as appropriate.

One commenter claimed that EPA had failed to conduct an analysis of the availability of vehicles to utilize CNG or LNG fuels, and had underestimated the ability for the market to supply these fuels. EPA disagrees with this claim. As discussed in Section IV of the final rule to our proposed rule, EPA considered both the quantity of biogas likely to be produced in 2015 and 2016 as well as EIA's estimates of the quantity of CNG/LNG likely to be used as transportation fuel. We determined that neither of these factors were likely to limit the number of cellulosic biofuel RINs generated for CNG/LNG derived from biogas in 2015 or 2016. Rather, the number of cellulosic RINs generated in these years was likely to be limited by the ability for registered parties to track the use of qualifying CNG/LNG for use as a transportation fuel. Because RINs may only be generated in these cases, this is a relevant consideration. EPA continued to review information provided in comments on our proposed rule and the available RIN generation data and believes this information supports the increased cellulosic biofuel standards for 2015 and 2016 in this final rule. It is worth noting that the commenter may have provided information in their comment on LPG (propane) vehicles and refueling stations rather than LNG (liquefied natural gas).

Several commenters argued that cellulosic biofuel production from RNG projects should not be treated in the same way as other cellulosic biofuel projects, as many of them have a history of biogas production and are simply switching the end use of the fuel they produce to transportation fuel. EPA believes there is reason to project production from cellulosic biofuel produced from CNG/LNG derived from biogas differently than liquid cellulosic biofuels, and the data we have reviewed strongly suggests that CNG/LNG producers are more likely to produce near the high end of their projected production ranges than liquid cellulosic biofuel producers. We have therefore increased the percentile values to the 50<sup>th</sup> percentile for "new" CNG/LNG facilities and the 75<sup>th</sup> percentile for existing CNG/LNG facilities in this final rule, as one commenter suggested. We do note, however, that there remains uncertainty associated with production from these facilities, as several are producing at rates significantly below their registered production volumes. Past projections EPA has received from the RNG industry have proven to be overly optimistic, and we believe it is appropriate to continue to consider both industry projections and production history in our projections of RNG production in future years.

Several commenters objected to EPA's use of a 25<sup>th</sup> percentile estimate of production for facilities projected to produce CNG/LNG from biogas that had not yet generated cellulosic RINs, claiming it was overly optimistic. These commenters claimed that due to uncertainty as to the ability of new facilities to produce pipeline quality biogas, their location relative to natural gas pipelines, and competition from renewable electricity, using the 25<sup>th</sup> percentile of a projected

range for these facilities was overly optimistic. They cited 2014 projections from the RNG industry that were not met. While EPA recognizes these concerns, we note that the 8% of landfills currently producing high BTU biogas produce far more biogas than we are projecting for the RFS program in 2015 and 2016, and that facilities capable of producing high BTU biogas are very likely located near natural gas pipelines. The vast majority of the cellulosic biofuel projected to be produced for CNG/LNG derived from biogas, including volumes from facilities that have not yet generated cellulosic biofuel RINs, is from facilities already registered under the RFS program. In these cases the facilities have submitted documentation to EPA verifying that they have the necessary equipment to produce pipeline quality biogas, and have contracts in place to use the biogas as transportation fuel. Projecting future production of cellulosic biofuel for CNG/LNG derived from biogas using solely historic RIN generation data would effectively ignore any potential production from any new facilities, and would not be a neutral projection. In reviewing the available production data for CNG/LNG derived from biogas in 2015, we find that the methodology suggested by the commenter significantly under-estimated cellulosic RIN generation for CNG/LNG derived from biogas in 2015. In fact, the methodology proposed by EPA similarly under-estimated biogas production, and has been adjusted in this final rule (see Section IV of the final rule for more detail).

A commenter requested that cellulosic RINs generated for renewable electricity produced from biogas be included in our cellulosic biofuel projections. At this time EPA has not registered any facilities to produce cellulosic biofuel RINs for electricity produced from biogas. There are still outstanding issues associated with this production, including ensuring that compliance measures are available such that there is not double counting of RINs produced for this fuel (see 80.1426(f)(10)-(11)). EPA will continue to work with companies interested in generating RINs for electricity produced from biogas and may include projected production from these sources in the future as appropriate. The commenter also requested a higher equivalence value for electricity used as a transportation fuel. This comment is beyond the scope of this rule.

A commenter stated that in 2013 the cellulosic biofuel industry began producing commercial quantities of cellulosic biofuel at two different facilities, and that six additional commercial-scale cellulosic facilities were under construction around the country that were expected to go online in 2014. We acknowledge that in the past few years several large scale commercial scale cellulosic biofuel production facilities have completed construction and have begun, or plan to soon begin, producing cellulosic biofuel. Our projections of cellulosic biofuel production in 2014, 2015, and 2016 have considered potential cellulosic biofuel production from these facilities (see Section IV of the final rule for more details on our projections).

A commenter stated that EPA's proposed RVO for conventional ethanol (total renewable fuel) would severely damage the cellulosic biofuel industry. We disagree with this statement, and have reviewed data that suggests our proposed rule did not adversely impact the price of cellulosic RINs, the means by which the RFS program incentivizes cellulosic biofuel production (see Section 4.1 of the RTC for a further discussion of this issue).

## 4.2.2 Potential Foreign Sources of Cellulosic Biofuel

### Comment:

#### Abengoa Bioenergy

EPA should not arbitrarily exclude from its 2015 and 2016 projections all foreign cellulosic biofuel producers and imports of cellulosic biofuel. The Agency has identified facilities that have approved pathways for generating RINs and has registered several facilities for the program. To exclude these companies produces an obvious error in the projections. EPA excluded foreign producers from its November 2013 proposed rule for the 2014 RVO, and yet more than 50,000 D7 RINs came from imports during 2014, according to data from the EPA Moderated Transaction System (EMTS). To date, more than 3.3 million D3 and more than 170,000 D7 RINs have come from imports in the first half of 2015, again according to EMTS data. EPA is demonstrably incorrect to exclude foreign generation or importation of cellulosic biofuels. Such exclusions are arbitrary and without a basis in the statute or regulations. [EPA-HQ-OAR-2015-0111-2474-A1 p.9-10]

Several overseas cellulosic biofuel companies have completed the lengthy and costly Part 80 registration process to qualify to generate D3 or D7 RINs. EPA should work with additional overseas companies to complete the registration process for facilities in an expedient manner, enabling them to contribute volumes to meet the 2015 and 2016 Renewable Volume Obligations. EPA's exclusion of the facilities from the RVOs discourages these companies both from completing the registration process and from exporting volumes to the U.S. fuel market. The lower RVO numbers thus become a self-fulfilling prophecy. EPA should include these companies in its projections. Moreover, EPA should do so using the same neutral approach it has used for projecting domestic commercial production, based on a careful survey of each individual producer's intentions. In addition, EPA should streamline the registration process wherever feasible, to reduce unnecessary delays and costs that impede the achievement of the statutory goals. [EPA-HQ-OAR-2015-0111-2474-A1 p.10]

### Response:

A commenter objected to EPA's exclusion of foreign cellulosic biofuel producers from our projection of cellulosic biofuel production used to set the cellulosic biofuel standard. They noted that foreign facilities had generated cellulosic biofuel RINs in the first half of 2015. EPA notes that while our proposed methodology for projecting available volumes of cellulosic biofuel generally did not consider foreign facilities, we did make exceptions where supported by the available data. The foreign facilities that generated cellulosic biofuel RINs in the first half of 2015 were included in our proposed cellulosic biofuel volumes. For this final rule we have contacted all registered foreign biofuel producers to determine whether or not they intended to export cellulosic biofuel to the United States in 2015 or 2016. Registered foreign facilities that did intend to export fuel to the United States were included in our projections in this final rule. We believe it is reasonable to consider only registered facilities, as non-registered facilities cannot generate RINs for any cellulosic biofuel they export to the United States.

This commenter also requested that EPA work with additional overseas companies to complete the registration process for facilities in an expedient manner and EPA should streamline the

registration process wherever feasible, to reduce unnecessary delays and costs that impede the achievement of the statutory goals. EPA actively works with all parties that apply for registration under the RFS program, whether their facilities are located in the United States or overseas. As these facilities complete the registration process, production volumes are considered in our estimates. While we appreciate the desire for timely registration approvals, we do not believe it is in the best interest of the goals of the RFS program to approve facility registration requests without adequate review. We continue to work to review all facility registration requests as quickly as practical, while maintaining an emphasis on an adequate review of these requests.

### **4.3 Proposed Cellulosic Biofuel Standards**

#### **Comment:**

#### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

The Proposed Rule repeats this mistake. EPA estimates that newly constructed liquid cellulosic biofuel plants will produce in the 25th percentile of their estimated production range and existing plants will produce in the 50th percentile of their estimated production range. This is outlined in the chart below. EPA makes no effort to justify this choice of methodology or explain how it is likely to produce results that “take neutral aim at accuracy.” Indeed, the percentiles bear no relationship whatsoever to the available data. Although certain values are being withheld as CBI, the EPA projection for 2015 liquid cellulosic biofuel volume is calculated to be approximately 8.75 million gallons. This is approximately equivalent to 8.3% of the cumulative design capacity. [EPA-HQ-OAR-2015-0111-1948-A1 p.43]

EPA continues to accept production forecasts from cellulosic biofuel manufacturers even though these forecasts have historically proven to be inaccurate. Based on past history, most of the calculated maximum production values are overly optimistic due to a number of erroneous assumptions, described in more detail below. [EPA-HQ-OAR-2015-0111-1948-A1 p.43-44]

EPA provides no supporting evidence to validate the 6-month ramp-up assumption in the current proposal and even acknowledges there has been a “history of start-up delays and missed production targets in the cellulosic biofuels industry.” As cellulosic biofuel production data become available, EPA should rely on producers’ demonstrated ability to increase plant production rates. If the five companies listed above are predictors of future performance, a 6-month ramp-up has no foundation in the empirical evidence for liquid cellulosic biofuel production. In each of the past several years, EPA has predicted cellulosic biofuel facilities would be producing significant quantities of cellulosic fuel. EPA now discards the fact that a several year ramp-up proved to be an inadequate amount of time for this new technology to produce commercial scale quantities of liquid cellulosic biofuels and continues to assume that a 6-month ramp-up is reasonable. The use of a 6-month ramp-up in the face of this historical track record is arbitrary and capricious. [EPA-HQ-OAR-2015-0111-1948-A1 p.45] [EPA-HQ-OAR-2015-0111-1044 p.22]

In the proposal, EPA has implemented a 25th percentile production estimate for new plants and a 50th percentile production estimate for existing plants. As noted above, EPA makes no effort to

justify this choice of methodology or explain why it is likely to produce results that “take neutral aim at accuracy.” Although the Proposed Rule generally states that there are uncertainties and risks for new technologies, it provides no specific rationale for choosing a 25th percentile production. Likewise, the 50th percentile production estimate for existing plants was chosen without any rationale linked to historical references. EPA should provide a detailed rationale for these estimates or at least provide some justification for their use in this proposal. [EPA-HQ-OAR-2015-0111-1948-A1 p.45]

### **Clean Energy Renewables**

EPA has signaled its intent to issue a final rule in November 2015. We encourage EPA to account for all EMTS through October 2015 if possible, but at least through September 2015. We believe these EMTS figures will further validate industry projections and result in an upward adjustment of the 2015 cellulosic biofuel RVO. [EPA-HQ-OAR-2015-0111-1908-A1 p.3]

Additionally, EPA should update the 2016 cellulosic RVO to account for increased 2015 D-3 generation. Since 2015 is the baseline for 2016 projections,<sup>6</sup> any upward adjustment in 2015 should logically impact 2016. We believe this adjustment is consistent with EPA's intent.<sup>7</sup> [EPA-HQ-OAR-2015-0111-1908-A1 p.3]

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<sup>7</sup>For the final rule we intend to update our classification production volumes from existing and new facilities based on the available RIN generation data at that time. *Assessment of Cellulosic Biofuel Production from Biogas (2015-2016)*. Page 10.

### **DuPont**

For 2014 and the first few months of 2015, EPA examined data for D3 RINs generated and subtracted any RINs that were retired for reasons other than compliance. DuPont has no objections to this methodology as laid out in Table IV.C-1 and Table IV.D-1. This is because we believe this data accurately reflects the number of D3 RINs generated for the respective time periods minus those RINs retired for other reasons than compliance. Likewise for 2015, when this rule is issued in final form by November 30, 2015, we believe that EPA will have close to 11 months of data concerning D3 RINs and a high degree of certainty for projecting the quantity of production for the remaining few days in 2015. [EPA-HQ-OAR-2015-0111-1826-A1 p.23]

By applying an across the board discount to each facility, this approach does not take a facility-by-facility approach for projecting what each individual plant will produce. A summation of projections from each facility is the only way to yield an accurate projection of fuel volumes. [EPA-HQ-OAR-2015-0111-1826-A1 p.23]

DuPont recommends that in projecting future cellulosic ethanol volumes that EPA defer to the technical expertise of: (1) the cellulosic ethanol manufacturers including plant operators and engineers in their respective volume projections; and (2) EPA staff expertise and judgment. While predicting the future is difficult, this approach will result in the closest projection of what will actually happen for 2016 and future years for new and existing facilities coming on-line. To do this, EPA should reopen the docket established for the Proposed Rule and permit all entities who intend to produce cellulosic ethanol in 2016 to supply the Agency with complete

information on actual production plans for these years. [EPA-HQ-OAR-2015-0111-1826-A1 p.23]

Because EPA likely must consider plant-specific data to produce a lawful rule, reopening the docket is a necessary procedural step. The Agency “retains a duty to examine key assumptions as part of its affirmative burden of promulgating and explaining a non-arbitrary, non-capricious rule.” *Columbia Falls Aluminum Co. v. EPA*, 139 F.3d 914, 923 (D.C. Cir. 1998) (quotation marks and citations omitted). Otherwise EPA cannot claim to have met its obligation to treat the available evidence in a rational manner. [EPA-HQ-OAR-2015-0111-1826-A1 p.23]

DuPont believes that the best path to set accurate volumes for cellulosic ethanol approach involves the interview process that EPA has used in the past but with the addition of directed questions aimed at the three major areas of risk for any new project. The first risk is committed funding and progress toward project completion. This will likely mean steel in the ground for any production facility as well as receipt of all permits. The second risk is committed supplies of feedstock and biocatalysts such as enzymes and a fully implemented process for disposal of co-products. The third risk area is process reliability which could be evaluated based on the size of and the project sponsor’s experience with pilot facilities. A more detailed interview should be developed, and we believe that this process would reduce any unrealistic optimism that project sponsors might communicate. EPA could then form its own conclusion based on the results of each interview. [EPA-HQ-OAR-2015-0111-1826-A1 p.24]

For facilities that EPA classifies as having “consistent commercial scale production”, any uncertainty associated with the high end of the projected range for each of these facilities should be evaluated on an individual basis. Like with DuPont’s recommendation for new facilities, EPA should defer to the technical expertise of: (1) the cellulosic ethanol manufacturers in their respective volume projections; and (2) EPA staff expertise and judgment. EPA should develop a more detailed interview process that would reduce any unrealistic optimism that project sponsors might communicate. EPA could then form its own conclusion based on the results of each interview. Volumes from each likely supplier should be added to reach a total projection for available cellulosic ethanol supply for a calendar year. [EPA-HQ-OAR-2015-0111-1826-A1 p.24]

## **Ecoengineers**

We urge the EPA to continue to pro-actively support domestic cellulosic fuel production by setting volume targets for 2015 and 2016 that are at or higher than the projected production capacity levels for the respective years. [EPA-HQ-OAR-2015-0111-2269-A1 p.2]

Maintaining strong volume targets is critical to sending the right message to markets – the message that the U.S. cellulosic biofuels industry is a robust, growing, important and valued part of the U.S. renewable fuels portfolio. The NOPR’s significant step back in 2015 and 2016 volumes will chill investment in current, planned and future biogas-to-transportation fuel projects, an impact that will span the entire biogas/CNG/LNG value chain and can be expected to stunt future growth of the industry. Maintaining targets that are closer to statutory volume levels will provide the market with the confidence necessary to generate continued investment and growth in renewable fuels and ensure that production capacity continues to grow. [EPA-HQ-OAR-2015-0111-2269-A1 p.4-5]

## **ExxonMobil Refining & Supply Company**

ExxonMobil echoes the AFPM/API comments relating to EPA's methodology to set the cellulosic standard. ExxonMobil remains skeptical of the consistent overestimation of cellulosic production that has repeatedly plagued the RFS. In particular, the reliance on the 25<sup>th</sup> percentile production estimate for new plants and the 50<sup>th</sup> percentile production estimate for existing plants is incorrect based on the history of the industry to date. ExxonMobil believes that EPA should reexamine the data and rely more heavily on demonstrated production in order to satisfy the mandate of the DC Circuit to take neutral aim at accuracy. [EPA-HQ-OAR-2015-0111-2270-A1 p.3]

## **Independent Fuel Terminal Operators Association (IFTOA)**

### IV. Cellulosic Biofuel Mandate

EPA has engaged in a comprehensive review of possible cellulosic biofuel production. It divided cellulosic facilities into two groups – those facilities already engaged in commercial production, and those companies beginning production after July 1, 2015. It developed estimated ranges of cellulosic biofuel supply for each group. The mandates of 33 million gallons in 2014, 106 million gallons in 2015, and 206 million gallons in 2016 are based on information derived from various sources, including the Energy Information Administration, the Department of Agriculture, and the cellulosic biofuels industry. Finally, EPA has also made a strong effort to take a neutral approach and set the mandated volumes at a level that is likely to be achievable. [EPA-HQ-OAR-2015-0111-1947-A1 p. 4-5]

However, based on (1) **current experience** in the market, and (2) the numerous uncertainties associated with the cellulosic biofuel business (e.g. construction, funding, and start-up difficulties), Members of the Association believe that the proposed mandate for 2016 is too high and not a realistic projection. Indeed, Members have had great difficulty in 2014 and the first half of 2015 finding cellulosic biofuel and/or cellulosic biofuel RINs. They seriously doubt that availability will increase to such a degree (206 million gallons) within only 18 months. [EPA-HQ-OAR-2015-0111-1947-A1 p. 5]

Recommendation: EPA should “discount” its estimates of cellulosic biofuel to reflect the difficulties and on-going uncertainties that face this industry and its production efforts in 2015 and 2016. The mandate should be reduced accordingly. [EPA-HQ-OAR-2015-0111-1947-A1 p. 5]

## **POET-DSM Advanced Biofuels**

With respect to the RVO for 2016, the NPRM states that EPA will “update” the information that it currently possesses concerning “biofuel production facilities that have the potential to produce fuel at commercial scale,” but that “EPA does not anticipate providing an opportunity for comment on any updated data.” 80 Fed. Reg. at 33,139 col. 3, *id.* n.107. While the reason stated for not permitting any such opportunity for comment are “timing constraints,” the Agency has sufficient latitude under section 211(o) as interpreted by the Court of Appeals to permit such an opportunity.<sup>29</sup> Conversely, denial of such an opportunity would not be permissible.<sup>30</sup> [EPA-HQ-OAR-2015-0111-1943-A1 p.13]

Turning to the methodology used to set the 2016 cellulosic ethanol RVO, the NPRM's valid attention to the technological challenges of commencing commercial-scale production appears to have obscured one other important, central truth about the cellulosic ethanol industry: once it starts the production of saleable gallons, no profitable biorefinery will operate at or near 50 percent of its planned full capacity for an extended period of time. [EPA-HQ-OAR-2015-0111-1943-A1 p.13]

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<sup>29</sup> See *Monroe Energy LLC v. EPA*, 750 F.3d 909, 919-921 (D.C. Cir. 2014); *National Petrochemical & Refiners Ass'n v. EPA*, 630 F.3d 145, 158 (D.C. Cir.2010).

<sup>30</sup> See 42 U.S.C. §§ 7607(d) (4)(A), (5), 6(C). Failure to permit comment on data on which the Agency relies in a Final Rule jeopardizes the final action. See, e.g., *West Virginia v. EPA*, 362 F.3d 861, 869-870 (D.C. Cir. 2004); *Kennecott Corp. v. EPA*, 684 F.2d 1007, 1019-20 (D.C. Cir. 1982). Were EPA to fail to permit review and comment on the final data used to set the cellulosic ethanol RVOs, POET-DSM and other stakeholders would be in the position of the petitioners in *Kennecott Corp.*, who were prejudiced by the failure to permit comment on relevant data. In *West Virginia*, petitioners had an opportunity to comment on the data that was germane to the dispute between them and the Agency (an opportunity that would be denied to POET-DSM here). There will be no opportunity for useful review and comment on the new data once EPA promulgates the RVOs this fall. Cf. *Air Pollution Control Dist. of Jefferson C'ty v. EPA*, 739 F.2d 1071, 1081 (6th Cir. 1983) (petitioner "had ample opportunity to, and actually did, comment on the information accepted by EPA").

### **The George Washington University**

Although mandated cellulosic biofuel production is proposed to increase by 291%, the 206 million gallons proposed for 2016 are still 4.19 billion gallons below the levels set in the CAA. [EPA-HQ-OAR-2015-0111-1815-A1 p.4]

### **ZeaChem Inc.**

Regarding the EPA's proposed 2014, 2015, and 2016 RVOs, ZeaChem requests that the EPA revise its numbers to reflect the previous year's renewable fuel installed production capacity and renewable fuel production capacity additions that are to be mechanically complete within the applicable year, based on data provided by the U.S. Energy Information Administration.

### **Response:**

Commenters questioned EPA's use of the 25<sup>th</sup> and 50<sup>th</sup> percentile values used within the projected production ranges for liquid cellulosic biofuel producers. They claimed EPA lacked a sufficient basis for these values, as well as the 6 month ramp up period, in light of the delays and low production volumes at several cellulosic biofuel production facilities in recent years. EPA acknowledges that there is little data available on which to base our percentile values and ramp-up rates. However, this approach is intended to achieve a neutral aim at accuracy and alternatives suggested by commenters do not appear better suited for a neutral aim at accuracy. For example, some commenters suggested we rely only on demonstrated production, which we believe would understate production for facilities just coming on line or scaling up during the relevant periods. Other commenters suggest we rely heavily on the estimates of the companies themselves, which experience suggests would overstate production. We recognize it is difficult to make these estimates, particularly for companies using new technologies, but in our judgment, based on our experience with the industry, this is a reasonable methodology, and better than the alternatives we have considered or been offered. While several companies have been unable to

successfully commercialize their technologies, and others have experienced delays, others have experienced success. For example, Quad County Corn Processors achieved levels of production that met and in some cases exceeded the nameplate capacity for cellulosic biofuels within the expected six month ramp-up period, and have produced consistent volumes of cellulosic biofuel since that time. Additionally, as companies gain experience starting-up cellulosic biofuel facilities we expect that delays will become less common and start-up times will be shortened. Relying primarily or exclusively on demonstrated production data is not an appropriate methodology for projecting future production levels for a new industry. Finally, we note that the six month ramp-up schedule is used by EPA to determine the high end of our projected range, not an expected production volume. As we continue to gather more data related to the start-up of cellulosic biofuel production we anticipate adjusting our methodology for projecting potential production ranges and selecting percentile values within these ranges as needed to continue to ensure neutral projections. For a further discussion of our methodology see Section IV of the final rule.

A commenter requested that EPA use updated cellulosic RIN generation through September or October 2015 to update our cellulosic biofuel projections for 2015 and 2016. EPA indicated in our proposed rule that this was our intention, and the cellulosic biofuel standards for 2015 and 2016 in our final rule are based on updated RIN generation information, as well as other status updates from the potential cellulosic biofuel producers. If we were to update the cellulosic biofuel volumes (as we have done) for the final rule, another commenter argued that we needed to reopen the comment period once again. We disagree that use of this supplemental data requires reopening the comment period. We believe our proposal provided adequate notice and opportunity for comment of our approach and the relevant data, and the final rule is a logical outgrowth of the proposal. Furthermore, re-opening the comment period would unnecessarily delay the finalization of the rule (which is subject to a court order for completion), and would have a significant negative impact on the effectiveness of the RFS program.

A commenter objected to EPA's proposed use of a uniform percentile value for all potential liquid cellulosic biofuel producers, and instead recommended that EPA, in consultation with the plant operators and engineers, make a projection of likely production from each facility. They recommended EPA conduct detailed interviews with potential producers covering such issues as project funding, feedstock and enzyme supplies, and pilot plant experience, as well as interviews with companies that have achieved consistent production, and base our projections on the information we receive. Finally, they requested that EPA re-open the docket to receive new information. EPA disagrees with the commenter that projecting production volumes from each facility on the basis of information provided by the company's plant operators and engineers and summing these volumes will result in the most accurate projection of cellulosic biofuel production. EPA has conducted interviews with company representatives and collected information on the topics suggested by the commenter for each year for the past several years, including for our proposed and final rule. While the information collected has been helpful to EPA in making our projections, companies have consistently over-estimated their future projection, despite significant financial backing, feedstock and enzyme agreements, and extensive pilot and demonstration scale testing. For this reason, EPA believes an accurate projection of potential cellulosic biofuel production must be tempered with the actual production history of each facility. Given the company representatives inability to accurately project their own projection volume, we do not believe EPA staff will be more successful in projecting

volumes from each individual facility, and therefore believe the method of projecting production volumes for a group of facilities is more likely to produce an accurate projection. Finally, EPA has continued to receive information from potential cellulosic biofuel producers since our proposed rule and have considered this information in the final rule. For a further discussion of this issue see Section IV of the final rule.

Another commenter suggested EPA's methodology was flawed because they claimed that once a facility starts the production of salable gallons they would not operate at 50 percent of the planned full capacity for an extended period of time. EPA's methodology does not make this assumption. As stated in our proposed rule, we are not assuming that each facility that has achieved consistent production of cellulosic biofuel will produce at the 50<sup>th</sup> percentile of the projected range, but that as a group we projected that they will produce at the 50<sup>th</sup> percentile of the aggregated projected range with individual facilities producing volumes corresponding to higher and lower percentiles. Additionally, the low end of the range for the companies that have generated cellulosic biofuel RINs is equal to the production from these companies over the previous 12 months, not zero. This means that our methodology projects that these companies, as a group, will produce a volume half way between the volume they produced over the previous 12 months and their facility capacities (adjusted to account for ramp-up in the first 6 months). We believe this methodology is reasonable.

A commenter requested that EPA set the cellulosic biofuel standard closer to the statutory volume levels and at a level that is equal to or higher than the projected production capacity level. Similarly, another commenter requested that EPA revise its numbers to reflect the previous year's renewable fuel installed production capacity and renewable fuel production capacity additions that are to be mechanically complete within the applicable year, based on data provided by the U.S. Energy Information Administration. In previous years actual production of cellulosic biofuel has been far below the production capacity for these fuels. Setting the standard equal to or higher than the production capacity would therefore not represent a neutral projection of cellulosic biofuel projection.

One commenter suggested EPA should reduce the cellulosic biofuel standards for 2015 and 2016 based on their members' experience of difficulty finding cellulosic biofuel and/or cellulosic RINs in 2014 and the first half of 2015. EPA does not believe this is a sufficient reason to reduce the cellulosic biofuel standard. We note that cellulosic biofuel production in 2015 in fact exceeded the proposed volume. The standards in the final rule are based, in large part, on the updated cellulosic RIN generation data.

A commenter noted that EPA's proposed cellulosic biofuel standard was still well below the level in the CAA. We acknowledge this, and note that EPA is authorized to decrease the required cellulosic biofuel volume if the volume projected to be produced in any given year is lower than the level in the CAA. This is the case in 2014, 2015, and 2016.

### **4.3.1 Proposed Cellulosic Biofuel Volume for 2014**

#### **Comment:**

##### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

The proposed 2014 cellulosic biofuel volumes are set at actual production levels, and that is acceptable to API and AFPM in this instance, given the particular circumstances in this rulemaking. [EPA-HQ-OAR-2015-0111-1948-A1 p.47]

##### **Biogas Researchers Inc. (BR)**

The excerpts above make clear that EPA appropriately is considering actual volumes of renewable fuel produced in 2014 when setting the 2014 RVO. Since August 18, 2014, the effective date of the July 18, 2014 rule that created the RE Pathway, hundreds of landfills, waste water treatment facilities and agricultural digesters across the country have been producing significant amounts of electricity with biogas. At the same time, large numbers of EVs across the country have been drawing electricity from the interconnected electric grid on a daily basis. These activities constitute de facto “volumes of renewable fuel produced and consumed during 2014.” Moreover, a number of approaches to the RE Pathway can utilize reliable data on biogas electricity production and electric vehicle charging to accurately yet retroactively account for those volumes of renewable fuel produced and consumed during 2014 (and the first months of 2015). For that reason, in its forthcoming registration application, BTR is requesting authorization to generate RINs retroactively to August 18, 2014. As such EPA should include the expected increase in 2014 RINs in its final 2014-2016 RVO rule. [EPA-HQ-OAR-2015-0111-A1 p. 5]

#### **Response:**

A commenter stated that they supported EPA setting the 2014 cellulosic biofuel standard at the projected levels. Another commenter stated that because volumes of electricity were generated from biogas in 2014, and because electric vehicles had used electricity as transportation fuel in 2014, EPA should allow RINs to be generated retroactively for this fuel, and should include these volumes in the 2014 cellulosic biofuel standard. Our regulations do not provide for retroactive approval of generated RINs in this situation (40 CFR 80.1426(g) and CFR 80.1450(b)), and consideration of changes to the requirement for registration as a prerequisite to generating RINs is beyond the scope of this rulemaking. We therefore have not increased our proposed 2014 cellulosic biofuel standard on this basis of this volume.

### **4.3.2 Proposed Cellulosic Biofuel Volume for 2015**

#### **Comment:**

##### **AJW, Inc.**

When the final rule is issued November 30, 2015, EPA will have data on actual cellulosic biofuel production through at least October 2015. We believe EPA should use this data to inform its

final projection of volume available in 2015. To do otherwise would expressly fail the test of taking neutral aim at what will actually happen.<sup>1</sup> [EPA-HQ-OAR-2015-0111-2268-A1 p.4]

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<sup>1</sup> American Petroleum Institute v. Environmental Protection Agency, United States Court of Appeals for the District of Columbia Circuit, January 25, 2013.

### **American Council on Renewable Energy (ACORE)**

At least three RNG projects with pending registrations are expected to begin generating approximately 3.5 million RINs per month in July or August 2015. The USEPA Proposed Rule sets the 2015 cellulosic RVO at 106 million gallons (and 2016 at 206 million gallons), for an average production of 8.8 million RINs per month, which is below the production of 9.51 in May 2015, and volumes continue to increase month-over-month. The RNG Coalition submitted industry projections at 157 million gallons in 2015 and 295 million gallons in 2016, for an average production of 13.0 million RINs per month in 2015 and 24.6 million RINs per month in 2016. [EPA-HQ-OAR-2015-0111-1926-A1 p.17]

Projects with a proven track record of gas production and pipeline injection should be counted in the 50th percentile and not in the 25th percentile, regardless of whether they have a history of D-3 production. The vast majority of RNG projects which have not generated cellulosic biofuel RINs are not new projects. They have generated pipeline quality gas for years and some for decades. Their production volumes are not theoretical. They are known, quantifiable, and based on actual production performance meeting high, natural gas pipeline injection standards. [EPA-HQ-OAR-2015-0111-1926-A1 p.17]

### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

Although the value of 8.3% of cumulative design capacity is an improvement relative to past rulemakings, this value is again overly optimistic. A more reasonable estimate of cumulative production would be in line with the historic maximum actual production that occurred in 2013 – production of approximately 3% of the cumulative plant capacities. If applied to the cumulative 2015 plant design capacity (108 million gallons), this would equate to a 2015 production of approximately 3 million gallons of liquid cellulosic biofuel. [EPA-HQ-OAR-2015-0111-1948-A1 p.43]

### **Clean Energy Renewables**

Based on data gathered by the Coalition for Renewable Natural Gas, an industry trade group of which we are a member, we believe that our industry will produce approximately 157 million gallons in 2015 and 295 million gallons in 2016.<sup>3</sup> RNG will out-produce the Proposed Rule's cellulosic biofuel RVOs. [EPA-HQ-OAR-2015-0111-1908-A1 p.2]

Due to RNG volume production in excess of the proposed RVO and the fact that the cellulosic biofuels category includes fuels other than RNG, like cellulosic ethanol, we urge EPA to increase the cellulosic biofuel volume obligations by at least 51 million gallons in 2015 and by 89 million gallons in 2016. [EPA-HQ-OAR-2015-0111-1908-A1 p.2]

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<sup>3</sup> Table 3. *Assessment of Cellulosic Biofuel Production from Biogas (2015-2016)*.

### **Coalition for Renewable Natural Gas**

EPA has signaled its intent to issue a final rule in November 2015. We encourage EPA to account for all EMTS through October 2015 if possible, but at least through September 2015. We believe these EMTS figures will further validate RNGC's projections and result in an upward adjustment of the 2015 cellulosic biofuel RVO. [EPA-HQ-OAR-2015-0111-3278-A1 p. 4]

### **DriveGreen LLC**

Since the Final Rule is now scheduled for implementation in November of 2015, it seems obvious at the time of the Final Rule to simply incorporate the many more months of actual data which will by then be available and only use the projection methodology for the few months left in 2015 where actual data is not available. If the goal is to be as accurate as possible, then actual data should outweigh projections. [EPA-HQ-OAR-2015-0111-1822-A1 p. 2]

### **ZeaChem Inc.**

D3 RIN generation for just the first half of 2015 has already surpassed the entire D3 RIN generation of 2014 with 49,313,968 generated as of the end of June. Current monthly production of cellulosic biofuel D3 RINs based on the EPA's own June 2015 published monthly D3 RIN EMTS data stands at 12,413,912. This is expected to increase by the time the EPA issues its final rule in November 2015, due to the opportunity for existing anaerobic digestion facilities to switch from biogas for power production, thermal production or flaring to biogas for renewable compressed/liquefied natural gas production by simply redirecting output. As such, actual 2014 and 2015 D3 RINs generation through November 2015 plus projected capacity for December 2015 should be reflected in the 2014 and 2015 cellulosic biofuel renewable volume obligations. [EPA-HQ-OAR-2015-0111-1906-A1 p.3] [Table 1 can be found on page 4 of EPA-HQ-OAR-2015-0111-1906-A1.]

### **Response:**

Several commenters requested that EPA use updated cellulosic biofuel RIN generation data in setting the cellulosic biofuel standard for 2015. In this final rule we have used the most recent data available (through September 2015) in determining the appropriate level for the cellulosic biofuel standard in 2015. These new data have resulted in a slight increase in the final cellulosic biofuel standard from the proposed standard.

A commenter noted new potential cellulosic biofuel producers with pending registrations and the rate of cellulosic biofuel production since the proposed rule and requested that EPA increase the cellulosic biofuel standard for 2015. EPA has considered new facility status and production data from all potential cellulosic biofuel production facilities. Based on this new data we have updated our projected ranges. We have also, used higher percentile values (50<sup>th</sup> percentile for new facilities and 75<sup>th</sup> percentile for facilities that have previously generated cellulosic biofuel RINs) within our projected range of potential cellulosic biofuel production for facilities producing CNG/LNG from biogas in this final rule due to the production information we received since the NPRM and the fact that there is far less technical uncertainty associated with

the production of CNG/LNG from biogas than for other liquid cellulosic biofuels. These changes have resulted in an increase in the cellulosic biofuel volume for 2015 and 2016 to 123 and 230 million gallons respectively.

A commenter requested that EPA increase our estimates of cellulosic biofuel for 2015 to be in-line with projections submitted by the Coalition for Renewable Natural Gas (157 million gallons in 2015). EPA has considered these projections in determining the volume of cellulosic biofuel we believe will be produced in 2015 and 2016. We note that in previous years projections submitted by the CRNG have over-estimated actual cellulosic biofuel production for CNG/LNG from biogas. Similarly, the production rates to date in 2015 are once again lower than those previously projected by the CRNG. While we believe the projections provided by CRNG and other producers are a valuable part of the information we consider when making our projections, we do not think it would be appropriate to simply adopt these projections in light of the fact that these projections have been overly ambitious in previous years.

A commenter requested that EPA use a different methodology for estimating production, by using 3% of cumulative plant capacities, which it describes at the historic maximum actual production level for 2013, resulting in expected production of 3 million gallons of liquid cellulosic biofuel. While we continue to believe that our methodology (using the 25<sup>th</sup> percentile for new facilities and the 50<sup>th</sup> percentile for facilities that have produced cellulosic biofuel) is appropriate, we note that we have adjusted the projected ranges for each facility based on updated information. We continue to believe it is more appropriate to consider a production range for each individual facility, based on a number of factors including the company history, however we note that the result is that in this final rule we are projecting a very similar volume of liquid cellulosic biofuel as projected by the commenter.

#### **4.3.3 Proposed Cellulosic Biofuel Volume for 2016**

##### **Comment:**

##### **AJW, Inc.**

We believe that EPA's general methodology for estimating cellulosic biofuel production can be applied (using the most recent available data) for estimating production during both the periods Nov'15 to Dec'15 and Jan'16 to Dec'16 as part of establishing the projected volume available during calendar years 2015 and 2016 respectively. [EPA-HQ-OAR-2015-0111-2268-A1 p.4]

The clear problem with this approach is that if, in any given year, "volume available" is greater than "volume produced", EPA's methodology will violate the Court's direction to aim at accuracy. While predicting the total volume available over the course of a calendar year may be challenging, it would seem that the easiest part of that projection should be to determine the volume that will actually be available at the start of that calendar year. EPA's proposed methodology appears to assume that this value will be zero in all cases. [EPA-HQ-OAR-2015-0111-2268-A1 p.5]

The Court in no way constrained EPA from exercising its expertise in this process, which should include its unique insights regarding the use of RINs produced in a year contrasted with RINs

used for compliance in that same year. Rather, the Court expressly reinforced that EPA should use its reasoned discretion in setting the standard.<sup>4</sup> To systematically exclude an existing component of available volume in establishing the applicable volume for a given year would deviate from a “neutral aim at accuracy” and would be an “unreasonable exercise of agency discretion”, just as the agency’s prior overstatement of available volumes was. [EPA-HQ-OAR-2015-0111-2268-A1 p.5-6]

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<sup>4</sup> API v. EPA, pp. 8-9.

### **American Biogas Council**

In furtherance of our mission and stated goals, we strongly urge the EPA to maintain the RFS’s statutory volume target for 2016 of 4.25 billion gallons of cellulosic biofuels. [EPA-HQ-OAR-2015-0111-2504-A1 p. 1]

The ABC argues that EPA’s proposed reductions in cellulosic biofuels and total renewable fuels volumes for 2016 do not accurately reflect the growth of the cellulosic biofuels industry, particularly the non-ethanol, biogas-based Compressed Natural Gas (“CNG”)/Liquefied Natural Gas (“LNG”) sector, that has been stimulated in large part by policy measures like a strong RFS. We believe that the production volumes of biogas for CNG/LNG in the proposed rule have been significantly underestimated and we urge the EPA to reconsider its assessment of the non-ethanol fuel contribution to cellulosic biofuels volumes. Furthermore, we believe the NOPR runs counter to the legislative intent of the RFS and, if implemented as proposed, will significantly undermine actual and potential investment in and growth of the U.S. biofuels sector. [EPA-HQ-OAR-2015-0111-2504-A1 p. 2]

Maintaining the statutory volume levels is critical to sending the right message to markets – the message that the U.S. advanced biofuels industry is a robust, growing, important, valued part of the U.S. renewable fuels portfolio and worthy of investment. The NOPR’s significant step back in 2016 volumes will chill investment in current, planned and future biogas-to-transportation fuel projects, an impact that will span the entire biogas/CNG/LNG value chain and can be expected to stunt future growth of the industry. [EPA-HQ-OAR-2015-0111-2504-A1 p. 3]

Maintaining statutory volume levels will provide the market with the confidence necessary to generate continued investment and growth in renewable fuels and ensure that production capacity continues to grow. [EPA-HQ-OAR-2015-0111-2504-A1 p. 3]

### **American Council on Renewable Energy (ACORE)**

ACORE supports USEPA’s proposal to update the cellulosic biofuel RVOs in November 2015, based upon any new information that becomes available, when it issues a final RVO. This will ensure the final RVO approximates, as closely as possible, the actual number of gallons that will be available in 2016, including the increased production of RNG as discussed below. [EPA-HQ-OAR-2015-0111-1926-A1 p.16]

DuPont, an American company, is also looking overseas as a result of USEPA reducing total renewable volume obligations below the capabilities of the industry. At the RFS hearing on June 25, 2015, DuPont stated, “DuPont plans to license the next wave of biofuel technology,

cellulosic, here in the United States and around the world. However, the most promising announcements, negotiations and conversations are all happening outside the United States. As long as the EPA continues to undermine existing domestic biofuel capacity, this will continue, creating a scenario where the benefits of U.S. innovation and technological advances are realized overseas.”<sup>50</sup> POET is another U.S. company that would welcome expanding in the U.S., and would be moving in the direction of putting a cellulosic plant adjacent to every one of its ethanol plants. But with the uncertainty surrounding the RFS, POET is not currently considering this. [EPA-HQ-OAR-2015-0111-1926-A1 p.17]

**a. USEPA’s decision to update the numbers in November 2015 is expected to increase the 2015 RVO to 157.5 million gallons and the 2016 RVO to 295 million gallons, due to the increased production of renewable natural gas.**

USEPA proposed cellulosic RVOs for 2015 and 2016 underestimate the production capacity of the cellulosic industry, specifically RNG, by an estimated 51 million gallons in 2015 and 89 million gallons in 2016. USEPA should update the 2015-2016 cellulosic RVO to incorporate the most recent EPA Moderated Transaction System (EMTS) data. The 2015 RVO uses EMTS data from January to March (4.11 million, 7.85 million, 7.71 million) for a total of 19.52 million D-3 RINs. EMTS data is now available for April to May 2015 (7.81 million, 9.51 million) showing an increasing trajectory of D-3 production. The total through May for 2015 is 36.9 million. By the time USEPA issues the final rule in November, it will have EMTS data at least through September 2015. USEPA should use actual production as much as possible, which is estimated to increase the 2015 cellulosic RVO by at least 51 million gallons. [EPA-HQ-OAR-2015-0111-1926-A1 p.17]

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<sup>50</sup> “DuPont Industrial Biosciences Statement on Environmental Protection Agency Renewable Fuel Standards Rulemaking” Benzinga, July 25, 2015, <http://www.benzinga.com/pressreleases/15/06/p5624889/dupont-industrial-biosciences-statement-on-environmental-protection-age>

**American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-0143, p. 23.]

In relation to the cellulosic portion of the mandate, EPA recognized the statutory levels simply do not exist and has made a downward adjustment from what the law says for 2010 to 2013 and has proposed to continue these very large waivers for 2014 to 2016. However, the agency proposed a cellulosic biofuel requirement for 2016 that far exceeds a reasonable projection of what can actually be produced. In January 2013, the court told EPA to be reasonable and not aspirational.

**Clean Energy Renewables**

Based on data gathered by the Coalition for Renewable Natural Gas, an industry trade group of which we are a member, we believe that our industry will produce approximately 157 million gallons in 2015 and 295 million gallons in 2016.<sup>3</sup>RNG will out-produce the Proposed Rule's cellulosic biofuel RVOs. [EPA-HQ-OAR-2015-0111-1908-A1 p.2]

Due to RNG volume production in excess of the proposed RVO and the fact that the cellulosic biofuels category includes fuels other than RNG, like cellulosic ethanol, we urge EPA to increase the cellulosic biofuel volume obligations by at least 51 million gallons in 2015 and by 89 million gallons in 2016. [EPA-HQ-OAR-2015-0111-1908-A1 p.2]

The net result is that it is reasonably likely that some market participants will withhold 2015 RINs for use in 2016 (when they are more valuable), that there will be a short supply of 2015 RINs for 2015 compliance as a result, that CWCs will be issued in 2015, and that there will be increased 'available volume' for the 2016 RVO. The RVO should recognize this likelihood, and have a provision in the Final Rule that increases the 2016 cellulosic biofuel RVO by the amount of anticipated 2015 CWC purchases. Doing so will meet the standard of a reasonable 'prediction of what will actually happen'. [EPA-HQ-OAR-2015-0111-1908-A1 p.9]

While it is difficult to predict market behavior, the RNGC believes EPA should anticipate that at least 20 million CWCs will be issued for the 2015 compliance year as a result of this special market circumstance. The RNGC have estimated this by assuming that about 10% of the 2016 RVO (10% of about 200 million gallons) would be satisfied with 2015 RINs that were withheld from the market to realize their increased value in 2016. (This number should be adjusted upward to the extent production projections carry the 2016 RVO in the Final Rule above 200 million gallons, as we recommend it should.) EPA's methodology should include an RVO setting provision that considers CWC purchases when there is available supply, and thereby ensure that the purchase of CWCs will not ultimately lead to the avoidance of the purchase of available fuels. This is consistent with statutory intent. [EPA-HQ-OAR-2015-0111-1908-A1 p.9]

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<sup>3</sup> Table 3. *Assessment of Cellulosic Biofuel Production from Biogas (2015-2016)*.

### **Coalition for Renewable Natural Gas**

Additionally, EPA should update the 2016 cellulosic RVO to account for increased 2015 D-3 generation. Since 2015 is the baseline for 2016 projections,<sup>6</sup> any upward adjustment in 2015 should logically impact 2016. We believe this adjustment is consistent with EPA's intent.<sup>7</sup> [EPA-HQ-OAR-2015-0111-3278-A1 p. 4]

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<sup>6</sup> *Assessment of Cellulosic Biofuel Production from Biogas (2015-2016)*. Page 9.

<sup>7</sup> For the final rule we intend to update our classification production volumes from existing and new facilities based on the available RIN generation data at that time. *Assessment of Cellulosic Biofuel Production from Biogas (2015-2016)*. Page 10.

### **Cool Planet Energy Systems**

We believe that the number of gallons of biogas that now count as cellulosic RINS could more than overwhelm the D3 pool. This is based on almost all of the 2014 RINS coming in Q4 and generating 30 Million RINS. On an annualized basis, this is 120 Million RINS for 2015, which is very close to the EPA proposed number, but leaves no room for non-biogas cellulosic biofuels of even a few million gallons. Our bigger concern comes in 2016, where biogas that has a much lower Capital cost than a true cellulosic biorefinery, could quickly scape up to make as much as

the entire proposed 2016 pool. This would leave no incentive for much higher capital cost projects to come onto the market and generate RINS in what would be an 'oversupplied' RIN market. [EPA-HQ-OAR-2015-0111-2572 p. 1]

### **DuPont**

However, the Renewable Natural Gas Coalition conducted this analysis and provided it to EPA in March 2015.<sup>22</sup> The Renewable Natural Gas Coalition's fuel projection for biogas for 2016 is approximately 295 million gallons. While DuPont is unable to provide feedback on whether 295 million gallons of biogas is a reasonable projection, we believe this should be the starting point for setting the 2016 cellulosic ethanol volumes given that biogas will comprise the overwhelming majority of the total cellulosic ethanol volumes and this figure far exceeds the 206 million gallons that EPA proposed for 2016. [EPA-HQ-OAR-2015-0111-1826-A1 p.24]

DuPont is also concerned that there are a number of cellulosic ethanol producers that are currently producing fuel outside the U.S. with pending fuel pathway applications. It is reasonable to assume that these fuel pathway applications will be approved prior to the end of 2016 and therefore these volumes should be considered in EPA's projections. [EPA-HQ-OAR-2015-0111-1826-A1 p.25]

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<sup>22</sup> Memo from the Renewable Natural Gas Coalition, 2015-2016 CELLULOSIC BIOFUEL PRODUCTION VOLUMES, provided to D. Burkholder at EPA on March 20, 2015.

### **Ecoengineers**

As the following comments will detail, we believe that existing production capacity for cellulosic fuels is at sufficient levels to exceed the targets proposed in the NOPR for 2015 and 2016. We also believe that the potential capacity to produce cellulosic RINs via biogas can meet the RFS' statutory volume target for 2016 of 4.25 billion gallons of cellulosic biofuels. [EPA-HQ-OAR-2015-0111-2269-A1 p.1]

If a simple linear trend line of D3 RIN generation for the first half of 2015 is extrapolated over the remainder of the year (Figure 1), we could see an 88% increase in D3 RIN generation during the second half of 2015 over that of the first half, resulting in almost 150 million gallons of D3 RINs for all of 2015. Moreover, assuming such a linear trend for the current growth of the Renewable CNG/LNG sector, we could reasonably expect to see around 350 million gallons of RIN generation from Renewable CNG/LNG in 2016. [EPA-HQ-OAR-2015-0111-2269-A1 p.2-3]

The RVO of 206 million for 2016 is more concerning because in addition to the current volumes of renewable CNG/LNG being produced, 2016 will see cellulosic ethanol facilities coming online. The NOPR includes TABLE IV.B.3-1—PROJECTED PRODUCERS OF CELLULOSIC BIOFUEL BY 2016, which lists cellulosic ethanol/gasoline facilities with a combined production capacity of nearly 90 million gallons coming online in the second half of 2015. The combination of the cellulosic ethanol and Renewable CNG/LNG could provide a D3 RIN supply of nearly 450 million gallons in 2016. [EPA-HQ-OAR-2015-0111-2269-A1 p.3]

A key question is what is the total potential for biogas as feedstock for renewable transportation fuel and D3 RIN generation? To answer this, I would like to refer to a report titled “Renewable Hydrogen Potential from Biogas in the United States” by G. Saur and A. Milbrandt, published in July 2014 by the National Renewable Energy Laboratory (NREL)<sup>iv</sup>. The report estimates total potential and net availability of methane in raw biogas from four sources of biogas: (1) wastewater treatment plants (WWTPs), including domestic and industrial sources; (2) landfills; (3) animal manure; and (4) industrial, institutional, and commercial (IIC) sources. According to the report, the U.S. total methane potential in raw biogas from the sources examined is estimated at about 16 million tons, but the net availability calculated is about 6.2 million tons. 6.2 million tons of renewable methane roughly translates into 3.8 billion RINs (assuming 53 MMBTUs/ton and 11.78 RINs/MMBTU). This number could be significantly larger if we take into consideration ligno-cellulosic biomass (e.g., crop and forest residues or dedicated energy crops) that could be used to produce biogas via anaerobic digestion (dry fermentation, co-digestion) or through thermo-chemical means (e.g., gasification). [EPA-HQ-OAR-2015-0111-2269-A1 p.3-4]

We are requesting that the EPA take into consideration the opportunity to fully convert into biogas the existing organic materials identified in NREL’s report. We understand that this conversion will not happen overnight; however, a key ingredient to the successful development of the biogas to renewable fuel industry is the regulatory certainty provided by the RFS. Therefore, it is critical that the EPA set strong and stable targets for 2015, 2016 and beyond for cellulosic biofuels that will pro-actively promote the extraction of methane from the various organic streams listed above. The current proposed levels in the NOPR fall severely short of what is required to create the investor confidence needed to develop these assets. [EPA-HQ-OAR-2015-0111-2269-A1 p.4]

### **Environmental and Energy Study Institute (EESI)**

Indeed, the Renewable Volume Obligates (RVOs) may be so low that cellulosic fuel producers (including biogas) may produce more RINs than required under the proposed 2016 RVO. [EPA-HQ-OAR-2015-0111-1944-A1 p.5]

### **N. Bowditch Company**

For that reason, I can understand why you must do something regarding the statutory level of 4.25 billion gallons of cellulosic ethanol for 2016. The physical fuel does not exist at that volume. However, the same cannot be said for the 15.0 billion gallon conventional biofuel statutory level. [EPA-HQ-OAR-2015-0111-1202-A1 p.2-3]

### **Phillips 66 Company**

The 2016 volume appears overly optimistic given past forecasts versus actual production. The time to start-up, line out and ramp up production at new facilities has historically been much longer than EPA has assumed in setting the standards. EPA should reduce the 2016 cellulosic volume proposal and base it on the latest 3 months of actual production prior to finalizing the standards. [EPA-HQ-OAR-2015-0111-2039-A1 p.5]

## POET-DSM Advanced Biofuels

1. The NPRM assumes that it is possible that producers with start dates after July 1, 2015 (“post-July producers”) may have no production in 2015 – and possibly no production in 2016, even if they start production in 2015. (*See* Table IV.E-1 at 80 Fed. 33,145.) Such an approach is not consistent with the assumptions used for producers that start production before July 1, 2015 (“pre-July producers”); such producers are assumed to produce at the 50th percentile in their assigned range in both 2015 and 2016. There is no logical basis for treating the post-July producers who actually commence commercial-scale production in 2015 differently from the pre-July producers in this regard. Accordingly, EPA must be prepared to finalize an RVO for 2016 if any post-July producers actually produce a significant volume of saleable ethanol in 2015. If, for example, one million gallons of such production by one firm (Ensyn, *see* Table IV.D-3 at 80 Fed. Reg. 33,143) places that firm in the category of producers with “consistent commercial scale production,” *id.*, then the same level of such production by other firms in 2015 should be reflected in the final 2016 RVO.
2. The NPRM assumes that a biorefinery that started production in the spring of 2015 will still most likely be at the 50th percentile of its assigned production range in calendar year 2016, potentially 18 months after commercial production has commenced. Thus, in Table IV.E-2,<sup>34</sup> the production capacity of pre-July producers is de-rated by 50 percent from the upper end of the estimated production range – an adjustment with a huge impact on the size of the 2016 RVO. No commercially viable ethanol plant, using a business model like that of POET-DSM calling for production of more than two or three million gallons of ethanol in the first full year of commercial operation, will commence production until it can be assured that it will crest the 50th percentile of full production in that initial 12-month period.<sup>35</sup> One improvement in the predictive methodology would be for EPA to distinguish between producers with business plans that include full-scale production at levels of about 20 million gallons a year, from those that plan for smaller-scale production. Firms that commence commercial production with operations designed for saleable annual outputs of 20 million gallons a year or more are unlikely to replicate the history of the firms that entered and have now left the market (*see* 80 Fed. Reg. 33,143 col. 2). [EPA-HQ-OAR-2015-0111-1943-A1 p.14-15]

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<sup>32</sup> *See* Cummings Decl. ¶¶ 4-5, 10-11.

<sup>33</sup> 80 Fed. Reg. at 33,143 col. 2.

<sup>34</sup> 80 Fed. Reg. 33,145.

<sup>35</sup> *See* Cummings Decl. ¶¶ 10-11.

## Unilever

Another concern for Unilever is the significant reduction in the mandates for cellulosic biofuels (0.2 billion gallons in 2016). Unilever fully supports the development of cellulosic biofuels and believes EPA should direct resources to support the scaling up of that market. The consequence of cellulosic biofuels being unable to meet its intended production levels is that biodiesel has been called upon to fulfill an increasingly large portion of the advanced biofuels RFS. We urge

EPA to adjust down the total advanced biofuel mandate in tandem with reductions in the cellulosic mandate. [EPA-HQ-OAR-2015-0111-2273-A2 p.2]

**ZeaChem Inc.**

For 2016, to account for the continued redirecting of anaerobic digestion output to renewable compressed/liquefied natural gas, projected new biogas volumes from new commercial volume anaerobic digestion facilities and volumes of cellulosic ethanol from the recently completed (API, Poet/DSM, Abengoa, Enerken, etc.) and to be completed (Dupont and Quad County Corn Processers, ZeaChem, etc.) commercial scale fermentation based biorefineries, the EPA should modify its proposed RVOs at a minimum per Table 1 below. [EPA-HQ-OAR-2015-0111-1906-A1 p.3-4] [Table 1 can be found on page 4 of EPA-HQ-OAR-2015-0111-1906-A1.]

**Response:**

Several commenters supported EPA's consideration of updated RIN generation data in establishing the 2016 cellulosic biofuel standard, and requested that EPA increase our estimates of cellulosic biofuel for 2016 to be in-line with, or slightly higher than, projections submitted by the Coalition for Renewable Natural Gas (295 million gallons in 2016). EPA has considered these projections in determining the volume of cellulosic biofuel we believe will be produced in 2015 and 2016. We note that in previous years projections submitted by the CRNG have over-estimated actual cellulosic biofuel production for CNG/LNG from biogas. Similarly, the production rates to date in 2015 are once again lower than those projected by the CRNG. While we believe the projections provided by CRNG and other producers are a valuable part of the information we consider when making our projections, we do not think it would be appropriate to simply adopt these projections in light of the fact that these projections have been overly ambitious in previous years. The data also do not support using a linear growth trend based on data from the first half of the year, as one commenter suggested. Nevertheless, we have increased our projection of cellulosic biofuel production in 2016 for the final rule based on updated cellulosic biofuel data from 2015.

A commenter supported EPA's general methodology for projecting cellulosic biofuel production, but stated that EPA should add to this projected production volume any available carryover RINs from the previous year. This is not a relevant consideration for the 2016 cellulosic biofuel standard. Because we projected that there will be a very small number of cellulosic carryover RINs available for use in 2014 (approximately 20,000), the 2014 standard is established based on the number of cellulosic biofuel RINs available for use towards compliance, and the 2015 cellulosic biofuel standard is established late in the year and is based in large part on actual RIN generation data, we do not anticipate that there will be any significant volume of cellulosic carryover RINs produced in 2015 available for use in 2016 (see Section 6.2 of the RTC for a further discussion of cellulosic carryover RINs). EPA will continue to monitor the cellulosic RIN market, and may consider the existence of carryover cellulosic biofuel RINs in setting future standards if and when such an action is supported by future data and circumstances.

Similarly, a commenter suggested that EPA should anticipate that there will be carryover RINs from 2015 available for use in 2016 due to the purchase and use of cellulosic waiver credits in 2015, and requested that we increase the 2016 standard to account for these RINs. As stated above, we anticipate that the number of cellulosic RINs generated in 2015 will be approximately

equal to the cellulosic standard for 2015 in this final rule. We do not believe it would be appropriate to assume the purchase of cellulosic waiver credits in 2015 and increase the 2016 standard by a corresponding amount, as there is no basis for doing so and because this would result in standards that exceed our projected cellulosic volumes for 2016, effectively ensuring that obligated parties would have to purchase cellulosic waiver credits in 2015 or 2016.

A commenter suggested that EPA had significantly under-estimated the availability of cellulosic biofuel in 2016, and requested that EPA maintain the statutory volume (4.25 billion gallons) in order to encourage investment in cellulosic biofuel production. This would not be consistent with EPA's charge under the statute, which states that if EPA determines, based on EIA's estimate, that the projected volume of cellulosic biofuel production in a given year is less than the statutory volume, then EPA is to reduce the applicable volume of cellulosic biofuel to the projected volume available during that calendar year. EPA notes that the cited information from NREL about the potential for biogas in the United States is not intended to represent an estimate of biogas that can be used as transportation fuel in the United States in 2016, but rather the total volume of biogas that could be produced. The biogas must be used as a transportation fuel in order to generate a cellulosic biofuel RIN and be included in our projections of cellulosic biofuel projection in 2016. As the projected available volume of cellulosic biofuel in 2016 is far below the statutory volume, EPA would not be justified in maintaining the statutory volume.

A commenter stated that as a result of EPA's approach to the RFS standards, potential cellulosic biofuel producers are beginning to consider building production facilities overseas rather than in the United States. While we acknowledge that one of the goals of the RFS program is to incentivize the growth of the cellulosic biofuel industry in the United States, we do not think it is appropriate, or even beneficial to the industry, to establish the total renewable fuel standard beyond the maximum reasonably achievable volume, or the cellulosic biofuel standard beyond the volume expected to be produced in 2016. Companies make decisions on where to construct potential production facilities based on a wide variety of factors. If a company chooses to construct a cellulosic biofuel production facility overseas production from these facilities will be considered in our cellulosic biofuel productions if we believe any fuel produced at the foreign facility is likely to be used as transportation fuel in the United States.

Commenters expressed concern that the cellulosic biofuel standards in 2015 and 2016 could be met entirely by CNG/LNG derived from biogas, or that actual cellulosic RIN generation would exceed the cellulosic requirement, resulting in a lack of incentives for the development of liquid cellulosic biofuels. EPA's projections of available volumes include both liquid fuels and CNG/LNG derived from biogas. We will continue to project the availability of all cellulosic biofuels, include liquid cellulosic biofuels and CNG/LNG derived from biogas, in an effort to incentivize the production and use of these fuels, and have in fact increased the required volume of cellulosic biofuel in 2016 in this final rule from the proposed level. We can also modify our projection methodology as appropriate in the future if the data at the time suggests we are under-estimating the available volumes of CNG/LNG from biogas as well as production of liquid cellulosic biofuels in making our volume projections.

A commenter requested that potential cellulosic volumes from pending pathway applications be included in our projection for 2016. We do not believe this would be appropriate, as final decisions as to whether or not these fuels will qualify as cellulosic biofuel have not been made. We also note that very few of the pathways that have been submitted for consideration as

cellulosic biofuels would be in a position to produce fuel in 2016 even if their petitions were approved in the very near future.

A commenter noted the potential for very large volumes of biogas to be produced, or alternatively hydrogen from the reforming of this biogas, and suggested that we set our standards to account for this fuel. We acknowledge the large potential for biogas production in 2016, however we note that the biogas is only eligible to generate RINs if it is used as transportation fuel, and if this use can be verified according to EPA's regulations. The current market for CNG/LNG for use as transportation fuel is limited, as discussed in Section IV of the final rule. The market for hydrogen used as a transportation fuel is much smaller still, and hydrogen does not currently have a pathway to generate RINs in the RFS program. We therefore do not think the very large volumes of cellulosic biofuel suggested by this commenter are likely to enter the transportation fuel market in 2016.

A commenter suggested that EPA's proposed volume of cellulosic biofuel in 2016 was overly optimistic, and that EPA should instead base our projection on the last 3 months of actual production data. As discussed in Section IV of the final rule, it is not appropriate to project future production from a new industry based exclusively on historic production data, nor would it be consistent with EPA's charge to adopt a neutral methodology. We note that the volume of cellulosic biofuel produced in 2015 exceeded the volume projected in EPA's proposed rule, and that the 2016 projection was based on the same methodology. We have therefore adjusted our methodology slightly for 2016 based on the most recent data, and are requiring a slightly higher volume of cellulosic biofuel in 2016 in this final rule than was proposed.

A commenter requested that for the final rule EPA re-evaluate whether potential cellulosic biofuel producers should be included in the grouping that have or have not yet begun commercial scale production. We have continued to monitor the progress of the potential cellulosic biofuel producers, and have placed them in the appropriate category based on the most recent available information. The commenter also incorrectly claims that EPA's proposed methodology projects production from companies that had achieved commercial scale production at 50% of the high end of the range. This is not the case. EPA projected production from these facilities at the 50<sup>th</sup> percentile of a range where the low end was the production volume over the previous 12 months and the high end was generally equal to the facility capacity (adjusted assuming a 6 month ramp-up period). We therefore projected that, on average, these facilities would produce a volume half way between their capacity and what they had produced in the previous year, not at half of their capacity. We also note that we used a 50<sup>th</sup> percentile value to project the production from these facilities as a group, rather than individually. It is likely that some will achieve production near their facility capacities, while others may struggle to increase their production beyond the level achieved in the past 12 months, resulting in a 50<sup>th</sup> percentile value being appropriate for the group as a whole (see Section IV of the final rule for more detail).

A commenter called on EPA to direct resources to the development of cellulosic biofuel to reduce the demand for biomass-based diesel. The cellulosic volume for 2016 in this final rule, which is equal to the expected production volumes, is intended to provide the appropriate incentive for the cellulosic biofuel industry. Any other support is beyond the scope of the rule.

## 4.4 Rescission of the 2011 Cellulosic Biofuel Standards

### Comment:

#### American Fuel & Petrochemical Manufacturers and American Petroleum Institute

API and AFPM support EPA's proposal to grant their petitions for reconsideration, rescind the 2011 cellulosic biofuel mandate, and refund the money paid by obligated parties to purchase cellulosic biofuel waiver credits.<sup>110</sup> In promulgating the 2011 cellulosic biofuel standard, EPA produced an aspirational, rather than a realistic, cellulosic biofuel production estimate. [EPA-HQ-OAR-2015-0111-1948-A1 p.53]

The U.S. Court of Appeals for the District of Columbia Circuit vacated the 2012 cellulosic biofuel standard on the grounds that EPA failed to apply a "neutral methodology" because "the risk of overestimation [was] set deliberately to outweigh the risk of underestimation."<sup>111</sup> In promulgating the 2011 cellulosic biofuel standard, EPA has now acknowledged that it used essentially the same methodology that the D.C. Circuit held to be unlawful.<sup>112</sup> EPA's acknowledgment that it failed to apply a neutral methodology in establishing the 2011 cellulosic biofuel standard compels the Agency to rescind the standard. [EPA-HQ-OAR-2015-0111-1948-A1 p.53]

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<sup>110</sup> See 78 Fed. Reg. at 71737, 71751; see also NPRM at 33145.

<sup>111</sup> *API v. EPA*, 706 F.3d 474 (D.C. Cir. 2013).

<sup>112</sup> 78 Fed. Reg. at 71751 (EPA "used essentially the same methodology to develop the 2011 cellulosic biofuel standard as we did to develop the 2012 standard....").

#### Independent Fuel Terminal Operators Association (IFTOA)

##### V. Rescission of 2011 Cellulosic Biofuel Mandate

The Association supports EPA's proposal to rescind the 2011 cellulosic biofuel standard. IFTOA's Members understand that there was no cellulosic biofuel production in 2011, and therefore, the projections made for that year and the mandate established based on those projections were far too high. Thus, following the decision of the Court of Appeals for the District of Columbia on the 2012 cellulosic biofuel mandate, rescission of the 2011 standard is appropriate because it was determined using the same methodology as that in 2012. [EPA-HQ-OAR-2015-0111-1947-A1 p. 5]

### Response:

Both comments support EPA's decision to rescind the 2011 cellulosic biofuel volume requirements. EPA is finalizing this decision in today's rule.

## 5. Proposed Percentage Standards

### Comment:

#### Missouri Corn Growers Association (MCGA)

In addition we believe the EPA must correct accounting errors in the calculations that set the RFS2 compliance targets. The first error needing immediate attention is the estimation of gasoline consumption expected in Alaska; a state that opts out of the RFS2 program completely. According to this proposed rule, EPA expects gasoline consumption to rise 54% in Alaska in a single year. Analysis of the year over year average gasoline consumption in Alaska is actually on the decline and doesn't match EPA's reported values. [EPA-HQ-OAR-2015-0111-2507-A2 p. 2]

### Response:

One stakeholder said that, in excluding the volume of gasoline and diesel used in Alaska from the nationwide volume of gasoline and diesel used to calculate the percentage standards, we incorrectly assumed that gasoline demand in Alaska would rise 54% in a single year. In fact the exclusion of gasoline and diesel demand in Alaska from the calculation of the percentage standards was based on the fraction of the nationwide total which is expected to be from Alaska. As shown in memoranda to the docket for the NPRM, we assumed that the volume of nationwide gasoline which is consumed in Alaska is 0.2127% for all three years (2014, 2015, 2016) based on data derived from EIA's "State Energy Data System (SEDS): 1960-2012."<sup>30</sup> Thus the volume of Alaskan gasoline that was excluded from the calculation of the percentage standards was proportional to the nationwide total, and was not assumed to increase by 54%.

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<sup>30</sup> See the following document in EPA docket EPA-HQ-OAR-2015-0111: "Calculation of % standards for 2014," "Calculation of % standards for 2015," "Calculation of % standards for 2016"

## 6. Treatment of Carryover RINs

### 6.1 General Comments on Treatment of Carryover RINs

#### Comment:

#### Abengoa Bioenergy; Biotechnology Industry Organization

EPA's complete exclusion of consideration of carryover RINs is also arbitrary. As EPA notes, the availability of RINs in 2014 is dependent on settling the 2013 obligations, which the Agency has delayed at the request of obligated parties. EPA cannot use its unconscionable and arbitrary delays as justification for excluding consideration of carryover RINs. Instead, the Agency must set the 2014 and 2015 RVOs based on the full availability of RINs and without setting artificial and unwarranted limits based on purported infrastructure constraints. [EPA-HQ-OAR-2015-0111-1958-A2 p. 29]

It is not clear that EPA has the authority under the statutory scheme to take actions that artificially increase the stock of carryover RINs to provide a hypothetical "means of compliance when natural disasters cause unexpected supply limitations."<sup>181</sup> Other provisions of the RFS scheme, such as the general waiver provision for severe economic harm and built-in compliance flexibilities, are adequate to address such potential hypothetical risks. Indeed, EPA's attempt to "preserv[e]" a "bank" of carryover RINs appears to be a back-door method of expanding its general waiver authority to reduce volume obligations based on severe economic or environmental harm pursuant to sub-subparagraph (o)(7)(A)(i) of the statute. Using carryover RINs as another means to prevent less than severe harm would appear to be inconsistent with the limits on EPA's waiver authority embodied in that provision and recognized by EPA. [EPA-HQ-OAR-2015-0111-1958-A2 p. 53]

In addition, it would be arbitrary and capricious – and irreconcilable with the purposes of the statute and the program – for EPA to allow any RINs to simply expire unused, including but not limited to 2012, 2013, and 2014 RINs. The destruction of RIN value by setting volume obligations that result in expiration of unused RINs does not serve any legitimate purpose and violates Congress's directive to the agency to increase renewable fuel use, while making RIN credits available "for the purpose of complying with" the renewable volume obligations.<sup>185</sup> [EPA-HQ-OAR-2015-0111-1958-A2 p. 54]

In sum, EPA has not justified its exclusion of carryover RINs in its consideration of supply available to meet volume obligations for these years. To comply with Congress's directive to encourage growth in the use of renewable fuels in the future, EPA must take into consideration the use of all available carryover RINs to meet volume obligations. [EPA-HQ-OAR-2015-0111-1958-A2 p. 54]

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<sup>181</sup> *Id.* at 33114.

<sup>185</sup> 42 U.S.C. § 7545(o)(5)(B).

## **Advanced Biofuels Business Council (ABBC)**

Plainly put, the D6 carryover RINs in question represent RFS-eligible liquid renewable fuel gallons already sold to obligated parties. These obligated parties chose, over a number of years, to go “long” on compliance and carry over RIN credits from year up to the maximum 20% of obligation. But these RINs still represent available supply of renewable fuels because RINs can only be created when an RFS-eligible gallon of renewable fuel is produced, and can only be carried over by obligated parties. [EPA-HQ-OAR-2015-0111-3528-A1 p.6]

D6 carryover RINs represent RFS-eligible liquid renewable fuel gallons already sold to obligated parties. If this does not constitute available supply of compliance fuel, it is hard to imagine how this or any other part of the Clean Air Act would work. [EPA-HQ-OAR-2015-0111-3528-A1 p.22]

Relying on carryover RINs to avoid statutory waivers is no more a “deliberate draw down” today than it was in 2013, when EPA took this very path. Carryover RINs are held by obligated parties, and obligated parties choose whether or not to draw them down for compliance. Setting a more aggressive RVO would require more RINs to be retired, but that can be done by blending more renewable fuel (i.e. which would bring more RINs into the system). [EPA-HQ-OAR-2015-0111-3528-A1 p.22]

## **AJW, Inc.**

Renewable volume obligations are satisfied with RINs. As a result, the “volume available” to satisfy a given renewable volume obligation could hardly be anything other than the actual volume of applicable RINs that are available to satisfy that obligation. Expected production in the calendar year is an alternative but fundamentally inadequate measure for determining applicable volume. It understates volume available in a given calendar year because it does not take into account cellulosic biofuel volume that is generated but not used in the prior year. This fuel would naturally (and unambiguously) be “volume available” for use in the given calendar year. [EPA-HQ-OAR-2015-0111-2268-A1 p.7]

**AL-Corn Clean Fuel; Badger State Ethanol; Big River Resources, LLC; Central Indiana Ethanol (CIE); Commonwealth Agri-Energy, LLC; Husker Ag LLC; Pacific Ethanol, Inc.**

## **4. The proposed rule ignores the availability of carryover RINs, and disregards their role in enabling compliance with 2014-2016 RVOs.**

Even if oil companies were correct that the current infrastructure cannot distribute volumes of ethanol above the so-called ‘blend wall,’ there would still be a sufficient number of carryover RINs available to bridge any ‘gap’ between RFS requirements and actual volumes blended. Based on EPA data, it seems likely that 1.0-1.5 billion ethanol and biodiesel RINs will be carried into 2014 and made available for compliance with RFS standards. Quizzically, EPA admits in the proposal that ‘We have considered the possible role of carryover RINs in avoiding the need to reduce the statutory applicable volumes, as we did in setting the 2013 RFS standards, but have decided that the availability of carryover RINs should not preclude reducing the applicable volumes.’ Because carryover RINs represent gallons of renewable fuel that are—or were—part of the total supply of renewable fuels, we strongly urge you to account for the availability of

carryover RINs to assist obligated parties in meeting 2014-2016 obligations. [EPA-HQ-OAR-2015-0111-1214-A2 p.4]

### **American Coalition for Ethanol (ACE)**

EPA's consideration of domestic supply needs to include RINs. [EPA-HQ-OAR-2015-0111-2543-A2 p. 4]

According to reporting by the Oil Price Information Service, Babcock believes obligated parties will not strain to meet the compliance target in 2016 because they will have ample carryover RINs from the prior year to meet the obligation.<sup>8</sup> [EPA-HQ-OAR-2015-0111-2543-A2 p. 6]

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<sup>8</sup>. How Ethanol RINs Prices Reflect RFS Policy. Oil Price Information Service. June 18, 2015.

### **American Council on Renewable Energy (ACORE)**

RINs represent the “supply” of renewable fuel that is produced. So carry-over RINs are simply a measure of the excess “supply” of renewable fuels that obligated parties generated over their volume requirements in a prior year. Therefore, carry-over RINs should be accounted for when USEPA determines to what degree the “supply” of renewable fuel is adequate to meet the statutory targets in a given compliance year. This means that if the amount of carry-over RINs and newly generated RINs are sufficient to meet the volume requirements in a given year, USEPA should not exercise its general waiver authority. [EPA-HQ-OAR-2015-0111-1926-A1 p.7]

USEPA should account for carry-over RINs in its calculation of “supply” in order to support the specific market mechanism under the RFS that will foster investment in and expansion of the biofuel industry. [EPA-HQ-OAR-2015-0111-1926-A1 p.7-8]

USEPA’s proposal actually requires almost no growth at all because obligated parties would be able to comply with USEPA’s proposed volume requirements through 2016 simply by maintaining their 2014 usage level and drawing down the bank of carry-over RINs. There is no reason to believe that, under USEPA’s proposal, obligated parties will choose to blend more or invest in expanding the use of renewable fuels rather than draw down the bank of carry-over RINs. The market knows this—that is why the price of D6 RINs dived after the proposal was announced. USEPA’s proposal, therefore, does not support Congress’s goal of using the RFS program to stimulate rapid expansion in use of renewable fuels. [EPA-HQ-OAR-2015-0111-1926-A1 p.13]

The “volume available during a calendar year” should include volume produced in the prior year that is not required for meeting prior year obligations. The requirement to provide “appropriate certainty”<sup>51</sup> includes an obligation to take all reasonable actions to mitigate any damages or disruptions that may be caused by USEPA’s failure to accurately predict volume available in a given year. This includes making corrections in subsequent years to accurately estimate volumes available. The statutory requirement that credits generated be valid for compliance for the 12 months following the date of generation means that cellulosic biofuel produced in one year (and its credits) should be permitted to meet, and considered available to meet, obligations in a subsequent year. [EPA-HQ-OAR-2015-0111-1926-A1 p.18]

## **American Farm Bureau Federation (Farm Bureau); Illinois Farm Bureau; Indiana Farm Bureau**

If we are going to achieve the incentives Congress intended to increase renewable fuel supplies and overcome market limitations it will be necessary to utilize the RIN market to provide a price incentive on fuels containing higher percentages of ethanol. EPA states that they will not take into account rollover RINs from previous years when setting the requirements in the Proposed Rule. However, EPA should consider the fact that accounting for at least part of the roll over RINs in the market and setting the volume standards accordingly will help to hold a price in the RIN market that will result in competitive prices at the pump for E15 and E85. Providing an economically favorable situation where consumers will choose the higher ethanol blends lowers the hurdle of the blend wall, and makes the ambitious renewable fuel standards that Congress mandated in EISA possible. [EPA-HQ-OAR-2015-0111-2355-A1 p. 5]

## **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

In these situations, carryover RINs fulfill a vital role in the implementation of the RFS; they help ensure that the domestic fuel market can be served and that obligated parties are not placed in jeopardy, including the possibility of CAA violations should RINs needed for compliance become unavailable. [EPA-HQ-OAR-2015-0111-1948-A1 p.12]

We agree with EPA that carryover RINs should not be considered in setting the annual RFS standards.<sup>18</sup> EPA proposes to allow the program to function as it was designed so that obligated parties have at least some limited flexibility to manage their compliance using banked RINs. It is imperative that obligated parties have this necessary compliance flexibility without worrying that EPA may set annual RFS standards and increase the regulatory mandates by removing this safety net based on depleting the volume of carryover RINs. [EPA-HQ-OAR-2015-0111-1948-A1 p.12]

The NPRM correctly explains why EPA should not rely on a further drawdown of the RIN bank to meet the volume requirements for 2014 or future years.<sup>100</sup> Even at the current level of excess and carryover RINs, some obligated parties may not be able to obtain sufficient RINs.<sup>101</sup> And once the RIN bank is depleted, obligated parties will be forced to resort to drastic alternative measures. [EPA-HQ-OAR-2015-0111-1948-A1 p.50]

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<sup>18</sup> *NPRM at 33130.*

<sup>100</sup> *See NPRM at 33130.*

<sup>101</sup> *See, e.g., Frank Pici, Monroe Energy Letter to EPA, Docket ID No. EPA-HQ-OAR-2012-0546-0110 (Apr. 7, 2013).*

## **Archer Daniels Midland Company (ADM)**

Carryover RINs should be calculated as actual gallons of supply. [EPA-HQ-OAR-2015-0111-2262-A1 p. 2]

## **DuPont**

First, setting the volumes at a higher level would not result in noncompliance. Obligated parties threaten noncompliance but there are a number of readily available market based options to

facilitate meeting their obligations. Second, if a natural disaster were to cause supply limitations either for biofuels suppliers or gasoline suppliers or refiners, EPA has existing waiver authority for economic hardship or biofuels supply shortages. Therefore, the explanation that EPA gives for refusing to account for carryover RINs in setting biofuels volumes in 2014, 2015 and 2016 isn't based in reality and serves to let the oil industry escape from blending additional biofuels. [EPA-HQ-OAR-2015-0111-1826-A1 p.16]

### **Growth Energy**

Because of the large bank of carryover Renewable Identification Numbers (“RINs”), obligated parties will be able to fully comply with their proposed renewable volume obligations merely by maintaining their 2014 levels and drawing down the RIN bank. Obligated parties will have a strong incentive to do just that, especially because EPA’s proposal will trigger its authority to “reset” all the volume requirements for renewable fuel going forward—and EPA’s current proposal and prior 2014 proposal leave little doubt that it will use that authority to establish new volume obligations that will not push the industry to expand and that will thus diminish the value of banked RINs. [EPA-HQ-OAR-2015-0111-2604-A2 p.1-2]

EPA is required to treat banked RINs as supply when determining the level at which “supply” would be “inadequate” for purposes of the general waiver provision. In other words, EPA must set the renewable fuel volume requirements high enough to ensure that the RIN bank is consumed. [EPA-HQ-OAR-2015-0111-2604-A2 p.4]

Finally, although EPA estimated that after 2013 compliance, there will be a “bank” of “approximately 1.8 billion [carryover] RINs,”<sup>75</sup> it “propos[ed] not to count those RINs as part of the ‘supply’ for 2014 or later years.”<sup>76</sup> EPA explained that it would be prudent, and would advance the long-term objectives of the Act, not to set standards for 2014, 2015, and 2016 so as to intentionally draw down the current bank of carryover RINs,” so that obligated parties could keep these banked RINs to “address[] significant future uncertainties and challenges.”<sup>77</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.12]

Obligated parties could use the RIN bank to achieve full compliance with EPA’s proposal through 2016 while barely expanding the use of renewable fuels above 2014 levels. [EPA-HQ-OAR-2015-0111-2604-A2 p.14]

There is no reason to believe that a RIN “buffer” would work as EPA envisions. The proposal assumes that, given the choice between using relatively cheap carryover RINs to meet volume obligations and investing in infrastructure to increase distribution and consumption of renewable fuels, the oil industry will choose the latter so as to preserve their RIN “buffer.” Yet to date the oil industry, as described above, has done everything possible to obstruct the deployment of renewable fuel above the E10 blendwall, including refusing to make relatively economical investments in infrastructure for distributing higher-ethanol blends. [EPA-HQ-OAR-2015-0111-2604-A2 p.62]

RINs, including carryover RINs, reflect the supply of renewable fuel and are part of the mechanism for compliance from which the general waiver may provide relief. Accordingly, carryover RINs must be accounted for when determining whether supply is inadequate for purposes of the general waiver provision. [EPA-HQ-OAR-2015-0111-2604-A2 p.64]

Granting the waiver would thus make the recent RIN devaluation permanent, crippling the market incentive Congress intended to stimulate increased production and use of renewable fuel. By contrast, imposing the statutory volumes after the proposed cellulosic waiver flow-through and thereby requiring obligated parties to draw down banked carryover RINs would revive RIN prices and, critically, “incentivize precisely the sorts of technology and infrastructure investments and fuel supply diversification that the RFS program was intended to promote.”<sup>370</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.64]

EPA maintains that it can and should exclude carryover RINs from consideration of whether “supply” is “inadequate” in order to provide obligated parties with “compliance flexibility” and a “program buffer.”<sup>371</sup> But the statute already contains mechanisms to do this, and therefore forecloses EPA from creating a new mechanism for the same end, namely, the RIN bank. [EPA-HQ-OAR-2015-0111-2604-A2 p.64]

EPA must set renewable fuel volume requirements at levels that will consume the entire RIN bank and drive growth in renewable fuels. The simplest appropriate way to do this is to increase the proposed volume requirements up to the level of the cellulosic waiver flow-through, or until the RIN bank would be exhausted, whichever comes first. And this should begin in 2014, so that the 2015 and 2016 volume requirements have the opportunity to drive growth [EPA-HQ-OAR-2015-0111-2604-A2 p.66]

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<sup>75</sup> *Id.* at 33,130. Excess RINs can be carried over into the next compliance year. 42 U.S.C. § 745(o)(5)(D)

<sup>76</sup> 80 Fed. Reg. at 33,121 n.59.

<sup>77</sup> *Id.* at 33,130.

<sup>370</sup> *Monroe Energy*, 750 F.3d at 919.

<sup>371</sup> 80 Fed. Reg. at 33,130.

## **HollyFrontier Corporation**

Finally, preserving the RIN bank mitigates risk of fraudulent RINs. While much ground has been made by EPA and industry to minimize the amount of fraudulent RINs traded in the open market, instances still occur. This risk of fraud for an obligated party may further be reduced by carrying over the maximum allowance of RINs. However, if the proposed 2016 volumes are finalized, this may no longer be an option for refiners. [EPA-HQ-OAR-2015-0111-2257-A1 p.2]

## **Independent Fuel Terminal Operators Association (IFTOA)**

### **III. Carryover RINs**

The Association supports EPA’s decision not to include carryover RINs in its calculation to determine the appropriate reduction in the standards. This is particularly true for 2014. If the inclusion of carryover RINs established mandates higher than actual use, it would be extremely costly and difficult for many obligated parties to meet such standards. [EPA-HQ-OAR-2015-0111-1947-A1 p. 4]

Members of the Association also agree with the Agency that carryover RINs provide flexibility in the RFS Program and allow compliance even if the availability of RINs is limited. This “buffer,” as EPA calls it, is an essential tool needed by all obligated parties at one time or

another. Therefore, exclusion of the carryover RINs is a reasonable approach to determining the standards for 2014, 2015, 2016 and beyond. [EPA-HQ-OAR-2015-0111-1947-A1 p. 4]

Recommendation: Exclude carryover RINs from the calculation of the RFS mandates and continue to allow them to be used to address future uncertainties and challenges. [EPA-HQ-OAR-2015-0111-1947-A1 p. 4]

Specifically, the Association recommends the following: [EPA-HQ-OAR-2015-0111-1947-A1 p. 8]

4. EPA should not account for carryover RINs in making determinations about the RFS mandates; such RINs are needed to provide flexibility within the RFS Program; [EPA-HQ-OAR-2015-0111-1947-A1 p. 8]

### **Iowa Corn Growers Association (ICGA)**

**3. EPA’s proposal removes the incentive provided by Renewable Identification Number credits (RINs) to expand renewable fuel infrastructure. [EPA-HQ-OAR-2015-0111-1820-A1 p. 4]**

EPA’s proposal ignores the ability of E15, E85, other mid-level blends and carryover RINs to facilitate compliance with the statutory renewable fuel requirements of 14.4 billion gallons in 2014, and 15.0 billion in both 2015 and 2016. Leaving the RVO at the statutory levels would ensure that RIN prices send the necessary signals to expand ethanol consumption above the imaginary “blend wall.” A strong and consistent RIN signal would drive increased demand for all blends by allowing marketers and retailers to substantially discount the prices reflecting their true cost advantage for these fuels relative to gasoline. Durable RIN prices would also drive obligated parties to invest in the infrastructure needed to ensure required levels of biofuels can be distributed in 2015, 2016 and beyond. Increased sales of higher blends through new and existing pumps could easily bridge the gap between the E10 “blend wall” and the statutory requirements. [EPA-HQ-OAR-2015-0111-1820-A1 p. 4-5]

EPA needs to reevaluate its assumptions on how much in the way of higher blends can be reasonably consumed in 2015 and 2016 and examine how the volumes may change under various RIN price scenarios. [EPA-HQ-OAR-2015-0111-1820-A1 p. 5]

**4. The proposed rule ignores the availability of carryover RINs, and disregards their role in enabling compliance with 2014-2016 RVOs. [EPA-HQ-OAR-2015-0111-1820-A1 p. 5]**

Even if the opposition were correct that our nation’s infrastructure cannot distribute volumes of ethanol above the so-called “blend wall,” there would still be a sufficient number of carryover RINs available to bridge any “gap” between RFS requirements and the actual volumes blended. Based on EPA data, it seems likely that 1.0-1.5 billion ethanol and biodiesel RINs will be carried into 2014 and made available for compliance with RFS standards. Quizzically, EPA admits in the proposal that “We have considered the possible role of carryover RINs in avoiding the need to reduce the statutory applicable volumes, as we did in setting the 2013 RFS standards, but have decided that the availability of carryover RINs should not preclude reducing the applicable volumes.” Because carryover RINs represent gallons of renewable fuel that are—or were—part of the total supply of renewable fuels, we believe the availability of carryover RINs to assist

obligated parties in meeting 2014-2016 obligations must be factored in. [EPA-HQ-OAR-2015-0111-1820-A1 p. 5]

### **Iowa Renewable Fuels Association**

#### **The Disappearing RINs – Why Does EPA Break Its Own Precedent on Carryover RINs?** [EPA-HQ-OAR-2015-0111-1957-A2 p. 5]

In an astonishing and confusing change of protocol in setting the 2014-2016 RFS levels, EPA announced the “availability of carryover RINs should not preclude reducing the applicable volumes.” A RIN is nothing more than the electronic signature of a physical gallon of qualifying renewable fuel. Carryover RINs represent actual, physical gallons of renewable fuel that were produced and, whether already blended or not, remain available – in their electronic format – as part of the total renewable fuel supply for use by obligated parties in complying with their RFS requirements. [EPA-HQ-OAR-2015-0111-1957-A2 p. 5]

The EPA’s understanding of the term “supply” has been heavily discussed over the last 18 months. The decision by EPA to break with its own precedents of factoring carryover RINs into RFS supply considerations only adds to the sense that EPA has lost its way. Congress and the President enacted the RFS to increase the production and use of renewable fuels. To use the narrow and limited waiver authority granted by Congress to reduce the annual RFS levels should not be done lightly. To ignore more than 1 to 1.5 billion carryover RINs when determining available supply simply flies in the face of the clear intent of the program. [EPA-HQ-OAR-2015-0111-1957-A2 p. 5]

It also flies in the face of EPA’s own precedents. When evaluating several requests for RFS waivers during the historic drought of 2012, just as when evaluating the 2008 waiver requests, the EPA clearly and specifically took into account the “available quantity of carryover RINs”<sup>21</sup> when determining whether a waiver was justified. The reduced yields and higher corn prices associated with the horrendous 2012 drought led to a significant pull-back in ethanol production. However, as “indicated by EPA’s modeling, the impact of the RFS volume requirements is highly dependent on the volumes at issue, *the number of RINs carried over from prior years* and the relevant market commodity prices...” (emphasis added).<sup>22</sup> In discussing the importance of carryover RINs, EPA noted “the number of rollover RINs available during the 2012/2013 marketing year affects the impact of implementation of the RFS volume requirements in 2013.”<sup>23</sup> [EPA-HQ-OAR-2015-0111-1957-A2 p. 5-6]

Had the “availability of rollover RINs”<sup>24</sup> not been factored in to EPA’s “stochastic modeling,” it is fair to ask whether the decision to deny the 2012 waiver might have been different. Yet, history shows the decision by EPA to factor in carryover RINs was correct. Partly by using carryover RINs, obligated parties met their 2012 and 2013 obligations and there was little meaningful impact from the RFS on other economic sectors. The drought induced price impacts dissipated and disappeared as the 2013 corn crop matured and was ultimately harvested. If carryover RINs were appropriate to consider when setting the 2013 RFS level, they should naturally be considered when setting the 2014 level as well. [EPA-HQ-OAR-2015-0111-1957-A2 p. 6]

Consistent with the 2008 and 2012 waiver request evaluations, EPA once again factored carryover RINs into their 2013 RFS level determination. In deciding not to reduce the 2013 statutory RFS levels, EPA stated: “There will also be a significant number of carryover RINs available from 2012 that can be used in lieu of actual volume in 2013 and which are sufficient in number to *address limitations in consumption of ethanol blends higher than E10...*” (emphasis added).<sup>25</sup> [EPA-HQ-OAR-2015-0111-1957-A2 p. 6]

In fact, in response to suggestions during the 2013 public comment period that EPA should not factor in carryover RINs when determining annual volume requirements, the EPA responded: “...the final rulemaking for the RFS1 program did not describe the purpose of carryover RINs in such narrow terms. Droughts were indeed provided as an example of a market circumstance that could limit the production of renewable fuels, but the RFS1 final rule also described the use of carryover RINs more broadly as a means for protecting against any potential supply shortfalls that could limit the availability of RINs.”<sup>26</sup> [EPA-HQ-OAR-2015-0111-1957-A2 p. 6]

Even more importantly, after noting that carryover RINs “are a valid compliance mechanism” the EPA highlighted that their job is “estimating the adequacy of the availability and use of ethanol in 2013 for compliance purposes, and the availability of carryover RINs is certainly relevant in analyzing that issue. Therefore, we believe that it is appropriate to consider carryover RINs in the context of evaluating the comments received on the need for further compliance relief to address the E10 blendwall.”<sup>27</sup> This approach was challenged and upheld by federal courts. [EPA-HQ-OAR-2015-0111-1957-A2 p. 6-7]

While the EPA notes that their 2013 conclusion is “specific to the circumstances present for 2013,” it is also true that, just as in 2013, carryover RINs “are not the only available mechanisms that obligated parties have for meeting” the standards.<sup>28</sup> No self-inflicted lack of RIN data should reduce EPA confidence to “assess the volume of carryover RINs currently available” to the extent to where it would be “prudent” to set an RFS level that envisions absolutely no “draw-down in the bank of carryover RINs.” Any legitimate uncertainty is offset by the potential for greater E85 sales, the completely underappreciated potential for E15 sales, the potential for greater biodiesel sales, and the rapid growth in non-ethanol cellulosic fuel sales. All of these compliance options should be considered collectively, not individually, otherwise caution turns into paralysis. [EPA-HQ-OAR-2015-0111-1957-A2 p. 7]

The RIN system was designed as a compliance mechanism for obligated parties under the RFS. However, an equal if not greater amount of concern over flexibility for obligated parties also went into the final RIN system design. If the current EPA proposal to ignore carryover RINs is allowed to stand, then the “flexibility” of the RIN system becomes one-sided, to be used to unnecessarily reduce the RFS levels and to undermine the stated goals and implementation schedule of the RFS. IRFA urges the EPA to return to the commonsense approach of factoring carryover RINs into the decision-making process as was done during the 2008 and 2012 waiver request determinations and again when EPA set the 2013 RFS levels. To do otherwise would be an arbitrary and capricious action at the expense of renewable fuel producers and the stated goals of the RFS. [EPA-HQ-OAR-2015-0111-1957-A2 p. 7]

<sup>21</sup> Environmental Protection Agency. “Notice of Decision Regarding Requests for a Waiver of the Renewable Fuel Standard.” *Federal Register* Vol. 77, No. 228, page 70753.

<sup>22</sup> Ibid.

<sup>23</sup> Environmental Protection Agency. “Notice of Decision Regarding Requests for a Waiver of the Renewable Fuel Standard.” *Federal Register* Vol. 77, No. 228, page 70758.

<sup>24</sup> Environmental Protection Agency. “Notice of Decision Regarding Requests for a Waiver of the Renewable Fuel Standard.” *Federal Register* Vol. 77, No. 228, page 70775.

<sup>25</sup> Environmental Protection Agency. “Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards.” *Federal Register* Vol. 78, No. 158, page 49797.

<sup>26</sup> Environmental Protection Agency. “Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards.” *Federal Register* Vol. 78, No. 158, page 49822.

<sup>27</sup> Ibid.

<sup>28</sup> Ibid.

## **Marathon Petroleum Company**

We support the agency’s decision to exclude carryover RINs when determining the RFS standard. Consistent with the intent of the RFS, carryover RINs should be reserved for use by companies to respond to operational problems or market dislocations. [EPA-HQ-OAR-2015-0111-1932-A1 p. 6]

## **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

### **B. EPA Correctly Refused to Consider Banked RINs In Its Determination of Whether There Was “Inadequate Supply” of Renewable Fuel That Can Be Consumed**

In determining the degree to which supply was “inadequate” in 2014, 2015, and 2016, EPA correctly refused to consider RINs that had been or will be carried over from prior compliance periods. As EPA explained, “carryover RINs are intended to provide flexibility in the face of a variety of circumstances that could limit the availability of RINs, including weatherrelated damage to renewable fuel feedstocks and other circumstances affecting the supply of renewable fuel that is needed to meet the standards.” Parties may carry forward an unlimited number of credits, use those credits to satisfy up to 20 percent of their present year’s volume requirement, and sell the remainder.<sup>18</sup> Thus, obligated parties who accumulated excess credits in 2014 (for example, integrated blender-refiners who blended more than they refined) will likely seek to carry forward some number of those 2014 credits for use and/or sale in 2015. The same is true for 2015 and each subsequent year. [EPA-HQ-OAR-2015-0111-2603-A2, p.9]

While some stakeholders have argued that EPA should set volume requirements based upon supply projections and all “banked” RINs, EPA correctly refused to do so. That is so for several reasons. First, carryover RINs act as a buffer that facilitates compliance even in unforeseen circumstances—for example, a drought that increases corn prices and significantly changes the economics of blending ethanol into E10. As EPA has explained, “we believe that carryover RINs serve an important function under the program, including providing a means of compliance when natural disasters cause unexpected supply limitations.” Intentionally depleting the bank of carryover RINs by setting volume requirements too high would mean that parties would have diminished compliance flexibility in the future in the event of unforeseen circumstances, such as a drought. [EPA-HQ-OAR-2015-0111-2603-A2, pp.9-10]

Second, because of the E10 blendwall, blenders will no longer be able to produce excess RINs simply by blending ethanol in excess of EPA’s volume percentage requirement, as they were

able to do during the 2010-12 time period. Thus, if obligated parties are forced to retire carryover RINs, they are unlikely to be able to replenish the RIN bank in future periods. Any depletion in carry-over RINs is likely to be permanent. As EPA explained, “any draw-down in the bank of carryover RINs required through setting volume requirements at levels higher than can be achieved through actual renewable fuel use could not likely be reversed in the future.” [EPA-HQ-OAR-2015-0111-2603-A2, p.10]

Third, the current RIN bank is not particularly large. EPA estimated in the NPRM that approximately 1.8 billion RINs will remain banked after parties have demonstrated compliance with the 2013 standards. Roughly speaking, that is only 11 percent of the total number of RINs that parties will be expected to retire in order to satisfy the proposed 2015 standards, and merely 10 percent of the proposed 2016 standards (assuming no draw down), based on EIA projections that EPA used for total gasoline consumption. [EPA-HQ-OAR-2015-0111-2603-A2, p.10]

That is significantly smaller than the 20 percent of volume requirements that EPA deemed appropriate in its rulemakings establishing the RIN system. In the 2007 rulemaking establishing the RFS program, EPA found that supply problems of 20 percent could exist in a single year and adopted the rule that permits obligated parties to meet up to 20 percent of their obligations in a particular year using RINs carried over from the prior year.<sup>23</sup> In adopting the 20 percent rule, EPA explained that with respect to supply and demand for RINs, the 20 percent allowance provides “the appropriate balance between . . . protecting against potential supply shortfalls that could limit the availability of RINs, and . . . ensuring an annual demand for renewable fuels as envisioned by the Act.”<sup>24</sup> EPA rejected arguments from renewable fuel producers that a carryover RIN cap closer to 10 percent would provide sufficient cushion for supply shortages. EPA’s principal concern was that 10 percent carryover would be insufficient to account for potential shortages in ethanol supply. EPA explained that “[t]he level of 20 percent is consistent with past ethanol market fluctuations.” EPA gave the example of 1996, a year in which, as a result of a drought, ethanol supply had diminished by 21% as compared with the prior year. In the 2010 rulemaking adopting amendments to the RFS program, EPA again affirmed the appropriateness of the 20 percent number.<sup>28</sup> [EPA-HQ-OAR-2015-0111-2603-A2, pp.10-11]

Thus, if anything, current carryover RIN stocks are already too low to fully serve as a buffer against unforeseen problems with supply. Certainly, EPA should not set standards so as to intentionally reduce those stocks further. And EPA has acknowledged that its standard-setting is a “very challenging task not only in light of the myriad complexities of the fuels market and how individual aspects of the industry might change in the future, but also because we cannot precisely predict how the market will respond to the volume-driving provisions of the RFS program.” Given the significant possibility that EPA has overestimated the amount of renewable fuel that will be consumed in 2016—which we discuss further below—it would be particularly imprudent for EPA to intentionally deplete existing stocks of carryover RINs in setting standards for 2014 and 2015. [EPA-HQ-OAR-2015-0111-2603-A2, pp.11-12]

Finally, carryover RINs are not themselves a “supply” of renewable fuel that EPA must consider in exercising its general waiver authority. Carryover RINs represent renewable fuel that was blended and consumed in the past. Setting standards so high as to require parties to surrender carryover RINs to demonstrate compliance would not actually increase the quantity of renewable fuel in transportation fuel, and thus would not advance the purposes of the statute. [EPA-HQ-OAR-2015-0111-2603-A2, p.12]

For all these reasons, EPA correctly determined that setting standards so as to effectively require the depletion of carryover RINs would not be consistent with the “the critical compliance flexibility, market liquidity, and program buffer functions served by carryover RINs.” [EPA-HQ-OAR-2015-0111-2603-A2, p.12]

It is no answer that parties can rely on carryover RINs to cover any deficit, in the event that EPA’s projections turn out to be too optimistic. As discussed above, EPA has made clear that carry-over RINs serve an important role in buffering the industry against unexpected occurrences like crop failures. They are not designed to cover RIN shortfalls resulting from overly ambitious volume requirements. Indeed, as EPA itself has acknowledged, now that the economy has reached the E10 blendwall, any reduction in the number of carryover RINs is likely to be irreversible. Given that reality, and the fact that RIN stocks already are only half as large as EPA deemed prudent when it established the RIN program, it is imperative that EPA not look to carryover RINs as a backstop compliance mechanism for overly aggressive, unachievable volume requirements. [EPA-HQ-OAR-2015-0111-2603-A2, p.39]

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<sup>18</sup> 40 C.F.R. § 80.1427(a)(3), (5).

<sup>23</sup> See 40 C.F.R. § 80.1427(a)(1), (5).

<sup>24</sup> Regulation of Fuels and Fuel Additives: Renewable Fuel Standard Program, 72 Fed. Reg. 23,900, 23,934-35 (May 1, 2007).

<sup>28</sup> Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program, 75 Fed. Reg. 14,670, 14,735 (Mar. 26, 2010) (“2010 Rule”).

### **National Biodiesel Board**

The reason banked RINs were generated in the first place was, by definition, to take advantage of excess production capacity in the early years of the program. They were banked exactly for the reason of being used in times of more limited supply. If they are not required to be used in 2014 they actually contribute to future supply shortfalls by strangling would-be 2015 production. [EPA-HQ-OAR-2015-0111-1953-A2 p.20]

The advanced biofuel industry has, in fact, exceeded the required volumes each year through 2013. This has provided for a significant number of prior-year RINs to be available for use in 2014, reducing the actual volumes used by another 536 million ethanol-equivalent gallons (20% of 2.68 billion). EPA, then, has really proposed a volume for 2014 of 2.1 billion gallons for advanced biofuels, which is less than the ethanol-equivalent gallons of advanced biofuels produced in 2012. While asserting it is seeking to move the industry forward, EPA, in fact, is taking large steps backward. [EPA-HQ-OAR-2015-0111-1953-A2 p.20]

As EPA has noted, 2014 is over, and it provides no rationale why it cannot consider the carryover of 2013 RINs into 2014 that can be used to “ensure” the statutory volumes are met. As EPA previously explained, the carryover RINs are “certainly relevant in analyzing [the availability and use of ethanol].” 78 Fed. Reg. at 49,822. EPA stated that the purpose of carryover RINs was not limited to such unforeseen circumstances. [EPA-HQ-OAR-2015-0111-1953-A2 p.21]

EPA contends that due to the “importance of carryover RINs” it would not be prudent to “intentionally draw down the current bank of carryover RINs.” 80 Fed. Reg. at 33,130. But, EPA

is intentionally allowing for rollover of RINs into future years, which will *reduce* actual volumes required and, as such, EPA previously found to be prohibited by statute. [EPA-HQ-OAR-2015-0111-1953-A2 p.131]

The experience of the RFS program to date shows excess RINs going unused, despite Congress's intent for the mandated volumes to be a floor. It will also improve RIN liquidity by ensuring parties sell RINs to avoid their expiration. Yet, now, EPA has chosen to attempt to predict "maximum achievable supply". Any incentives for overcompliance by the renewable fuels industry is largely eliminated. As such, EPA's claim that carryover RINs are needed to address "unexpected supply limitations" cannot be squared with its "maximum achievable volume" approach. If there are some supply or other issues that were not anticipated, the waiver authority remains for obligated parties to ask EPA to address unforeseen circumstances. [EPA-HQ-OAR-2015-0111-1953-A2 p.132]

EPA contends that Congress intended to provide compliance flexibility. 80 Fed. Reg. at 33,119. It also continues to assert that the carryover provisions are needed "to address unforeseen circumstances." *Id.* at 33,130. But, obligated parties have remedies in those cases. That is, they can seek an additional waiver or they can carry a deficit. That was the flexibility Congress provided. Unlike the deficit carryover, Congress did not provide for rollover of prior-year RINs. [EPA-HQ-OAR-2015-0111-1953-A2 p.132]

The most straightforward way to avoid the rollover issue, which is supported by the Act's language and the legislative history, is to read the Act to allow the 12 month life to apply only to the compliance year in which the credit was generated.<sup>115</sup> This reading also fulfills Congress's clear purpose to ensure a minimum amount of *actual gallons of* renewable fuel be sold each year, while providing some flexibility, dictated by practical, environment and other market factors, as to where such renewable fuel be sold. [EPA-HQ-OAR-2015-0111-1953-A2 p.132]

Since EPA is already keeping the volumes at a level below anticipated production, there is no justification to allow for another reduction of 20 percent through use of prior-year RINs. Thus, to the extent EPA continues with its proposal, it must eliminate the ability to use prior-year RINs. This would further the program by forcing parties to sell their excess RINs, rather than hold onto them for next year, improving market liquidity. [EPA-HQ-OAR-2015-0111-1953-A2 p.133]

### **National Corn Growers Association (NCGA)**

NCGA believes statutory volumes of conventional ethanol can be easily achieved by simply requiring any gap be filled by retiring excess RINs. [EPA-HQ-OAR-2015-0111-1939-A1 p.6]

The Agency should not artificially suppress RIN prices by refusing to reduce the number of banked RINs. [EPA-HQ-OAR-2015-0111-1939-A1 p.7]

### **Paul Bertels Farms**

I am also troubled by the Agency's unwillingness to force a reduction in banked RINs to make up the shortage between gallons produced and statutory requirements. Clearly, banked RINs were designed as a supply consideration, since obligated parties can use these RINs to show compliance. Forcing a retirement of a portion of excess RINs would incentivize the petroleum

industry to embrace biofuels and return the market to growth curve designed in the legislation. [EPA-HQ-OAR-2015-0111-2799-A1 p.1-2]

### **PBF Holding Company LLC**

In addition, EPA should avoid relying on carryover RINs because it removes the flexibility that Congress reserved for obligated parties by removing a critical, strategic compliance option. If EPA were to rely on carryover RINs when establishing the RFS (as it did in 2013), EPA transforms the range of compliance options available to affected parties -- a critical scheme contrived by Congress to effectively balance the compliance burden with cost effective strategic planning -- into a mandate to purchase RINs on the spot market. [EPA-HQ-OAR-2015-0111-1724-A1 p.4]

### **Poet, LLC**

EPA states that it is proposing to base the 2014 RVOs on the “number of RINs supplied in 2014 that are *expected to be available* for use in complying with the standards.”<sup>92</sup> The NOPR further states that “Because 2014 has passed, the final rule cannot alter” 2014 volumes of renewable fuel.<sup>93</sup> However, EPA fails to recognize that the 2014 RVO can significantly impact RIN prices that can spur investment now, and the large volume of banked RINs. And certainly banked RINs are “available for use.” [EPA-HQ-OAR-2015-0111-2481-A1 p.22]

As noted above, banked RINs could readily accommodate an increase in the 2014 (and 2015) Base Renewable RVOs to offset exports that would not have occurred but for EPA failing to issue the RVOs on time. EPA increasing the Base Renewable RVOs so that banked RINs would be used to offset these exports would be consistent with its past precedent and applicable case law. Banked RINs also provide a compliance mechanism, in addition to E85/E15 and BBD volumes, so that EPA can confidently set the 2016 Base Renewable RVO at the statutory volume (15 billion gallons). [EPA-HQ-OAR-2015-0111-2481-A1 p.25]

### **Renewable Fuels Association (RFA)**

Because RINs represent physical gallons of renewable fuel that are, or were, part of the fuel supply, EPA’s proposal to ignore carryover RINs essentially treats some gallons of previously produced renewable fuel as if they don’t count, clearly undermining the intent of a program that was expressly designed to create a lasting growth market for renewable fuels. [EPA-HQ-OAR-2015-0111-1917-A1 p. 13]

EPA’s proposal to ignore carryover RINs in setting 2014-2016 RVOs contradicts the Agency’s treatment of carryover RINs in previous rulemaking and administrative actions. EPA’s exclusion of carryover RINs is even more confounding [EPA-HQ-OAR-2015-0111-1917-A1 p. 14]

Thus, RIN stocks must also be considered when determining whether the supply of renewable fuel is adequate to meet statutory requirements. The University of Illinois estimates that 1.435 billion D6 RINs were carried out of the 2013 compliance year and available for compliance with 2014 standards.<sup>28</sup> Therefore, when new D6 RINs generated in 2014 are combined with carryover RINs, the total supply of D6 RINs available for compliance with the 2014 RVO is at least 15.05 billion. This amount far exceeds the statutory RVO requirement of 14.4 billion gallons. [EPA-

<sup>28</sup> Paulson, N. '2015 1st Quarter RIN Update.' farmdoc daily (5):78, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, April 29, 2015.

### **Shell Oil Products US**

EPA correctly determined that it would not be appropriate to attempt to set the standards for 2014-2016 such that obligated parties would have to drain their banked RINs to maintain compliance. As EPA explained in the preamble, maintaining an adequate RIN bank provides important flexibility to maintain compliance in the event of unforeseen events. [EPA-HQ-OAR-2015-0111-2716-A2 p.5]

### **The Andersons, Inc.**

Because carryover RINs represent gallons of renewable fuel that are—or were—part of the total supply of renewable fuels, we strongly urge you to account for the availability of carryover RINs to assist obligated parties in meeting 2014-2016 obligations. [EPA-HQ-OAR-2015-0111-2509-A2 p.4]

### **Response:**

EPA appreciates the importance of carryover RINs to the RFS program. As the comments indicate, carryover RINs have played a crucial role in planning for and achieving compliance with RFS requirements, in enabling the RIN market to function in a liquid manner, in providing the statutory credit program function, in avoiding excessive market price swings, and in determining whether and to what extent statutory volume targets can be met. In considering whether and how to exercise our authority to reduce statutory volume targets for 2014-2016, we have weighed these various roles and sought to appropriately balance them in the context of the overall statutory goal of significantly increasing the amount of renewable fuels in the transportation fuel supply through increasing RFS volume requirements.

In determining whether and by how much to reduce the statutory volume targets for 2014-2016, we began our analysis by taking into account the further progress that can be made to overcome the E10 blendwall and increase the supplies of various types of renewable fuel to the vehicles (and other qualifying uses) that can make use of it. For the reasons explained in the final rule and in other sections of this RTC document, EPA has concluded that there is an inadequate domestic supply of renewable fuels to satisfy the statutory volume targets for total renewable fuel for 2014-2016, and that there are insufficient reasonably attainable volumes of advanced biofuel to satisfy the statutory advanced biofuel targets in this time period. Furthermore, in light of the uncertainties and challenges in setting and meeting the standards, as well as allowing for the benefits of carryover RINs that are mentioned above to continue to operate to facilitate program operation and compliance and to contribute towards avoiding the possibility of subsequent waivers, we have determined that it is prudent for EPA to set the volume requirements for 2014-2016 without the express intention or expectation of a drawdown in the current bank of carryover RINs. We have considered whether the statute requires that carryover RINs be considered part of the “supply” in the phrase “inadequate domestic supply” in CAA section 211(o)(7)(A) and have determined that the issue is ambiguous and that the goals of the program are best served by

interpreting the term “supply” to refer only to volumes of qualifying renewable fuel produced and used during the compliance year in question. As discussed in the final rule, after determining that there is an inadequate domestic supply, we then consider the availability of carryover RINs in deciding the extent to which we should use our discretionary authority to reduce the statutory volume targets based on a finding of inadequate domestic supply. In this instance, based on our evaluation of the current size of the bank of carryover RINs and the important program functions they serve, we have determined that a waiver of the total renewable fuel volume targets is appropriate, and that the extent of the waiver should not assume an intentional drawdown in the bank of carryover RINs.

Many renewable fuel producers asserted that the statute requires EPA to consider carryover RINs in determining whether there is an inadequate domestic supply. Commenters pointed to our action in establishing the 2013 RFS standards and urged us to count on carryover RINs to avoid the need to reduce statutory requirements for 2014-2016. According to these commenters, since obligated parties demonstrate compliance by acquiring RINs, if obligated parties have sufficient carryover RINs to bridge any gap between the statutory volumes and the amount of renewable fuels available for blending in a particular year, the domestic supply of renewable fuel is adequate for that year. Conversely, comments from obligated parties supported EPA’s proposal to not intentionally draw down the bank of carryover RINs and argued that preserving the carryover RIN bank was necessary to provide them with the necessary compliance flexibility to address unforeseen events such as operational problems, market dislocations, supply limitations, or fraudulent RINs.

As explained in Section II.H of the final rule, we believe it is appropriate for EPA to not intentionally draw down the current bank of carryover RINs in setting the 2014-16 annual volume requirements. The U.S. Court of Appeals for the D.C. Circuit affirmed that EPA has the discretion to determine whether the availability of carryover RINs should be considered in deciding whether and how to exercise the cellulosic waiver authority to reduce the statute’s volume requirements in its recent decision in *Monroe Energy v. EPA*, 750 F.3d 909 (D.C. Cir. 2014). The court upheld EPA’s decision not to waive the 2013 statutory advanced and total renewable fuel volume requirements based in part on the availability of abundant carryover RINs to address a scenario where increasing physical volumes of renewable fuels came up short. That decision illustrates that under appropriate circumstances in determining whether to exercise the cellulosic waiver authority, EPA may properly take into account the possibility that some amount of carryover RINs could be drawn down as a basis for deciding to maintain (or minimize the reduction in) statutory volume targets.

With respect to both waiver authorities in CAA sections 211(o)(7)(D)(i) and 211(o)(7)(A), we believe that carryover RINs should be considered in a manner that respects their role in providing compliance flexibility. Congress called for a credit system that helps facilitate compliance, including by allowing credits generated one year to be used for compliance the following year. This system, as implemented by RINs, gives obligated parties the option, but not the obligation, of generating excess RINs one year and selling them and/or carrying them over to the next year for use. It is up to obligated parties to decide how to achieve compliance -- whether to generate their own RINs by blending renewable fuel they or others produce; purchase RINs generated by others; or some combination of the two approaches. Interpreting the statute to require that available carryover RINs necessarily be used to meet otherwise unachievable

statutory standards could dissuade some obligated parties from acquiring them. The compliance flexibility afforded by carryover RINs is important to obligated parties and to the RFS program itself by allowing obligated parties to address unforeseen circumstances affecting the supply of renewable fuels and minimizing the need for waivers during the compliance year. Although we believe that the availability of carryover RINs is relevant to whether and how statutory waiver authorities should be exercised, we disagree that the statute compels EPA to require a drawdown in the bank of carryover RINs in considering when and by how much to reduce the statutory targets using our statutory waiver authorities.

Where circumstances make it appropriate to rely on carryover RINs to avoid or minimize reductions in statutory volumes, we intend to do so, as we did in setting the 2013 standards. Though this number could be considerably lower as a result of compliance actions not yet recorded, for 2014-2016, we project that as many as 1.74 billion carryover RINs will be available for compliance, down from the 2.6 billion carryover RINs available for meeting the 2013 standards. This is roughly 10 percent of the final 2016 total renewable fuel volume standard and just half of the 20 percent limit permitted by the regulations to be carried over for use in complying with the 2016 standards. Consistent with our past practice, we considered the availability of carryover RINs in making a determination about whether and how to reduce the 2014-2016 statutory volume requirements, and that assessment was properly done in view of the specific circumstances presented for 2014-2016. Considering all of the various relevant factors for 2014-2016, including the potential benefit to biofuel producers in drawing down the bank of carryover RINs, the role they play for obligated parties in managing compliance, the declining number of carryover RINs, the uncertainty in their balance due to delayed compliance with the 2013 and 2014 standards, the increased level of the 2016 standards, the significant uncertainties and challenges involved in setting and meeting the final standards, and the decreased likelihood of replenishing the collective bank of carryover RINs in the future due to the likelihood of increasingly challenging standards, we have concluded that we should not set the volume requirements for 2014-2016 in a manner that would be expected to require a drawdown in the collective bank of carryover RINs.

We also note that the availability of carryover RINs in one year is important to the availability of carryover RINs in subsequent years. To the extent obligated parties possess banked carryover RINs, they typically use them to achieve compliance in the current compliance year since carryover RINs expire at the end the year. By using carryover RINs, obligated parties have the opportunity to obtain and bank RINs generated by blending renewable fuel during the current compliance year as carryover RINs for the subsequent compliance year to address future compliance challenges and uncertainties. The importance of carryover RINs in 2014-2016 to the ability to bank carryover RINs for subsequent years was an important consideration in our decision to preserve available carryover RINs, given the likelihood of ongoing challenges in meeting the RFS standards.

We appreciate that it would be helpful to obligated parties if we foreclosed the possibility of ever again counting on carryover RINs to avoid or minimize the reduction of statutory standards. Leaving open that possibility leaves obligated parties with some uncertainty about their compliance options. However, EPA continues to believe that the statutory purpose of significantly increasing the volume of renewable fuels is best served by continuing to consider carryover RINs in deciding whether and how to exercise the statute's waiver authorities on a

year-by-year basis. As explained in Section II.H of the final rule and below, we believe the circumstances for 2014-2016 warrant setting the volume requirements without the express expectation or intention of drawing down the current bank of carryover RINs.

We also appreciate that it could be favorable to biofuel producers for us to count on carryover RINs as a basis for maintaining the statutory volume targets or minimizing the reduction in the statutory volume targets, since higher standards generally create higher demand for and/or higher prices for their products. If the standards cannot be achieved, then RIN prices may rise dramatically based on scarcity pricing, creating market turmoil that could operate to the short-term benefit of renewable fuel producers. At the same time, many biofuel producers have made significant investments in production capacity to meet the demand that the RFS standards help create. The concerns that many raised about the potential for the proposed standards to damage their businesses appear to be premised, however, on an assumption that renewable fuel production volumes would decline significantly. The final rule requires an increase in all of the four separate RFS standards from 2014 to 2016, requiring use of higher volumes than proposed. Thus, the RFS program will continue to place upward pressure on the production of renewable fuels. Furthermore, there is no evidence to support concerns that obligated parties would intentionally draw down current RIN bank levels in order to avoid the use of renewable fuel volumes to comply with the final standards. As evidenced by what happened in 2013 (discussed in section II.H.3.iv of the preamble), obligated parties as a whole appear to have relied on the collective bank of carryover RINs only after exhausting other options, which included using advanced biofuels in excess of the standard to comply with the total renewable fuel standard.

As discussed in section II.H of the final rule, the bank of carryover RINs is analogous to a typical bank account, in which it is commonly understood that a reserve fund should be maintained to cover unforeseen circumstances. The suggestion that the EPA should rely on carryover RINs to maintain statutory volumes for 2014-2016, effectively drawing down the bank of carryover RINs to zero, is shortsighted and could create havoc in the market based on the inability to comply in light of currently unforeseen events. If such currently unforeseen events occur without a bank of carryover RINs to operate as a program buffer, we could see RIN shortages and price spikes, potentially causing a need for an emergency waiver for even relatively small reductions in renewable fuel supply or increases in petroleum fuel demand. This would only create further program uncertainty for the investment needed for the program to grow. We believe that we should not set the volume requirements for 2014-2016 in a manner that would be expected to require a drawdown in the collective bank of carryover RINs given the level of the standards we are promulgating, the level of uncertainty in the market, and the desire to provide some market stability and assurance for further investment in renewable fuel production.

While the final volume requirements for advanced and total renewable fuels are lower than the statutory levels, the statute authorizes waivers and EPA has made a determination in this rulemaking that the statutory 2014-2016 volumes should be waived consistent with those authorities. We have made a fact-based determination of the level of supply that actually occurred in 2014, that is projected to occur in 2015, and that is the maximum reasonably achievable for 2016 and have set the total renewable fuel volume requirements on that basis. Similarly, we have set the advanced biofuel volume requirements to reflect actual volumes for 2014, projected volumes for 2015, and those that we believe will be reasonably attainable in 2016. Setting standards in this manner should result in a drawdown in the bank of carryover

RINs not being critical to achieving compliance. However, the projections on which the standards are based still involve unavoidable uncertainties, and the standards themselves require that renewable fuel volumes substantially increase. The extent to which that increase occurs depends in part on decisions and advances that need to be made by many market participants in addition to obligated parties. As a result, some risk remains that our projections are over-optimistic and that individual obligated parties will face challenges in complying with the standards. The bank of carryover RINs will be available for such eventualities.

Many commenters noted that if EPA counted on carryover RINs being drawn down as justification for maintaining the statutory volumes, the demand for and prices of RINs would increase and further incentivize the blending of physical renewable fuel gallons. They expressed concern that EPA had not appropriately considered the impact on the biofuel industry of reducing the statutory volumes and the impact on RIN prices from setting the volume requirements at levels which preserve the current bank of carryover RINs. One commenter also argued that the EPA was artificially suppressing RIN prices by not intentionally drawing down the bank of carryover RINs in setting the volume requirements. As noted previously, we appreciate the importance of maintaining or minimizing the reduction in the statutory volume targets to the biofuels industry and the role of the biofuels industry in achieving the statute's purpose of significantly increasing renewable fuel volumes. However, as explained in the final rule, the statute both sets ambitious targets for increasing renewable fuel volumes and provides EPA with waiver authority to reduce those standards in the event of specified circumstances, including inadequate domestic supply. The statute also provides for credits that can be earned in one compliance year and used in the next, which EPA implements by providing for a limited number of excess RINs to be carried over into the following compliance year, and calls on EPA to establish a workable RFS regulatory program. For the reasons explained in Section II.H of the final rule, we believe we took appropriate account of these statutory elements and the specific circumstances relevant to setting and meeting the 2014-2016 standards in concluding that it would be unwise to maintain statutory volumes or set standards that effectively require a significant drawdown of carryover RINs in this time period. We agree that RIN prices play an important role in incentivizing the renewable fuel development, production, distribution, and marketing needed to increase renewable fuel supplies. However, we disagree that the standards being set for 2014-2016 will artificially suppress RIN prices. Rather, an intentional significant drawdown of the carryover RIN bank would likely result in artificial RIN price inflation, something EPA is trying to avoid as even steep increases in RIN prices are not sufficient on their own to bring about needed changes in the time available for compliance. Many market actors are involved in making decisions needed to increase renewable fuel supplies, and even with upward pressure on RIN prices, it will take time for needed developments to occur. The final standards that we set for 2014 and 2015 cannot affect the delivery of renewable fuels for qualifying uses in the United States that occurred over the previous 23 months, and there is virtually no lead time available to impact renewable fuel use in the remaining one month in 2015. Thus, the standards being finalized in this action will only be able to impact renewable fuel supplies for 2016. In the meantime, we believe that the carryover RINs available for 2014-2016 should be preserved to provide market liquidity and to help meet compliance challenges and uncertainties in this time period and the future.

A few commenters objected to EPA's proposed rationale that carryover RINs should be preserved as a program "buffer." They also argued that this rationale could not be reconciled

with the statute's provision for carry-forward deficits, which they contended was the only mechanism Congress provided for a buffer. As discussed earlier, we have consistently considered the availability of carryover RINs in making waiver determinations, and we do so on a case-by-case basis taking into account all of the relevant facts before us.<sup>31</sup> Different circumstances can and do lead to different decisions about whether (and how much) to rely on a drawdown in the bank of carryover RINs when balancing the various objectives of the RFS program. Under the statutory provision for credits with a 12-month credit life and the regulations establishing carryover RINs, obligated parties have the option of obtaining and carrying over excess RINs or carrying forward a compliance deficit to the next compliance year. This makes it clear that carryover RINs are a key mechanism for providing compliance flexibility in addition to that provided by the ability to carry forward a deficit. "Buffer" is another way of conceptualizing the compliance flexibility that carryover RINs afford to address uncertainties and unforeseen circumstances and otherwise manage compliance efforts, as well as to avoid unnecessary RIN shortages or price spikes and provide liquidity to the RIN trading market.

We also note that in its initial RFS rulemaking, EPA capped the potential number of carryover RINs that can be used for compliance purposes to balance obligated parties' interest in using carryover RINs for compliance management with the interest of renewable fuel producers in greater certainty about the level of production that would be required in any given year to meet applicable standards. EPA decided that carryover RINs up to 20% of the compliance obligation could be used. The statute's provisions for waivers, bankable credits, and carry-forward deficits work together to allow the RFS program and its participants to respond to changing circumstance and challenges while continuing to grow renewable fuel volumes.

One commenter suggested that EPA should not allow any RINs to expire unused and that setting standards that result in the expiration of such RINs was arbitrary and capricious. We disagree that the standards we have set for 2014-2016 will result in the unnecessary expiration of unused RINs. As discussed in section II.H of the final rule, we believe that obligated parties place a high value on carryover RINs and will not allow them to simply expire. Instead, carryover RINs will effectively be "rolled over" by obligated parties using them for compliance before they expire, and then replenishing the bank of carryover RINs by purchasing excess current-year RINs.

One commenter suggested that EPA should use carryover RINs to offset the volume of biofuel that was exported during 2014 and 2015 when there were not RFS standards in place. We disagree. We do not believe it would be appropriate to require the use of carryover RINs to offset biofuel that was exported. The RFS standards are based on the amount of renewable fuel that was used (or is expected to be used) to replace fossil transportation fuels in the United States for any given year. There is nothing in the statute that compels EPA to require obligated parties to draw down their collective bank of carryover RINs to account for biofuel that was exported by domestic renewable fuel producers, and for all of the reasons discussed above and in the final rule, we do not believe that it would be prudent to do so.

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<sup>31</sup> For information on our decision on the 2008 waiver request, see <http://www2.epa.gov/renewable-fuel-standard-program/denial-state-texas-request-waiver-portion-renewable-fuel-standard>. For information on our decision on the 2012 waiver request, see <http://www2.epa.gov/renewable-fuel-standard-program/learn-more-about-denial-requests-waiver-renewable-fuel-standard>.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

Section 2.2: Statutory Authorities for Reducing Volumes to Address Biofuel Availability and the Ethanol Blendwall

Section 2.2.1: Cellulosic Waiver Authority

Section 2.2.2: General Waiver Authority

Section 2.2.2.1: Inadequate Domestic Supply

Section 2.2.2.2: Severe Economic Harm

Section 2.2.2.3: Severe Environmental Harm

Section 2.2.3: Combining Authorities for Reductions in Advanced Biofuel and Total Renewable Fuel

Section 2.2.4: Inability of the market to reach statutory volumes

Section 2.3.1: Congressional intent to increase volumes

Section 2.6.1: E10 blendwall and demand for gasoline

Section 2.6.2: Assumptions of Zero Volumes for E0 and E15

Section 2.7.1: Achievable volumes of E85 consumption

Section 6.2: Comments with Respect to Specific Standards

Section 7.3: Fuels Industry Impacts (oil refineries, biofuel facilities)

Section 7.4: Impact on RINs

Section 7.5: Retail Fuel Prices

Section 10.1: Outlook for 2017 and beyond

## **6.2 Comments on Treatment of Cellulosic Carryover RINs**

### **Comment:**

#### **AJW, Inc.**

As explained in more detail in Sec IV.D below, we believe that throughout 2016 it will be critical for both obligated parties and renewable fuel producers, to understand whether EPA intends to count surplus RINs generated in 2016 as being available for use in 2017 when they make cellulosic biofuel related pricing and investment decisions. As a result, in its final rulemaking in November 30, 2015, EPA should determine and report how it intends to treat

carryover D3/D7 RINs should they be generated in 2016. [EPA-HQ-OAR-2015-0111-2268-A1 p.8]

As described in the sections above:

- EPA is required to set new cellulosic biofuel volume obligations in a given year at a level equal to the projected volume available;
- EPA is also required to make projections of volume available using a neutral methodology that aims to match projected volume available to what the actual volume available will be;
- The actual volume available must include the volume available from prior year production, as represented by the volume of carryover D3/D7 RINs;
- EPA's methodology for projecting volume available will not be neutral unless it includes a projection of carryover D3/D7 RINs.[EPA-HQ-OAR-2015-0111-2268-A1 p.10]

It therefore follows that EPA has a statutory obligation to include a projection of carryover D3/D7 RINs in its general methodology for determining projected volume available. [EPA-HQ-OAR-2015-0111-2268-A1 p.10]

EPA should also relax its 20% limit on the use of D3/D7 carryover RINs in order to ensure that obligated parties are expressly allowed to use all available volume [EPA-HQ-OAR-2015-0111-2268-A1 p.12]

We recommend that EPA, in its final rulemaking for the 2016 RVO, amend the limit on the fraction of prior year cellulosic biofuel RINs that can be used to meet a given year's RVO. This fraction is currently set in §80.1427(a)(5) as the number "0.20". We would propose that this number be replaced by a factor "K", which should be the greater of:

- i. 0.20; or
- ii.  $2.0 * PCVi / PVAi$  [EPA-HQ-OAR-2015-0111-2268-A1 p.12-13]

Where  $PCVi$  is EPA's final projection of the volume available during year  $i$  from carryover RINs generated in year  $i-1$ ; and  $PVAi$  is EPA's final projection of the total volume available during year  $i$

We propose using the multiple of 2.0 in (ii) in order to give obligated parties reasonable compliance flexibility. If some obligated parties decide to meet their volume obligations entirely with current year RINs, then other obligated parties will be forced to use a fraction of carryover RINs greater than  $PCVi / PVAi$  to meet their RVO. [EPA-HQ-OAR-2015-0111-2268-A1 p.13]

A change such as this is necessary to ensure that both obligated parties and renewable fuel producers have appropriate certainty during 2016:

- that rules will not need to be amended in order for obligated parties to meet their 2017 volume obligations, even if there is large surplus production in 2016;
- that any surplus production in 2016 will be volume available in 2017; and

- whether and how many 2016 D3/D7 RINs obligated parties should consider acquiring in order to meet potential volume obligations during 2017. [EPA-HQ-OAR-2015-0111-2268-A1 p.13]

### **Clean Energy Renewables**

EPA must take into account any volumes expected to be produced and not used for compliance in the prior year (i.e. excess production in the prior year). EPA must also consider any actual or expected CWC purchases that lead to excess volume availability in the subject compliance year. If EPA does not have such consideration in its RVO setting methodology, the methodology will have a bias toward excess availability contrary to EPA obligations. Such a situation would undermine the objectives of the statute by putting adverse market pressure on the development of significant volumes of cellulosic biofuels. In order to create 'market certainty' for renewable fuel producers and obligated parties, we believe EPA must clarify that its methodology does and will include such considerations. [EPA-HQ-OAR-2015-0111-1908-A1 p.7]

We recommend EPA eliminate the 20% carry over limit prescribed in §80.1427 (a)(5) respecting cellulosic biofuels RVO compliance. Removal of this arbitrary market barrier will provide certainty to producers and investors that the RFS will not leave produced volume stranded. [EPA-HQ-OAR-2015-0111-1908-A1 p.7-8]

### **Coalition for Renewable Natural Gas**

RNGC anticipates RNG production will exceed the Proposed Rule's 2015 and 2016 cellulosic biofuel RVO. Production from cellulosic ethanol producers has the potential to drive supply even higher. The success of even one significantly sized project could increase cellulosic volume availability beyond EPA's current projections.<sup>22</sup> As a result, there is a very real potential for a sizeable market imbalance. [EPA-HQ-OAR-2015-0111-3278-A1 p. 8]

In the March 2010 RFS2 Final Rule, EPA instituted a 20% rollover cap to each obligated party's (OP's) use of prior year RINs for cellulosic biofuel RVO compliance.<sup>23</sup> According to EPA, "the rollover cap is the means through which we are implementing the limited credit lifetime provisions in section 211(o) of the CAA."<sup>24</sup> As such, we understand the need to maintain a cap to limit credit life to the subsequent year. We do however, question whether EPA gave appropriate consideration to the negative impact such a rule could have on cellulosic biofuel certainty. Unlike with other biofuels, obligated parties are protected from the risk of undersupply through the availability of CWCs, and cellulosic biofuel producers are protected from the risk of oversupply from the statutory requirement for the applicable volume to be set at the "projected available volume." Rollover limits on cellulosic biofuels are not "ensuring an annual demand for renewable fuels as envisioned by EISA;"<sup>25</sup> in fact the limits are contributing to additional market uncertainty by risking limits to applicable volumes where EISA called for no such limits (except the original statutory volumes). [EPA-HQ-OAR-2015-0111-3278-A1 p. 8-9]

As noted above, EPA must consider excess production as "volume available" in the following year. Consequently, EPA should anticipate the potential for carry overs into subsequent years and ensure there are protections in place to ensure an effective cellulosic biofuel RIN marketplace. It is contrary to statutory intent to have a situation where available volumes could

not be used for compliance, especially where that volume is under the statutory volumes.<sup>26</sup> Such risk reduces market certainty, and undermines investors' willingness to finance expansion of cellulosic biofuel production capacity. [EPA-HQ-OAR-2015-0111-3278-A1 p.9]

RNGC requests that EPA reevaluate the 20% rollover cap, considering the special case of cellulosic biofuels and the evolution of the category in recent years. EPA should target to use the rollover provision only to limit any rollover beyond one year. We recommend EPA consider increasing the 20% rollover cap to as high as 50%, thereby reducing constraints on the next year rollovers, or instituting a formula whereby the rollover cap may be adjusted above 20% in the event of volume available over the RVO but under the statutory limit. RNGC would welcome the opportunity to discuss this matter with EPA further. [EPA-HQ-OAR-2015-0111-3278-A1 p.9]

Because of the special CWC circumstances outlined below, we believe EPA should effect this change for the compliance years after 2016. Reduction of this constraint will provide greater certainty to producers and investors that the RFS will not leave produced volume stranded, will not undermine any protections for obligated parties in the event of under supply, and will further the objectives of EISA by ensuring there are no unnecessary barriers to demand for cellulosic biofuels. [EPA-HQ-OAR-2015-0111-3278-A1 p.9]

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<sup>22</sup> Successful performance by one single company, DuPont, could vault total cellulosic biofuel production by 18% of EPA's projected 2016 production.

<sup>23</sup> 40 CFR §80.1427 (a)(5).

<sup>24</sup> Federal Register / Vol. 75, No. 58 / Friday, March 26, 2010, at 14,738.

<sup>25</sup> Per EPA's justification for such limits in Federal Register / Vol. 75, No. 58 / Friday, March 26, 2010 / Rules and Regulations, at 14,735.

<sup>26</sup> 3.0 billion gallons in 2015; 4.25 billion gallons in 2016.

## **Response:**

With respect to the treatment of carryover RINs in the context of the cellulosic biofuel standard, commenters raised three issues: (1) that EPA should make clear that any available cellulosic carryover RINs will be added to EPA's projection of cellulosic biofuel production in the following year in establishing the cellulosic biofuel standard, (2) that EPA should also take into account the actual or expected CWC purchases that lead to excess volume availability in the subject compliance year, and (3) that the 20% carryover limit should be eliminated or upwardly adjusted for the cellulosic standard (commenter also suggested option of a formula for a cap rather than specific limit). These comments are all generally either irrelevant to the current rule, or beyond the scope of this rule, and where that is the case we are not providing a substantive response to them at this time. Where potentially relevant to the rulemaking, we do not find support in the current record for the suggested approach, as discussed below.

With respect to the first issue, we have determined that there is likely to be a very small number of cellulosic biofuel carryover RINs available for use in 2014 compliance.<sup>32</sup> In this action, as described in the final rule, we are setting the 2014 cellulosic biofuel volume requirement equal to the number of cellulosic biofuel RINs generated in 2014 that are available for compliance. Thus we have not added our estimate of the available cellulosic biofuel carryover RINs that can be used for 2014 compliance to derive the cellulosic biofuel volume requirement, as suggested by the commenter. However, the volume of carryover RINs is so small, that whether or not we were to do so would not impact the applicable cellulosic biofuel percentage standard for 2014. Furthermore, by basing the cellulosic biofuel volume requirements for 2014 and 2015 on actual supply (including a projection for the last month of 2015), we believe that there will be precisely the volume of current year RINs available for compliance, and that the insignificant bank of carryover RINs available for 2014 compliance will not grow for purposes of 2016 compliance. Therefore, we have determined this issue to be irrelevant for the present rulemaking, and are therefore deferring consideration of the matter. Our action today should not be interpreted as having resolved the issue. If available information suggests that there will likely be a substantial number of cellulosic biofuel carryover RINs generated in 2016 for use towards the 2017 standards, such that counting cellulosic carryover RINs as part of the projected volume of cellulosic biofuel production for purposes of CAA section 211(o)(7)(D) would make a difference in the resulting percentage standard, we will substantively evaluate this comment at that time.

With respect to the second issue, we believe it would be inappropriate to consider the “actual” use of CWCs in a prior year without also taking into consideration actual cellulosic biofuel production and use in that year; the resulting net would be reflected in the volume of cellulosic carryover RINs available for use in compliance in the next year. As noted above, there are an insignificant number of cellulosic carryover RINs available for 2014 compliance, so this matter is not relevant to the current rulemaking. We also anticipate that the number of cellulosic RINs generated in 2015 will be approximately equal to the cellulosic standard for 2015 in this final rule. We do not believe it would be appropriate to assume the purchase of cellulosic waiver credits in 2015 and increase the 2016 standard by a corresponding amount, as there is no basis for us to estimate expected CWC purchases, and because doing so would result in standards that exceed our projected cellulosic volumes for 2016, effectively ensuring that obligated parties would have to purchase cellulosic waiver credits in 2015 or 2016. Although the picture is not yet complete (since CWCs can only be purchased at the time of demonstrating compliance and the compliance deadlines for 2013-2016 have not yet occurred), available information on cellulosic RIN purchases in 2015 do not suggest cause for concern regarding use of CWCs at this time. We note that the commenter did not suggest a means by which EPA could predict the use of CWCs, and the very limited experience that the RFS program has to date regarding compliance with significant cellulosic standards does not provide a reasonable basis for EPA to derive an “expectation” of their future use. Thus, whether or not the commenter’s suggestion would be legally permissible (which we are not resolving today), beneficial to the overall RFS program, or practical to implement, we do not believe there is a valid basis for the approach suggested for purposes of this rulemaking. If in the future it appears that obligated parties in fact make a regular practice of avoiding purchases of cellulosic biofuels as the commenters fear by purchasing cellulosic waiver credits and advanced biofuel RINs instead, then we will consider at

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<sup>32</sup> “Estimating Carryover RINs Available for Use in 2014,” Dallas Burkholder, Office of Transportation and Air Quality, US EPA. November 2015. EPA Air Docket EPA-HQ-OAR-2015-0111.

that time the extent to which we have authority to take expected CWC use into account in setting the cellulosic biofuel requirements, as well as the merits and options for doing so, based on the need and conditions at the time.

With respect to the third issue, the 20% carryover limit was established in prior rulemakings and generally applies to all of the RFS standards. EPA did not raise this issue for comment in the NPRM, and we therefore consider comments suggesting that we change these regulations to be beyond the scope of this rulemaking. However, EPA will continue to monitor the manner in which obligated parties comply with the cellulosic biofuel standards, and may consider proposing changes in the future.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

- Section 2.3.1: Congressional intent to increase volumes
- Section 4: Proposed Cellulosic Biofuel Standards
- Section 4.1: General Comments on Cellulosic Biofuels
- Section 4.2: Cellulosic Biofuel Volume Assessment
- Section 4.2.1: Potential Domestic Producers
- Section 4.2.2: Potential Foreign Sources of Cellulosic Biofuel
- Section 4.3: Proposed Cellulosic Biofuel Volume
- Section 4.3.1: Proposed Cellulosic Biofuel Volume for 2014
- Section 4.3.2: Proposed Cellulosic Biofuel Volume for 2015
- Section 4.3.3: Proposed Cellulosic Biofuel Volume for 2016
- Section 6.1: General Comments on Treatment of Carryover RINs
- Section 10.6: Beyond the scope
- Section 10.6.2: RFS program designs
- Section 10.6.8: Cellulosic waiver credits

## **7. Economic Impacts of the Proposed Rule**

### **7.1 General Comments on Economic Impacts**

#### **Comment:**

#### **62nd Legislative District, Pennsylvania House of Representatives**

Concerns regarding whether the costs outweigh the benefits of the program

Even assuming the validity of its policy goals, the program's benefits must continue to outweigh the costs. In 2015's market of relatively low-priced fuel, the cost necessary to make renewable fuel sources competitive is even higher than it was ten years ago. Some of the costs of the program include the diversion of farmland and food production capability to fuel production, the costs of compliance for fuel producers, and reduced overall fuel economy with the different fuel blends.

Ideally, these concerns would spur Congress to re-examine the program wholesale, with an eye toward reviewing the cost versus benefit of the program and possibly reforming the program based on a decade of practical experience. Perhaps there are more cost-effective ways to meet these policy goals. [EPA-HQ-OAR-2015-0111-3462-A1 p. 1-2]

#### **Ace Ethanol/Fox River Valley Ethanol**

As the president in two ethanol businesses in Wisconsin, one in Stanley and one near Oshkosh, I have witnessed firsthand the positive impact these businesses have on our local economy. These businesses have also stimulated investments regionally and nationally. Investments in these businesses have led to the development of new and innovated processes that have resulted in saving consumers more money at the pump, reduced our dependency on foreign oil, gives us cleaner air and has created many good paying jobs in our rural communities. [EPA-HQ-OAR-2015-0111-1200-A2 p. 2]

EPA's proposed drastic cuts in the RVO amounts will have a devastating financial impact on rural economies as well as stopping further investments in ethanol businesses throughout the nation. [EPA-HQ-OAR-2015-0111-1200-A2 p. 2]

#### **Advanced Biofuels Association (ABFA)**

Already, U.S. businesses that rely on the commitment of the federal government under the RFS, have spent \$14.72 billion dollars in the last six years in pursuit of the policy goals of the law. According to Bloomberg, \$33 billion has been invested world-wide in this sector over the last four years. These numbers represent people and jobs all over America: jobs in rural America planting and cultivating the best new energy crops, jobs building and operating bio-refineries, technology and engineering jobs, and laboratory jobs researching new feedstocks and enzymes and many more. [EPA-HQ-OAR-2015-0111-2498-A1 p.3]

Whether intended or not, the RVO process has sent a chilling signal to financial markets everywhere about the continued desire of this Administration to support and grow an advanced and cellulosic biofuels industry in the U.S. This Administration has spent over half a billion dollars through the Department of Energy alone to develop the advanced biofuels industry. This

Proposed Rule is a move in the right direction and is a vast improvement over previous proposals. We look forward to continuing to working with the Agency as it moves forward to finalize this rule as quickly as possible. [EPA-HQ-OAR-2015-0111-2498-A1 p.3]

### **Advanced Economic Solutions (AES)**

The EPA proposal to reduce the renewable volume obligations (RVOs) below statutory levels during 2014-15 is warranted and appropriate. Without EPA's adjustments, the scheduled increase in the RVOs would result in higher gasoline and diesel fuel prices. Additionally, left unchanged the mandates would create further upward pressure on the primary feedstock used to produce the required biofuels – corn for ethanol and soy oil for biodiesel. [EPA-HQ-OAR-2015-0111-1193-A1 p.1]

**AL-Corn Clean Fuel; Badger State Ethanol; Big River Resources, LLC; Commonwealth Agri-Energy, LLC; Husker Ag LLC; Pacific Ethanol, Inc.**

**6. EPA must carefully examine the potential negative economic impacts of the proposed RVO reductions.** We believe EPA must be cognizant of the potential negative economic and environmental consequences of its actions. Unfortunately, the proposal is void of any analysis on the possible impacts of cutting the RFS on the agricultural economy, gasoline prices, greenhouse gas (GHG) emissions, investment in infrastructure, or investment in advanced and cellulosic biofuels. [EPA-HQ-OAR-2015-0111-3419-A1, p.3]

The direct benefits to corn farmers are not all the RFS provides. It has created nearly 400,000 direct and indirect jobs that cannot be outsourced; it displaces 10 percent of our gasoline; it helped reduce our dependence on foreign oil from over 60 percent a few years ago to 45 percent today; it improves our air quality, revitalizes our rural communities, and reduces federal farm program costs; and, most importantly, it provides savings for consumers at the pump—studies showing ethanol reduces gas prices by 29 to 40 cents per gallon. [EPA-HQ-OAR-2015-0111-3445-A1, p.1]

### **American Farm Bureau Federation (Farm Bureau)**

Renewable fuels have been a tremendous success story for the nation as a whole as well as to the rural economy. The RFS2 has reduced our country's dependence on foreign crude oil, reduced air pollution, increased farm incomes and provided good paying jobs in rural America. [EPA-HQ-OAR-2015-0111-2355-A1 p. 1] [EPA-HQ-OAR-2015-0111-1044 p. 169]

### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

EPA's Proposed Rule is arbitrary and capricious because it does not include an adequate assessment of the rule's expected costs and benefits. [EPA-HQ-OAR-2015-0111-1948-A1 p.56]

The Supreme Court recently held in *Michigan v. EPA*, No. 14-46, 2015 WL 2473453 (June 29, 2015), that EPA must conduct a cost-benefit analysis when regulating power-plant emissions under 42 U.S.C. § 7412. The Court based that holding on two considerations. *First*, the Court relied on statutory language indicating that EPA may not regulate power-plant emissions unless EPA finds that such regulation is "appropriate and necessary." *Id.* at \*4. This language, the Court held, "requires at least some attention" to a rule's expected costs and benefits. *Id.* at \*7. *Second*,

the Court concluded that agencies generally must consider a rule's costs and benefits [EPA-HQ-OAR-2015-0111-1948-A1 p.56]

### **Biotechnology Industry Organization**

In 2009, Bio Economic Research Associates (“bio-era”), in a report commissioned by BIO, modeled the expected U.S. economic impact of building an advanced biofuel industry from the ground up to meet the goals of the RFS.<sup>119</sup> Drawing on available pre-commercial bio-refinery engineering and design studies, bio-era estimated that more than \$95 billion in cumulative capital investments would be needed between 2009 and 2022 for construction of nearly 400 advanced biofuel bio-refineries with the capacity to produce 23 billion gallons of advanced biofuel. Figure 1 below shows bio-era's estimated annual and cumulative capital investments needed to maintain the production ramp up envisioned in the RFS. Added to the annual investment for construction costs are the annual operating costs for that new capacity. [EPA-HQ-OAR-2015-0111-1958-A2 p. 31]

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<sup>119</sup> Bio Economic Research Associates, U.S. Economic Impact of Advanced Biofuels Production: Perspectives to 2030 (Feb. 2009), available at <https://www.bio.org/sites/default/files/EconomicImpactAdvancedBiofuels.pdf>.

### **California Biodiesel Alliance (CBA)**

The biomass-based diesel program has arguably been one of the most successful parts of the RFS Program, yet it received a less than favorable ramp up. We have already seen what happens when there is a small biodiesel market—investment stops, plants close down, people lose jobs, and the lowest carbon fuels are affected first, and more dramatically. It is EPA's job to ensure that there is a growing market for advanced biofuels, including biomass-based diesel. And this growing market is crucial in order to meet the increasing carbon reduction goals of the LCFS. This RFS Proposal does not do that. [EPA-HQ-OAR-2015-0111-1910-A1, p.2]

### **Central Indiana Ethanol (CIE)**

#### **6. EPA must carefully examine the potential negative economic impacts of the proposed RVO reductions.**

Here in Indiana, corn farmers helped produce almost one billion gallons of ethanol last year. Ethanol is responsible for over 525 direct jobs, \$30 million in salary and benefits, and over 4,100 indirect jobs in our state. That represents \$3.6 billion in total economic activity and revenue for our state. The advent of American made Ethanol has been the single greatest rural economic driver since the depression. The EPA is about to shut the door on this economic driver. Your proposed rule will shrink rural tax bases, negatively impacting schools, hospitals, Fire Departments, and roads. Forcing land values and rents down will harm landowners, many of whom are elderly and living on fixed incomes. Rural America cannot afford another hit. We believe EPA must be cognizant of the potential negative economic and environmental consequences of its actions. Unfortunately, the proposal is void of any analysis on the possible impacts of cutting the RFS on the agricultural economy, gasoline prices, greenhouse gas (GHG) emissions, investment in infrastructure, or investment in advanced and cellulosic biofuels. [EPA-HQ-OAR-2015-0111-2821-A2 p.4-5]

## **Colorado Corn Growers Association**

The original intent of the RFS was to increase energy independence and invest in renewable energy that decreases greenhouse gas (GHG) emissions, while also spurring economic growth in the U.S. agricultural sector. The RFS has accomplished that and then some. Meanwhile, today's farmers are doing their part, ensuring adequate corn supplies are available for biofuels, food and other purposes, while also carrying over 1.5 to 2.5 billion bushels annually. [EPA-HQ-OAR-2015-0111-2334-A1 p.1]

## ***Commonwealth of Pennsylvania***

### *Concerns regarding whether the costs outweigh the benefits of the program*

Even assuming the validity of its policy goals, the program's benefits must continue to outweigh the costs. In 2015's market of relatively low-priced fuel, the cost necessary to make renewable fuel sources competitive is even higher than it was ten years ago. Some of the costs of the program include the diversion of farmland and food production capability to fuel production, the costs of compliance for fuel producers, and reduced overall fuel economy with the different fuel blends. [EPA-HQ-OAR-2015-0111-1933-A1 p.1]

Ideally, these concerns would spur Congress to re-examine the program wholesale, with an eye toward reviewing the cost versus benefit of the program and possibly reforming the program based on a decade of practical experience. Perhaps there are more cost-effective ways to meet these policy goals. [EPA-HQ-OAR-2015-0111-1933-A1 p.2]

## **Corn Producers Association of Texas (CPAT)**

While the oil and gas industry may play a prominent role in Texas' economy, ethanol and renewable fuels are duly important not only to the state's farmers, but to the Texas economy as a whole. The renewable fuel sector, including conventional and cellulosic ethanol, biodiesel and advanced biofuels and their suppliers, generates \$12.6 billion of total economic output in Texas annually. This sector also supports 53,871 jobs and generates \$2.9 billion in wages annually, contributing \$563.5 million in federal taxes. [EPA-HQ-OAR-2015-0111-2276-A2 p. 1]

## **Dakota Spirit AgEnergy**

Drastic cuts, such as those that EPA proposed, will have a devastating impact on agriculture and our rural economies. By taking a step backward, you are sending a signal that the government no longer supports the production of biofuels. This uncertainty, coupled with a dramatic cut in what should be produced, puts my job and my fellow colleagues' jobs at risk. [EPA-HQ-OAR-2015-0111-2057-A1 p.1]

The bottom line is that this proposal will have a devastating ripple effect on ethanol plants, their production and the jobs they support — as well as the surrounding communities. With less money, there is a smaller tax base — our schools, hospital and local municipal services will suffer. I could very well lose my job, and in a time of economic uncertainty, we need to capitalize on opportunities, such as biofuel production, to keep America and our rural economy strong. [EPA-HQ-OAR-2015-0111-2057-A1 p.2]

### **East Kansas Agri-Energy, LLC (EKAE)**

East Kansas Agri Energy have helped the local community grow and thrive — showing the nation and the world that rural America is booming and a leading area of innovation and investment in future energy technologies. This proposal has the potential to destabilize rural economies just as farmers are expecting a near-record corn crop. [EPA-HQ-OAR-2015-0111-2607-A2 p.2]

We must move forward, not backward when it comes to developing alternatives to fossil fuels and foreign oil. We all know that the RFS and biofuels have created jobs that cannot be outsourced, which have helped ensure a robust rural America. [EPA-HQ-OAR-2015-0111-2607-A2 p.2]

Additionally, renewable fuels are better for the air we breathe and for our environment — and they are making a difference by decreasing our dangerous dependence on foreign oil. [EPA-HQ-OAR-2015-0111-2607-A2 p.2]

Biofuels are better for our national security, energy security and they benefit the consumer by providing them a choice and savings at the pump. [EPA-HQ-OAR-2015-0111-2607-A2 p.2]

After years of success from the RFS, we must not move backward. We must capitalize on the current success and continue to invest in the future development and commercial scale production of next generation biofuels. A rule such as this would only halt any further innovation, investment and growth in what is already a successful and thriving industry that supports farmers, plant workers and entire rural communities. [EPA-HQ-OAR-2015-0111-2607-A2 p.3]

This approach, if adopted, would damage the RFS, lock this country into our reliance on oil, lead to even more windfall profits for the oil sector, cost consumers at the pump, halt the deployment of advanced biofuels, and increase greenhouse gas and toxic air emissions. If adopted, the proposal would yield severe economic consequences. [EPA-HQ-OAR-2015-0111-2607-A2 p.3]

### **Florida Chamber of Commerce**

Increasing the amount of ethanol to be blended in gasoline is irresponsible and increases costs to both consumers and the environment. [EPA-HQ-OAR-2015-0111-3425 p.1]

I urge that you retreat from increasing the amount of ethanol in gasoline and consider the costs to consumers, businesses and the environment if you do not. [EPA-HQ-OAR-2015-0111-3425 p.2]

### **Governor of Iowa, et al.**

Unfortunately, the Federal policy uncertainty and indecision has jeopardized the health of the economy in rural America. If the EPA's currently proposed rule becomes final, the negative impact would be disproportionately felt by rural America. The EPA's proposed rule and decision has already caused a ripple effect on agri-businesses, our communities, and the entire economy. Despite Big Oil's attempt to pollute the public discourse, corn prices are approximately \$3.50 per bushel, down significantly from the 2012 drought levels of \$8 per bushel. [EPA-HQ-OAR-2015-0111-1915-A1 p.2]

## **Governors' Biofuels Coalition**

The proposed rule will prevent the growth of low carbon transportation fuels in our nation, constrain a vital value-added path for bio-feedstocks, limit consumer choice at the pump, and undermine our shared interest in revitalizing the nation's rural economy. [EPA-HQ-OAR-2015-0111-2489-A1 p.1]

While the ethanol blending requirements for 2014 and 2015 are at actual production levels in the proposed rule, the volume required for 2016 is still much lower than the statutory volume set by Congress in 2009. [EPA-HQ-OAR-2015-0111-2489-A1 p.1]

EPA has set blending levels for 2016 above current levels, largely because of rising gasoline use predicted through 2016. According to EPA, the standards are "ambitious but within reach." However, a target that hovers barely above production is certainly not "ambitious" and stifles any notion by investors that the United States is a welcoming growth market for renewable fuels. Congress passed the RFS with the intent of – among other things – attracting significant investment to rural economies and diversifying our transportation fuel supply. So far, the RFS has done just that in Iowa, Missouri, and many other states. But the chilling effect of delays and policy uncertainty has already caused the industry to lose \$13.7 billion in investments, mostly in advanced biofuels.<sup>1</sup> The proposed rule will prevent further investments. [EPA-HQ-OAR-2015-0111-2489-A1 p.1]

The RFS has been a remarkable policy success for our states. It has reduced petroleum use, provided consumer choice, diversified fuels, reduced transportation emissions, invigorated rural economies, reduced economic vulnerability to global oil supply disruptions, and lowered fuel prices. [EPA-HQ-OAR-2015-0111-2489-A1 p.2]

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<sup>1</sup> "Estimating Chilled Investment for Advanced Biofuels Due to RFS Uncertainty," Bio-Economic Research Associates. U.S. Economic Impact of Advanced Biofuels Production: Perspectives to 2030. Washington, DC: bio-era, Feb. 2009

## **Greater Mankato Growth**

The Renewable Fuel Standard was created by Congress with the express purpose of developing an industry that would produce American-made renewable fuels, thus lessening our dependence on foreign sources of energy, and benefiting the rural economy and environment. The Renewable Fuel Standard has proven to be an effective driver of renewable fuels and economic development in our region. Every year it offsets millions of gallons of foreign oil imports, keeping investment and jobs here in South Central Minnesota and it provides consumers a choice at the gas pump for those who want a cheaper, cleaner burning fuel that supports rural economies. Further, many renewable fuels facilities in our region are on the cutting edge of increasing efficiencies and developing innovations in their production processes. As you work toward finalizing the proposed rule, we urge you to consider the importance of renewable fuel to the economy of our region and ensure that this important industry can continue to grow. [EPA-HQ-OAR-2015-0111-1312-A1 p. 1-2]

## **Growth Energy**

Both aspects of the RFS program—increasing production of renewable fuels and their consumption via transportation fuel—therefore depend on properly calibrated economic incentives. And those incentives derive from properly ambitious volume obligations, as Congress envisioned when it chose the statutory volumes. [EPA-HQ-OAR-2015-0111-2604-A2 p.5]

## **Highwater Ethanol, LLC**

This potential action on adopting the proposal could/can be very devastating to the Renewable Fuels industry. Even though the corn ethanol industry does not receive any subsidies for production we do look to the Federal Government to maintain the direction that was adopted eight years ago, when the Renewable Fuels Standard 2 was signed. If the Federal Government {EPA} changes this direction the cause and effect could be irreversible, banks would question the direction of the Government and any money that was available for Renewable Fuels production facilities would dry up. There needs to be certainty in the moves that the Federal Government {EPA} makes that allow Corn and Soybean Producers, investors, banks, renewable fuel producers and the vendors to all these businesses the opportunity to operate our businesses without worrying how or what the Federal Government may or may not do that can affect us. [EPA-HQ-OAR-2015-0111-2506-A2 p.1]

## **Illinois Department of Agriculture**

To date, the RFS program has played a pivotal role in reducing petroleum imports to the lowest level since the 1990s, lowering gas prices, improving air quality, and strengthening the economic health of rural America and Illinois specifically. [EPA-HQ-OAR-2015-0111-0260-A1 p.1]

## **Illinois Farm Bureau**

Renewable fuel policy has boosted the rural economy and the nation. The RFS2 has reduced our country's dependence on foreign crude oil, reduced greenhouse gas emissions, increased farm incomes and provided a source of good paying jobs in rural America.[EPA-HQ-OAR-2015-0111-3290-A2 p.1]

## **Imperium Renewables and Renewable Biofuels**

The earlier proposal to hold BBD volumes at 1.28 billion gallons through 2015, and to reduce dramatically the AB volumes from the statutorily mandated volumes, was interpreted by the market as a retreat from the Administration's prior strong support and aggressive annual increases in the required volumes for these biofuels. [EPA-HQ-OAR-2015-0111-2043-A1 p.1]

Unfortunately, that perceived signal, combined with the failure of the Congress to provide a predictable tax credit, resulted in a significant pullback on the part of investors, and in a number of both small and larger production facilities being idled or permanently shuttered. Surviving domestic producers also faced one of the most difficult business years, seeing the tightest profit margins in years and a significant drain on capital available to weather future crises. [EPA-HQ-OAR-2015-0111-2043-A1 p.1]

Many planned investments for increases in capacity, for process improvements and technology to handle more a more diverse range of feedstocks, and in the next generation of biofuels, were all put on hold pending a more encouraging signal that could instill confidence in investors that the program and the required volumetric obligations will continue to grow. Our companies are no exception to these impacts — we have each deferred important investments until there is more certainty regarding governmental policies that will facilitate further advances in our industry. [EPA-HQ-OAR-2015-0111-2043-A1 p.1]

### **Independent Fuel Terminal Operators Association (IFTOA)**

In 2016, the proposed mandates would breach the blendwall causing refiners and importers to undertake some undesirable operational choices to reduce their compliance obligations: they could (i) reduce refinery runs and/or imports, thereby creating a shortage of transportation fuels, or (ii) export more fuel. These options introduce uncertainty and additional costs to the market, and ultimately to the consumer. [EPA-HQ-OAR-2015-0111-1947-A1 p. 2]

EPA may believe it should set future mandates at high levels so as to compel the market to make dramatic changes, but such changes are also likely to cause great economic harm to consumers and the economy. The potential for these adverse effects must be taken into consideration by the Agency. While it may be appropriate for EPA to establish the mandates at levels that encourage somewhat greater production and use of renewable fuels than the market would achieve in the absence of such mandates, there is nothing that compels EPA -- when exercising its waiver authority -- to establish aspirational or ambitious mandates. [EPA-HQ-OAR-2015-0111-1947-A1 p. 3]

### **II. E85**

EPA has said that it wants future mandates to drive the market to make significant changes by expanding infrastructure and modifying fuel prices to provide incentives for the production and use of renewable fuels. In particular, EPA seems to be assuming that efforts to increase the use of ethanol beyond the blendwall will be primarily a function of the volume of E85 that is consumed. [EPA-HQ-OAR-2015-0111-1947-A1 p. 3]

EPA explains in the final rule that if it proposes high volume mandates, RIN prices are likely to be higher than historical levels, and such RIN price increases are expected to help promote growth in renewable fuel supply. In addition, EPA explains that high RIN prices can provide the potential for reductions in the retail selling price of E85 and E15 if distributors, blenders, and retailers pass the value of those RINs on to end users. [EPA-HQ-OAR-2015-0111-1947-A1 p. 3]

Indeed, if faced with ambitious mandates, industry will likely be forced to make some of the infrastructure investments and price modifications that EPA has suggested, thereby allowing parties to meet their obligations under the RFS Program. However, those market changes come with a cost. On the one hand, these investments and price reductions for E85 may help some consumers overcome their objections to using that product – lower energy content, less efficiency, and greater cost. On the other hand, and more significantly, if industry reduces the price of E85 to meet the mandates, it will be forced to recover those costs on sales of E10 – the primary fuel used by most consumers. It is not at all clear how much this “cross-subsidization”

would cost and what impact it would have on the national economy. [EPA-HQ-OAR-2015-0111-1947-A1 p. 3-4]

It appears that under this approach to establish ambitious standards, EPA has analyzed only one portion of the transportation pool – E85 – and has ignored the impact on the larger portion – E10. In addition, this analysis is based on the notion that renewable fuels, on an energy-equivalent basis, will cost less than the petroleum-based fuels they are replacing. However, the price of renewable fuels is affected by many factors such as the price of corn, which, in turn, is impacted by weather. Thus, if renewable fuels cost more on an energy-equivalent basis than the petroleum fuels they displace, there is a cost to using these renewable fuels. The higher the required volume of these fuels, the higher this cost will be. [EPA-HQ-OAR-2015-0111-1947-A1 p. 4]

Recommendation: EPA should take a broader view and analyze the full impact of its proposed actions on consumers and the economy. It should not establish the 2016 and future mandates by focusing primarily on increasing the production and use of renewable fuels. [EPA-HQ-OAR-2015-0111-1947-A1 p. 4]

The proposed mandates for the near-term, 2014 and 2015, correctly and reasonably balance the interests of consumers and the renewable fuel industry. However, going forward with the mandates for 2016 and beyond, it is essential that EPA continue to employ a neutral, balanced approach. Ambitious future RFS mandates will only harm consumers and the economy. [EPA-HQ-OAR-2015-0111-1947-A1 p. 9]

### **Indiana Farm Bureau**

Renewable fuels have been a tremendous success story for the nation as a whole and have especially been vital to the well-being of Hoosier farmers and their rural communities. For example, there are currently 14 ethanol refiners producing 998 million gallons of ethanol in Indiana, making it the 7th largest state for ethanol production. The ethanol industry contribution to Indiana's gross state product last year was \$934 million. [EPA-HQ-OAR-2015-0111-2486-A1 p.1]

In addition to jobs and taxes, the ethanol sector and its growth have been critical to Hoosier farmers and local businesses. In 2012, 276 million bushels of corn grown in Indiana was dry milled for use in ethanol production. That is 46% of all corn produced in Indiana, representing tremendous opportunity for farm incomes that are typically reinvested in the local economy and support local jobs because of the types of products and services purchase to reinvest in their farms. [EPA-HQ-OAR-2015-0111-2486-A1 p.2]

While there have been many local benefits in Indiana due to a strong standard, there are many national and global benefits resulting from the RFS2. The RFS2 has also reduced our country's dependence on foreign crude oil, reduced air pollution, increased farm incomes and provided good paying jobs in rural America. [EPA-HQ-OAR-2015-0111-2486-A1 p.2]

Another key concern of the Indiana Farm Bureau is what the future might hold. This proposal would halt new investments in cellulosic biofuels and introduce detrimental ambiguity in a market that is still developing. Indiana Farm Bureau strongly urges EPA to stay the course with the RFS2 as defined in the 2007 EISA. Without question, this decision, if finalized, will have

tremendous consequences for the agricultural sector, for our nation's energy policy and for the intended regulatory framework and goals of the RFS2. The commitment to advanced biofuels is critical in order to achieve the 36 billion gallon goal of renewable fuel sold in the marketplace by 2022. Indiana Farm Bureau remains optimistic that the advanced biofuel provisions can succeed in diversifying the RFS2. From 2007 through the second quarter of 2011, over \$2.4 billion was invested in advanced biofuel companies by venture capitalists alone. It is important that these investments from the private sector be fully implemented and that incentives for continued research and development remain fully in place. Past R&D work in the sector has resulted in increasing product yields with lower input costs. The goals set forth by the RFS2 have been and remain an important catalyst for this type of cutting edge work; and it is important to the long-term health of both the economy and the environment that this work continues. [EPA-HQ-OAR-2015-0111-2486-A1 p.2-3]

As a national leader, Indiana has invested heavily in monetary and human capital terms over the past few years in this sector that is so vital to our economy, energy security, and environment. If the proposed rule is allowed to be finalized as is, Indiana's ethanol industry and our farmers and their communities will be dealt a major blow at a time when margins are very tight and the future uncertain. [EPA-HQ-OAR-2015-0111-2486-A1 p.4]

#### **Iowa Biodiesel Board (IBB) and Iowa Soybean Association (ISA)**

The actions of the EPA also impact the federal ag budget and policy. If the 40,000 soybean farmers in Iowa, including me, can realize higher soybean prices due to the increased demand of feedstuffs and biodiesel, the USDA could save billions of dollars that would otherwise be paid out in farm programs. Current soybean prices are below the cost of production for many farmers. Without demand growth, many farmers will face tightening financial situations, stressing many ag-related business and communities as well as the nation's farm safety net. If target volumes for biodiesel are increased in the RFS, soybean prices could stabilize above break-even and save on subsidies. [EPA-HQ-OAR-2015-0111-1942-A1 p. 2] [EPA-HQ-OAR-2015-0111-1043, p. 45]

#### **Iowa Corn Growers Association (ICGA)**

#### **5. EPA proposed RVO reductions will have negative impacts. [EPA-HQ-OAR-2015-0111-1820-A1 p. 5]**

This proposal does not include analysis on the possible impacts of cutting the RFS on the agricultural economy, gasoline prices, greenhouse gas (GHG) emissions, or investment in infrastructure. If the rule is finalized as is, it could have very real and negative impacts. [EPA-HQ-OAR-2015-0111-1820-A1 p. 5]

#### **Iowa Farm Bureau Federation (IFBF)**

Beyond the positives for agriculture, the RFS2 has been a broader success for the United State. The expansion of the biofuels industry has improved air quality, reduced tailpipe emissions, reduced prices at the pump, and has decreased U.S. dependence on the volatile foreign oil market. Additionally, the RFS2 has benefited rural communities in Iowa and across the country. Ethanol plants across Iowa are located in rural communities — providing much needed, good paying jobs which are essential to revitalizing these rural economies. [EPA-HQ-OAR-2015-0111-1717-A1 p. 2]

## Iowa Renewable Fuels Association

The last 18 months have seen a dramatic downturn in the health and outlook of rural America. The Midwest went through an absolutely brutal economic period during the 1980s, commonly referred to as “The Farm Crisis.” Yet many people don’t realize that while the Midwest economy stabilized in the 1990s, it still was not good – it was just no longer getting worse. Most of the Midwest missed out on the economic prosperity of the 1990s. In fact, it wasn’t until about 2006 that the Midwest saw strong economic growth fueled by the resurgence of the rural/farm sector. What makes the 2006 through 2013 rural economic revival even more remarkable is it occurred during what many called “The Great Recession” for the rest of the country. [EPA-HQ-OAR-2015-0111-1957-A2 p. 2]

But today, the future is much less bright in rural America, and the turning point can – with certainty and exactness – be traced to the (leaked and then official) unveiling in late 2013 of the proposed rule for 2014 RFS volume levels. Since that time, corn prices have plummeted below the marginal cost of production,<sup>6</sup> land values<sup>7</sup> have fallen 15 percent,<sup>8</sup> farm income is projected to drop by 23 percent,<sup>9</sup> agribusinesses<sup>10</sup> have laid off workers<sup>11</sup> by the thousands,<sup>12</sup> biodiesel plants have shut down,<sup>13</sup> and tax revenue generated in Midwest states for both state and federal governments has dropped.<sup>14</sup> All in all, it’s not a pretty picture, and it’s one that could have been easily avoided – and still can be avoided in the future with a restoration of the RFS levels as enacted by Congress. [EPA-HQ-OAR-2015-0111-1957-A2 p. 2-3]

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<sup>6</sup> Plastina, Alejandro. “Estimated Costs of Crop Production in Iowa – 2015.” *Ag Decision Maker: Iowa State University Extension*. Jan 2015 <http://www.extension.iastate.edu/agdm/crops/html/a1-20.html>

<sup>7</sup> Aschbrenner, Joel. “Iowa farmland prices see biggest drop in 28 years.” *The Des Moines Register*. 18 Dec 2014 <http://www.desmoinesregister.com/story/money/agriculture/2014/12/18/iowa-farmland-prices-fall-iowa-state-university/20611703/>

<sup>8</sup> Eller, Donnelle. “Iowa farmland values drop 15 percent over two years.” *The Des Moines Register*. 31 Mar 2015 <http://www.desmoinesregister.com/story/money/agriculture/2015/03/31/iowa-farmland-values/70725978/>

<sup>9</sup> U.S. Department of Agriculture. “Farm Business Net Cash Income Forecast to Decline in 2015.” *Economic Research Service*. 10 Feb 2015 <http://www.ers.usda.gov/topics/farm-economy/farm-sector-income-finances/farm-business-income.aspx>

<sup>10</sup> Ford, George. “Deere & Company laying off more than 550 in Waterloo.” *The Gazette*. 23 Jan 2015 <http://thegazette.com/subject/news/business/deere-company-announces-layoffs-more-than-550-coming-in-waterloo-20150123>

<sup>11</sup> Patane, Matthew. “John Deere unlikely to be the last, economists say.” *The Des Moines Register*. 23 Jan 2015 <http://www.desmoinesregister.com/story/money/agriculture/2015/01/23/john-deere-iowa-layoffs/22210349/>

<sup>12</sup> Ford, George. “Kinze Manufacturing lays off 215.” *The Gazette*. 24 Jun 2015 <http://www.kcrg.com/subject/news/business/kinze-manufacturing-lays-off-215-20150624>

<sup>13</sup> Barton, Thomas. “Biodiesel powers down.” *Dubuque Telegraph Herald*. 15 Mar 2015 [http://www.thonline.com/news/business/article\\_c3e9f32f-f814-55f0-94f1-979cd2ed72ac.html](http://www.thonline.com/news/business/article_c3e9f32f-f814-55f0-94f1-979cd2ed72ac.html)

<sup>14</sup> Tax revenue

## Iowa Soybean Association

If EPAs proposed rule stands, consumers in Iowa and American will have limited choices at the pump. We have proven in Iowa that when consumers have choices, they choose biofuels. Total B100 (100% biodiesel) sales in Iowa have grown from 7.4 million gallons in 2010 to 33.3

million gallons in 2014, with biodiesel blends accounting for nearly 10 percent of diesel sold. Preventing choice, as the arguments of the oil companies encourage, raises fuel prices while denying the public the air quality benefits of biofuels. Current market price for soybeans is close to the cost of production, creating financial stress for our farmers. Increasing the target volumes for biodiesel within the RFS would stabilize soybean prices above breakeven. [EPA-HQ-OAR-2015-0111-3424 p.2]

### **Kansas Corn Growers Association**

The RFS provides market access for ethanol to enter a fuel system that is largely dominated by oil companies. In return, ethanol use is decreasing GHG emissions, decreasing our country's dependence on foreign oil, providing domestic jobs and improving rural economies. These are things EPA should support, not undermine. [EPA-HQ-OAR-2015-0111-3172-A1 p. 1]

### **Kansas Farm Bureau**

Renewable fuels are a tremendous success story, not only for the nation but also for rural communities. The RFS2 has reduced our country's dependence on foreign crude oil, reduced air pollution, increased farm incomes and provided good paying jobs in rural America. Since the RFS2 was put in place in 2007, the U.S. has seen tremendous growth within the agricultural sector. If the Proposed Rule requirements are finalized, this decision will stall growth and progress in renewable fuels as well as the broader agricultural economy. [EPA-HQ-OAR-2015-0111-1195-A1 p.1]

### **Kansas Soybean Association**

Biodiesel has contributed to increased domestic energy production while also delivering significant greenhouse gas emissions reductions and creating jobs and boosting the farm and rural economy. [EPA-HQ-OAR-2015-0111-2340 p.2]

### **Kentucky Beverage Association**

The EPA recently proposed lowering the amount of ethanol in gasoline below limits set in the law, but the proposal still artificially increases the prices of corn and other biofuel materials that should be used in food products. The effect is increased prices for producers and consumers on every day products. [EPA-HQ-OAR-2015-0111-2356 p.1]

American consumers are going to continue paying the cost for the impacts of the broken RFS. According to the Congressional Budget Office's RFS report in June 2014, complying with higher ethanol volume standards will cause ripple effects on taxpayer wallets through price premiums and subsidies that would falsely encourage the sale of higher ethanol-blended fuel, such as E85. EPA policies should not result in the mandate of more expensive, less efficient sources of energy that increase the cost of everyday grocery items. As such, the EPA should lower the ethanol levels in their final ruling to minimize the policy's financial burden on American consumers. [EPA-HQ-OAR-2015-0111-2356 p.2]

### **Little Sioux Corn Processors**

When the RFS was passed in 2005 and its revision put into law in 2007, it was touted as a way to energy independence and a path to reduce oil imports. We came under attack by our adversaries and were accused of stealing food from babies. We were accused of raising the price of food to consumers. All were proven false. Today we have corn prices delivered Iowa at 3.60 per bushel or less. We have more corn worldwide than we need. I humbly submit corn prices do not fall or go up because of ethanol. Prices move because the market determines the price, not the ethanol industry or any other industry for that matter. [EPA-HQ-OAR-2015-0111-1664-A1]

The EPA has a decision to make on the RFS. It can side with the Oil industry and its inherent 90% mandate by capping the required ethanol inclusion in our gasoline supply at 10% or it can stand up for American jobs, farmers, and clean energy innovation. With this cap, innovation and investment in our industry will die and the dramatic strides our industry has made in efficiency will skid to a halt. There has been a tremendous amount of capital invested in transportation services, technical expertise, and other support industries. Thousands of jobs are at risk and the perceived level of certainty of the law is lost if the EPA continues its present course. The law was designed to push the barrier. It was not designed to be comfortable for the obligated party. It was designed to allow market access and give the obligated party a mechanism to control their fate in the marketplace. Every gallon of ethanol produced in the United States has a RIN attached to it. The RIN is free, the marketplace creates a value for the RIN but blending over the 10% level does not push RIN values higher, the market does and I humbly submit doesn't make gas prices move higher. [EPA-HQ-OAR-2015-0111-1664-A1] [EPA-HQ-OAR-2015-0111-1044 pp. 321-322]

### **MARC-IV Consulting**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 44.]

And our economic forecasting, our economic modeling actually details the fact that where you set the D4 RVO does impact expenditures at the Federal level, and specifically, a higher level would result in lower costs.

### **Mascoma LLC, Lallemand Inc.**

We are at a crossroads and Lallemand and Mascoma's future investment in developing technologies for second generation biofuels will end if this market cannot move forward. As it stands, this proposal discourages us from investing further in the technologies needed to make second generation biofuels a commercial reality. [EPA-HQ-OAR-2015-0111-0263-A1 p.1] [EPA-HQ-OAR-2015-1044 p. 295]

### **Mass Comment Campaign sponsored by anonymous 10 (email) - (297)**

Drastic cuts, such as those that EPA proposed, will have a devastating impact on agriculture and our rural economies, as well as investments in ethanol plants throughout the nation. By taking a step backward, you are sending a signal that the government no longer supports the production of biofuels. This uncertainty, coupled with a dramatic cut in what should be produced, puts the

future of investment, growth and innovation of renewable fuels at risk. [EPA-HQ-OAR-2015-0111-0213-A1 p.1]

With this flawed proposal, EPA is fundamentally changing how the RFS works by putting the burden of fuel distribution on biofuel producers rather than branded oil, which controls more than 50 percent of the convenience stores in this country through branding agreements and ownership. [EPA-HQ-OAR-2015-0111-0213-A1 p.1]

The bottom line is that this proposal will have a devastating ripple effect on investment in ethanol plants, their production and the jobs they support, as well as the surrounding communities. With less money, there is a smaller tax base – our schools, hospital and local municipal services will suffer. During a time of economic uncertainty we need to capitalize on opportunities, such as biofuel production, to spur investment and innovation that will keep America and our rural economy strong. [EPA-HQ-OAR-2015-0111-0213-A1 p.2]

**Mass Comment Campaign sponsored by anonymous 11 (email) - (695)**

We must move forward, not backward, when it comes to developing alternatives to fossil fuels and foreign oil. We all know that the RFS and biofuels have created jobs that cannot be outsourced, which have helped revitalize rural America. [EPA-HQ-OAR-2015-0111-0214-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 12 (email) - (560)**

Drastic cuts, such as those that EPA proposed, will have a devastating impact on agriculture and our rural economies. By taking a step backward, you are sending a signal that the government no longer supports the production of biofuels. This uncertainty, coupled with a dramatic cut in what should be produced, puts my job and my fellow co-workers' jobs at risk. [EPA-HQ-OAR-2015-0111-0215-A1 p.1]

With this flawed proposal, EPA is fundamentally changing how the RFS works by putting the burden of fuel distribution on biofuel producers rather than branded oil, which controls more than 50 percent of the convenience stores in this country through branding agreements and ownership. [EPA-HQ-OAR-2015-0111-0215-A1 p.1]

The bottom line is that this proposal will have a devastating ripple effect on ethanol plants, their production and the jobs they support – as well as the surrounding communities. With less money, there is a smaller tax base – our schools, hospital and local municipal services will suffer. [EPA-HQ-OAR-2015-0111-0215-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 15 (email) - (2485)**

Ethanol production accounts for nearly 400,000 American jobs, saves consumers money at the pump and reduces our dangerous dependence on foreign oil. [EPA-HQ-OAR-2015-0111-0217-A1 p.1]

We must move forward, not backward, when it comes to developing alternatives to fossil fuels and foreign oil. We all know that the RFS and biofuels have created jobs that cannot be outsourced, which have helped revitalize rural America. Additionally, renewable fuels are better

for the air we breathe and for our environment – and they are making a difference by decreasing our dangerous dependence on foreign oil. Biofuels are better for our national security, energy security and they benefit consumers like me by providing a choice and savings at the pump. [EPA-HQ-OAR-2015-0111-0217-A1 p.1]

After years of success from the RFS, we must not move backward. We must capitalize on the current success and continue to invest in the future development and commercial scale production of next generation biofuels. A rule such as this would halt any further innovation, investment and growth in what is already a successful and thriving industry that supports Americans. [EPA-HQ-OAR-2015-0111-0217-A1 p.2]

**Mass Comment Campaign sponsored by anonymous 30 (email) - (26)**

The RFS has improved the economic well-being of the nation.

- Ethanol production accounts for nearly 400,000 American jobs, saves consumers money at the pump and reduces our dangerous dependence on foreign oil. [EPA-HQ-OAR-2015-0111-2560-A1 p.1]

We must move forward, not backward, when it comes to developing alternatives to fossil fuels and foreign oil. We all know that the RFS and biofuels have created jobs that cannot be outsourced, which have helped revitalize rural America. Additionally, renewable fuels are better for the air we breathe and for our environment — and they are making a difference by decreasing our dangerous dependence on foreign oil. Biofuels are better for our national security, energy security and they benefit consumers like me by providing a choice and savings at the pump. [EPA-HQ-OAR-2015-0111-2560-A1 p.1-2]

After years of success in expanding the ethanol industry because of the RFS, we must not move backward. We must capitalize on the current momentum and continue to invest in the future development and commercial scale production of next generation biofuels. A rule such as this would slow any further innovation, investment and growth in a successful and thriving industry that supports Americans. [EPA-HQ-OAR-2015-0111-2560-A1 p.2]

The RFS has made America stronger. We cannot afford to turn our backs on such a successful policy. [EPA-HQ-OAR-2015-0111-2560-A1 p.2]

Supporting the RFS is critical for America and for the future of our nation. I would ask that you return the RFS to a program based on supply of renewable fuel and ambitious goals to reduce our dangerous dependence on foreign oil and not let the program be held captive by the oil industry and its unwillingness to allow higher ethanol blends into the marketplace. [EPA-HQ-OAR-2015-0111-2560-A1 p.2]

**Mass Comment Campaign sponsored by anonymous 31 (paper) - (301)**

We must move forward, not backward, when it comes to developing alternatives to fossil fuels and foreign oil. We all know that the RFS and biofuels have created jobs that cannot be outsourced, which have helped revitalize rural America. Additionally, renewable fuels are better for the air we breathe and for our environment — and they are making a difference by decreasing our dangerous dependence on foreign oil. Biofuels are better for our national security and energy

security, and they benefit consumers by providing them with a choice and savings at the pump. [EPA-HQ-OAR-2015-0111-2561-A1 p.1]

The RFS has made America stronger. Our rural towns are thriving and our children are moving back to where they were raised to carry on the legacy of the family farm. They are also finding other great opportunities back home within this industry. We cannot afford to turn our backs on such a successful policy by turning away from the congressionally established levels called for by the RFS. [EPA-HQ-OAR-2015-0111-2561-A1 p.2]

#### **Mass Comment Campaign sponsored by anonymous 33 (paper) - (164)**

The RFS has improved the economic well-being of the nation. Ethanol production accounts for nearly 400,000 American jobs, saves consumers money at the pump and reduces our dangerous dependence on foreign oil. I have witnessed firsthand the positive impact it has had on my local economy and how it stimulates investment from domestic and international sources. My investments have helped my local community grow and thrive, showing the nation and the world that rural America is booming and a leading area of innovation and investment in future energy technologies. [EPA-HQ-OAR-2015-0111-2957-A1 p.1]

We must move forward, not backward, when it comes to developing alternatives to fossil fuels and foreign oil. We all know that the RFS and biofuels have created jobs that cannot be outsourced, which have helped revitalize rural America. Additionally, renewable fuels are better for the air we breathe and for our environment — and they are making a difference by decreasing our dangerous dependence on foreign oil. Biofuels are better for our national security, energy security and they benefit consumers like me by providing a choice and savings at the pump. [EPA-HQ-OAR-2015-0111-2957-A1 p.1]

After years of success from the RFS, we must not move backward. We must capitalize on the momentum and continue to invest in the future development and commercial scale production of next generation biofuels. A rule such as this would halt any further innovation, investment and growth in what is already a successful and thriving industry that supports Americans. [EPA-HQ-OAR-2015-0111-2957-A1 p.1]

Supporting the RFS is critical for America and for the future of our nation. I would ask that you return the RFS to a program based on supply of renewable fuel and ambitious goals to reduce our dangerous dependence on foreign oil and not let the program be held captive by the oil industry and its unwillingness to allow higher ethanol blends into the marketplace. I thank you for your consideration. [EPA-HQ-OAR-2015-0111-2957-A1 p.2]

#### **Mass Comment Campaign sponsored by anonymous 9 (email) - (230)**

Ethanol production accounts for nearly 400,000 American jobs, saves consumers money at the pump and reduces our dangerous dependence on foreign oil. [EPA-HQ-OAR-2015-0111-0212-A1 p.1]

These drastic proposed cuts will almost certainly idle ethanol production and cause lost jobs in many rural areas of the country – all to benefit some of the world’s largest oil companies.[EPA-HQ-OAR-2015-0111-0212-A1 p.1]

### **Mass Comment Campaign sponsored by Corn, LP (web) - (37)**

**The RFS is working for the economy.** In response to the RFS becoming law, the ethanol industry invested billions of dollars in building production facilities, expanding infrastructure, and improving technology. In addition, the RFS has spurred innovation, with four cellulosic ethanol plants in production or currently under construction — three of which are located in Iowa. [EPA-HQ-OAR-2015-0111-2047-A1 p.1]

The ethanol industry also supports jobs for more than 379,000 Americans, including 47,000 jobs here in Iowa. Those jobs have allowed Iowa ethanol production to nearly double since 2007, greatly benefiting the Iowa economy and sparking a rural renaissance. [EPA-HQ-OAR-2015-0111-2047-A1 p.1]

### **Mass Comment Campaign sponsored by Denco II. Absolute Energy. L.L.C. (paper) - (633)**

Drastic cuts, such as those that EPA proposed, will have a devastating impact on agriculture and our rural economies, as well as investments in ethanol plants throughout the nation. By taking a step backward, you are sending a signal that the government no longer supports the production of biofuels. [EPA-HQ-OAR-2015-0111-0207-A1 p.1]

The ramifications for the industry and for the towns and communities that count on these facilities to generate economic activity would be widespread and very damaging. When there is uncertainty and increased risk, investments by nature dry up quickly, causing the renewable fuels industry to fall well short of its potential. [EPA-HQ-OAR-2015-0111-0207-A1 p.1]

The bottom line is that this proposal will have devastating ripple effect on investment in ethanol plants, their production and the jobs they support, as well as the surrounding communities. With less money, there is a smaller tax base— our schools, hospital and local municipal services will suffer. During a time of economic uncertainty we need to capitalize on opportunities, such as biofuel production, to spur investment and innovation that will keep America and our rural economy strong. [EPA-HQ-OAR-2015-0111-0207-A1 p.2]

### **Mass Comment Campaign sponsored by employees of Western Dubuque Biodiesel (web) - (1)**

**The RFS is working for the economy.** In response to the RFS becoming law, the biodiesel industry invested billions of dollars in building production facilities, expanding infrastructure, and improving technology. The biodiesel industry also supports jobs for more than 62,000 Americans, including more than 7,000 jobs here in Iowa. Those jobs have allowed Iowa biodiesel production to nearly triple since 2007, which has greatly benefited the Iowa economy and sparked a rural renaissance. [EPA-HQ-OAR-2015-0111-1961-A1 p.1]

### **Mass Comment Campaign sponsored by Indiana Corn Growers Association and Indiana Soybean Alliance (email) - (304)**

The Renewable Fuel Standard is working. Every year it offsets millions of gallons of foreign oil imports, keeping investment and jobs here at home and frequently in distressed rural

communities. It provides consumer choice at the gas pump for those who want a cheaper, cleaner-burning domestic fuel. [EPA-HQ-OAR-2015-0111-3387-A1 p.1]

**Mass Comment Campaign sponsored by Little Sioux Corn Processors (web) - (44)**

**The RFS is working for the economy.** In response to the RFS becoming law, the ethanol industry invested billions of dollars in building production facilities, expanding infrastructure, and improving technology. In addition, the RFS has spurred innovation, with four cellulosic ethanol plants in production or currently under construction — three of which are located in Iowa. [EPA-HQ-OAR-2015-0111-2045-A1 p.1]

The ethanol industry also supports jobs for more than 379,000 Americans, including 47,000 jobs here in Iowa. Those jobs have allowed Iowa ethanol production to nearly double since 2007, greatly benefiting the Iowa economy and sparking a rural renaissance. [EPA-HQ-OAR-2015-0111-2045-A1 p.1]

**Mass Comment Campaign sponsored by Minnesota Corn Growers Association - (784)**

Since its implementation, the Renewable Fuel Standard (RFS) is working exactly as Congress intended it to. Foreign oil imports are down and tailpipe emissions are reduced by cleaner-burning ethanol. With the growth in E15 and other higher-ethanol blended fuels, consumers are also starting to see more home grown and cleaner-burning choices at the pump. [EPA-HQ-OAR-2015-0111-2570-A2 p.1]

The RFS has been one of the most successful and forward-thinking pieces of legislation passed in the last 10 years. It's reduced our dependence on foreign oil, provided consumers with cleaner-burning options at the pump and reinvigorated rural economies throughout the Midwest. [EPA-HQ-OAR-2015-0111-2961-A1 p.1]

In other words, the RFS is working exactly as it was intended. There is no reason for EPA to change it. [EPA-HQ-OAR-2015-0111-2961-A1 p.1]

**Mass Comment Campaign sponsored by National Corn Growers Association (NCGA) - (24,661)**

The Renewable Fuels Standard (RFS) was one of the most successful energy policies ever enacted in the U.S. The RFS has laid the foundation for the domestic biofuels industry, by helping to generate jobs, revive rural economies, reduce oil imports, lower gasoline prices, reduce air pollution and cut greenhouse gas emissions. [EPA-HQ-OAR-2015-0111-2564-A1 p.1]

Every year it offsets millions of gallons of foreign oil imports, keeping investment and jobs here at home and providing consumer choice at the gas pump. [EPA-HQ-OAR-2015-0111-2565-A1 p.1]

Your decision to reduce corn ethanol levels **HARMS BOTH THE RURAL ECONOMY AND THE ENVIRONMENT** which it is your mission to protect. [EPA-HQ-OAR-2015-0111-2566-A1 p.1]

Your decision harms both the environment and rural economy. [EPA-HQ-OAR-2015-0111-3291-A1 p.1]

The RFS is doing exactly what is was intended to do. It is successfully driving adoption of renewable fuel alternatives to petroleum, supporting jobs across the country, ensuring the United States remains a global leader in developing new renewable energy sources while decreasing GHG emissions here at home. [EPA-HQ-OAR-2015-0111-3476-A1 p.1]

The continued health of the rural economy and the nation's environmental improvements hinge upon this decision. [EPA-HQ-OAR-2015-0111-3476-A1 p.1]

**Mass Comment Campaign sponsored by Nebraska Corn Board (paper) - (1856)**

The continued health of the rural economy and the nation's environmental improvements hinge upon this decision. [EPA-HQ-OAR-2015-0111-3388-A1 p.1]

The RFS has laid the foundation for the domestic biofuels industry, by helping to generate jobs, revive rural economies, reduce oil imports, lower gasoline prices, reduce air pollution and cut greenhouse gas emissions. [EPA-HQ-OAR-2015-0111-3388-A1 p.2]

**Mass Comment Campaign sponsored by POET (email) - (661)**

The EPAs proposed cuts could lead to higher prices you pay at the pump, increased dependence on foreign oil, higher greenhouse gas emissions and lost opportunities for family farms. [EPA-HQ-OAR-2015-0111-2772-A2 p.1]

**Mass Comment Campaign sponsored by POET Bio-refining 1 (paper) - (692)**

Bio Fuels have given us cleaner air. Has given corn farmers a better market. The extra income has helped with our family's needs. Please give us your support! [EPA-HQ-OAR-2015-0111-2963-A1, p.1]

The ethanol use has impacted domestic corn prices, created jobs, cleaner fuel, impacted farm income. [EPA-HQ-OAR-2015-0111-2963-A1, p.4]

The EPA's proposed cuts could lead to higher prices you pay at the pump, increased dependence on foreign oil, higher greenhouse gas emissions, and lost opportunities for family farms. [EPA-HQ-OAR-2015-0111-2963-A1, p.7]

Support of Biofuels is vitally important for our localized economy as well as our National Security. Being responsible for nearly 852,000 American jobs, biofuels contribute more than \$40 billion to our nation's GDP yearly. These dollars stay in our American economy and thanks to the multiplier effect really add value to our economy. In addition we don't have to spend billions early in order to assure the free flow of oil. Biofuels are used across the globe and are working well to help reduce oil consumption the benefits of this will surely be a positive for our globe. Please support the RFS as it currently stands and reject the EPA's flawed proposal (RVO proposal). [EPA-HQ-OAR-2015-0111-2963-A1, p.9]

For rural America, American energy independence, cleaner air, higher octane, slowing climate change, and to promote real consumer fuel choice with higher ethanol blends - the EPA needs to force oil companies to comply with the intent and letter of the law as written. [EPA-HQ-OAR-2015-0111-2963-A1, p.10]

### **Mass Comment Campaign sponsored by Quad County Corn (web) - (37)**

**The RFS is working for the economy.** In response to the RFS becoming law, the ethanol industry invested billions of dollars in building production facilities, expanding infrastructure, and improving technology. In addition, the RFS has spurred innovation, with four cellulosic ethanol plants in production or currently under construction — three of which are located in Iowa. [EPA-HQ-OAR-2015-0111-2046-A1 p.1]

The ethanol industry also supports jobs for more than 379,000 Americans, including 47,000 jobs here in Iowa. Those jobs have allowed Iowa ethanol production to nearly double since 2007, greatly benefiting the Iowa economy and sparking a rural renaissance. [EPA-HQ-OAR-2015-0111-2046-A1 p.1]

### **Mass Comment Campaign submitted by employees of Siouxland Energy Cooperative (web) - (30)**

**The RFS is working for the economy.** In response to the RFS becoming law, the ethanol industry invested billions of dollars in building production facilities, expanding infrastructure, and improving technology. In addition, the RFS has spurred innovation with four cellulosic ethanol plants in production or currently under construction — three of which are located in Iowa. [EPA-HQ-OAR-2015-0111-1960-A1 p.1]

The ethanol industry also supports jobs for more than 379,000 Americans, including 47,000 jobs here in Iowa. Those jobs have allowed Iowa ethanol production to nearly double since 2007, greatly benefiting the Iowa economy and sparking a rural renaissance. [EPA-HQ-OAR-2015-0111-1960-A1 p.1]

### **Mass Comment Campaign submitted by investors in Golden Grain Energy LLC. (paper) - (327)**

The drastic cuts proposed will have a devastating effect on agriculture, rural economies and perhaps more importantly, investment in further development of renewable energy. [EPA-HQ-OAR-2015-0111-2559-A1 p.1]

The ramifications for the industry and communities that count on these facilities would be widespread. [EPA-HQ-OAR-2015-0111-2559-A1 p.1]

### **Minnesota Corn Growers Association (MCGA)**

Thanks to the RFS, the United States is relying less on foreign oil than ever before. [EPA-HQ-OAR-2015-0111-1920-A1, p.1]

As you can see, a reduction in the RVO numbers would make an impact far beyond our fuel tanks. It would also result in job losses, reduced air quality and fewer rural economic development opportunities. There are already enough barriers and obstacles to ethanol in this country. By cutting the RFS, EPA is creating yet another one. [EPA-HQ-OAR-2015-0111-1920-A1, p.2]

In summary, lower RVO numbers are bad for drivers, bad for farmers and bad for all Americans. We're already producing enough ethanol to smash through the fictional oil industry blend wall,

and could be producing more if some ill-advised regulations and other obstacles were removed. [EPA-HQ-OAR-2015-0111-1920-A1, p.2]

Americans want cleaner-burning and more affordable choices at the pump. Corn farmers have proven that they're capable of growing enough corn to produce food, feed, fiber and fuel. Now is not the time to take America's energy policy backward. Now is the time for EPA to preserve the RFS and keep American energy policy headed in the right direction. [EPA-HQ-OAR-2015-0111-1920-A1, p.2]

### **Minnesota Farm Bureau**

This proposed rule, if finalized, will have tremendous consequences for the agriculture sector, for our nation's energy policy, and for the intended regulatory framework and goals of the RFS2. [EPA-HQ-OAR-2015-0111-2263-A1 p. 2]

### **Minnesota Farmers Union (MFU)**

MFU has been a longtime supporter of biofuels believes that the RFS is important not just to the profitability of Minnesota's farm families, but also an important part of national security and crucial part of improving the environment and addressing climate issues. [EPA-HQ-OAR-2015-0111-1311-A1 p. 1]

MFU is disappointed with the volume standards issued in EPA's proposed rule for RFS target levels. MFU feels strongly we must move forward, not backward, when it comes to developing alternatives to fossil fuels and foreign oil. MFU is proud that the RFS and biofuels have created jobs that cannot be outsourced, which have helped revitalize rural America. Additionally, renewable fuels are better for the air we breathe and for our environment – and they are making a difference by decreasing our dangerous dependence on foreign oil. Biofuels are better for our national security and energy security, and they benefit consumers by providing them with a choice and savings at the pump. [EPA-HQ-OAR-2015-0111-1311-A1 p. 1]

Supporting the RFS is critical for America and for the future of our energy and agriculture sectors. MFU asks that this administration return the RFS to a program based on supply of renewable fuel and ambitious goals to reduce our dangerous dependence on foreign oil and not let the program be held captive by the oil industry and its unwillingness to allow higher ethanol blends into the marketplace. [EPA-HQ-OAR-2015-0111-1311-A1 p. 1]

### **Minnesota State Senate**

The impact the RFS has had on ethanol plants and the area of Morris, MN cannot be overstated. Since its original enactment in 2005, I have witnessed firsthand the positive impact it has had on my local economy. There is no question it has revitalized the area. I am proud to serve as a senator in West Central Minnesota with communities that further America's national and energy security goals. Renewable fuel production saves consumers money at the pump, reduces our dangerous dependence on foreign oil and improves the quality of the air we all breathe, all while creating many good paying jobs in these communities that cannot be outsourced. The RFS has helped these communities grow and thrive — showing the nation and the world that rural America is booming and a leading area of innovation and investment in future energy technologies. [EPA-HQ-OAR-2015-0111-3284-A1 p.1]

Drastic cuts, such as the one that EPA proposed, will have a devastating impact on agriculture and our rural economies, as well as investments in ethanol plants throughout the nation. By taking a step backward, you are sending a signal that the government no longer supports the production of biofuels. This uncertainty, coupled with a dramatic cut in what should be produced, puts the future of investment, growth and innovation of renewable fuels at risk know, with such uncertainty surrounding the RFS, investors and stakeholders will likely scale back, if not completely withdraw their investments. [EPA-HQ-OAR-2015-0111-3284-A1 p.1-2]

The ramifications for the industry and for the towns and communities that count on these facilities to generate economic activity would be widespread and very damaging. When there is uncertainty and increased risk, investments dry up quickly, causing the renewable fuels industry to fall well short of its potential. [EPA-HQ-OAR-2015-0111-3284-A1 p.2]

The bottom line is that this proposal will have a devastating ripple effect on investment in ethanol plants, their production and the jobs they support, as well as the surrounding communities. With less money, there is a smaller tax base — our schools, hospital and local municipal services will suffer. During a time of economic uncertainty, we need to capitalize on opportunities, such as biofuel production, to spur investment and innovation that will keep America and our rural economy strong. [EPA-HQ-OAR-2015-0111-3284-A1 p.2]

As a local elected official, the prosperity and well-being of my community is my top priority and I am deeply concerned that if this proposed rule were to take effect, the entire community and surrounding towns would suffer. Farmers would lose money, agri-business would be negatively impacted, jobs would be lost and our community would face serious economic challenges. It is part of my responsibility to serve and foster opportunities, economic growth and innovation. This rule would do just the opposite. [EPA-HQ-OAR-2015-0111-3284-A1 p.2]

As you move forward in developing a final rule, I hope you will consider the impact such a rule will have on the farmers, investors and workers who count on their jobs at ethanol production facilities around the country. I would also ask that you return the RFS to a program based on supply of renewable fuel and ambitious goals to reduce our dangerous dependence on foreign oil and not let the program be held captive by the oil industry and its unwillingness to allow higher ethanol blends into the marketplace. [EPA-HQ-OAR-2015-0111-3284-A1 p.2-3]

### **Missouri Farm Bureau (MFB)**

We support an “all of the above” approach to U.S. energy policy—one that drives domestic energy production in order to further reduce our dependence on unstable foreign sources, diversify our energy portfolio and enhance national security. Ample and affordable energy supplies are critical to the agriculture sector since farming/ranching requires substantial amounts of gasoline, diesel, electricity, natural gas, propane, fertilizer and other inputs. Until recent years, farmers and ranchers have not had a direct role in energy production. That changed with ethanol and biodiesel. [EPA-HQ-OAR-2015-0111-1824-A1 p. 1]

### **Monsanto**

The RFS is successfully driving the adoption of renewable fuel alternatives, supporting jobs across the country, and ensuring the U.S. remains a global leader in developing new renewable

energy sources while decreasing greenhouse gas emissions. [EPA-HQ-OAR-2015-0111-1945-A1 p.1]

#### **N. Bowdish Company**

I implore you to reconsider raising these renewable volume obligations. A decision to do so will drive the installation of biofuel dispensing infrastructure and increase renewable fuel consumption which both of us have just worked together on to show more than a 20% reduction in GHGs compared to the status quo, gasoline. [EPA-HQ-OAR-2015-0111-1202-A1 p.3]

#### **National Biodiesel Board**

The limited avenues that Congress provided for obligated parties to avoid the mandated volumes indicate that Congress did not intend to provide maximum flexibility to obligated parties or to reduce their costs. Although EPA established a RIN system that could also be used for purposes of the credit program provided under the statute, the credit program was intended to incentivize those obligated parties that go beyond the mandated requirements. EPA's proposal does not create the incentives to go beyond any obligated party's individual requirements, but allows the obligated parties to perpetuate the status quo and not make any advancements in renewable fuel production at all. The incentives to take action are tied to compliance costs, and EPA cannot now contend that it must work to keep those costs down rather than promote production of renewable fuels. *See Monroe Energy, LLC v. EPA*, 750 F.3d 909, 919 (D.C. Cir. 2014). EPA, therefore, must err on the side of over-estimating to ensure volumes sought by Congress are met to the extent possible (not practical). EPA is not to have the industry toe the line, but to continue to push the line forward. Thus, EPA must give the market the chance to work as *Congress* intended. Waiver authority can be used later if there is truly inadequate supply. [EPA-HQ-OAR-2015-0111-1953-A2 p.12]

#### **National Corn-to-Ethanol Research Center (NCERC)**

**NCERC is Staunchly Opposed to the Proposed Levels of RVO's** The NCERC is staunchly opposed to the proposed levels of RVO's. This proposal has already created uncertainty in the marketplace, resulting in millions of dollars of biofuels contractual research projects to be postponed. If the proposed levels are finalized, the result will be financially devastating to many sectors of the U.S. economy. Why? Because with this level of RVO's, investment in research, development and commercialization won't be postponed or slowed down, it will stop. [EPA-HQ-OAR-2015-0111-1225-A2 p. 2] [EPA-HQ-OAR-2015-0111-1044 pp. 58-59]

#### **National Restaurant Association**

The National Restaurant Association looks forward to working together to prevent these effects by reforming the Renewable Fuel Standard in a way that will benefit consumers, businesses, and the overall economy. [EPA-HQ-OAR-2015-0111-2267-A1 p. 4]

#### **National Taxpayers Union (NTU)**

Higher prices at the pump are only one of many worries for consumers caused by the RFS. Greater transportation costs flow throughout the economy, raising the price of food and other goods that travel long distances. [EPA-HQ-OAR-2015-0111-3279-A1 p.2]

These compounding costs effectively constitute a type of “hidden tax” that pervades the economy and hurts consumers whose budgets are already stretched thin due to rising health care costs, stagnant wages, and an anemic economic recovery. [EPA-HQ-OAR-2015-0111-3279-A1 p.2]

The widespread damage imposed by the RFS is an urgent reminder that government mandates make for bad economic policy. In a functioning marketplace for fuel, renewable or otherwise the ill effects described above would be quickly mitigated as a sustainable price equilibrium is reached between consumers and producers. An intractable government mandate is an obstacle to ever attaining such a balance. [EPA-HQ-OAR-2015-0111-3279-A1 p.2]

### **Nebraska Unicameral Legislature**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 110-112, 115.]

The support from Congress and the President gave great incentive and especially certainty for rural economic development to happen that now includes 24 ethanol plants across Nebraska and over 100 across the U.S. And with any successful economic development program, you don't withdraw support midway through the program. But if you finalize the 2015 and 2016 RVOs as proposed, this is exactly what you're doing and thus showing a lack of incentive for rural economic development and job creation, and you're slashing certainty for the current and the next generation of biofuels.

As you propose, reducing the RFS numbers from what Congress passed will only hurt Nebraska and every agricultural State in the nation. Jobs will be lost. Rural communities will struggle, and State revenues will shrink. And consumers will lose choices, and the environment will lose an ally.

In conclusion, the ethanol industry has provided great opportunities -- opportunities for the next generation of family farmers, opportunities for rural America, and opportunities for our environment. Now we just need you, the EPA, to step up and continue to provide opportunities for consumers and increase choices at the fuel pump.

### **NH Energy Forum**

As a New Hampshire State Representative who focuses on issues regarding the elderly community, I am writing to voice concern about increasing levels of ethanol content in the proposed Renewable Fuel Standard (RFS) for 2014, 2015 and 2016. The proposed standards are flawed, as they recommend an increasing amount of ethanol to be blended into fuels such as E15 and E85, for which there is no significant consumer demand, and which could cause economic hardship to American consumers through potential engine damage and higher food costs. [EPA-HQ-OAR-2015-0111-0281-A1 p.1]

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As a state representative from New Hampshire, college student and future workforce member, I am writing to voice concern about increasing levels of ethanol content in the proposed Renewable Fuel Standard (RFS) for 2014, 2015 and 2016. This could result in higher costs for

young adults and new college graduates from potential engine damage and higher food prices-costs that many would have great difficulty bearing in today's economy. [EPA-HQ-OAR-2015-0111-0282-A1 p.1]

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If the EPA sets the final ethanol mandate to no more than 9.7 percent of gasoline demand, then with would allow renewable fuels to still be used, without causing the potential undue economic hardship to those who are struggling to make ends meet or to new members of the workforce. [EPA-HQ-OAR-2015-0111-0282-A1 p.1]

### **North Dakota Ethanol Council**

With this type of proposal, the administration is quitting on the 15-year certainty of the RFS, jeopardizing rural jobs and economies, risking billion dollars of investment in the next generation of biofuels, and increasing our dependence on foreign oil. [EPA-HQ-OAR-2015-0111-1927-A1 p. 1]

North Dakota's ethanol industry and our state have invested millions of dollars to keep plants running in poor economic conditions only to have the certainty of the RFS removed. A reduction in volume obligations will have severe economic consequences for North Dakota's ethanol and corn industries, which currently are significant contributors to the state's top two industries – agriculture and energy. [EPA-HQ-OAR-2015-0111-1927-A1 p. 1]

### **North Dakota Farmers Union (NDFU)**

When setting standards for the RFS, the goals for the program and the program's importance to one our nation's most vital industries must be considered. The program: [EPA-HQ-OAR-2015-0111-1916-A1 p. 1]

- **Carries significant economic benefits.** Not only does the program decrease US reliance on foreign oil, but the potential for renewable fuels to reduce Greenhouse Gas (GHG) emissions is significant. This would be beneficial for the United State financially, while giving consumers a choice at the pump. [EPA-HQ-OAR-2015-0111-1916-A1 p. 1]

### **North Dakota Grain Growers Association**

We must move forward, not backward, when it comes to developing alternatives to fossil fuels and foreign oil. We all know that the RFS and biofuels have created jobs that cannot be outsourced, which have helped revitalize rural America. Additionally, renewable fuels are better for the air we breathe and for our environment – and they are making a difference by decreasing our dangerous dependence on foreign oil. Biofuels are better for our national security and energy security, and they benefit consumers by providing them with a choice and savings at the pump. [EPA-HQ-OAR-2015-0111-1656-A1 p.1]

After years of success in expanding the ethanol industry because of the RFS, we must not move backward. We must capitalize on the current momentum and continue to invest in the future development and commercial scale production of next generation biofuels. The EPA's proposed reduction in corn-based ethanol volumes will slow any further innovation, investment and

growth in a successful and thriving industry that supports farmers, plant workers, and entire rural communities. [EPA-HQ-OAR-2015-0111-1656-A1 p.2]

The RFS has made America stronger. Our rural towns are thriving and our children are moving back to where they were raised to carry on the legacy of the family farm. They are also finding other great opportunities back home within this industry. We cannot afford to turn our backs on such a successful policy by turning away from the congressionally established levels called for by the RFS. [EPA-HQ-OAR-2015-0111-1656-A1 p.2]

#### **Northern Canola Growers Association**

Consistent with the intent of the RFS, canola biodiesel provides significant benefits to our national energy security, the environment, and the economy. Canola biodiesel is a domestically produced renewable fuel that displaces petroleum, reduces emissions and improves air quality, and provides jobs and additional economic benefits, especially in rural communities. [EPA-HQ-OAR-2015-0111-2036-A1 p.1]

#### **NUVUFuels, LLC and DENCO II**

The RFS was always intended to incentive American investment to create cleaner and renewable fuels sources made right here at home with American jobs while reducing our dependence on dirty and dangerous foreign oil. These investments have and are happening right now at a time when America needs it most. [EPA-HQ-OAR-2015-0111-2631-A1 p.1]

#### **Ohio Corn & Wheat Growers Association**

The RFS has been a tremendous success and has met all it was set out to do. It has helped to significantly reduce air pollution and greenhouse gases, improve human health, and reduce our dependence on foreign oil, all while saving consumers billions of dollars each year. [EPA-HQ-OAR-2015-0111-1723-A1 p.2]

#### **Renew Kansas**

The RFS has played an integral role in the diversification of our nation's fuel portfolio, and has played a crucial role in cleaning our air, creating jobs, and reducing our dependence on foreign oil. Since 2005, the RFS has helped reduce our nation's dependence on foreign oil by more than 50 percent. Failing to implement the volume obligations, as required, would set back our efforts to reduce our dependence on foreign oil; harm the economy around the renewable fuels market; and hinder our efforts to decrease greenhouse gas emission levels. [EPA-HQ-OAR-2015-0111-1309-A1 p.3]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1143, pp. 140-141.]

In fact, the proposed rule would create more uncertainty in the alternative fuels market with the negative effect of freezing future investments into the market. Clearly, not a goal of either Congress or the EPA. It's an unintended consequence. Alternatively, the full RFS, as established by Congress within the Clean Air Act, will allow industry to break through the current blend wall through continued investment in the new technologies and infrastructure. Higher-blend

ethanol fuels are both legal and viable options today in which to break through the blend wall and should be promoted through the RFS, not hampered. We all know, as is commonly known, the RFS is America's most successful energy policy within the last 40 years. It has helped to enhance our national security, diversify our fuel supply, protected our environment by reducing our carbon footprint, increased demand for farm products across the Midwest, reduced cost for consumers at the pump, created jobs around the country, and helped to reduce our nation's dependence on foreign oil by more than 50 percent since 2005. Clearly, a success.

### **South Dakota Corn Growers Association**

The Renewable Fuel Standard (RFS) has been a tremendous success throughout South Dakota and is working exactly as intended. The program has played a pivotal role in reducing petroleum imports to the lowest level since the 1980s, lowering gas prices, improving air quality, and strengthening the economy in rural America in ways never seen before. [EPA-HQ-OAR-2015-0111-1811-A1 p.1]

In closing, we strongly encourage your agency to carefully consider and calculate the potential negative economic and environmental harm that this proposal would indeed provoke across the country. [EPA-HQ-OAR-2015-0111-1811-A1 p.2]

### **South Dakota Farmers Union**

The RFS has been a gateway for renewable fuels to the market, giving consumers a *USA made* cleaner fuel option. The RFS has been helping pave the way for energy independence. Ethanol blended gasoline gives consumers options for more affordable fuel. [EPA-HQ-OAR-2015-0111-2358-A1 p. 1]

### **South Dakota Soybean Association**

While the current proposal is a step in the right direction, it doesn't fully expand or grow the biodiesel industry. The biodiesel industry is America's only commercially available advanced biofuel in the marketplace, providing significant greenhouse gas emission reductions and over 60,000 jobs. In addition, biodiesel diversifies our energy sector and reduces our country's dependence on foreign oil. These benefits are the reason we need continued support and growth through the RFS. [EPA-HQ-OAR-2015-0111-1308-A1 p. 2]

### **Union of Concerned Scientists**

While EPA clearly has authority to make such an enlargement, it is important that the exercise of this authority is made with consideration of all the goals and criteria set forth in section 211 (o)(2)(B)(ii) of the Clean Air Act, which include the impact on climate change, ecosystems, wildlife habitats, infrastructure, the price and supply of agricultural commodities and food prices. [EPA-HQ-OAR-2015-0111-2260-A1 p.4]

### **United States Senate**

The proposed RVOs will negatively impact the agricultural and biofuels industries, consumer choice at the pump, and future investments in 2nd generation renewable fuels and infrastructure. [EPA-HQ-OAR-2015-0111-3427 p.2]

## **Vets for Energy**

I support policies, which provide a rational approach to developing all energy sources in an environmentally safe manner, which boosts economic growth and secures our nation. An economically 'strong America allows us to maintain our global leadership and protect our interests here at home and around the world. [EPA-HQ-OAR-2015-0111-2473-A1, p.1]

## **Wisconsin BioFuels Association**

The proposed RVO also completely ignores the growing demand for renewable fuels and its many benefits. This hurts not only ethanol producers and corn growers, but also the consumer. The proposed RVO would raise fuel prices and greatly limit consumer choice. Nothing could make the petroleum industry happier. [EPA-HQ-OAR-2015-0111-2539-A2 p.1]

Over the past 10 years, the Renewable Fuel Standard has lowered gas prices, reduced our dependence on foreign oil, and reduced the pollution in our air and water. It has allowed drivers to choose cleaner, less expensive, American-grown biofuels. [EPA-HQ-OAR-2015-0111-2539-A2 p.1]

## **Wisconsin Corn Growers Association (WCGA)**

Not only has EPA circumvented the law, it has totally ignored the growing demand and benefit of renewable fuels. This will hurt our corn growers who have been doing their job to produce corn for ethanol to meet the market for clean burning fuel, and it will hurt consumers with higher fuel prices and limited clean fuel options. [EPA-HQ-OAR-2015-0111-1830]

The Renewable Fuel Standard is working as intended. The RFS has reduced greenhouse gas emissions, decreased our reliance on foreign oil, lowered gasoline prices for consumers and increased economic stability in rural America. [EPA-HQ-OAR-2015-0111-1830]

## **Wisconsin Farm Bureau Federation**

Since the Renewable Fuels Standard was expanded, we have seen tremendous growth within the agricultural sector and a decrease in crude oil imports. The decision by EPA to reduce blending levels for all renewable fuels sends a negative signal to the ethanol and biofuel industries, their investors and American consumers. This is a huge step backward for America's movement toward energy independence. In addition, EPA has circumvented the law and it has completely ignored the growing demand and benefit of renewable fuels. [EPA-HQ-OAR-2015-0111-1716-A1 p. 2]

This will hurt our corn growers, ethanol producers and researchers at our universities who are working to develop new biofuel technologies. They have all been doing their jobs to produce renewable fuels for a market that continues to grow in demand and popularity amongst consumers who want clean burning, renewable fuel. This proposal will send the biofuel industry backwards and will hurt consumers with higher fuel prices and limited clean fuel options. [EPA-HQ-OAR-2015-0111-1716-A1 p. 2]

**Response:**

EPA received a number of comments related to various economic impacts this rule will produce, both positive and negative. Many of these comments are also considered in other sections referring to specific impacts including 7.2 Agricultural Impacts, 7.3 Fuels Industry Impacts, 7.4 Impact on RINs, 7.5 Retail Fuel Prices, 7.6 Energy Security, 7.7 Impact on Jobs and Local/State Economies and 7.8 Cost to Consumers.

We received numerous comments that broadly asserted positive economic impacts from greater RFS mandates (or adverse economic impacts from the decrease in RFS mandates from the statutory levels). Many of the comments EPA received communicating this theme were by business communities or individuals in the Midwestern portion of the United States who are either directly involved in, or linked to, the biofuel economy (e.g., farmers/farming associations, biofuel producers). These comments speak to the job creation and stimulating economic effect of corn ethanol, soy biodiesel, and the RFS as a whole on rural economies and the U.S. economy at large. These comments generally did not acknowledge the fact that the proposed RFS standards continued to increase renewable fuel volumes and instead inappropriately treated reductions from the statutory volumes as if they were reductions from existing volumes, decrying a wide range of devastating and chilling impacts. Since we do not consider the statutory volumes attainable (and indeed we are setting the total renewable fuel standard at the maximum reasonably achievable level), we do not believe it is appropriate to attribute any shortfall in jobs or investment associated with levels of renewable fuel production below the statutory volumes to EPA's decisions. Rather the significantly increased RFS volumes in the final rule, especially for 2016, will continue to provide the job creation and economic development benefits to rural economies that these commenters seek.

EPA believes that policy clarity is important for fostering economic certainty and thus a favorable environment for securing investment and financing for renewable fuels industries. We believe that this rule sends a clear signal that the EPA supports the continued growth of renewable fuels under the RFS. Additionally, we acknowledge the potential detrimental effect that not setting RVOs on the regular, pre-established schedule can have on planning for stakeholders. EPA is committed to finalizing annual RVOs on schedule moving forward to further enhance certainty. Also, EPA continues to analyze and approve new qualifying pathways under the RFS to provide opportunities for the production of clean, diverse renewable fuels from an increasing number of feedstocks and technologies.

We also received a variety of comments that broadly asserted adverse economic impacts from greater RFS mandates (or positive economic impacts from a decrease in RFS mandates). These commenters highlighted the negative economic and environmental impacts of raising the RFS volumes relative to prior year levels and/or the E10 blendwall. As described in other sections, increasing renewable fuel production from traditional feedstocks (e.g., corn, soybeans, canola) can benefit some sectors of the economy while having adverse impacts on other sectors. While we have not quantified these impacts, based on our analysis in the March 2010 final rule, we expect that the overall impact would likely be modest. Also, as noted in the final rule, we believe that there are reasonable measures that are and can continue to be taken to expand use of ethanol to levels beyond the level represented by the E10 blendwall and to expand the use of non-ethanol renewable fuels as well. We believe the economic impacts that result from this rule in the

various parts of the economy, both positive and negative, are reasonable, appropriate, and consistent with what was anticipated by Congress in the implementation of the RFS program.

A number of commenters expressed concern over the fact that EPA did not perform a full incremental cost-benefit analysis for the annual renewable fuel volumes. One stakeholder commented that EPA should provide a “complete assessment of the rule’s costs on obligated parties, consumers, and other affected parties, along with a comparison of those costs with the rule’s benefits.” Another commenter stated that “EPA’s Proposed Rule is arbitrary and capricious because it does not include an adequate assessment of the rule’s expected costs and benefits.” EPA included an illustrative cost analysis in both the proposed and final rules, and has explained throughout the rule the benefits of renewable fuels, particularly with respect to energy security and the GHG emissions reductions associated with their use. We also explained the difficulties with providing more precise quantitative cost-benefit estimates, which includes both time constraints and conceptual issues such as determining the baseline and how the market will respond.

We note that in exercising the general waiver authority with respect to total renewable fuel our objective is to determine if there is an inadequate domestic supply and, if there is, to then consider exercising our discretion to lower the statutory volume targets to alleviate the inadequate supply situation. Congress has identified the circumstance justifying a waiver, which means that Congress has determined that the benefits of the program warrant use of the volumes set forth in the statute except to the extent that the specific circumstances described in 211(o)(7)(A) or in other waiver provisions are found to exist. We believe our mandate under the inadequate domestic supply prong of the general waiver authority is to determine the maximum reasonably achievable volumes of renewable fuel that can be supplied to consumers as transportation fuel. We have considered comments and assessed scenarios related to the determination of the maximum reasonably achievable volumes, but we do not believe that a complete quantitative cost-benefit analysis as requested by the commenters is necessary for EPA to either determine if an inadequate domestic supply exists or to identify the appropriate corrective measure. As noted above and elsewhere, a quantitative cost benefit analysis would be very large in scope and time consuming, resulting in delay of EPA rulemaking, which many commenters (including some requesting a cost benefit analysis) have stressed is injurious to the success of the program, and the conceptual issues suggest that the probative value of such an analysis would be limited. We believe that we have gathered sufficient information to exercise the waiver authority to set volume requirements at reasonably achievable levels.

We are also exercising our cellulosic waiver authority to lower the advanced and total standards in the final rule. For the cellulosic waiver authority, the statute does not specify any criteria that EPA must identify, or factors that EPA must consider, but provides broad discretion for EPA to lower volumes of advanced and total renewable fuel by the same or a lesser amount than the reduction in cellulosic biofuel. For the total standard, our action in using the cellulosic authority is justified by a finding of insufficient volumes upon an assessment of the volumes that can be produced, imported, distributed and used as required by the statute.

In setting the advanced biofuel standard, we have identified the GHG benefits associated with the use of advanced biofuels as the primary basis for requiring the use of reasonably attainable volumes. Although we have received comments noting cost concerns, we do not believe such concerns warrant a further waiver of advanced biofuel volumes (below reasonably attainable

levels) for the following reasons. First, the advanced standard is nested within the total renewable fuel standard. We are using the inadequate domestic supply prong of the general waiver authority to reduce volumes for total renewable fuel below the level that is possible using the cellulosic waiver authority, and are only authorized to do so to the extent we determine that there is an inadequate domestic supply of renewable fuel, including advanced biofuel. We have considered the availability of advanced biofuel in deriving the total renewable fuel standard, and believe that for the most part the same volume of advanced biofuel will be used to comply with the total renewable fuel standard regardless of the precise point at which we set the advanced biofuel standard.

Second, we acknowledge, however, the possibility that a lower advanced biofuel standard might allow for greater use of non-advanced biodiesel (such as grandfathered palm biodiesel) rather than advanced biodiesel (such as soy biodiesel) and that it might allow for greater use of conventional corn ethanol rather than advanced ethanol (such as sugarcane ethanol). By providing a lower advanced biofuel requirement, we could provide a greater role for the market to identify the lowest-cost alternative for satisfying the total renewable fuel standard. Given such variables as the potential for changes in tariffs and subsidies for foreign products, as well as competing uses for those products, we are not in a position to attempt to quantify what the cost impacts associated with setting different advanced biofuel volume requirements might be. However, our illustrative cost estimates indicate that the potential cost savings associated with setting a lower advanced biofuel standard (while maintaining the total renewable fuel standard at the same level to reflect the maximum reasonably achievable supply) would be relatively small when considered in the context of the overall costs associated with this program. Furthermore, we believe that given the high priority that Congress placed on the growth of advanced biofuels under the program, and their superior GHG reduction potential, that any incremental costs associated with our decision to set the advanced biofuel applicable volumes at reasonably attainable levels are justified.

EPA further notes that outside the annual rulemaking context, for the 2010 RFS2 final rule, EPA performed a more comprehensive assessment of costs and benefits for 2022, when the program fully matures. Therefore, for the reasons described in the final rule and elsewhere in this response to comments document, we believe that the information collected is sufficient to reasonably inform our decision without engaging in a full quantitative cost benefit analysis as requested by some commenters.

One commenter (i.e., The National Taxpayers Union) expressed concern over the “hidden tax” from the RFS program on fuel, food and other costs to consumers that pervades the economy. EPA believes there may be costs to the consumers of renewable fuels to the extent that renewable fuels are more expensive than their petroleum replacements. EPA provides an illustrative estimate of the costs to consumers of transportation fuel in an attempt to capture some of these impacts. Many benefits to renewable fuels might also be considered “hidden,” as they are not directly transmitted through market transactions such as increased energy security and GHG emissions reductions.

Other commenters encouraged EPA to make a measured evaluation of the costs and benefits of the RFS after years of implementation without promoting higher or lower renewable fuel volumes. A Member of the Pennsylvania House of Representatives commented that there may be more cost-effective ways to meet stated policy goals of the RFS of reducing GHG emissions

and improving energy security. In this rulemaking and in each previous RVO rule, EPA makes a measured evaluation of the impacts of RVOs while accounting for the feasibility of supplying renewable fuel to meet the RFS. Assessing the cost-effectiveness of the RFS program in meeting policy goals as compared to other possible programs and policy options (if that is what the commenter is suggesting) is outside of the scope of this rule, which implements the RFS.

## **7.2 Agricultural Impacts (Food, Animal Feed, Crops, Feedstock)**

### **Comment:**

#### **Ace Ethanol/Fox River Valley Ethanol**

These two businesses are a huge economic engine for our local rural communities. In addition to producing about 100,000,000 gallons of ethanol, the plants also produce 250,000 tons of distillers' grain, a high protein cattle feed, as well as 110,000 tons of liquid carbon dioxide. [EPA-HQ-OAR-2015-0111-1200-A2 p. 2]

#### **Advanced Economic Solutions (AES)**

My name is William Lapp, President of Advanced Economic Solutions, based in Omaha Nebraska. Advanced Economic Solutions (AES) is a consulting firm that works primarily with food companies to help them manage food costs. The Renewable Fuel Standard has been a major challenge for each of the food companies we work with since its inception in 2007. [EPA-HQ-OAR-2015-0111-1193-A1 p.1] [EPA-HQ-OAR-2015-0111-1043, p. 301]

Since its inception in 2007, biofuel mandates have been a primary catalyst for rising food input costs. The Bureau of Labor Statistics' Consumer Price Index reported food prices rising at an identical rate as the overall rate of consumer inflation during 2000-2007. However since the passage of the Energy Independence and Security Act (EISA) in late 2007, the increase in food prices has been 50% greater than the overall rate of inflation. A higher price for key food inputs increases the cost of production for the US food industry, costs that are ultimately passed on to consumer. The increase in corn and soy oil costs over the past seven years represents a \$12 B increase in production costs for livestock producers, food manufacturers and restaurants [1]. [EPA-HQ-OAR-2015-0111-1193-A1 p.1]

The 2016 advanced biofuel RVOs proposed by the EPA have already created a disruption in the availability and price of the primary feedstock used to produce biodiesel: soy oil. Because of the importance of soy oil to food companies, EPA decisions with regard to the annual RVO for advanced biofuels are already substantially increasing costs for food companies. [EPA-HQ-OAR-2015-0111-1193-A1 p.3]

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[1] Advanced Economic Solutions estimate, based upon USDA World Agricultural Supply and Demand Estimates

## **AgriVision Equipment Group**

The rural economy has improved in the last 10 years to a level that it's not seen since the 1970s. With this, we've seen a return of many young families to rural communities. In fact, the land grant university that I graduated from has seen more people return from their agricultural colleges to the communities than any other time in history. I think this speaks well for the future of what appeared to be a stable economy in the heart of America in the last 5 years. With the RFS, there has been considerable investment in these areas to support the mandate by Congress to meet the renewable fuel standards. These investments have helped to stimulate the economy in recent years in these communities, counties, and States. For many of our business customers, this has been an investment in land, equipment, seed, and other things based on Congress' promise that the RFS would provide a stable market for corn ethanol. Ethanol has become an essential value-added market for the American farmer, stimulating investment and enhancing economic opportunities in their communities and beyond. This has helped transform the grain sector from a surplus-driven marketplace to one that is vibrant, high tech, and demand driven. So how does this affect the local economy? Keeping the grain demand at a moderate to high level supports land values. Land values drive property tax base, which is vital to supporting the schools, roads, and other public services. And then the other piece is just straight-up income. Farm income trickles down through the fabric of America. We've already seen job reductions and pressures on the local economy with the recent 24-month drop in corn and soybean prices. The proposed RFS changes would drive a further reduction in corn prices of 25 to 75 cents. So let's use the middle of that, and let's assume 50 cents per bushel.

We ask that, in summary, that you stay firm on the original RFS schedule in support of continued economic stability in our communities and States. I realize that adjustments are a fact of life. I ask that you consider the timing of this and future adjustments.

## **American Cleaning Institute (ACI)**

ACI continues to be concerned with the RFS's serious and significant impact on ACI member companies' ability to source animal fats for use as an oleochemical feedstock. The proposed volumes would continue to divert large quantities of a finite inelastic supply of animal fats to the biofuels market, thereby critically disadvantaging the domestic oleochemical industry. EPA has a responsibility, if not duty, to equally protect all industries that rely on animal fats to produce goods. Agency mandates should not choose winners and losers. Therefore, we respectfully request that EPA use its discretionary authority to lower the volume requirement for biomass-based diesel, or, alternatively, to exclude animal fats as a feedstock option [EPA-HQ-OAR-2015-0111-1934-A1 p.1]

The proposed volumes would continue to divert large quantities of a finite inelastic supply of animal fats to the biofuels market, thereby critically disadvantaging the domestic oleochemical industry. [EPA-HQ-OAR-2015-0111-1934-A1 p.1-2]

- Agency mandates should not choose winners and losers. EPA has a responsibility, if not duty, to equally protect all industries that rely on animal fats to produce goods

- The price of animal fats has increased 95 percent since 2006 under the combined policies of the RFS and tax incentives for biofuels
- Biofuel production consumes a significant amount of the total supply of animal fats and current policies threaten not only the price but the availability of animal fats for oleochemical production
- Since 2011 (a historical first) the price of animal fats have exceeded that of Malaysian palm oil
- Switching to foreign-sourced palm oil by the oleochemical industry threatens 25,000 U.S. jobs
- EPA must use all its available discretion to exempt or minimize the use of animal fats under the RFS mandates and include the Proposed Rule's impact on the oleochemical industry in its analysis of impacts on other sectors and industries; specifically, EPA must address the potential job loss in collateral industries [EPA-HQ-OAR-2015-0111-1934-A1 p.2]

### **American Farm Bureau Federation (Farm Bureau); Indiana Farm Bureau**

Since the RFS2 was put in place in 2007, the U.S. has seen tremendous growth within the agricultural sector. If the Proposed Rule requirements are finalized, this decision will stall growth and progress in renewable fuels as well as the broader agricultural economy. [EPA-HQ-OAR-2015-0111-2355-A1 p. 1]

Over the past few years, the RFS2 has been charged as being a major culprit in generating higher commodity prices. However, the marketing situation and economics have substantially changed from the drought of previous years. Even with RFS2 biofuel targets having increased for 2014 and 2015, corn prices have plummeted to a range around \$3.65 per bushel, less than half of the record levels witnessed in 2012/13. It is ever more evident that commodity prices were driven by much broader market fundamentals, including widespread drought and that the RFS2 mandate played a lesser role in driving the price. [EPA-HQ-OAR-2015-0111-2355-A1 p. 2]

USDA's cost of production forecasts indicate that the cost of production breakeven for corn was roughly \$4.05 per bushel for 2014 making the national average cost of production breakeven price point at negative levels for the first time since 2005. The same story applies to soybeans. After farmers across the country managed to produce a record corn crop, now is not the time to shed demand from corn. The collapse in commodity prices as already discussed with input costs remaining high will likely take tens of billions of dollars off of farm income numbers in 2014, 2015, and 2016. Corn and soybean producers in particular will almost certainly witness a marked reduction in net farm income. [EPA-HQ-OAR-2015-0111-2355-A1 p. 2]

Livestock producers enjoyed historically strong prices and income in 2014, and the outlook for the next few years remains generally favorable. However, this livestock situation is itself somewhat dependent on extension of the RFS2. Livestock producers have come to rely on distillers dried grains (DDGs), a feed by-product generated from ethanol production. With the standards in place to-date, ethanol production is now using over 35 percent of the nation's corn crop. However, as ethanol production has increased, the supply of ethanol co-products has also increased. Each bushel of corn taken to an ethanol plant generates approximately 2.8 gallons of

ethanol while also generating between 17 to 18 pounds of DDGs. As a livestock ingredient within a farmer or rancher's livestock ration, DDGs are highly valuable for both dairy and beef. Large quantities are also being utilized in feed rations of hogs and poultry. [EPA-HQ-OAR-2015-0111-2355-A1 p. 2]

### **American Soybean Association (ASA)**

Because soybean demand is driven by the protein meal markets, soy oil has traditionally existed in surplus. In recent years, demand for U.S. soybean oil for food use also began to decline significantly following the U.S. Food and Drug Administration's (FDA) action in 2003 to require food manufacturers to include trans-fats on nutrition labels beginning in 2006. From 2005-2014 the use of soybean oil for biodiesel increased from 0.67 to 5.0 billion pounds annually. During the same period, U.S. soybean oil use for food applications declined by 3.7 billion pounds, with the decline directly linked to trans-fat labeling and related government policies. Hence, biodiesel has offset the decline of soybean oil use for food. [EPA-HQ-OAR-2015-0111-1818-A1 p.2]

Additional soybean oil will be displaced from domestic food markets as a result of the recent FDA determination requiring the elimination by 2018 of all partially hydrogenated oil, which creates trans-fat. This will result in the likely displacement of additional soy oil from food use that would then be available feedstock for biodiesel production. The United Soybean Board estimates that there is approximately 2 billion pounds of partially hydrogenated soybean oil still used in the food market currently.<sup>3</sup> If this soybean oil is displaced from food use as expected, it could provide additional feedstock for over 250 million gallons of biodiesel. [EPA-HQ-OAR-2015-0111-1818-A1 p.2-3] [EPA-HQ-OAR-2015-0111-1043-A1 p.25]

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<sup>3</sup> United Soybean Board. June 16, 2015. <http://unitedsoybean.org/article/soybean-farmers-prepared-for-phase-out-of-partially-hydrogenated-oils/>

### **Anonymous Citizen 6**

One area which is affected most is the farming industry. By altering the type of fuel produced, it forces and increased production of corn. This could also mean that these crops would no longer be feed for its livestock. It also places a greater demand for corn, possibly requiring farmers with little to no experience in the corn industry to change their business model. [EPA-HQ-OAR-2015-0111-0113 p.1-2]

Not only for an economical issue, but for an ethical reason, if the EPA is to move forward with this bill, it will need to incentivize farming operations to comply. If these operations cannot afford to comply, they may even be forced to shut down lest they break the law. [EPA-HQ-OAR-2015-0111-0113 p.2]

**Badger State Ethanol; Big River Resources, LLC; Central Indiana Ethanol (CIE); Husker Ag LLC; Pacific Ethanol, Inc.**

If finalized, the rule could have the following effects:

Destabilized farm economy. Following the harvest of a record corn crop in 2014, grain supplies are rising and corn prices fell to nine-year lows. Corn prices in some locations have fallen below the cost of production. With another large corn harvest expected in 2015, EPA's proposal would take away an important demand stimulus at a time when farmers need it most. The end result would be lower farm income. [EPA-HQ-OAR-2015-0111-3419-A1, p.4]

The livelihood of ethanol is at risk. This directly affects you and your agricultural operation. Big Oil and its cronies have persuaded the Environmental Protection Agency (EPA) to propose a drastic reduction involving the Renewable Fuels Standard (RFS) for 2015 and 2016, resulting in the total renewable fuel volume dropping from 22.25 billion gallons in 2016 to 17.4 billion gallons. Please join Big River Resources, LLC in contacting the EPA to defend ethanol and agriculture. [EPA-HQ-OAR-2015-0111-3445-A1, p.1]

If realized, this severe cut will have a devastating impact on agriculture and our rural economies. It will reduce already low corn prices, affecting planting decision in 2016. Potentially, this cut to renewable fuels could push the price American farmers like you receive for grain well below the cost of production. [EPA-HQ-OAR-2015-0111-3445-A1, p.1]

According to recent congressional testimony from USDA, corn use for ethanol increased by about 700 million bushels per year from 2005/6 to 2010/11. Over the same period, corn prices increased by 72 percent. Studies from 2008 and 2011 found the rise in ethanol production accounted for about 30-36 percent of the increase in corn prices over 2007/8 and 2008/9. USDA also stated the impact of increased corn utilization for ethanol has had a minor impact on rising consumer food prices, and that Dried Distillers Grains (DDGs) have replaced as much as 80 percent of the calories lost due to the decline in corn fed to livestock. [EPA-HQ-OAR-2015-0111-3445-A1, p.1]

**Board of Commissioners, Mercer County; Crawford County; Greenville-Reynolds Development Corporation; Office of Commissioners, Lawrence County, Pennsylvania**

There are significant reasons that mandated ethanol blend rates should be lowered. They include:

3. Higher food costs. The administration should not increase federal ethanol mandates which have already driven up food prices, by creating agricultural lands dedicated to generating energy instead of food. [EPA-HQ-OAR-2015-0111-1223-A1 p.2]

**Board of County Commissioners of Putnam County, Ohio**

American farmers depend on the ethanol industry consuming five billion bushels of our corn per year, thus helping our farmers stay in business. [EPA-HQ-OAR-2015-0111-3289-A1 p. 1]

**California Dairy Campaign**

The corn ethanol mandate included in the proposed rule will cause harm to dairy and livestock producers in California and we urge that further reductions in the corn ethanol mandate are made in the near future. [EPA-HQ-OAR-2015-0111-1816-A1 p.1]

We support EPA's proposal to scale back the corn ethanol mandate; however dairy and livestock producers will continue to be negatively impacted by high feed prices unless there is greater reform of federal corn ethanol policy. [EPA-HQ-OAR-2015-0111-1816-A1 p.2]

### **Corn Producers Association of Texas (CPAT)**

Texas and U.S. farmers have made considerable strides in preserving and conserving natural resources. By implementing better management strategies and new technologies, farmers can produce more crops on less land than before. The Field to Market Alliance for Sustainable Agriculture reported that corn farmers throughout the nation have improved on all measures of resource efficiency. For one bushel of corn, farmers have decreased irrigation by 53 percent, land use by 30 percent, soil erosion by 67 percent, energy use by 43 percent, and greenhouse-gas emissions by 36 percent. [EPA-HQ-OAR-2015-0111-2276-A2 p. 1] [EPA-HQ-OAR-2015-0111-1044 pp. 81-82]

Despite increases in the amount of course grains used for ethanol over the years, the amount of land dedicated to such crops, including corn, has actually decreased 6.9 percent globally from 1980 to 2013. [EPA-HQ-OAR-2015-0111-2276-A2 p. 1]

Farmers in Texas plant approximately 2 million acres of corn each year, and have done so since before the RFS was in place in 2007. [EPA-HQ-OAR-2015-0111-2276-A2 p. 2]

Continued innovation in seed technologies and management practices, have enabled America's corn farmers to consistently produce an abundant crop – meeting the needs of all its markets, including ethanol, while maintaining a relatively static surplus. [EPA-HQ-OAR-2015-0111-2276-A2 p. 2]

Even with the growing demand for corn for ethanol, livestock feed remains the largest use for U.S. field corn – by far. While our nation's farmers have continued to meet this demand for feed, the ethanol industry has introduced a new, arguably equally important, feed for our livestock – distillers grains (DGs). [EPA-HQ-OAR-2015-0111-2276-A2 p. 2] [EPA-HQ-OAR-2015-0111-1044 pp. 81-82]

The availability of DGs displaces approximately 1 billion bushels of corn in livestock rations, providing an efficient, high-quality, and high-value feed product for livestock produces both domestically and internationally. As such, the effect of ethanol on the cost of feeding livestock is minimal, if not non-existent – as is evident with current corn prices. [EPA-HQ-OAR-2015-0111-2276-A2 p. 2] [EPA-HQ-OAR-2015-0111-1044 p. 82]

Current corn prices are hovering near the cost of production, which is approximately \$4.04 per bushel according to the U.S. Department of Agriculture's estimates for this year. The EPA's proposal would displace nearly 1.5 billion bushels of corn in the market – an action that will negatively impact the price of corn and drive it below the cost of production. [EPA-HQ-OAR-2015-0111-2276-A2 p. 2] [EPA-HQ-OAR-2015-0111-1044 p. 81]

Should the agency move forward with its proposal, farmers will have to increase the amount of other commodities in their farm's mix – creating a rippling effect through all commodity markets. The implications of this reach beyond the farmers' wallets, and can easily increase government outlays in farm program risk management money. [EPA-HQ-OAR-2015-0111-2276-A2 p. 2]

### **Corn Producers Association of Texas (CPAT)**

In regard to the RFS's impact on consumers' pocket books, the Congressional Budget Office stated the RFS has no impact on food prices in a report released just last year. According to the U.S. Department of Agriculture, farm products account for only 14 cents of every dollar spent on food; other costs such as energy, packaging, marketing and transportation represent the more than 80 cents remaining. This relation is reflected in that food costs have remained relatively stable, despite the dramatic drop in the price of corn in the past two years. [EPA-HQ-OAR-2015-0111-2276-A2 p. 2]

### **Dakota Spirit AgEnergy**

Some analysts have said it could decrease the price of corn, pushing the price American farmers receive for their grain well below the cost of production. Working with farmers firsthand, I know they do not want to go back to the days of receiving a paycheck in the mailbox in the form of a subsidy; they want to continue to sell their crops for a profit on the free market. [EPA-HQ-OAR-2015-0111-2057-A1 p.1]

### **Darling Ingredients Inc.**

There is clearly room for the EPA to increase the BBD mandate to 2.0 billion gallons in 2016 and 2.3 billion gallons in 2017. This is particularly true given the cost effective position of Biomass Based Diesel compared to Brazilian ethanol and the cost effective manner in which BBD reduces carbon emissions (NBB submittal). It should be noted the analysis which establishes the cost savings of Biomass Based Diesel compared to sugar based ethanol compares only soybean based biodiesel to sugar based biodiesel. A significant portion of Biomass Based Diesel is supplied from waste oils which have an even greater competitive advantage to sugar based ethanol. [EPA-HQ-OAR-2015-0111-1929-A1 p.9]

The EPA even concludes that BBD is more economical than sugar based ethanol. The EPA's statement of concern regarding general competitive economic theory is not only unsupported, it is actually contradicted by the EPA's own analysis. [EPA-HQ-OAR-2015-0111-1929-A1 p.9]

### **Farm Credit Services of America**

As a lead lender to all types of agricultural producers, we are very sensitive to how the success of this industry ripples through and impacts other segments. But, predictability is the central issue required for project success, and shifts in government policies – or even the threat of shifts – are problematic. The proposed rule, if finalized without revising the RVO levels to match the targets established by Congress, will cause severe economic consequences to agriculture producers and will diminish future investment in renewable fuels. Specifically, the RVO levels, as proposed,

would significantly reduce corn demand, prices, and farm sector profits, which would lead to declines in land values and increased Federal expenditures on Farm Program costs. [EPA-HQ-OAR-2015-0111-2491-A1 p.1]

### **Governor of Iowa, et al.**

For decades, the agricultural economy lurched from crisis to crisis and farmers often depended on government subsidies to stay afloat. The RFS helped brighten the future of the agricultural and biosciences sectors by providing a stable policy framework that gives value-add opportunities for various agricultural commodities, while helping reduce transportation emissions – a true win-win. In recent years, there has been renewed interest in agriculture among young people given the hope that follows stable policy, innovation, and technological advancement. There has been a softening in the agriculture economy recently – a sector of the economy that had previously been a bright spot in the national economy. [EPA-HQ-OAR-2015-0111-1915-A1 p.2]

Ethanol is perhaps the most unfairly maligned product in the nation due to the millions of dollars of negative marketing and lobbying by Big Oil. One example comes in the food versus fuel argument. If this argument was true, then why have food prices not plummeted now that corn is less than half the price it was during the drought? Renewable fuel critics often ignore the fact that a modern dry-mill ethanol refinery produces 17.5 pounds of highly valuable DDGs from one bushel of corn which is utilized by cattle producers throughout the Midwest – a fact that has helped grow cattle production in the Midwest. In addition, thanks to the productivity of America's farmers and the innovation in the agricultural and renewable fuel sectors, we can both feed and fuel the world. [EPA-HQ-OAR-2015-0111-1915-A1 p.2-3]

### **Greater Mankato Growth**

The Greater Mankato Area is a thriving and vibrant economic center with a diverse and strong economic base made up of key industries like health care, education, manufacturing and retail. However, agriculture is the foundation of southern Minnesota's economy. The production of agricultural raw products spurs economic activity across a multitude of industries in our region. In fact, our region's agribusiness cluster generates \$1.5 billion dollars in economic impact and supports thousands of jobs. [EPA-HQ-OAR-2015-0111-1312-A1 p. 1]

The production of renewable fuels is a key component of this economic might. Within the South Central Minnesota Agricultural Region, a 13 county-region surrounding Greater Mankato, you'll find 8 of the top 10 soybean producing counties in the state of Minnesota and 6 of the top 10 corn producing counties in the state, including the top 4 producing. This raw stock feeds the 11 ethanol production facilities in our region, with a total capacity just under 1 billion gallons a year. This represents approximately 8% of total ethanol production in the U.S. [EPA-HQ-OAR-2015-0111-1312-A1 p. 1]

## Growth Energy 20

Denying an RFS waiver would also have little impact on retail food prices. Historically, as USDA Chief Economist Dr. Joseph Glauber testified to Congress, “increased biofuels production has likely had only a small effect on U.S. retail food prices.”<sup>444</sup> Only approximately 15 percent of U.S. corn supply is used for food, and corn and food made with corn account for only a small fraction of total U.S. spending on food. As a result, the CBO concludes that adhering to the statutory volumes would increase total U.S. spending on food in 2017 only approximately one-fifth of one percent.<sup>445</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.78]

On the other hand, EPA’s proposed volume requirements would result in higher food prices. As explained above, reducing ethanol consumption would significantly raise fuel prices for consumers. The World Bank has found that “food prices respond strongly to ... crude oil prices”; while many factors influence food prices, “[c]rude oil prices matter the most,” with oil prices accounting for almost two-thirds of the food price changes from 1997 to 2012.<sup>446</sup> Indeed, “increases [in] petroleum prices have [approximately] twice the impact on consumer food prices as equivalent increases in corn prices.”<sup>447</sup> Whereas “corn prices affect only a segment of consumer foods—livestock, poultry, and dairy”—“petroleum and energy prices affect virtually all aspects of agricultural raw material transportation, processing, and distribution of all finished consumer products.”<sup>448</sup> As discussed above, EPA’s proposal would substantially raise fuel prices for consumers. That increase in turn would raise food prices for consumers as well. [EPA-HQ-OAR-2015-0111-2604-A2 p.78]

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<sup>444</sup> Statement of Dr. Joseph Glauber, Chief Economist, U.S. Department of Agriculture, Before the House Comm. on Energy and Commerce, Subcomm. on Energy and Power, at 1 (June 26, 2013), at [http://www.usda.gov/oce/newsroom/archives/testimony/2013files/STATEMENT\\_OF\\_JOSEPH\\_GLAUBER\\_06-26-2013.PDF](http://www.usda.gov/oce/newsroom/archives/testimony/2013files/STATEMENT_OF_JOSEPH_GLAUBER_06-26-2013.PDF).

<sup>445</sup> Congressional Budget Office, Renewable Fuel Standard, *supra* note 436, at 14-15.

<sup>446</sup> See John Baffes & Allen Dennis, Long-Term Drivers of Food Prices, The World Bank Policy Res. Working Paper 6455 (May 2013), at 3, 14, at [http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/05/21/000158349\\_20130521131725/Rendered/PDF/WPS6455.pdf](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/05/21/000158349_20130521131725/Rendered/PDF/WPS6455.pdf).

<sup>447</sup> See John M. Urbanchuk, The Relative Impact of Corn and Energy Prices in the Grocery Aisle, at 4 (June 2007), at [http://ethanolrfa.org/page/-/objects/documents/1157/food\\_price\\_analysis\\_-\\_urbanchuk.pdf?nocdn=1](http://ethanolrfa.org/page/-/objects/documents/1157/food_price_analysis_-_urbanchuk.pdf?nocdn=1).

<sup>448</sup> See *id.* at 5.

## Highwater Ethanol, LLC

This potential move is a clear shot at the Corn and Soybean producers, the agriculture industry vendors, financials institutes, the science involved in increasing production for Corn and Soybeans in the United States and around the world and the renewable fuels industry. This nonsense by the Federal Government needs to stop, this has the potential to trigger a recession in the agriculture industry that we have not seen since the 1980’s, the agriculture industry was a bright spot in the economy over the past six years when a majority of the Country struggled. [EPA-HQ-OAR-2015-0111-2506-A2 p.2]

## **Illinois Corn Growers Association (ICGA) and Illinois Renewable Fuels Association (IRFA)**

When the RFS II was passed in December 2007, the U.S. economy was spiraling downward. The economic growth in the corn industry and rural America due in part to the RFS helped buffer the national recession that we were in. ICGA's and IRFA's comments dated January 27, 2014 spelled out in detail the benefits to the corn industry due to the RFS. In 2013 when these proposed volume reductions in corn based ethanol were first announced, corn prices were over \$4.00 per bushel. In 2015 the corn prices reached lows of \$3.50 which according to University of Illinois economists is below the cost of production for many corn farmers. [EPA-HQ-OAR-2015-0111-1925-A1 p. 4]

## **Illinois Department of Agriculture**

Illinois is the 3rd leading producer of biofuels and is the home to 14 ethanol plants and 5 biodiesel plants. The Illinois ethanol community has had a \$5.29 billion contribution in total economic impact, provided more than 4,000 full time jobs, purchased \$3.8 billion worth of Illinois corn and produced enough ethanol to displace 35% of Illinois' petroleum usage. From a tax perspective, these sales provided \$37 million in State or local revenue and \$39 million in federal revenue. Additionally, biodiesel is of particular importance to Illinois soybean growers and Illinois agriculture. Illinois biodiesel plants have an estimated annual production capacity of nearly 200 million gallons. The biodiesel industry has supported nearly 9,000 jobs in all sectors of the state's economy and generated \$1.66 billion in household income.

In 2014, American farmers harvested the single largest corn crop in history, at 14.2 billion bushels. Therefore, corn prices fell as a result, and currently stand close to where they were when the RFS was enacted in 2007. A reduction in volume obligations to the RFS would cause corn prices to fall, potentially plunging prices below the cost of production and the total value of the corn crop. As corn typically affects all other commodities, such a decrease in corn prices would negatively affect profitability for all U.S. farmers and reverse the trend toward higher net farm income. Additionally, agribusinesses will be impacted and land values across rural America will decline.

Finally, as a farmer, one of the harshest components of the reduction in the RFS is the removal of value-added opportunities for agricultural commodities, limiting prospects for young Illinoisans who want to return to the family farm and continue their family's traditions and legacy. [EPA-HQ-OAR-2015-0111-0260-A1 p.1-2]

## **Illinois Farm Bureau**

Since the RFS2 was enacted, the U.S. has seen tremendous growth within the agricultural sector. If the agency finalizes the proposed rule, such an action would put the brakes on the RFS program's benefits, send the wrong signals to investors, and stifle the broader agricultural economy. [EPA-HQ-OAR-2015-0111-3290-A2 p.1]

Wayne Anderson – a typical Illinois corn farmer's story

Geneseo, Illinois grain farmer Wayne Anderson serves as a director of Illinois Farm Bureau representing a five-county region in and around the Quad Cities and as IFB's interlocking director on the Illinois Corn Growers Association board of directors. He drove to Kansas City, Kansas last month to represent himself, his state and county Farm Bureaus, and his many friends and neighbors who benefit directly and indirectly from a strong Renewable Fuel Standard. His story is common. [EPA-HQ-OAR-2015-0111-3290-A2 p.1] [EPA-HQ-OAR-2015-0111-1044 p.89]

Early on, Wayne recognized the potential that renewable fuels had to chew up enormous piles of corn sitting outside virtually every country elevator. Those piles were a visible indicator of the some of the lowest real prices of corn received by farmers over the past century. So, he took a risk and bought into ethanol's potential investing in the Lakota, Iowa ethanol plant. He was a strong advocate ten years ago for the first Renewable Fuel Standard and two years later for the RFS2. The energy policy worked. The market for ethanol expanded. Corn prices began their steady rise and finally topped the magical \$3 mark. It wasn't long ago when \$3 corn was considered bullish. [EPA-HQ-OAR-2015-0111-3290-A2 p.2] [EPA-HQ-OAR-2015-0111-1044 pp.89-90]

Today, he's fortunate to live and farm 15 minutes away from the CHS ethanol plant in Annawan and 25 minutes away from Big River Resources in Galva. The two plants in his county have a combined annual production capacity of 240 million gallons. He supplies corn to both plants. And those plants are getting more efficient. The CHS plant will soon convert its corn oil into biodiesel. Not only have these plants created construction jobs, full time jobs, and steady markets for Wayne and his neighbors, they have lifted Henry County. They have generated tens of millions of dollars' worth of economic activity. Stores which probably would have closed are still open. And how did it happen? [EPA-HQ-OAR-2015-0111-3290-A2 p.2] [EPA-HQ-OAR-2015-0111-1044 p.90]

It happened because Congress took a bold step when our country recognized the need to rely more on domestically produced, environmentally friendly bio-based fuels Ethanol and biofuels are fulfilling that promise. Advanced biofuels are no longer ten years away. They are reality. Like thousands of Illinois farmers, Wayne believes strongly that the agency has the legal obligation to keep its promise to Congress and to the American people to blend significantly more renewable fuel than you're proposing. [EPA-HQ-OAR-2015-0111-3290-A2 p.2] [EPA-HQ-OAR-2015-0111-1044 p.91]

Congress set the standard. And EPA must meet it without making excuses or rewriting the law. Because farmers like Wayne Anderson and his Henry County, Illinois neighbors depends on it. [EPA-HQ-OAR-2015-0111-3290-A2 p.2] [EPA-HQ-OAR-2015-0111-1044 p.91]

### **Iowa Biodiesel Board (IBB) and Iowa Soybean Association (ISA)**

Agriculture accounts for more than 33 percent of Iowa's economic output. One-in-five of my fellow Iowans is employed in agriculture or a related industry. Clearly, any action that supports farming and promotes growth in the industry is a good thing for Iowa and our nation. The RFS is one such example. [EPA-HQ-OAR-2015-0111-1942-A1 p. 1]

Iowa is the nation's top biodiesel producer. This economic powerhouse supports more than 7,100 jobs and adds \$520 million of GDP annually to the state's economy. There are 12 biodiesel plants in Iowa that can produce more than 315 million gallons. However, last year they produced just 227 million because of RFS uncertainty. More demand for biodiesel will fuel the industry's growth, benefiting America's farmers and economy, while fueling energy diversity. [EPA-HQ-OAR-2015-0111-1942-A1 p. 1] [EPA-HQ-OAR-2015-0111-1043, pp.43-44]

The Iowa Soybean Association works on behalf of nearly 40,000 farmers who produce nearly 500 million bushels of soybeans annually. Continued and consistent demand for this product is essential for market security and production. [EPA-HQ-OAR-2015-0111-1942-A1 p. 2] [EPA-HQ-OAR-2015-0111-1043, p. 44]

A benefit of biodiesel growth is that when we diversify farm income by allowing farmers to play a role in energy production, it benefits food security for everyone. The rise of biofuels has no doubt saved family farms, which means greater food security. [EPA-HQ-OAR-2015-0111-1942-A1 p. 2] [EPA-HQ-OAR-2015-0111-1043, p. 44]

Farmers are innovative and will always rise to meet market demands. Biodiesel takes support of the Iowa ag economy one step further by creating greater value for a byproduct of the soybean meal that feeds livestock. By creating demand for soybean oil that would otherwise be underused, biodiesel decreases the price of soybean meal — a win-win for farmers who grow soybeans and feed meal to livestock. This helps food prices for consumers overall. [EPA-HQ-OAR-2015-0111-1942-A1 p. 2] [EPA-HQ-OAR-2015-0111-1043 p. 44]

A growing and more affluent global population demands more protein. Biodiesel supports that demand. Increased demand for biodiesel increases the soybean crush, thus making soybean meal more plentiful and less expensive. It also creates additional demand for animal fats, yet one more benefit for livestock producers. [EPA-HQ-OAR-2015-0111-1942-A1 p. 2] [EPA-HQ-OAR-2015-0111-1043, pp. 44-45]

### **Iowa Corn Growers Association (ICGA)**

Weakened farm economy. U.S. corn farmers are the most productive farmers in the world. Our track record of production provides strong evidence that there are more than adequate domestic and global supplies of corn for food, feed and fuel uses. Yield trends for corn in the U.S. have increased on average by 1.9 bushels per acre per year since 1955. Corn farmers produced over 2.2 billion bushels more corn in 2014 than they did in 2008 due to increased yields and increased acreage, all while implementing improved production and conservation practices. This increase of 2.2 billion bushels could produce over 6.1 billion gallons of ethanol annually. Even with record droughts in 2011 and 2012, corn carryout supplies have averaged over 1.4 billion bushels and last year (2014) corn stocks grew to almost 2.0 billion bushels. In addition, corn prices fell to nine-year lows. Corn prices in some parts of Iowa have fallen below the cost of production. At this time, the 2015 crop looks to be equally as large. EPA's proposal would take away an important demand stimulus at a time when farmers need it most. The end result would be lower farm income because of a nearly 1.5 billion bushel drop in corn demand. Limiting growth of

ethanol production under the proposed RVO only makes worse the profitability situation of U.S. corn farmers as corn stocks continue build. [EPA-HQ-OAR-2015-0111-1820-A1 p. 5-6]

### **Iowa Farm Bureau Federation (IFBF)**

Iowa's economy relies on a strong agricultural sector and thus strong commodity prices. Currently, the cost of production for corn is higher than the current market price. The same applies to soybeans as well. Farmers across the country produced a record corn crop for the past two years - now is not the time to decrease demand. The proposed rule will only drive commodity prices lower and create further hardship to Iowa farmers whose net farm incomes are likely to recede significantly. This rule will also harm livestock producers who have come to rely on the high quality, high protein distillers dried grains (DDGs) in their feedstock. [EPA-HQ-OAR-2015-0111-1717-A1 p. 2]

### **Iowa Renewable Fuels Association**

During a recent presentation to the Kansas City Federal Reserve Agricultural Symposium, Purdue University economist Mike Boehlje warned that “farmers need to batten the hatches now if they want to survive.” Purdue University’s study forecasts “revenue per acre falling below the cost of production each year from 2014 to 2017 for Midwest corn and soybean producers.” Those most at risk are “young, beginning farmers who don’t have a land base.” As a result, Boehlje noted that 25 percent of farm equipment dealers went out of business in the 1980s and he predicted “we will see another washout in dealers in the next two to three years.”<sup>15</sup> [EPA-HQ-OAR-2015-0111-1957-A2 p. 3]

Given the gloomy forecasts, it’s probably not too surprising that bankers expect farm loan defaults to rise in the next year. The monthly Creighton University July Rural Mainstreet Index survey of bank executives found that farmland prices had “fallen by 6.8 percent over the last year” and that nearly 12 percent of the bankers had “reported farm loan defaults were up for the year.” But most alarmingly, almost 55 percent of the bankers “expect farm loan defaults to rise over the next 12 months.”<sup>16</sup> [EPA-HQ-OAR-2015-0111-1957-A2 p. 3]

In fact, the impact of the RFS on farm income and the health of the rural economy is very clear. An old and all-too-accurate joke in farm country is: “if you give a farmer a market, he’ll overproduce it.” The hard work and productivity of the American farmer is much more than a cliché to be bandied about every four years during the Iowa caucuses, it is a statistical fact. Even with a growing world population and increasing middle classes demanding higher amounts of grain-intensive meat in their diets, the American farmer continues to overproduce the market. As a result, according to USDA figures, from 1981 through 2005, the average price a farmer received for a bushel of corn was below the average cost to produce that bushel in 22 of those 25 years. (Attachment B) The result was depressed farm income, high costs borne by taxpayers for Farm Bill programs, and rural economic doldrums. [EPA-HQ-OAR-2015-0111-1957-A2 p. 4]

[Attachment B can be found on p. 37-38 of docket number EPA-HQ-OAR-2015-0111-1957-A2]

However, with the implementation of the RFS, the American farm economy went on an amazing eight-year run of prosperity – what some observers have called the best eight contiguous years in the history of American agriculture. From 2006 to 2014, the average price of a bushel of corn was higher than the average cost to produce it. (Attachment B) The growing demand for ethanol had provided the sponge necessary to soak up the excess supplies of corn. As a result, we saw a strong rural economy help power many states through “The Great Recession,” while farm income and production across the globe set new highs. [EPA-HQ-OAR-2015-0111-1957-A2 p. 4]

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15. Williams, Elizabeth. “Batten Down the Hatches.” DTN/The Progressive Farmer 17 Jul 2015  
[http://www.dtnprogressivefarmer.com/dtnag/common/link.do?symbolicName=/free/news/template1&product=/ag/news/renewablefuels/news&vendorReference=0702DA77&pagination\\_num=1](http://www.dtnprogressivefarmer.com/dtnag/common/link.do?symbolicName=/free/news/template1&product=/ag/news/renewablefuels/news&vendorReference=0702DA77&pagination_num=1)

16. Ford, George. “Bankers expect farm loan defaults to rise in next year.” The Gazette 17 Jul 2015  
<http://thegazette.com/subject/news/business/bankers-expect-farm-loan-defaults-to-rise-in-next-year-20150717>

### **Kane Ranch, LLC**

I own a ranch in Central Montana, where distances are great and trucking and fuel consumption is nearly the only way to get our commodities to market and the only ways to bring necessary supplies to our area, rather than be food supplies, parts, and commodities. [EPA-HQ-OAR-2015-0111-1660-A1]

I am very sensitive to the cost of my operation, and increasing the amount of ethanol to be blended in gasoline in the proposed 2014, 2015 and 2016 volumes.[EPA-HQ-OAR-2015-0111-1660-A1]

The existing standard has already had the unintended consequence of raising the cost to agriculture business, such as mine, and I am concerned that the proposed stands will only continue to raise costs. Therefore, I am asking that the EPA set the final fuel mandate under the RFS for 2015-2016 to no more than 9.7 percent of gasoline demand.[EPA-HQ-OAR-2015-0111-1660-A1]

### **Kansas Corn Growers Association**

Kansas has 13 ethanol plants located in small, rural communities across the state. Most of these plants were built with investments by farmers and community members who took a risk to bring growth to their regions. The economic development and jobs brought to these rural areas of Kansas are significant. Farmers ensured that we have more than enough corn and grain sorghum to supply these plants with feedstocks. Now, corn growers across the nation are funding large scale efforts to increase infrastructure for ethanol blends. There could not be a worse time for EPA to lower market access for conventional ethanol. [EPA-HQ-OAR-2015-0111-3172-A1 p. 1]

### **Kansas Department of Agriculture (KDA)**

The Kansas Department of Agriculture (KDA) appreciates the opportunity to comment on the importance of the ethanol industry to the Kansas economy. There are 12 active ethanol plants in Kansas with an annual production capacity of 550.5 million gallons. The ethanol industry contributes an estimated \$2.03 billion to the Kansas economy and directly employs or supports 14,600 Kansans’.

Kansas ethanol plants utilize approximately 18.4 million bushels of corn and grain sorghum and provide 331.2 million pounds of livestock feed in the form of DDGS. DDGS are utilized in rations in Kansas feedlots and dairies, which contribute an estimated \$12.8 billion to the Kansas economy. [EPA-HQ-OAR-2015-0111-1196-A1 p.1]

The Kansas ethanol industry is an important part of Kansas agriculture and agriculture accounts for an estimated 43% of the Gross Regional Product of our state. Enhancements in the industry's competitiveness will provide long term economic benefit to Kansas. [EPA-HQ-OAR-2015-0111-1196-A1 p.1]

### **Kansas Farm Bureau**

Advanced Biofuels – While cellulosic biofuels must still prove themselves a major source of renewable fuel, technologies continue to advance and high-paying jobs are being created throughout the U.S. A case in point is the Abengoa Bioenergy Biomass plant in Hugoton, Kansas, scheduled to come on line later this year. This 25 million gallon biomass-to-ethanol bio-refinery will convert excess corn stover (cellulosic biomass) into ethanol. Additionally, the residue of the refining process will be combusted along with more biomass material to produce 18 megawatts of electricity, making the entire facility energy efficient and environmentally friendly. The plant’s economic impact will be significant because when fully operational, it is expected to provide 78 rural jobs and contribute an additional \$5 million to the local economy each year through the purchase of corn stover. EPA’s proposed reductions from RFS2 targets sends a message of uncertainty that may erode investor confidence, curtail future investment and limit the advancements and innovation needed to make advanced biofuels a reality in the U.S. [EPA-HQ-OAR-2015-0111-1195-A1 p.2]

### **Kansas Soybean Association**

Because soybean demand is driven by the protein meal markets, soy oil has traditionally existed in surplus. In recent years, demand for U.S. soybean oil for food use also began to decline significantly following the U.S. Food and Drug Administrations (FDA) action in 2003 to require food manufacturers to include trans-fats on nutrition labels beginning in 2006. The increase in the use of soybean oil for the biodiesel market has essentially taken up the reduced demand for soybean oil in the food sector associated with trans-fat labeling as the food industry shifted away from the use of partially hydrogenated soybean oil to various other oil blends. The amount of soy oil used in domestic food markets on an annual basis is approximately 4 billion pounds lower in 2012 than it was in 2005.

Additional soybean oil will be displaced from domestic food markets as a result of the recent FDA determination requiring the elimination of all partially hydrogenated oil, which creates

trans-fat. It is estimated that this will displace an additional 1-1.5 billion pounds of soybean oil from food use.

Biodiesel also has a positive impact on soy meal supplies. Processing biodiesel from soybeans uses only the oil portion of the soybean, leaving all of the soy meal protein available to nourish livestock and humans. By providing a market for soybean oil, biodiesel increases the availability of protein-rich meal for human and livestock consumption. The increased meal supply results in a more cost-effective food and feed source. [EPA-HQ-OAR-2015-0111-2340 p.2-3]

### **Kentucky Beverage Association**

Before the RFS was enacted, corn prices were fairly stable, but the RFS has introduced tremendous volatility into food commodity markets, resulting in wildly fluctuating prices for corn and animal proteins that use it. A recent study from PricewaterhouseCoopers stated that if the RFS is not repealed, consumers can expect steep increases, some by as much as 15%. Corn is a foundational ingredient in the American food supply and is used not only as a value-added product in many of the foods we buy but also as the primary feed grain in animal agriculture. The higher price of corn causes the price of every food in the supply chain to increase, from baked goods to meat products to ice cream to beverages. In fact, the rising prices from the RFS have far outpaced the rate of inflation. Since 2005, the year RFS was enacted, the CPI for food has risen 28.2% compared with a 20% increase in core inflation during that same time. [EPA-HQ-OAR-2015-0111-2356 p.1-2]

It is difficult to justify artificially raising prices of food on the backs of hardworking Americans when many of the main reasons for implementing the RFS aren't being met. Ethanol production has consumed more than 40% of U.S. corn in recent years, and it is set to keep rising. As that figure increases, the pain at the grocery store increases and Americans have no tangible results to show for it. [EPA-HQ-OAR-2015-0111-2356 p.2]

### **Kentucky Corn Growers Association**

The RFS has been vital to allow the United States to break its addiction on petroleum-based fuel by following a purposely and carefully considered stepping-up of renewables into our nation's fuel supply. In passing the RFS, corn farmers were called upon to fulfill dramatically increased demand for feedstock. The transition curve was steep, but everyone in the industry embraced the challenge. We worked together to provide plenty of corn to all those who need it: for FOOD, FEED, FUEL and FIBER. And, we did it the right way, by responsibly increasing production capacity – not by significantly increasing acres, and not by compromising environmental health.

Increasing production capacity in this fashion was not easy. It required a considerable amount of investments in infrastructure and technology. It will be impossible to reverse course on these investments and the additional grains that they generate without damage to our family businesses. For the past two years, since EPA's intentions to reduce RVO's were only a rumor, corn markets have suffered. A final decision by EPA of turning back the RFS will have shocking consequences on the farmers that rose to the task of boosting supply for the RFS. [EPA-HQ-OAR-2015-0111-2499-A1 p.1]

If EPA finalizes this rule as proposed, it will prompt a devastating impact on farmers and rural communities. [EPA-HQ-OAR-2015-0111-2499-A1 p.1]

### **Kentucky State Senate**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 117-118.]

A strong farm economy means more agribusinesses to supply those inputs, machinery, et cetera. Family businesses not farming related thrive as well. These are the supporters of farm operations, like welders for grain bins, electricians for grain dryers, mechanics for tractors. The jobs that agribusiness has created in the community that I'm familiar with and that I represent are solid, important, and critical to the economy of western Kentucky and the rest of the Commonwealth.

### **MARC-IV Consulting**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 43.]

And I think I can sum up the impacts of biodiesel on livestock in just three easy points. More biodiesel equals more meal because we use soybeans, equals decreased feed costs. And this has been documented empirically. More biodiesel equals increased carcass values because of the use of animal fats, which results in higher revenue streams for livestock producers. This also has been documented empirically. And more biodiesel equals more glycerin, which provides additional options for livestock producers in terms of energy for their rations.

### **Marquis Energy LLC**

If the EPA moves forward with their current proposal it would stifle growth and force many plants in the ethanol industry to make decisions that would have a bitter impact on America's agricultural economy. [EPA-HQ-OAR-2015-0111-2800-A1 p.1]

### **Mass Comment Campaign sponsored by ActionAid USA (web) - (2629)**

ActionAid remains strongly opposed to mandates for food-based biofuels. Land, especially arable land that is suitable for agriculture, is not an unlimited resource. Expanding production of biofuel crops means displacing food production or clearing forests, wetlands or other ecosystems. This not only presents environmental problems with decreasing biodiversity and emissions from land use change, but also undermines land rights. ActionAid works with communities who have had their land threatened and communities who lost their land to biofuel-crop plantations, in violation of their rights. [EPA-HQ-OAR-2015-0111-2553-A1 p.1]

Food-based biofuels also contribute to more volatile and higher food prices over the long term. In developing countries, poor people spend the vast majority of their income on food. Even small changes can have a major impact on their ability to afford and access sufficient food. [EPA-HQ-OAR-2015-0111-2553-A1 p.1]

**Mass Comment Campaign sponsored by Adkins Energy LLC (paper) - (120)**

A drastic cut like the one the EPA proposed will have a devastating impact on agriculture and our rural economy. It could decrease the price of corn, pushing the price American farmers receive for their grain well below the cost of production [EPA-HQ-OAR-2015-0111-2956-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 12 (email) - (560)**

I am writing you with deep concern regarding the recent proposed rule for the 2014-2016 Renewable Volume Obligations (RVOs) as required as part of the Renewable Fuel Standard (RFS). The impact that the RFS has had on ethanol plants and production cannot be overstated. [EPA-HQ-OAR-2015-0111-0215-A1 p.1]

Some analysts have said it could decrease the price of corn, pushing the price American farmers receive for their grain well below the cost of production. Working with farmers firsthand, I know they do not want to go back to the days of receiving a paycheck in the mailbox in the form of a subsidy; they want to continue to sell their crops for a profit on the free market. [EPA-HQ-OAR-2015-0111-0215-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 27 (paper) - (120)**

From excess rain or drought to the ups and downs of the marketplace, farmers are familiar with adversity. This extremely wet spring is a perfect example of the tribulations farmers work through annually. [EPA-HQ-OAR-2015-0111-2959-A1 p.1]

The proposal threatens to dramatically change demand for corn in the middle of the game. If approved, the reduced requirements will have devastating impacts on our local communities. Corn price is now below the cost of production and choosing to remove a chunk of demand is incomprehensible. [EPA-HQ-OAR-2015-0111-2959-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 31 (paper) - (301)**

I am writing in support of the Renewable Fuel Standard (RFS) and I hope you will consider my comments when making your decision. The RFS has improved the profitability of my farming operation. Before, the RFS was implemented, I struggled to sell my corn at a fair price. In addition, the limited market demand also impacted the utilization of my farmland. The impact that the RFS has had on agriculture cannot be overstated. Since its original enactment in 2005, I have witnessed firsthand the, positive impact it has had on my local economy. In fact, it is directly due to the RFS that my farming operation has become so successful. [EPA-HQ-OAR-2015-0111-2561-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 8 (email) - (505)**

Many communities, like mine, depend on a strong agricultural sector. The negative impact on renewable, domestic ethanol production affects me where I live, shop and do business. [EPA-HQ-OAR-2015-0111-0210-A1 p.1]

With corn prices hovering below the cost of production, this irresponsible decision by the EPA will imperil our already shaky economic recovery and decades of growth in rural communities. As goes the farm economy, so goes the economy of rural America. This will shrink rural tax bases, negatively impacting schools, hospitals, fire departments, and roads. Forcing land values and rents down will harm landowners, many of whom are elderly and living on fixed incomes. Rural America cannot afford another hit. [EPA-HQ-OAR-2015-0111-0210-A1 p.1]

**Mass Comment Campaign sponsored by employees of Western Dubuque Biodiesel (web) - (1)**

The RFS is working for farmers. Increased demand for biodiesel feedstocks has added value to Iowa soybeans, Iowa corn, Iowa cattle, Iowa hogs and Iowa poultry, plus increased farmer productivity and profitability while saving U.S. taxpayers tens of billions of dollars in Farm Bill payments that are no longer necessary. At Western Dubuque Biodiesel, we are proud to produce biodiesel from feedstocks grown by local farmers, who are the leaders and lifeblood of our communities. Agricultural and rural career opportunities have increased dramatically since the RFS went into place, which is allowing the best and brightest of our local youth to pursue careers in rural America. [EPA-HQ-OAR-2015-0111-1961-A1 p.2]

**Mass Comment Campaign sponsored by National Corn Growers Association (NCGA) - (24,661)**

With a record corn harvest, corn prices are on the way down, and your proposal can make or break a farm and cause havoc in upcoming planting decisions. [EPA-HQ-OAR-2015-0111-3475-A1 p.1]

In fact, the cost of growing continues to increase and the price of corn is now below the cost of production. If corn prices were to drop to \$3.50 a bushel, for example, farmers and the rural economy would lose of \$10 billion. A shock like this to agriculture markets would be particularly unwelcome given the unsettled and uncertain future of the farm bill. [EPA-HQ-OAR-2015-0111-3475-A1 p.1]

**Mass Comment Campaign sponsored by POET Bio-refining 1 (paper) - (692) 50**

The impact that the RFS has had on production agriculture cannot be overstated. Since its original enactment in 2005, I have witnessed firsthand the positive impact on my local economy - particularly my own family business. We have sold more equipment and increased our workforce more than ever. [EPA-HQ-OAR-2015-0111-2963-A1, p.7]

**Mass Comment Campaign submitted by employees of Siouxland Energy Cooperative (web)  
- (30)**

The RFS is working for farmers. Increased demand for corn for ethanol production has added value to Iowa corn, increasing farmer productivity and profitability while saving U.S. taxpayers tens of billions of dollars in Farm Bill payments that are no longer necessary. At Siouxland Energy, we are proud to buy corn from local farmers, who are the leaders and lifeblood of our communities. Agricultural and rural career opportunities have increased dramatically since the RFS went into place, allowing the best and brightest of our youth to pursue careers on the farm and keep their talents in rural America. [EPA-HQ-OAR-2015-0111-1960-A1 p.2]

**Minnesota Corn Growers Association (MCGA)**

Over 11,000 corn farmers grow and supply corn to Minnesota's ethanol industry. From 2000-11, ethanol added an average of \$2.11 in value per bushel. Improved corn prices meant more economic activity in rural areas and a ripple effect throughout the entire agricultural economy that had an impact in the Twin Cities and non-farming areas. [EPA-HQ-OAR-2015-0111-1920-A1, p.2]

**Minnesota Farm Bureau**

If the Proposed Rule is finalized as written, it will stall growth and progress in renewable fuels as well as the broader agricultural economy. [EPA-HQ-OAR-2015-0111-2263-A1 p. 1]

Minnesota Farm Bureau's membership is made up of all types of farmers, and a reduction in the RFS2 will also impact the livestock industry. Livestock producers have come to rely on distillers dried grains (DDGs), a feed by-product generated from ethanol production. DDGs are commonly used as a valuable piece in livestock ration for dairy, beef, hogs and poultry - all of which are big pieces of Minnesota agriculture. Each bushel of corn taken to an ethanol plant generates approximately 2.8 gallons of ethanol while also generating between 17 to 18 pounds of DDGs, adding a critical protein option for livestock farmers. [EPA-HQ-OAR-2015-0111-2263-A1 p. 2]

**Monsanto**

Each year; the agricultural sector invests over seven billion dollars to improve the productivity and reduce the required resources to feed, clothe and fuel a growing population. Our company is a significant part of that investment, and our mission focuses solely on agriculture. What we know is that agriculture is the heart of many communities across the U.S. What drives agriculture, and economic growth of so many of these communities, is the value and demand for the crops U.S. farmers work hard to produce. In today's agricultural economy, now is a critical time for our government to find ways to increase the demand for the crops U.S. farmers are producing, not reduce targets that do the opposite. Our R&D commitments are long term investments, and these investment helps ensure the American farmer will continue to produce enough to meet all demands. And with increased productivity, we continue to help improve the environmental profile of corn and corn based ethanol. [EPA-HQ-OAR-2015-0111-1945-A1 p.1]

## **National Association of Charterboat Operators**

Ethanol production also displaces the growth of important food crops and inflates food prices. [EPA-HQ-OAR-2015-0111-1812-A1 p.2]

## **National Biodiesel Board**

Even as biodiesel reached record production in 2013, it significantly diversified its feedstocks with a positive impact on a variety of sectors including livestock, restaurants and even municipal infrastructure. Testimony before EPA at the Public Hearing indicates that “feedstock production costs are at their lowest levels in recent history” and are projected to “remain stable” even if the biomass-based diesel volume requirement was increased to 2.4 billion in 2016. Testimony of Alan Weber, MARC-IV Consulting, Inc. (EPA-HQ-OAR-2015-0111-0996). [EPA-HQ-OAR-2015-0111-1953-A2 p.72-73]

While providing benefits to the rural economy, increasing production of biomass-based diesel simply has not been shown to result in increased food prices. EPA predicted a 3 cent per pound increase in the cost of soybean oil—when increasing the program 280 million gallons. 77 Fed. Reg. at 59,459. Instead the program grew to almost 1.8 billion gallons in 2013 and the cost of feedstocks has decreased. The NBB has kept track of daily SBO prices beginning on January 2, 2008. In 2008, SBO prices maxed at 67.82 cents per pound on March 3. As of July 13, 2015, SBO prices were at about 32 cents per pound. In 2008, the biodiesel industry produced some 691 million gallons, while production is now more than double that amount. [EPA-HQ-OAR-2015-0111-1953-A2 p.73-74]

A study by LMC International shows more than adequate feedstock. LMC International, Current and Future Supply of Biodiesel Feedstocks, July 2015 (Attachment 14). Estimates are that there is more than adequate feedstock to meet global demand and to support 7.6 billion gallons of biodiesel in 2015; and by 2020, there is still likely to be sufficient feedstock to support at least 8.5 billion gallons of biodiesel. Thus, the biomass-based diesel industry can continue to contribute significantly and meaningfully into the RFS2 program. [EPA-HQ-OAR-2015-0111-1953-A2 p.116]

## **National Chicken Council (NCC)**

Furthermore, the volume of ethanol “actually produced and used” in 2014 represents an increase from the levels that EPA originally proposed in its November 2013 Notice of Proposed Rulemaking (NPRM). This was to be expected based on EPA’s actions. Within a few months of releasing the NPRM, several public comments made by EPA officials indicated that the agency ultimately would raise the required volumes for biofuels in the final rule.<sup>2</sup> These comments were a very strong signal to ethanol producers to increase production beyond the levels suggested by the NPRM. This was a message which ethanol producers heeded. Later in the process, EPA communicated to the market that the re-issued 2014 volumes would be driven by the latest contemporaneous data, providing an economic backstop to the ethanol sector’s continued production.<sup>3</sup> [EPA-HQ-OAR-2015-0111-1814-A1 p.3]

Among other impacts, this assurance that production and use would be accommodated catalyzed the increased export levels of ethanol. While increased exports of ethanol do put upward pressure on corn prices, they do nothing to improve domestic energy independence as is the stated goal of the EISA legislation. [EPA-HQ-OAR-2015-0111-1814-A1 p.3]

According to the EIA,

Given the uncertainty surrounding Renewable Fuel Standard (RFS) targets and the lack of significant demand for higher ethanol blends in 2014, the growth in ethanol output had two primary outlets: it can either be blended into domestic gasoline or it can be exported. ... Additional volumes of ethanol beyond requirements for E10 blending and relatively small volumes used in higher ethanol blends such as E85 were exported in 2014. [EPA-HQ-OAR-2015-0111-1814-A1 p.3]

EIA calculated 2014 ethanol exports at 826 million gallons, an increase of 33 percent over 2013. This amount of ethanol represents an additional 295 million bushels of corn diverted from the feed market beyond the utilization of corn by ethanol manufacturing to comply with the domestic fuel mandates of the RFS. This diversion is due, in part, to the impact of the RFS. [EPA-HQ-OAR-2015-0111-1814-A1 p.3]

As EIA further noted:

Given the existing ethanol production capacity coupled with the ongoing constraints for blending ethanol into domestic gasoline, the United States likely will continue to remain a strong exporter of ethanol in 2015. Ultimately, the key drivers for ethanol exports this year are the finalized levels of RFS targets for 2014 and 2015, future corn crop yields, and ethanol producer profitability. [EPA-HQ-OAR-2015-0111-1814-A1 p.3-4]

Indeed, through the first five months of 2015, ethanol exports are on pace to exceed 900 million gallons, which would represent more than 320 million bushels of corn diverted from the feed market in addition to that diverted by the domestic supply of ethanol. [EPA-HQ-OAR-2015-0111-1814-A1 p.4]

When Congress set the 15 billion gallon cap on corn ethanol under the RFS, it did so to prevent ethanol production from diverting too great a volume of corn from the feed, food, seed, and industrial market for energy. With the increased required volume obligation for 2016 proposed at 14 billion gallons, and the projected trend in ethanol exports, conventional corn ethanol production will likely exceed 15 billion gallons in 2016. [EPA-HQ-OAR-2015-0111-1814-A1 p.4]

As the Congressional Research Service has noted, implicit in the RFS there is:

considerable uncertainty regarding potential spillover effects in other markets and on other important policy goals. Emerging resource constraints related to the rapid expansion of U.S. corn ethanol production have provoked questions about its long-run sustainability and the possibility of unintended consequences in other markets [EPA-HQ-OAR-2015-0111-1814-A1 p.4]

The rapid rise in ethanol exports is indeed a spillover effect that applies further pressure on the corn and feed market beyond Congressional intent under the RFS and is an urgent emerging resource constraint. [EPA-HQ-OAR-2015-0111-1814-A1 p.4]

The diversion of corn into ethanol production, when mandated by the RFS or influenced by the RFS regulatory process as it was in 2014 absent final regulations, has created an uneven playing field for chicken companies to compete for necessary feedstuffs. Corn is the primary feed ingredient for the poultry industry. Since the RFS was enacted, chicken companies have faced more than \$50 billion in higher actual feed costs due to the RFS. [EPA-HQ-OAR-2015-0111-1814-A1 p.4]

In short, the RFS provides ethanol mills with an advantage in buying corn, especially when there is some other economic shock to the market, like drought in previous years, or the flooding that has impacted corn prices so far this year. When EPA proposed the 2015 and 2016 required volume obligations on May 29, according to the USDA's May 2015 World Agricultural Supply and Demand Estimates (WASDE) report, the average marketing year corn price was forecast to be in a range between \$3.20 and \$3.80 per bushel, with 5.2 billion bushels of corn forecast to be used by ethanol production and 5.3 billion bushels to be used for feed and residual use. Since then, the July 2015 WASDE report reduced by 100 million bushels the projected corn crop production and adjusted the utilization by increasing the forecast ethanol use of corn to 5.225 billion bushels and reducing the feed demand for corn to 5.275 billion bushels based on an increase in the average marketing year corn price of \$3.45 to \$4.05 per bushel. These figures illustrate the dramatic advantage the RFS provides to the ethanol industry at the expense of other corn users, particularly when other factors drive up the price of corn. [EPA-HQ-OAR-2015-0111-1814-A1 p.5-6]

Establishing a volume that exceeds the blend wall would increase the value of RINs, which would impact gasoline prices and make ethanol's demand for corn more inelastic causing an increase in corn prices and shorting the feed market of corn. [EPA-HQ-OAR-2015-0111-1814-A1 p.8]

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<sup>2</sup> Comments of Administrator Gina McCarthy, National Association of State Departments of Agriculture 2014 Winter Policy Conference, February 2014, <http://www.fuelsnews.com/renewables-weekly-4/>.

<sup>3</sup> Comments of Administrator Gina McCarthy, North American Agricultural Journalists 61st Annual Meeting, April 2014.

### **National Corn Growers Association (NCGA)**

The RFS increased the demand for corn, and farmers responded. Corn kept up with demand in all other categories namely, feed (for animals), exports and 'other,' which includes human food, high fructose corn syrup and non-food uses. Following the 2012 drought, all major market sectors reduced corn usage as the market rationed the reduced corn supply. The market that experienced the most significant decline was the export market. However, this did not lead to global corn shortages, as major importers switched to corn imports from our major competitors. Likewise, U.S. livestock industry imported more than 162 million bushels of corn to meet

demand. These import levels have not been seen since previous droughts in the 1930s. Through it all, the market worked as predicted, and farmers responded by producing a corn crop to meet demand and rebuild stocks. [EPA-HQ-OAR-2015-0111-1939-A1 p.11-12]

### **National Council of Chain Restaurants (NCCR)**

Chain restaurants are largely owned and operated by tens of thousands of small business franchisees, many of whom have one, two, or a small handful of individual restaurant locations. These small business franchisees are often family-run enterprises, are the very picture of small business in America and give back to their communities through charitable donations to local good causes, and they serve as popular gathering places for family events, special occasions. [EPA-HQ-OAR-2015-0111-2258-A1 p. 1]

Chain restaurants serve countless meals around the country, from small towns to big cities and locations in between every single day. In recent years, their food commodity costs have increased dramatically; a development which coincides with the enactment and implementation of the Renewable Fuel Standard. These higher food commodity prices are not unique to chain restaurants, but have been experienced by nearly every entity along the food chain, from poultry and livestock farmers on one end of the chain to chain restaurants and other retail food outlets on the other. [EPA-HQ-OAR-2015-0111-2258-A1 p. 1]

NCCR convened stakeholders in the food supply chain that, along with small business chain restaurants, have unfairly suffered under the RFS mandate. Working with these stakeholders, we launched a campaign to inform policymakers about the numerous ways in which the RFS imposes costs to food chain small businesses. Our initiative, “Take RFS off the Menu,” has a website ([www.RFSOfftheMenu.org](http://www.RFSOfftheMenu.org)) which provides important and timely information about how the RFS raises food commodity prices for small business and consumers alike. [EPA-HQ-OAR-2015-0111-2258-A1 p. 1]

Relevant research and studies by entities including the Congressional Budget Office, USDA Economic Research Service, Congressional Research Service, World Bank and National Research Council have all implicated the RFS in the sustained climb and continuing volatility in food commodity prices. Moreover, numerous academic studies have done the same. The attached RFS Off the Menu document, “The RFS and Rising Food Costs” details this research. [EPA-HQ-OAR-2015-0111-2258-A1 p. 2]

Although the public domain is replete with evidence that the RFS is, in fact, a significant factor contributing to higher food commodity prices, NCCR endeavored to determine the extent to which this is the case specifically for chain restaurants. NCCR commissioned the independent firm of PricewaterhouseCoopers (PwC) to thoroughly examine this issue. PwC reviewed existing private sector, academic, and government studies on the impacts of the RFS mandate on ethanol production and the price of corn and other commodities. They then combined these estimates with survey information on commodity purchases by chain restaurants to estimate the overall impact of the RFS on chain restaurant input costs. [EPA-HQ-OAR-2015-0111-2258-A1 p. 2]

PwC issued its findings in a report released in November 2012 entitled “Federal Ethanol Policies and Chain Restaurant Food Costs.” The full report is available here (<https://nrf.com/sites/default/files/Documents/Federal%20Ethanol%20Policies%20and%20Chain%20Restaurant%20Food%20Costs.pdf>) and on our website at [www.rfs-offthemenue.org](http://www.rfs-offthemenue.org). [EPA-HQ-OAR-2015-0111-2258-A1 p. 2]

PwC concluded that the conventional portion of the RFS mandate, when fully implemented in 2015, will raise chain restaurant food costs by up to \$3.2 billion dollars a year, every year. That estimate is prospective from 2015 onward – it does not include all the years that the RFS has been in effect since its enactment. A summary of the PwC report’s findings is included in the attached Feed Food Fairness document “PwC Study: Key Findings.” [EPA-HQ-OAR-2015-0111-2258-A1 p. 2]

In addition to its estimate of the RFS’ costs to chain restaurants industry-wide, PwC also estimated the impact on a unit franchise basis. For a typical quick service chain restaurant franchise unit (one restaurant), the RFS is estimated to raise food costs by about 10% per year, or \$18,000. For a typical casual dining restaurant, the PwC estimate is 9%, or about \$17,000. These are not insignificant sums, taking into account operating costs for restaurants, narrow margins which are typical for the industry, and an extremely competitive consumer market. [EPA-HQ-OAR-2015-0111-2258-A1 p. 2]

For the economy as a whole, PwC’s findings are remarkable and concerning. If the RFS policy remains in effect unchanged, PwC estimated that by 2015 the mandate will result in the following percentage price increases for several key commodities: corn, 26.8%; soybeans, 15.7%; pork, 15%; potatoes, 13%; wheat, 12.1%; eggs, 11.2%; poultry, 7.7%; beef, 7.5%. The attached infographic displays the results in vivid terms. In addition, PwC estimates that the RFS will result in the production of an additional 6 billion gallons of ethanol which otherwise would not be produced in the absence of the mandate. [EPA-HQ-OAR-2015-0111-2258-A1 p. 2]

To provide an example and bring these numbers into perspective, consider the experience of one individual chain restaurant franchisee. Ed Anderson testified before the House Energy & Commerce Subcommittee on Energy & Power in July 2013. At the time, he owned and operated four Wendy’s restaurants in Virginia. He estimated that the RFS costs his restaurants up to \$30,000 per year, per location. For his four Wendy’s restaurants, that’s \$120,000 a year in higher food costs, which is money that the Andersons are not able to use for their business. Unfortunately, the Anderson’s experience with the RFS is all-too-common. [EPA-HQ-OAR-2015-0111-2258-A1 p. 2-3]

In recent years the proportion of the nation’s corn crop which has been diverted from its traditional use as feed in animal agriculture has hovered around 40%, and has been as high as 42% by some estimates. The Agency now proposes to raise the conventional biofuel mandate – filled almost exclusively by corn – for both 2015 and 2016, including a rather dramatic increase of some 600 million gallons in 2016. It is difficult to see how this requirement can be met without consuming an even greater proportion of U.S. corn output, especially given the fact that very little available arable land for corn and soybeans production is not already in use. Couple this with the fact that recent years have seen record yields for corn, and near perfect weather

conditions. An off-year for corn production, caused by drought or other less-than-perfect weather conditions, could result in proportions well beyond 40% of the nation's corn yield diverted from feed and food use to the production of corn ethanol. In short, the proposed volumes will continue to provide incentives to overplant corn, which will unfortunately continue the distortions in food commodity costs that have existed since the enactment of the RFS. These distortions have caused the price of a bushel of corn to skyrocket by as much as 300% in recent years. [EPA-HQ-OAR-2015-0111-2258-A1 p. 3]

It is important to note the distinction between producer prices of food commodities and the corresponding costs that retailers in the food chain must bear, versus consumer prices for food purchased in foodservice establishments and retail grocery markets. Advocates for the ethanol industry contend that the average consumer has not experienced higher food prices as a result of the RFS. Although this is not true – the average U.S. family of four faced a \$2000 increase in food costs in 2013 as a result of higher corn prices – the higher food prices experienced by consumers pales in comparison to those suffered by businesses -- many small -- in the food chain. Poultry and livestock farmers, food processors and food retailers such as restaurants have borne the brunt of higher food commodity prices caused by the RFS since its enactment. Due to competitive pressures and the weak economy of recent years, these farmers and businesses have not been able to pass along these higher costs to consumers. As a result, retail food prices for consumers have risen far less than have producer and wholesale food commodity prices exacerbating already tight margins facing small business chain restaurant owners. [EPA-HQ-OAR-2015-0111-2258-A1 p. 3]

For example, the wholesale price – the price paid by food retail businesses – of the key proteins beef, pork and chicken have doubled and tripled since the RFS took effect. In the case of beef, the annual wholesale price has risen from an average of 2.9% per year before the RFS to 9.3% since the RFS was enacted. This represents a 320% increase in the span of a few short years. For pork, the annual average wholesale price increase rose from 2.1% a year to 5.5%. The attached infographic, also found online here ([http://rfs-offthemenue.org/sites/default/files/RFS-2015-Infographic\\_print.pdf](http://rfs-offthemenue.org/sites/default/files/RFS-2015-Infographic_print.pdf)), clearly illustrates the dramatic increase in wholesale food prices since the RFS' inception. [EPA-HQ-OAR-2015-0111-2258 p. 3-4]

### **National Farmers Union (NFU)**

From Ohio Farmers Union, Docket number EPA-HQ-OAR-2015-0111-2261-A1:

I am a farmer from Fremont, Ohio. Since college, I have spent my entire career farming and involved in issues of public policy that involves Ohio's family farmers. I am one of Ohio's 3,400 farmers who markets some or all of their harvest to ethanol producers. Agriculture is Ohio's largest industry and ethanol is a large part of that economy. [EPA-HQ-OAR-2015-0111-2261-A1 p. 1]

Most important is the impact the ethanol industries have on Ohio farmers. For many years the federal government provided direct payments to farmers. Ethanol and biodiesel now give farmers an alternative to the path of government-subsistence. The over 3,400 farmers who deliver corn to

ethanol plants get the true value for their products, reducing the need for farmer subsidies. [EPA-HQ-OAR-2015-0111-2261-A1 p. 1]

From Ohio Farmers Union, Docket number EPA-HQ-OAR-2015-0111-2475-A1:

Our state is currently home to seven ethanol plants that buy corn from approximately 3,400 farmers and use it to produce ethanol fuel that blends in gasoline and food for livestock. Ohio's ethanol industry is a key economic driver providing good jobs at ethanol plants and a broader market for farmers. The United States gets less dependent all the time on imports from foreign oil producers. While a great deal of attention is currently paid to the rejuvenation of the nation's and Ohio's oil and gas industry; the fact is that farmers - partnering with ethanol producers have helped our state and nation down the path toward U.S. energy independence. [EPA-HQ-OAR-2015-0111-2475-A1 p. 1]

The RFS plays a key role. It provides the certainty and fuel market access that both the ethanol and biodiesel industries need to keep growing. The oil industry has a one hundred year head start on alternative fuels. They have used this advantage to create a monopoly on the fuel market and discourage retailers from carrying new fuels. [EPA-HQ-OAR-2015-0111-2475-A1 p. 1]

Any major cutback in utilization of corn or soybeans would have a major impact on the economy. The impact starts at the equipment manufacturing plants to the farm equipment dealers, and seed sales. Farmers are currently buying less equipment and vehicles as a result of the downturn of commodity prices. [EPA-HQ-OAR-2015-0111-2475-A1 p. 2]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 167.]

not consistent with the needs of production agriculture and rural America that is facing a dramatic downturn in commodity prices for corn.

### **National Restaurant Association**

While we commend the Environmental Protection Agency (EPA) for your continued focus on improving our environment, we urge you to carefully examine the effects this rule will have on consumers and small businesses. We are particularly concerned that the proposed rule will increase the problematic effects of the RFS on the foodservice industry and lead to further increases in food prices across the country. [EPA-HQ-OAR-2015-0111-2267-A1 p. 1]

The restaurant and foodservice industry is also the United States' second largest private-sector employer and employs 14 million people or 10 percent of the U.S. workforce. In addition, the industry generates more than \$1.9 billion in sales on a typical day.<sup>1</sup> The restaurant industry is a tremendous contributor to our economy and when the industry, as a whole, experiences economic harm, so does our nation's economy. [EPA-HQ-OAR-2015-0111-2267-A1 p. 1]

With these facts in mind, we would like to provide comments on how this rule will affect our industry and our economy. [EPA-HQ-OAR-2015-0111-2267-A1 p. 1]

The restaurant industry supports efforts to reform the RFS, which research indicates, has contributed to a significant increase in wholesale food costs. Approximately 40 percent of the domestic corn crop is now being devoted to fuel production rather than food, which has driven up food costs across the board for many food groups and restaurateurs. [EPA-HQ-OAR-2015-0111-2267-A1 p. 2]

A vital component to food production in the United States is the availability and affordability of corn. The use of corn and corn sweeteners, starch, and flour is extremely widespread and is found in countless foods. It is also a vital feedstock for meat, poultry, and dairy production. Therefore, when the cost of corn increases, the entire food chain is adversely affected. [EPA-HQ-OAR-2015-0111-2267-A1 p. 2]

Since the RFS's inception, the price of corn has fluctuated dramatically and commodity and wholesale food prices have been steadily increasing. This is in large part due to the corn ethanol mandate. The mandate has created a market for fuel use of this feedstock that has tightened supply margins and contributed to this rise in costs. [EPA-HQ-OAR-2015-0111-2267-A1 p. 2]

As with many other commodities that have seen greater price volatility, and tighter margins, the more the use of the corn supply is conflicted by food and fuel price competition, the more we expect this to continue to impact food prices. This is extremely problematic for an industry that is very price competitive and impacted by consumer spending and confidence. [EPA-HQ-OAR-2015-0111-2267-A1 p. 2]

For example, prices of all proteins have risen significantly since the inception of the RFS. The retail price of beef alone has risen more than 22% since 2008<sup>2</sup> and the United States Department of Agriculture (USDA) projects mark prices for beef to continue to increase this year, even after a substantial 23% increase in 2014.<sup>3</sup> [EPA-HQ-OAR-2015-0111-2267-A1 p. 2]

In addition, a study conducted by PricewaterhouseCoopers found that since its inception, the Renewable Fuel Standard's corn ethanol mandate has increased the demand for corn and raised the prices of corn, feed, and other commodities.<sup>4</sup> The report noted that these increases are then passed on to restaurants through their purchases of these commodities. [EPA-HQ-OAR-2015-0111-2267-A1 p. 3]

The study also projected that with the RFS in place, consumers could see price increases in many food groups this year, including an increase of 26.8% in corn, 7.5% in beef, and 7.7% in poultry.<sup>5</sup> [EPA-HQ-OAR-2015-0111-2267-A1 p. 3]

Additionally, the consumer price index for food also points to an increase in food prices over core inflation. According to the Bureau of Labor Statistics, since the inception of the RFS, the consumer price index for food has risen 28.2% compared with a 20% increase in core inflation.<sup>6</sup> [EPA-HQ-OAR-2015-0111-2267-A1 p. 3]

Finally, according to EPA's own analysis on the impacts of the increased use of renewable fuels under the RFS2 standards, 'the increased demand for U.S. agricultural products is expected to

raise the overall commodity price structure, leading to an annual increase in the cost of food per capita of about \$10 by 2022, or over \$3 billion.”<sup>7</sup> [EPA-HQ-OAR-2015-0111-2267-A1 p. 3]

These types of price increases and distortions greatly impact our customers and are unsustainable for our nation's restaurants and foodservice operations. [EPA-HQ-OAR-2015-0111-2267-A1 p. 3]

Lowering the ethanol mandate will benefit consumers and businesses alike by alleviating increased costs, protecting against food price volatility, and reducing the harm that consumers and businesses will continue to feel for years to come. [EPA-HQ-OAR-2015-0111-2267-A1 p. 3]

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1 2015 Restaurant Industry Forecast, National Restaurant Association

2 USDA Economic Research Service, 'Choice beef values and spreads and the all-fresh retail value,' July 22, 2014.

3 2015 Restaurant Industry Forecast, National Restaurant Association based on USDA, December 2014 projections.

4 Federal Ethanol Policies and Chain Restaurant Food Costs,' PricewaterhouseCoopers study, November 2012.

5 Id.

6 Bureau of Labor Statistics, CPI, U.S. City Average, Food, Jan 2005 — Jan 2014.

7 EPA, 'Renewable Fuel Standard Program (RFS2) Regulatory Impact Analysis,' Assessment and Standards Division, Office of Transportation and Air Quality, EPA-420-R-10-006, February 2010.

### **National Sorghum Producers**

Reductions would be a tremendous setback to the production of sorghum-based advanced ethanol. Sorghum is the first commercial-scale feedstock that can be used to produce advanced ethanol in the U.S. Relying on foreign ethanol is anathema to the concept of American energy independence, and sorghum provides a homegrown solution. All in a single species, sorghum is a source of starch, sugar and cellulose. In addition to grain sorghum's use in advanced ethanol production, high biomass sorghum can be used to produce cellulosic ethanol. The cellulosic ethanol industry has finally overcome the technology barriers standing in its way, and 46 million gallons of the fuel have already been produced in 2015. With commercial-scale production finally underway, it would be imprudent to inject policy uncertainty into the market. [EPA-HQ-OAR-2015-0111-1914-A1, pp.1-2]

### **National Taxpayers Union (NTU)**

Corn ethanol production diverts 40 percent of the corn crop into fuel. This increases the prices of feed for livestock such as poultry, pork, and dairy – costs that are necessarily passed onto the consumer. According to the Environmental Working Group, the corn ethanol mandate has been a factor in the closure of more than 60,000 pork, poultry, and beef operations since 2007. [EPA-HQ-OAR-2015-0111-3279-A1 p.2]

A government-guaranteed market for one product artificially increases its value, making formerly marginal land worth the labor necessary for even small yields and decreasing the availability of land for other crops. This harms the environment and has led to higher prices for

other food input commodities such as wheat and soybeans. [EPA-HQ-OAR-2015-0111-3279-A1 p.2]

## **Nestle**

We are concerned that even the limited growth EPA contemplates in the requirements for conventional (corn-based) ethanol ignore certain negative impacts of diverting a food and feed crop for fuel. This massive diversion affects every purchaser of grains and oilseeds. Just within our own company, Nestlé Purina PetCare incurs tens of millions of dollars each year in additional costs for ingredients due to the Renewable Fuel Standard and its associated ethanol mandates. [EPA-HQ-OAR-2015-0111-1918-A1 p.1]

### **Diversion of Food and Feed Crops to Fuel**

Concerns about ethanol's impact on commodity and food prices have been muted recently because corn prices are lower than in earlier years. However, the underlying issue has not changed: To meet energy and environmental goals, our nation is consciously diverting nearly 40% of the 2015/16 corn crop to ethanol. This quantity of corn – an estimated 5.2 billion bushels – is by definition unavailable for domestic use to help produce meat, milk or eggs, or for export to other countries, including developing nations. [EPA-HQ-OAR-2015-0111-1918-A1 p.3]

Nor is the impact of the RFS limited to corn markets. The separate biodiesel mandate obviously has an impact on prices in the soy complex: In 2015/16, 24% of all U.S. soybean oil output will be used for biodiesel. Now, EPA is proposing biodiesel mandates which are higher than the minimum specified in the Clean Air Act, and is moreover stipulating these mandates for an additional year, into 2017. Although it is true that biodiesel is not constrained by the E10 blendwall, the principle of diversion away from food use is the same: U.S. policy deliberately withholds soybean oil that would otherwise be consumed by people, and diverts it into fuel. The difficulty of foreseeing soybean market conditions a full two years ahead should make EPA cautious about extending mandates in this fashion.[EPA-HQ-OAR-2015-0111-1918-A1 p.3-4]

### **Commodity Price Linkages**

An additional, and often unrecognized, consequence of the RFS is to tie the prices of otherwise-unrelated commodities together to a greater degree than would otherwise be the case. The price of corn will reflect, in part, the demand for, and usage of, ethanol. Ethanol demand is in turn related to the incentive to blend ethanol into gasoline: Blenders have an incentive to use more ethanol (subject to applicable limits) when the price of ethanol is lower than the comparable gasoline price. The gasoline price is largely a function of oil prices. This means that as oil prices rise, ethanol prices can trade higher without losing the blending incentive, increasing the profitability and demand for ethanol, and therefore the fuel's 'pull' on the corn crop. Other things equal, this means a higher corn price. To be sure, corn and petroleum prices already have some tendency to move together because both are traded in dollars and will tend to move in some relation to changes in the dollar's value. But biofuels policy has provided an additional linkage, as a number of economic studies have demonstrated, and this linkage could also be extended to soy complex and wheat prices. Whether the price linkage is a good or bad thing for

the national interest has never been seriously debated, whether as part of energy or agricultural policy. [EPA-HQ-OAR-2015-0111-1918-A1 p.4]

### **NH Energy Forum**

Although I am a strong proponent of protecting the environment, increasing ethanol mandates have driven up food prices and dedicated crops and/or land to generate energy instead of food. It is no wonder that restaurant associations, grocers, producers of poultry, pork and beef, environmental non-profits and anti-hunger groups are also speaking out against increased ethanol mandates.

The elderly community, containing some of society's most vulnerable members, has been adversely affected and harmed by these ethanol mandates that have caused food prices to increase. While the elderly continue to live off of a fixed income, they continue to see their grocery bills get higher and higher each week. [EPA-HQ-OAR-2015-0111-0281-A1 p.1]

### **North Dakota Corn Growers Association (NDCGA), et al.,**

Farmers in North Dakota have invested to provide an affordable and consistent supply of high quality corn for customers. This investment includes modernization and update of farm equipment, drying facilities, and storage and handling facilities. Reducing the RVO at this time will cause an artificial over supply created by government policy. This policy change will likely take the market price of corn in ND well below the cost of production. [EPA-HQ-OAR-2015-0111-2541-A2 p.1]

I would like to share how corn growers from North Dakota have spent check off dollars in the effort to continue to meet the demands from the market place. Research dollars have been spent to improve germplasm and a corn breeding program for northern grown corn. The improved germplasm is commercialized through private seed companies and leads to higher yield corn varieties suitable for this production area. We continue to improve our ability to grow more bushels on an acre of land. [EPA-HQ-OAR-2015-0111-2541-A2 p.1]

We have also invested our research dollars into projects that demonstrate and educate how corn can be grown with less environmental repercussions, including increasing water use efficiency and nutrient use efficiency. [EPA-HQ-OAR-2015-0111-2541-A2 p.1]

Many corn growers in this state are also members or patrons of a local cooperative that supplies agricultural inputs and operates elevators. Reducing the RVOs at this time will decrease the gross inputs and bushels through facilities owned by patrons, also leading to economic injury to farmer patrons across this region. The farmer owned cooperatives have also modernized and expanded all aspects of their business, including drying, storage, handling, and shipping capabilities. [EPA-HQ-OAR-2015-0111-2541-A2 p.1-2]

Many farmers from this state deliver directly to an ethanol plant, have purchased stock in an ethanol plant, or both. These plants have a large appetite for corn, and we can continue to supply these plants with high quality corn at a competitive and affordable price. The plants demand for

corn helps improve the basis, giving farmers a slightly better net cash return per bushel sold in the market place. It also diversifies our markets so that we are not crippled when the railroads can't provide cars to ship, a major shipping waterway is closed or impaired, or the strong dollar retards the ability of our international customers to source high quality corn from North America. [EPA-HQ-OAR-2015-0111-2541-A2 p.2]

We want to keep the ethanol plants grinding corn. The jobs associated with these plants are high quality jobs spread across the entire corn belt. These jobs are not concentrated in areas like the oil producing counties where costs of living is unaffordable and the demand for education and services outpaces the supply of them. These are jobs where people can make a decent living in the community their families have lived for several generations – they don't have to uproot their families and move them to the Bakken oil patch. Keep the RVO statute and keep great paying jobs all across the corn belt of this great county. [EPA-HQ-OAR-2015-0111-2541-A2 p.2]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 178-179.]

Secondly, ethanol production has allowed our farms to become more sustainable. We purchase the high-protein wet distiller grains, or DDGs, a co-product of the ethanol production process, to feed our cattle. DDGs are a high-quality and high-value feed product to our operation. The cattle have allowed us to diversify our operation so that we are not exposed strictly to the risk of grain market prices.

The manure from our feedlot fertilizes 1,000 of our crop acres. On these acres, we have eliminated the need for phosphorous. We have also reduced our nitrogen and potassium needs. The livestock manure has an increased -- has also increased our soil organic matter.

### **North Dakota Farmers Union (NDFU)**

When setting standards for the RFS, the goals for the program and the program's importance to one our nation's most vital industries must be considered. The program: [EPA-HQ-OAR-2015-0111-1916-A1 p. 1]

Provides sustainability of the food system. The RFS helps keep family farmers farming in two distinct and important ways: it helps farmers avoid the most costly consequences of a changing climate, and offers family farmers two consistent markets in which to sell their commodity. [EPA-HQ-OAR-2015-0111-1916-A1 p. 1]

### **Northern Canola Growers Association**

The U.S. biodiesel industry is an important market for canola producers, utilizing over one billion pounds of canola oil in 2014. The use of canola as a feedstock is extremely important to canola production in North Dakota as our state has the largest canola biodiesel production facility in the U.S. Canola provides the sole feedstock option for this plant. North Dakota produces approximately 85 percent of the nation's canola. [EPA-HQ-OAR-2015-0111-2036-A1 p.1]

Furthermore, for canola and other farmers, a viable biodiesel industry helps maintain a link between vegetable oil and energy values, creates a floor for commodity values, and serves as a hedge against energy inflation. Continued growth in the biodiesel industry is needed to realize and optimize these benefits, and that growth can be prompted by increasing the RFS volumes for biomass-based diesel beyond the levels in the Proposed Rule. [EPA-HQ-OAR-2015-0111-2036-A1 p.1-2]

### **Ohio Corn & Wheat Growers Association**

When the U.S. Congress finalized the RFS2 in 2007 and asked the U.S. Environmental Protection Agency (EPA) to implement it, the U.S. entered into a partnership with all of the grains farmers in America. Since 2007, the U.S. was set on a clear path to increase our use of biofuels and the American farmer responded by getting to work on producing the feed-stocks needed to support the coming biofuel growth. [EPA-HQ-OAR-2015-0111-1723-A1 p.1]

Farmers invest millions of dollar every year into their farms to update their machinery, to consult with crop experts, to search for the most up to date information and technology, continue to upgrade all of their buildings and grain storage; all with the intent of becoming more efficient and productive. These investments are driven in large part by the commitment by the American farmer to meet the demands of all of their customers. We have never faced a production challenge we did not meet, and do not intend for that to change. [EPA-HQ-OAR-2015-0111-1723-A1 p.1]

### **Renew Kansas**

Consumers across the country have come to rely upon renewable fuels produced with American-grown corn, sorghum, soybeans and biomass resources. For that reason, ethanol and next generation biofuels are critical to the economy of farms, price stability in our domestic commodity market, and the development of rural communities. Ethanol processing also creates a high-protein dried distillers grain animal feed co-product which has become a necessary, essential, and cost-effective input for the cattle and livestock industry.

Net farm income nationally has increased as a direct result of the RFS. The proposed rule, however, would cut the renewable volume obligation for corn ethanol by 3.75 billion gallons through 2016. This proposed target would lead to a decrease in domestic corn demand by nearly 1.5 billion bushels, placing intense negative pressure on corn commodity prices. The negative impact of this price movement would be disproportionately felt not just by the corn farmers, but by all of rural America. [EPA-HQ-OAR-2015-0111-1309-A1 p.3]

### **Senate of Pennsylvania**

As a State Senator, I am concerned that increasing the ethanol ratio in gasoline will provide very little benefit, while having serious consequences. Living in a country where we are blessed with an abundance of resources to grow and raise our food, we cannot ignore the impact of these decisions. In a year that has proven very straining for the agricultural industry, due to extreme climate occurrences, many farmers are having difficulty raising enough corn to provide for their

livestock. An increased ethanol ratio would further exacerbate this problem by using valuable farmland for corn used in ethanol production, instead of food-producing crops, creating a supply shortage thus driving up prices to feed livestock. Unfortunately, these factors will be a direct detriment on agriculture, causing a major concern for both the producers and consumers. [EPA-HQ-OAR-2015-0111-3447-A1 p. 1]

### **Smithfield Foods, Inc.**

However, we do not support the Renewable Fuel Standard (RFS), which requires huge volumes of corn to be processed into ethanol at ever-increasing volumes irrespective of market conditions. Corn is the most important crop for American food producers and consumers, but the RFS mandates that nearly half of it be used for fuel. The RFS drives up the price of corn, hurting our farmers, our industry, and our customers, causing higher food prices for all consumers. [EPA-HQ-OAR-2015-0111-2041-A1 p.2]

### **Impact of the RFS on Feed Prices, the Industry, and Smithfield Foods**

The RFS diverts valuable food grains into fuel, artificially driving demand, reducing supply and ultimately increasing the cost of food. The renewable fuel requirements of the Clean Air Act section 211(o)(2)(B) demand that corn be purchased to meet statutory requirements for biofuels production. The law requires an ever-increasing amount of ethanol be blended into fuel irrespective of total fuel consumption, availability of feed stocks, or costs. Given that the overwhelming majority of conventional biofuels are derived from corn starch ethanol, the RFS creates enormous (and artificially high) demand for the American corn crop. According to the July 10 USDA World Agriculture Supply and Demand Estimates, over 43 percent of the US corn supply is used to produce ethanol.<sup>5</sup> This makes ethanol the single greatest consumer of American corn, and its statutory appetite is only increasing. [EPA-HQ-OAR-2015-0111-2041-A1 p.3]

At the same time that the RFS is mandating the diversion of corn to ethanol, supplies for corn are variable, depending upon annual planting and yields. Although supplies have generally increased, they have not kept pace with the demand of ethanol, leading to tighter stocks and higher prices. The tightening supply runs up against the insatiable demand of RFS-mandated ethanol, and the result is higher corn prices. Since the implementation of the RFS in 2005, data shows an astounding increase in the price of corn. In a study on food costs, Dr. Thomas Elam, an agricultural economist, demonstrated this trend over the seven-year period of the RFS. Based on pricing data from USDA, Dr. Elam found corn prices exploded from less than \$100 per metric ton in 2005, to \$300 per metric ton in 2012. <sup>6</sup> Moreover, the Congressional Budget Office estimated that ethanol contributed between a 28-47 percent increase in the price of corn,<sup>7</sup> while the Center for Agricultural and Rural Development (CARD) at Iowa State University projected that a full waiver of the RFS in 2011 would have reduced the price of a bushel of corn by \$1.48.<sup>8</sup> [EPA-HQ-OAR-2015-0111-2041-A1 p.3]

With more corn diverted towards ethanol than livestock farming, food producers and consumers are left to deal with the consequences of tighter corn supplies, higher corn prices and higher feed prices. Corn is the predominant grain in animal feed, and constitutes roughly 70 percent of the

cost of bringing a hog to market weight. An increase in corn prices translates to higher feed prices, which have an outsized influence on the success or failure of a livestock farm, given the percentage of input costs feed represents. From 2007-2010, total pork industry losses were more than \$6 billion, and over 6,000 pork operations went out of business, despite record high hog prices in 2009.<sup>9</sup> When the price of corn is driven by the ethanol industry, livestock producers lose. The RFS has put food producers out of business and left consumers paying more for their food. [EPA-HQ-OAR-2015-0111-2041-A1 p.4]

Due to the magnitude of corn costs, not all costs can be absorbed by farmers, and consumers have seen higher prices at the grocery store as a result. The consumer price index (CPI) demonstrates the RFS's deleterious impact on food prices. Since 2007, the CPI for food has risen 19 percent, which is significantly higher than the corresponding 12 percent increase in core inflation. Even more drastic is the increase in CPI for meats, poultry, fish, and eggs, which has increased by 31 percent since 2007.<sup>10</sup> As illustrated, the CPI for food, especially meats, poultry, fish, and eggs, has far surpassed core inflation since the start of the RFS. [EPA-HQ-OAR-2015-0111-2041-A1 p.4]

In addition to the CPI data, the Congressional Budget Office found that ethanol production raises prices for a 'wide variety of foods at the grocery store, ranging from corn syrup sweeteners found in soft drinks to meat, dairy, and poultry products.' The CBO also found that the increased demand in corn as a result of the RFS affects other crops, as farmers use more and more land for corn and supply of these crops diminish.<sup>11</sup> Likewise, the Congressional Research Service found that the RFS will raise annual food costs by \$3 billion by 2022.<sup>12</sup> These studies confirm what we already knew: the RFS increases the cost of food for all Americans. [EPA-HQ-OAR-2015-0111-2041-A1 p.4]

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5 United States Department of Agriculture. World Agriculture Supply and Demand Estimates. July 10, 2015. <http://www.usda.gov/oce/commodity/wasde/latest.pdf>

6 Elam, Thomas. Food Costs are Eating American Family Budgets. FarmEcon LLC, 2013.

7 United States Congressional Budget Office. Impact of Ethanol Use on Food Prices and Greenhouse-Gas Emissions. Pg. 7. 2009.

<<http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/100xx/doc10057/04-08-ethanol.pdf>>.

8 Babcock, Bruce, et al. Costs and Benefits to Taxpayers, Consumers, and Producers from U.S. Ethanol Policies. Iowa State University, Center for Agricultural and Rural Development (CARD), 2010.

9 National Pork Producers Council. Statement on the 'The Availability of Feed' to the US. House, Committee on Agriculture, Subcommittee on Livestock, Dairy, and Poultry. Livestock, Dairy & Poultry Sectors Air Concerns About Tight Feed Grain Supplies Hearing, September 14, 2011.

10 United States Bureau of Labor Statistics. CPI Detailed Report: Data for February 2015. July 16, 2015. <http://www.bls.gov/cpi/cpid1502.pdf>

11 Impact of Ethanol Use on Food Prices and Greenhouse-Gas Emissions. Pp. 6

12 EPA, 'Renewable Fuel Standard Program (RFS2) Regulatory Impact Analysis,' Assessment and Standards Division, Office of Transportation and Air Quality, EPA-420-R-10-006, February 2010.

## **South Dakota Corn Growers Association**

Currently, our state's family farmers are on track to grow another bumper crop. Those families are faced with extremely tight margins as prices sit below the cost of production for many. Cutting the corn ethanol volumes in the RFS will only further hurt those who have been committed to growing the necessary feed stocks that have made the RFS a success. [EPA-HQ-OAR-2015-0111-0269-A1 p.2]

## **South Dakota Farmers Union**

In addition to the sustainability of the food system, climate change's impact on agriculture may hazard the sustainability of American communities. Climate change, through its impact on agriculture, places communities in harm's way because the consequences of climate change are likely to be greater for family farmers than other agricultural producers. According to a report by USDA, "Current climate change effects are challenging agricultural management and are likely to require major adjustments in production practices over the next 30 years."<sup>3</sup> The severity of the necessary adjustments increases the likelihood that they will be expensive. In many cases, the expense of farming in a changing climate will drive out family farmers with insufficient capital or access to investors and bar new entrants from starting farm businesses by increasing the initial investment needed, leaving their land available for farm consolidation. These major adjustments will also require policy shifts that, if not executed carefully and equitably, may also place family farmers at risk and encourage farm consolidation. [EPA-HQ-OAR-2015-0111-2358-A1 p. 1-2]

The loss of family farmers presents serious challenges to the economic sustainability of rural communities. As farmers leave and farmland consolidates, businesses and community institutions lose customers and tax revenue, weaken, and eventually close, causing other institutions and businesses in the community to do the same. Rural residents are left without access to critical services or jobs. To the extent that climate change contributes to this process, it presents a serious environmental justice issue to family farmers and rural residents. The RFS helps keep family farmers farming in two distinct and important ways: it contributes to climate change mitigation, helping family farmers avoid the most costly consequences of climate change, and offers family farmers direct value for helping build climate resiliency by stabilizing prices for biofuel feedstocks and opening investment opportunities in biofuel plants. EPA would best pursue these important goals by adjusting the proposed biofuel volume standards to match the standards in the EISA. [EPA-HQ-OAR-2015-0111-2358-A1 p. 2]

In South Dakota where agriculture is the primary industry successful farmers and ranchers are the backbone of the economy. The ethanol industry, has given new market options for agriculture producers. A single bushel of field corn yields 2.8 gallons of fuel ethanol and 17.5 pounds of high-protein distillers dried grain for livestock feed. [EPA-HQ-OAR-2015-0111-2358-A1 p. 2]

Ethanol is a renewable and cleaner fuels source. Ethanol and ethanol blended gasoline have reduced greenhouse gas emissions. Every barrel of American-made ethanol produced directly displaces 1.2 barrels of crude oil. Ethanol blended fuels at 30% or higher does not contain Benzene. Benzene is a harmful chemical that is omitted through the tailpipe emissions of a vehicle. There are no safe levels of Benzene. Ethanol contributes to cleaner air to breathe. The

EPA has repeatedly said they are for clean air and clean water. Your job is to protect the environment as the Environmental Protection Agency. Ethanol is a product that will aid in cleaner air and a cleaner environment, but this proposal steps backward. Reducing the RFS will not provide cleaner air. [EPA-HQ-OAR-2015-0111-2358-A1 p. 2]

Why are you doing this? Americans have a right to breathe clean air. [EPA-HQ-OAR-2015-0111-2358-A1 p. 3]

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3. Walthall, C.L., J., et al at 119.

### **South Dakota Soybean Association**

As a soybean farmer, I recognize the positive impacts of biodiesel on the rural economy are significant. Biodiesel not only provides a cleaner burning fuel for improved sustainability, but also adds \$0.74 per bushel to a farmer's bottom line. Agriculture is the backbone of the U.S. economy, without it we would not be the great nation that we are today. [EPA-HQ-OAR-2015-0111-1308-A1 p. 2]

### **State of Indiana**

As Chair of the Indiana Senate Agriculture Committee, I know how important agriculture is to our state. I also understand how important ethanol and biodiesel are to Indiana. Indiana farmers grew the corn to produce nearly one billion gallons of ethanol last year. They also grow the soybeans to produce 120 million gallons of soy biodiesel each year. Indiana's fourteen ethanol plants and three biodiesel plants have provided a much-needed new market to farmers here in Indiana. Ethanol plants used almost 370 billion bushels of corn in the production of ethanol. That provides over \$315 million in additional profits for Indiana farmers. Where would that crop go and what would its price be without ethanol? [EPA-HQ-OAR-2015-0111-3347-A1 p.1]

Not only do these proposed volume levels hurt my constituents and the residents of this state, I'm also a farm owner in southeastern Indiana. In both of my roles, I see the struggles our farmers face every day. [EPA-HQ-OAR-2015-0111-3347-A1 p.1]

A recent Informa Economics study shows Indiana's ethanol industry has increased farmland prices by an average of \$52.50 per acre, resulting in an estimated \$635 million in land value appreciation, providing equity for farmers and rural residents. [EPA-HQ-OAR-2015-0111-3347-A1 p.2]

The dried distillers grains, or DDG's, have also helped provide our state's booming livestock industry with a low-cost, healthy food option for their animals. [EPA-HQ-OAR-2015-0111-3347-A1 p.2]

## **State of Indiana House of Representatives**

As the Chair of the Indiana House Agriculture and Rural Development Committee, I know how important agriculture is to our state. I also understand how important ethanol and biodiesel are to Indiana. Last year alone, Indiana farmers grew the corn to produce nearly one billion gallons of ethanol. Indiana farmers also grow the soybeans to produce 120 million gallons of soy biodiesel each year. Indiana's fourteen ethanol plants and three biodiesel plants have provided a much-needed new market to farmers in our state. Ethanol plants used almost 370 billion bushels of corn in the production of ethanol, which provides over \$315 million in additional profits for Indiana farmers. Where would that crop go and what would its price be without ethanol? [EPA-HQ-OAR-2015-0111-3466-A1 p.1]

The EPA's proposed volume levels hurt my constituents and the residents of this state. As a state representative and a farmer in West Central Indiana, I see firsthand from constituents and my own farm how important biofuels are to our farmers and rural communities. [EPA-HQ-OAR-2015-0111-3466-A1 p.1]

A recent Informa Economics, Inc. study shows Indiana's ethanol industry has increased farmland prices by an average of \$52.50 per acre, resulting in an estimated \$635 million in land value appreciation, providing equity for farmers and rural residents. Additionally, dried distillers grains, or DDG's, have helped provide our state's booming livestock industry with a low-cost, healthy food option for feeding animals. [EPA-HQ-OAR-2015-0111-3466-A1 p.2]

## **State of Nebraska**

Agriculture is Nebraska's number one industry, and ethanol is one of the key agricultural growth industries that have added billions in revenue and thousands of jobs over the past decade to the State. These efforts were undertaken to meet the commitment of this nation to renewable fuels as established by the RFS. [EPA-HQ-OAR-2015-0111-1810-A1 p.1]

Nebraska is currently the nation's second largest producer of ethanol with 24 plants capable of producing more than 2 billion gallons annually; a three-fold increase from the 566 million gallons produced in 2005 before the RFS was established. These ethanol plants represent more than \$5 billion in capital investment in the state and supports 4,400 jobs including 1,300 direct jobs. Ethanol is a vital commodity for Nebraska, and supports Nebraska's other leading agricultural sectors, corn and livestock production. [EPA-HQ-OAR-2015-0111-1810-A1 p.1]

## **State of South Dakota**

Agriculture is an integral part of South Dakota's economy. In fact, it is our largest industry, generating more than \$25.6 billion in economic activity in our state. Throughout the years, the ethanol industry has become a large part of South Dakota agriculture's success story accounting for up to \$3.8 billion in economic impact. South Dakota is home to 15 ethanol plants with a total annual production capacity of more than 1 billion gallons. According to a 2013 South Dakota State University study, the industry directly employs more than 1,900 people with estimated

average employee compensation in excess of \$63,000. A recent Fuels America study put those numbers even higher. [EPA-HQ-OAR-2015-0111-1919-A1 p.1]

### **The Andersons, Inc.**

EPA's proposal would take away an important demand stimulus at a time when farmers need it most. The end result would be lower farm income. [EPA-HQ-OAR-2015-0111-2509-A2 p.5]

### **U.S. Canola Association (USCA)**

While it's difficult to isolate the net impact of biofuels on the agriculture sector, according to the USDA Economic Research Service's Income Statement for the U.S. Farm Sector, from 2009 through 2013 – a period in which biofuel and biodiesel production increased - the U.S. farm sector experienced an increase in cash receipts for both crops and livestock, farm related income, gross cash income, and net cash income. Net farm income during this period more than doubled. In addition, direct government payments to the farm sector decreased. There are greater factors beyond biofuels that contributed to this success, but expanding biodiesel and other biofuel production has had a positive impact on agricultural output and jobs, and a positive net impact on the agriculture sector. [EPA-HQ-OAR-2015-0111-1819-A1 p.2]

### **Unilever**

If the EPA promulgates a final rule in line with their current 2014/2015/2016 proposal, some 2.90 billion gallons of advanced biofuels will be required to enter the fuel stream this year, which is on track with current projections. Of the 2.90 billion gallons of advanced biofuels, 1.28 billion gallons would be biomass-based biodiesel – the majority of which is made of edible oil-based biodiesel. In 2013, 70% of the advanced RFS was met through the use of biodiesel, of which 65% was virgin edible oils, such as soy and canola, this is a major concern for food companies as the diversion of food to fuel is not sound policy.

Without the proposed short-term reductions from the original RVO mandates included in the Energy Independence and Security Act of 2007 -- and without longer-term reforms to the mandates -we believe the program will continue to cause a diversion of edible soybean oil from the food supply that will have significant negative impacts on U.S. and global food security.

According to the U.S. Soybean Board, soybean oil is a critical component of the food supply, used in over 75% of all commercial U.S. food production. Soybean oil is commonly used for baking and cooking and in foods such as dressings and spreads. Soybean oil is a benefit to food producers and consumers because of its versatility, mildness and nutrition profile. Soybean oil is high in poly- and monounsaturated fats, low in saturated fats, trans-fat-free and contains natural antioxidants. It is the principal source of omega-3 fatty acids in the U.S. diet, and the primary commercial source of vitamin E, according to the U.S. Soybean Board.

Currently, 25% of edible soybean oil on the U.S. market is diverted to biodiesel production, and without program reforms the amount is likely to increase dramatically in coming years, which would threaten the supply and affordability of edible soybean oil for food producers and

consumers. If the statutory targets contained in the Energy Security and Independence Act of 2007 are maintained by the EPA in future years, by 2022, advanced biofuels must comprise at least 21 billion gallons of the overall 36 billion gallon RFS mandate. This would, in extremis, require 150% of the US soybean oil supply for biodiesel production by 2022. We believe a full review of the 2007 Act is needed in order to set realistic assumptions for the stakeholders involved.

The severe diversion of edible soybean oil to biodiesel production could result in more extreme impacts as the U.S. increases its dependency on imported soybean oil from South America and other markets. [EPA-HQ-OAR-2015-0111-2273-A2 p.1-2]

### **Wisconsin Corn Growers Association (WCGA)**

Corn-based ethanol is an important local market for Wisconsin corn. About 37 percent of Wisconsin's corn crop (180 million bushels with a value of \$738 million) is made into ethanol by nine plants located in the state. Wisconsin's nine ethanol plants produce more than 500 million gallons of ethanol. Wisconsin's ethanol industry has a \$4.2 billion economic impact, supporting 19,080 jobs with \$982 million in wages. [EPA-HQ-OAR-2015-0111-1830]

### **Wisconsin Farm Bureau Federation**

We wish to register the adverse impact these proposed rules would have on agriculture and Wisconsin's economy. [EPA-HQ-OAR-2015-0111-1716-A1 p. 1]

### **Response:**

EPA received numerous comments related to the impact of the RFS RVOs on agricultural commodities and prices (e.g., corn, soybeans, canola), as well as the various intermediate products such as seed, livestock feed and food. These comments can generally be grouped into two categories. The first category is from agricultural producers and agricultural input suppliers (e.g., the American Farm Bureau Federation, Big River Resources LLC, Corn Producers Association of Texas). These commenters argue for higher renewable fuels volumes in order to boost agricultural commodity demand and, thereby, raise agricultural commodity prices. For example, the American Farm Bureau Federation ("the Farm Bureau") suggests that USDA's cost of production forecasts indicate that the breakeven cost of production for corn was roughly \$4.05/bushel for 2014. Currently, corn prices are roughly \$3.60/bushel (Chicago Board of Trade, Corn Futures Price, November, 23rd, 2015). In other words, they argue that current corn prices are below the breakeven level, suggesting the corn growers are facing potentially serious, near-term, economic difficulties. The Farm Bureau goes on to suggest that the national average cost of production breakeven price for corn is at negative levels for the first time since 2005. The Farm Bureau suggests that the same issue applies to soybeans as well. The Farm Bureau claims that the recent decline in agricultural commodity prices, with input production costs remaining relatively high, will likely reduce farm income by tens of billions of dollars in the 2015/2016 time frame. Given the large corn and soybean crops and low commodity prices, they argue that now is not the time to reduce the demand for corn or soybeans with lower RFS RVOs, without acknowledging the fact that EPA proposed (and has finalized) to increase RFS RVOs above previous levels. While proposing to reduce RFS volumes below the unattainable statutory

volumes, this is not a decrease relative to the current market conditions, as suggested by some commenters.

Additional commenters, including state and local governments with large farming communities and organizations that represent agricultural industry (e.g., Illinois Department of Agriculture, South Dakota Farmers Union), also support higher RFS RVOs. For these stakeholders, higher agricultural commodity prices increase income going to their communities/states/farmers. This has multiple impacts besides directly increasing incomes of those involved with the production of the affected agricultural commodities. For example, higher incomes of commodity producers increase the amount of tax revenue that is generated for local communities and states. The increased tax revenues, in turn, provide greater funding for schools, infrastructure, health care, etc. In addition, greater demand for commodities supports indirect jobs and businesses that are either a part of the supply chain (e.g., farming equipment manufacturers) or local businesses who benefit generally from greater economic activity (e.g. restaurants, local banks, retailers).

Although EPA has not done an analysis of the overall impact on rural economies of this annual volume standard, in the March 2010 RFS rule EPA found that increased renewable fuel volumes will result in a modest increase in net U.S. farm income. Based on this, we would expect that the volumes being finalized in this RFS rule would also have a positive impact on net farm income in the U.S.

The above mentioned stakeholders advocate that EPA set RFS RVOs at statutory volumes to sustain and increase these benefits. The same stakeholders warn that reductions from RFS statutory volumes will have a depressing effect on farm incomes and, in turn, their communities. Again, these comments fail to acknowledge the fact that the proposed RFS volumes represented (and the final RFS volumes represent) considerable increases in renewable fuel volumes above previous levels, not decreases. Since we do not consider the statutory volumes attainable (and indeed we are setting the renewable fuel standard at the maximum achievable level), we do not believe it is appropriate to attribute any perceived negative impact on farm incomes and rural economies associated with levels of renewable fuel production below the statutory volumes to EPA's decisions.

EPA also received a number of comments that argued for reductions in RFS RVOs because of the adverse impacts higher commodity prices could cause. These commenters include livestock and poultry associations (e.g., Smithfield Foods, Inc., National Chicken Council). For example, the National Chicken Council suggests that higher input costs through feed prices will increase the costs of raising chickens and increase food costs to the consumer.

EPA recognizes that increasing renewable fuel production from traditional feedstocks (e.g., corn, soybeans, canola) can benefit some sectors of rural economies while having adverse impacts on other sectors. While increased demand for agricultural feedstocks can provide benefits to rural areas that grow the agricultural feedstocks, the industries that depend on agricultural feedstocks (e.g., the livestock industry) may face higher input costs, which in turn can lower their profitability.

An important factor to consider when discussing the impacts on the demand of a crop for biofuels is feed co-products. For every extra bushel of corn demanded for food or ethanol use, approximately 17 pounds of distiller dry grains (DDGS) is produced, which can be supplied into

feed markets. Absent this co-product from ethanol production, much of this feed demand would be met directly with corn. Therefore, any impact on corn prices due to changing demand for ethanol will generally result in a lesser impact on the cost of feed. The same fundamentals are true for soybean meal, a feed co-product that results from the soybean oil extraction process. Also, greater production of biodiesel leads to greater volumes of soy meal, which can benefit some livestock producers.

Several commenters such as restaurant groups (e.g., National Restaurant Association) raised concerns that higher RFS RVOs will place an upward pressure on food prices. These commenters claim that increasing renewable fuel volumes have driven up, and will continue to drive up, food input prices that their businesses face. They also assert that higher food prices as a result of the RFS are undesirable from a societal standpoint.

Alternatively, other commenters suggest that the proposed RFS renewable fuel volumes would have little impact on food prices, citing various USDA studies and testimony. EPA has not undertaken a formal analysis of the food cost impacts of the annual RFS 2014-2016 standards and appreciates the input from all of these stakeholders.

In setting the total renewable fuel RFS standard, EPA only considered factors that inform the determination of “inadequate domestic supply” under the general waiver authority and, there did not consider impacts of the total renewable fuel standard on areas such as feed or food prices, or on the rural economy generally. When lowering the advanced standard, EPA used the cellulosic waiver authority so that a broader range of factors can be considered than in setting the total standard. EPA has provided an explanation in Section II.B of the preamble and related sections of this RTC of the factors that informed our exercise of the cellulosic waiver authority, taking into consideration the nested nature of the standards and the fact that we view the total renewable standard as the standard most likely to have impacts on these areas.

We considered these comments and believe that the agricultural sector impacts of this rule are modest based on the analysis we did for the March 2010 final rule, and do not contribute to a different result for the amount of reasonably attainable advanced biofuel that can be supplied. We believe this for a number of reasons. One, the coproduction of DDGs with soybeans and other feedstocks mitigate potential price impacts as these DDGs replace other primary feed crops. Two, we believe the total renewable fuel volumes largely drive the amount of advanced biofuel produced and, thus, we don’t believe changes in the advanced standard are likely to have significant direct impacts. Combined, EPA believes that these reasons support the conclusion that the agricultural sector impacts associated with the advanced standard are modest and do not warrant EPA requiring use of volumes other than reasonably attainable volumes of advanced biofuel in setting the advanced biofuel standard.

### 7.3 Fuels Industry Impacts (Oil Refineries, Biofuel Facilities)

#### Comment:

**AL-Corn Clean Fuel; Badger State Ethanol; Big River Resources, LLC; Central Indiana Ethanol (CIE); Commonwealth Agri-Energy, LLC; Husker Ag LLC; Pacific Ethanol, Inc.**

EPA's proposal will undermine the confidence of lenders and creditors, resulting in restricted access to capital.

Ethanol producers are constantly investing in new technologies to make their plants more efficient and diversified. For example, over the past five years, roughly 85 percent of dry mill ethanol plants have invested in technology to extract distillers corn oil, a high-value product used as biodiesel feedstock or animal feed. Today, a number of plants are considering investment in 'bolt-on' technologies or process modifications to convert the cellulosic portion of the corn kernel into cellulosic biofuel. EPA's proposal has already spooked credit markets and cast a shadow of doubt over the soundness of future investments in biofuels. If finalized, the effects of the rule will be even more acute, and access to capital will be severely restricted. EPA's rule will not only affect access to credit for capacity expansions, new technologies and equipment, but it would also hamper the ability to access operating capital. Our company is a farmer-owned cooperative. We are at the point of needing to perform modernization and expansion, to remain competitive and relevant in our industry. How do we explain EPA's actions to our owner members? How does EPA's proposal give them any certainty in deciding to reinvest in our facility and our industry? [EPA-HQ-OAR-2015-0111-1214-A2 p.4]

If finalized, the rule could have the following effects:

- Elimination of the incentive to invest in biofuel refueling infrastructure. EPA's proposal would relieve oil companies from the requirement to blend amounts of ethanol above the 'blend wall' in 2014-2016. As a result, RIN prices would continue to fall and the financial incentive to expand E15, MLB and E85 infrastructure would be virtually eliminated. [EPA-HQ-OAR-2015-0111-1214-A2 p.5]
- Increased risk of investment in advanced and cellulosic biofuels. EPA's proposal sends a strong signal to the investment community that the commitment to biofuels of all types is wavering. Further, the future of the advanced and cellulosic ethanol sector depends in large part on an infrastructure network capable of bringing higher-level ethanol blends to the consumer, the development of which is seriously threatened by EPA's proposal.[EPA-HQ-OAR-2015-0111-1214-A2 p.5]

#### **Americans for Prosperity**

We are also concerned about the high cost of RFS compliance on small businesses, including gasoline refiners and convenience stores, as we've heard earlier today. Refiners are forced to buy expensive renewable identification numbers or face a fine, while service station owners are forced to install expensive new equipment.

### **Aventine Renewable Energy**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 354.]

Finally, another major consequence beyond demand destruction is capital investment. Why would capital markets ever invest additional dollars in renewable energy in the United States of America? Why would they ever do this?

### **Baker Commodities**

Baker has been waiting for a consistent federal policy to materialize so that it can move forward with a 10-20 million gallon per year biodiesel plant in Los Angeles County. It would be Baker's intention to sell all or most of the ultra-low carbon biodiesel fuel produced at this plant into the California market. Unfortunately, we are not convinced that the recent RFS Proposal will provide us with the market certainty necessary to invest in the project. [EPA-HQ-OAR-2015-0111-1907-A1 p.1]

### **BioEnergy R&D**

The current proposals puts the further development of a US biofuels industry to a standstill rather than securing the continued development of a clean, sustainable and affordable alternative fuel produced on the field, farms and forests of the US. [EPA-HQ-OAR-2015-0111-0124-A1]

### **Butamax Advanced Biofuels, LLC**

In addition to the decline in E85 sales volumes and the cancellation of infrastructure investment projects, EPA's actions are likely to have a much greater adverse impact in terms of investment in advanced biofuels technology. This has been estimated to have caused \$13.7 billion in lost investment in advanced biofuels capacity. Anecdotal evidence supporting this point has already appeared in the press. The current NPRM continues to give the industry no confidence that EPA intends to enforce the legislation in line with the will of Congress, or will even set RVO targets at a level that support market conditions consistent with renewable fuels growth. Without a strong signal that EPA intends to set RVO's consistent with the will of Congress, it is inevitable that investment in the sector will continue to decline materially. [EPA-HQ-OAR-2015-0111-1938-A2 p. 2]

### **Dakota Spirit AgEnergy**

The impact that the RFS has had on ethanol plants and production cannot be overstated. Since its original enactment in 2005, I have witnessed firsthand the positive impact it has had on my local economy and the plant I work at. In fact, it was directly due to the RFS that I have a job at the Dakota Spirit AgEnergy plant today. As the RFS helped drive the use of renewable fuels such as ethanol, the demand for production grew and I was able to seize the opportunity to work for a good, solid wage, doing honorable work in support of my family and my country's growing energy needs. [EPA-HQ-OAR-2015-0111-2057-A1 p.1]

Furthermore, if EPA and the government turn their backs on the production of current conventional biofuels, it will have a devastating effect on the development and

commercialization of next generation biofuels, such as cellulosic biofuel from agricultural waste. [EPA-HQ-OAR-2015-0111-2057-A1 p.1]

As you move forward in putting together a final rule, I hope you will consider the fallout that a rule such as the one proposed would have on ethanol plants and employees who count on their jobs at these facilities around the country. [EPA-HQ-OAR-2015-0111-2057-A1 p.2]

### **East Kansas Agri-Energy, LLC (EKAE)**

East Kansas Agri Energy has continued to commit and invest in technologies and make modifications to increase the efficiency of our production. As we look toward the future and next generation fuels, such as cellulosic ethanol and other advanced Bio fuels, East Kansas Agri Energy is very concerned about the message this proposal is sending future investment and rural innovation. It will have the effect of stranding billions of dollars of private capital invested in the United States by renewable fuel producers and related companies who have brought the industry from infancy to commercialization in just 5 years based on the stability offered by the 15-year policy adopted in law in 2007. In essence, it will increase, not decrease, the risk of investment in low carbon cellulosic and advanced renewable fuel as well as renewable fuel infrastructure. [EPA-HQ-OAR-2015-0111-2607-A2 p.2]

If adopted, the long term impact of this proposal on the RFS program would be significant. If adopted, this change would permanently alter the RFS and set a dangerous precedent for future RVO rulemakings, ensuring that the country never blends more renewable fuel than the oil companies are comfortable using. It hands the key back to the oil sector, by allowing their own decisions regarding infrastructure investment, fuel production, and renewable fuel blending to dictate where EPA sets the targets. This change impacts all types of renewable fuel. [EPA-HQ-OAR-2015-0111-2607-A2 p.3]

Adopt a bewildering approach to compliance: rewarding failure to install infrastructure necessary to comply with environmental regulations by loosening the rules, resulting in environmental backsliding under the Clean Air Act. [EPA-HQ-OAR-2015-0111-2607-A2 p.3]

When the RFS was established, it always envisioned ethanol blends above 10 percent-even with decreasing gasoline consumption, but oil companies are doing everything they can to maintain their stranglehold on the nation's fuel supply. With this flawed proposal, EPA is fundamentally changing how the RFS works by putting the burden of fuel distribution on biofuel producers rather than the oil refiners and integrated ----- marketers who control 50 percent of the convenience stores in this country. [EPA-HQ-OAR-2015-0111-2607-A2 p.3]

### **Energy Policy Research Foundation, Inc. (EPRINC)**

EPA's states in the proposed rule that it intends to aggressively require higher volumes of renewable fuels into the transportation fuels market above the blendwall. This regulatory strategy might in fact succeed in increasing the volume of renewable fuels in the U.S. fuels market, but it may very well come at a very high price. In the absence, of more detailed work estimating the longer-term production cost of transportation fuels under the regulation, including a careful assessment of price risks to American consumers, we would recommend a more cautious approach. EPA may believe Obligated Parties will adjust to higher volumetric targets for renewable fuels by incentivizing the use of E85, but a range of technical constraints and cost

considerations may also see the adjustment take place through lower production of transportation fuels (cuts in refinery runs), higher exports of petroleum products (not part of RVO requirement), lower imports of petroleum products, or even greater production of fuels (jet fuel, etc.) which are outside the RVO. Given the absence of a careful and detailed assessment of the longer-term production cost of transportation fuels, and the likely price risks to U.S. consumers under the volumetric mandates, we recommend EPA keep volumetric renewable fuel targets below the blendwall until more careful assessments of the consequences of higher renewable fuel mandates are fully evaluated. [EPA-HQ-OAR-2015-0111-1946-A1 p.6]

### **Environmental and Energy Study Institute (EESI)**

Despite the oil industry's calls that maintaining the Renewable Fuel Standard will throw the U.S. economy into a "death spiral" in 2013, the net economic effect of renewable fuels has been the opposite – increased fuel diversity, reduced dependence on imported petroleum. [EPA-HQ-OAR-2015-0111-1944-A1 p.5]

### **Governors' Biofuels Coalition**

The ultimate losers under the proposed rule will be American consumers, farmers, and alternative fuels, especially advanced fuels like biodiesel and cellulosic ethanol. Since advanced fuels are still a growth industry, compared to the more mature corn ethanol industry, they will feel the cuts first and most deeply. There has been remarkable progress in the development of advanced fuels in the six years since the RFS2 was signed into law in 2009. Two commercial scale cellulosic ethanol refineries have opened in the last year: POET DSM Project Liberty in Iowa and Abengoa Bioenergy in Kansas. A DuPont plant in Iowa should be operational by the end of this year. [EPA-HQ-OAR-2015-0111-2489-A1 p.1-2]

But advanced biofuels are at a turning point. If the EPA does not change its interpretation of the RFS2 for 2016 volumes, big ethanol companies will hesitate to build another cellulosic ethanol plant in the United States. Instead, they will look to China, South America, and other regions that have stable biofuels policies. In fact, DuPont announced recently that they will build no new cellulosic ethanol production facilities in the United States because of "policy uncertainty." Instead, they will license the innovative technology used at their Iowa plant to overseas companies. [EPA-HQ-OAR-2015-0111-2489-A1 p.2]

### **Green Plains, Inc.**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 252.]

I would ask how does a country like Brazil, where they drive the same Ford, Chevys, and Toyotas that we do here, blend 27 percent ethanol in their motor fuel and have for over a decade, while the U.S. cannot get past 10 percent? The answer? It's big oil's death grip on the U.S. consumer. Don't undermine our ability to invest in domestic fuel alternatives that are a catalyst to our economy. Don't deprive consumers of choices at the pump by ceding market share to big oil. The real mandate in this country is the 90 percent mandate that the petroleum fuel market has in the U.S. that the oil industry has in place and will stop at nothing to protect. Efforts to replace fossil fuels with domestic renewable fuels will continue to benefit the economy, environment, and public health.

## Growth Energy

EPA's proposal for 2014-2016 volume requirements would be particularly damaging to the important transition from first-generation renewable fuels to second-generation fuels, especially cellulosic fuels. A commitment to conventional renewable fuel through high total volume requirements would promote the development of second-generation fuels in at least two ways: by encouraging producers of conventional renewable fuels to continue investing in second-generation fuels, and by charting a path over the ethanol blendwall. [EPA-HQ-OAR-2015-0111-2604-A2 p.69]

Producers of conventional renewable fuels, including members of Growth Energy, have made enormous investments in the development of cellulosic biofuels, often in conjunction with other energy companies.<sup>393</sup> These companies already have spent billions of dollars building facilities and harvesting cellulosic feedstocks based on Congress's direction that volume requirements continuously increase over fifteen years. And their efforts have begun to bear fruit.<sup>394</sup> EPA's proposal could well halt this trend. Much of the planned growth in advanced and cellulosic biofuel production is designed around a model of licensing technology to existing biofuel producers, who are able to engage in high-value asset financing and partnering investments. But EPA's proposal to use its general waiver authority to lower conventional biofuel volume requirements below existing capacity would cripple the industry's future ability to make such investments.<sup>395</sup> Analysts at the International Council on Clean Transportation found that a waiver of the RFS would "have the indirect effect of eroding market confidence for all fuels that fall under the standard," especially for "companies that invest in second-generation fuels (cellulosic and other advanced fuels)," because "[t]hese second-generation plants rely heavily on market confidence to access and reduce the price of debt financing for plant expansions as they move to commercialize their technologies."<sup>396</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.69-70]

In short, the base renewable RVO provides a critical platform for the development of advanced biofuels, and undercutting conventional biofuels as EPA proposes will cripple the future of cellulosic ethanol in the United States. It is therefore critically important that EPA not undermine the best tool for incentivizing consumption of higher ethanol blends—the conventional renewable fuel requirement. [EPA-HQ-OAR-2015-0111-2604-A2 p.71]

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<sup>393</sup> The corn ethanol industry is critical to the development of cellulosic biofuel. See Ryan Fitzpatrick, *Cellulosic Ethanol is Getting a Big Boost from Corn, for Now* (Apr. 2, 2015), at <http://thirdway.org/report/cellulosic-ethanol-is-getting-a-big-boost-from-corn-for-now> (explaining "established companies with a sizable presence in the corn ethanol industry" are necessary to overcome the technological and economic challenges to scaling up cellulosic production). In fact, cellulosic projects sponsored by major corn ethanol producers (POET/DSM, Abengoa, and Quad City Corn Producers) account for more than 80% of total U.S. cellulosic capacity, and that percentage is expected to rise to 88% when a fourth major company (DuPont) opens its cellulosic facility later in 2015. *Id.*

<sup>394</sup> As the Congressional Research Service has found, "there were noteworthy occurrences in 2014 for the [cellulosic biofuel] industry, including the opening of three commercial-scale cellulosic ethanol plants in Iowa and Kansas with a combined production capacity of up to 52 million gallons per year." Congressional Research Service, *The Renewable Fuel Standard (RFS): Cellulosic Biofuels*, *supra* note 392 (Summary).

<sup>395</sup> As explained in the comment on this proposed rule submitted by POET, a modest increase in the base renewable target would strengthen the D6 RIN price accordingly, and D6 RIN prices are essential for providing the demand pull necessary for infrastructure that will enable developing advanced biofuels. See POET July 27 Comments, at 5-8; see also BIO Comment on EPA's Proposed 2014-2016 Standards for the Renewable Fuel Standard Program, at

32-36 (July 27, 2015) (“EPA’s proposed rule will destroy incentives to invest in development of advanced and cellulosic biofuels by eliminating both incentives for new methods of compliance beyond E10 and the profits of conventional biofuel producers who are most likely to be first-adopters of the technology.”).

<sup>396</sup> Nathan Miller et al., International Council on Clean Transportation, Measuring and Addressing Investment Risk in the Second-Generation Biofuels Industry, at 25 (Dec. 2013), at [http://www.theicct.org/sites/default/files/publications/ICCT\\_AdvancedBiofuelsInvestmentRisk\\_Dec2013.pdf](http://www.theicct.org/sites/default/files/publications/ICCT_AdvancedBiofuelsInvestmentRisk_Dec2013.pdf).

### **Hermes Consolidated, LLC dba Wyoming Refining Company**

In fact, we are unable to blend any biomass-based diesel (BBD) at all. The product is not available in our region, and we do not control all points where our diesel might be blended. Therefore, we do not have market power to force the installation of blending facilities at third party terminals should BBD ever become available. Our vertically integrated and geographically diversified competitors are not offering BBD blends and obtain their compliance RINs by over blending at sister facilities in warmer climes. Were we to offer BBD blended diesel, no one would buy it as long as the competition can offer unblended diesel by complying in another region. Our BBD RIN purchases are now paying for blending facilities for other companies. Should BBD ever become available at our refinery, BBD blending facilities will be largely built out nationwide, and no one will need our RINs. Thus, we are paying for blending facilities twice: for other parties’ when we buy RINs now and, in the future, if we ever get BBD to blend and our RINs have no market since everybody else will already have their own, for ours. [EPA-HQ-OAR-2015-0111-2487-A1 p. 1]

### **Hinman Trucking**

As a trucker, I am concerned about the negative impacts that would result from continuing Renewable Fuel Standard mandates. If the RFS is not fixed the economic impact will be severe on our industry and all the industries we supply to. [EPA-HQ-OAR-2015-0111-1659-A1 p. 1]

To meet RFS mandates, America's fuel suppliers will soon hit a blendwall which is the point when biofuels cannot be incorporated into the fuel levels required by the RFs. Fuel producers may be forced to limit production causing increased costs and hardships on all American's. [EPA-HQ-OAR-2015-0111-1659-A1 p. 1]

### **HollyFrontier Corporation**

The reality is HollyFrontier, and other merchant refiners, have limited ability to influence the quantity of renewable fuels that are consumed by our nation's transportation fleet, irrespective of RIN prices. For example, we have found that discounting the price of E85 at the wholesale level does not result in a demand response for renewable fuels due to the current, non-integrated system of our nation's fuel supply, which is to say the functions of fuel production, distribution and retailing are fragmented. In this instance, we have found that fuel retailers set prices in consideration of numerous factors outside our control including inventory turnover, consumer demand elasticity, competitor response and history— all of which are outside our control. These considerations result in merchant refiners wielding limited influence over both ultimate pricing and sales volumes of blended renewable fuels at the pump. While RIN costs are not a material determinant in the price of motor fuel due to supply chain fragmentation, RIN costs for

compliance are significant relative to the margins of merchant refiners and are disproportionately carried by the same. [EPA-HQ-OAR-2015-0111-2257-A1 p.3]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, pp. 176-177.]

We all recognize the RFS program needs repair, and the RIN market is dysfunctional. Market fundamentals no longer dictate RIN prices. Rather, prices are driven by speculation, hoarding due to fear of RIN shortages. As a merchant refiner without retail operations, HollyFrontier is limited in our ability to blend ethanol with petroleum fuels. Most of our gasoline production is transported via common carrier pipeline to large-volume customers who may or may not blend renewable fuels to the receiving terminals before distributing to the retail outlets. This blending is outside our control, and we must participate in a dysfunctional RIN market to cover our obligation. This creates a significant and disproportionate financial burden to our company and other merchant refiners. This disconnect was highlighted in a recent study from Columbia University by James Stock, who stated, 'The purpose of the RIN system is to ensure compliance with the RFS, not to add price risk to the balance sheets of obligated parties that happen to have generation obligation mismatch.'

#### **Iowa Renewable Fuels Association**

At the same time, U.S. Energy Information Administration (EIA) reports have shown “good times” for refining companies. With crude oil prices at multiyear lows and with the protection of the 90 percent petroleum monopoly, refiner crack spreads (which essentially track profit margins) have increased. In other words, the full impact of lower crude oil prices is not accruing to the benefit of American motorists, but rather a sizeable portion is fattening the bottom lines of refiners.<sup>17</sup> And while IRFA certainly recognizes and supports the refiners’ right (and necessity) to make a profit, we also believe that more competition in the form of fuel choice for consumers would be to the overall benefit of the U.S. economy and the individual motorist.

To be clear, IRFA members highly value their many positive relationships with numerous refiners – their customers. Yet, renewable fuels producers must at the same time compete with those customers for any increased market share in the fuels arena. IRFA believes that unique and somewhat awkward competition among producers and refiners – suppliers and customers – is best left to the ultimate consumer, the American motorist. The RFS was designed to break through the 100 years of government preferences for petroleum, the distribution monopolies, and other restrictive policies in order to provide consumers true choice at the pump.

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<sup>17</sup> Gronewold, Nathaniel. “EIA affirms good times for refiners.” E&E News 21 May 2015  
<http://www.eenews.net/energywire/stories/1060018897>

#### **Mascoma LLC, Lallemand Inc.**

The instability in the biofuel markets since 2013 resulting from EPA’s lack of a long-term and stable energy policy has increased the risk for potential investors, and discouraged further investments in the next generation of biofuels. Though three cellulosic biofuel plants began production in 2014 (Quad County Corn Processors, Poet-DSM, and Abengoa) and a fourth (DuPont) is scheduled to begin production in 2015, no additional cellulosic facilities have been

announced since 2013. The uncertainty around the changing RFS has been a factor in this drop. [EPA-HQ-OAR-2015-0111-0263-A1 p. 1] [EPA-HQ-OAR-2015-0111-1044 pp. 293-294]

**Mass Comment Campaign sponsored by Adkins Energy LLC (paper) - (120)**

A drastic cut like the one the EPA proposed will have a devastating impact on agriculture and our rural economy. • It may idle ethanol production and cause lost jobs in many rural areas of the country - all to benefit some of the world's largest oil companies. [EPA-HQ-OAR-2015-0111-2956-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 10 (email) - (297)**

Furthermore, if EPA and the government turn their backs on the production of current conventional biofuels, it will have a devastating effect on the full-scale commercialization of next generation biofuels, such as cellulosic biofuel from agricultural waste. The biofuels industry has just begun the commercialized production of next generation of biofuels. Now would be the worst possible time to take a step backward. [EPA-HQ-OAR-2015-0111-0213-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 11 (email) - (695)**

After years of success in expanding the ethanol industry because of the RFS, we must not move backward. We must capitalize on the current momentum and continue to invest in the future development and commercial scale production of next generation biofuels. A rule such as this would slow any further innovation, investment and growth in a successful and thriving industry that supports farmers, plant workers and entire rural communities. [EPA-HQ-OAR-2015-0111-0214-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 12 (email) - (560)**

Furthermore, if EPA and the government turn their backs on the production of current conventional biofuels, it will have a devastating effect on the development and commercialization of next generation biofuels, such as cellulosic biofuel from agricultural waste. [EPA-HQ-OAR-2015-0111-0215-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 31 (paper) - (301)**

After years of success in expanding the ethanol industry because of the RFS, we must not move backward. We must capitalize on the current momentum and continue to invest in the future development and commercial scale production of next generation biofuels. A rule such as this would slow any further innovation, investment and growth in a successful and thriving industry that supports farmers, plant workers and entire rural communities. [EPA-HQ-OAR-2015-0111-2561-A1 p.2]

**Mass Comment Campaign sponsored by anonymous 33 (paper) - (164)**

This policy is making America stronger. We cannot afford to turn our backs on such a successful policy. [EPA-HQ-OAR-2015-0111-2957-A1 p.2]

**Mass Comment Campaign sponsored by anonymous 9 (email) - (230)**

A drastic cut, such as the one that EPA proposed, will have a devastating impact on agriculture and our rural economies. Some analysts have said it could decrease the price of corn, pushing the price American farmers receive for their grain well below the cost of production. [EPA-HQ-OAR-2015-0111-0212-A1 p.1]

**Mass Comment Campaign sponsored by Corn, LP (web) - (37)**

The RFS is working for farmers. Increased demand for corn for ethanol production has added value to Iowa corn, increasing farmer productivity and profitability while saving U.S. taxpayers tens of billions of dollars in Farm Bill payments that are no longer necessary. At Corn, LP, we are proud to buy corn from local farmers, who are the leaders and lifeblood of our communities. Agricultural and rural career opportunities have increased dramatically since the RFS went into place, allowing the best and brightest of our youth to pursue careers on the farm and keep their talents in rural America. [EPA-HQ-OAR-2015-0111-2047-A1 p.2]

**Mass Comment Campaign sponsored by DENCO II. Absolute Energy. L.L.C. (paper) - (633)**

Furthermore, if the EPA and the government turn their backs on the Production of current conventional biofijels, it will have a devastating effect on the full-soale commercialization of next generation hiofuels, such as Cellulosic biofuel from agricultural Waste. The biofuels industry hasjust begun, the commercialized production of next generation of bioftiels. Now would be the worst possible time to take a step backward. [EPA-HQ-OAR-2015-0111-0207-A1 p.2]

**Mass Comment Campaign sponsored by Little Sioux Corn Processors (web) - (44)**

The RFS is working for farmers. Increased demand for corn for ethanol production has added value to Iowa corn, increasing farmer productivity and profitability while saving U.S. taxpayers tens of billions of dollars in Farm Bill payments that are no longer necessary. At Little Sioux Corn Processors, we are proud to buy corn from local farmers, who are the leaders and lifeblood of our communities. Agricultural and rural career opportunities have increased dramatically since the RFS went into place, allowing the best and brightest of our youth to pursue careers on the farm and keep their talents in rural America. [EPA-HQ-OAR-2015-0111-2045-A1 p.2]

**Mass Comment Campaign sponsored by Quad County Corn (web) - (37)**

The RFS is working for farmers. Increased demand for corn for ethanol production has added value to Iowa corn, increasing farmer productivity and profitability while saving U.S. taxpayers tens of billions of dollars in Farm Bill payments that are no longer necessary. At Quad County Corn Processors, we are proud to buy corn from local farmers, who are the leaders and lifeblood of our communities. Agricultural and rural career opportunities have increased dramatically since the RFS went into place, allowing the best and brightest of our youth to pursue careers on the farm and keep their talents in rural America. [EPA-HQ-OAR-2015-0111-2046-A1 p. 2]

### **Mass Comment Campaign submitted by DuPont employees (web) - (1)**

I am an Iowa farmer who has worked closely with the ethanol industry since its inception to support renewable fuels. I believe that using ethanol is an excellent way for the United States to depend less on foreign oil. Not to mention, I believe basis has improved over time due to having a new market for corn in our area. Reducing the effects of RFS will undoubtedly cause ethanol to be needed less, decreasing demand and reducing quality jobs that were brought into my community. [EPA-HQ-OAR-2015-0111-2825 p.1]

EPA's decision to reduce the proposed 2014 and 2015 renewable fuel volumes to below the volumes set for 2013 is bad for the U.S. economy and will stifle investments in technology and new production plants. [EPA-HQ-OAR-2015-0111-2825 p.2]

By reducing the biofuels volumes, EPA is leaving the corn ethanol market with excess capacity. In the immediate term, this will lead to lost jobs and tax revenue. Longer term, this will discourage the investment needed for the production of new plants required to drive large quantities of cellulosic ethanol into the marketplace. Nothing could be more destructive of the industry's ability to grow than unpredictable policy changes that destroy the ability to raise capital. Removing incentives or demand signals after the private sector has made the financial and other resource commitments to respond to a policy need is reversing course and a poor choice. [EPA-HQ-OAR-2015-0111-2825 p.2]

### **Mass Comment Campaign submitted by investors in Golden Grain Energy LLC. (paper) - (327)**

By taking a step backward, you are sending a signal that the government no longer supports the production of biofuels. [EPA-HQ-OAR-2015-0111-2559-A1 p.1]

With uncertainty, risk and falling investments, the biofuels industry will be bound to fall short of the potential for both current biofuels and the next generation of technology now being commercialized. [EPA-HQ-OAR-2015-0111-2559-A1 p.1]

### **Minnesota Farm Bureau**

Furthermore, a significant reduction in the 2015 and 2016 volume requirements would also slow or halt investments in the infrastructure needed to distribute and dispense larger volumes of ethanol. In turn, this will halt new investments in cellulosic biofuels and introduce detrimental ambiguity in a developing market. [EPA-HQ-OAR-2015-0111-2263-A1 p. 2]

### **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

Even worse, if EPA sets unachievable volume requirements, some obligated parties—in particular, merchant refiners who must purchase most if not all of their RINs on the secondary market—could be left altogether unable to comply if parties with access to excess RINs choose to hoard them rather than make them available on the secondary market. EPA recognized this possibility, stating that “parties that accumulate RINs through their own blending activities could decide to bank the maximum quantity of RINs for their own future use or for future sale, and that if this practice were widespread that there could be a shortfall in available RINs for parties who

do not engage in renewable fuel blending activities themselves....” [EPA-HQ-OAR-2015-0111-2603-A2, p.15]

EPA nevertheless dismissed the significance of this possibility, asserting that it exists “in any competitive marketplace.” The Merchant Refiners Group’s experience purchasing in the secondary RIN market, however, is that this market does not behave like an ordinary competitive market. In an ordinary market, increasing demand for RINs would induce additional supply, thereby allowing supply and demand to reach equilibrium. That is not so in the RIN market. Demand is inelastic—obligated parties must submit the necessary quantity of RINs—and, as EPA recognized elsewhere in the NPRM, now that the economy has hit the E10 blendwall, supply is also largely inelastic. Blenders no longer can create additional RINs through overblending. When inelastic supply is combined with anticipated increases in volume requirements in future years—thereby increasing the risk EPA will set volume requirements beyond the economy’s ability to supply renewable fuel to consumers—the result will be to significantly increase the option value of banked RINs, raising their price and making their holders less willing to part with them. An ordinary competitive market would not exhibit such behavior. Moreover, in the Merchant Refiners Group’s experience, the RIN market is often very thin and pricing is opaque. In a truly competitive market, by contrast, pricing would be transparent and significant volumes would be traded. [EPA-HQ-OAR-2015-0111-2603-A2, pp.15-16]

The fact that EPA believes that the RIN marketplace is a functioning competitive marketplace—even though it was wholly created by government regulation and its pricing depends upon predictions about how the renewable fuels industry might respond to future command-and-control decisions by EPA—demonstrates the error in EPA’s entire approach. [EPA-HQ-OAR-2015-0111-2603-A2,p.16]

### **National Corn-to-Ethanol Research Center (NCERC)**

Who are the People in the Biofuels Industry

- As I was raised in rural America, so were tens of thousands of people employed in the biofuels industry. There are many common traits shared by those employed in the biofuels industry:
  - They understand the importance of sacrifice and giving something back.
  - They understand the importance of preserving a way of life for future generations.
  - They understand that in order to have a sustainable America, we must invest in America. [EPA-HQ-OAR-2015-0111-1225-A2 p. 2]

### **Nebraska Energy Office**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 120-121.]

Soon after the Environmental Protection Agency proposed cuts to the volumes for 2014, 2015, and 2016 that were mandated by the renewable fuel standard, leaders from ethanol-producing States and national ethanol industry officials voiced their concerns that the reduced RFS volumes would cool investment in ongoing development and innovation within the sector. I'm here today to tell you that prediction has already come true.

## **Nestle**

An additional, and often unrecognized, consequence of the RFS is to tie the prices of otherwise-unrelated commodities together to a greater degree than would otherwise be the case. The price of corn will reflect, in part, the demand for, and usage of, ethanol. Ethanol demand is in turn related to the incentive to blend ethanol into gasoline: Blenders have an incentive to use more ethanol (subject to applicable limits) when the price of ethanol is lower than the comparable gasoline price. The gasoline price is largely a function of oil prices. This means that as oil prices rise, ethanol prices can trade higher without losing the blending incentive, increasing the profitability and demand for ethanol, and therefore the fuel's 'pull' on the corn crop. Other things equal, this means a higher corn price. To be sure, corn and petroleum prices already have some tendency to move together because both are traded in dollars and will tend to move in some relation to changes in the dollar's value. But biofuels policy has provided an additional linkage, as a number of economic studies have demonstrated, and this linkage could also be extended to soy complex and wheat prices. Whether the price linkage is a good or bad thing for the national interest has never been seriously debated, whether as part of energy or agricultural policy. [EPA-HQ-OAR-2015-0111-1918-A1 p.4]

## **New Leaf Biofuel, LLC**

When the EPA has expanded the biomass-based diesel program, the innovation in waste and other new feedstocks increased significantly. In the RFS Proposal, the EPA suggests that the opposite is true. But when EPA makes our market smaller, as you did in 2014, then biodiesel made from cooking oil waste products and other newer innovative feedstocks are the first casualty. [EPA-HQ-OAR-2015-0111-1909-A1, p.2]

In 2014, the fledgling biodiesel industry in California lost 4 plants that made biodiesel from used cooking oil. New Leaf was very lucky that we scaled back when we did. If we had continued operations much longer, we wouldn't have made it either. [EPA-HQ-OAR-2015-0111-1909-A1, p.2]

There is no doubt in my mind that if the 2016/17 RVO is finalized as written, it will lead to more closures and scale backs by biodiesel plants that utilize waste feedstocks. The overall GHG of the biodiesel will increase as imported higher GHG fuels squeeze us out, and worse, biodiesel blenders will scale back blending due to poor economics, resulting in a return to fossil fuels. This isn't rocket science. Its pure supply and demand, and we have data to show it DID happen as a result of the last proposal. [EPA-HQ-OAR-2015-0111-1909-A1, pp.2-3]

## **Renew Kansas**

The RFS is a strategic success story that has helped to drive continued advancements in the renewable fuels market. Through new and continued investments in innovative technologies and infrastructure for higher-level ethanol blends, the renewable fuels industry is primed to break through any so-called "blend wall." By contrast, the proposed rule would only create uncertainty in the renewable fuels industry, which would have the effect of freezing new investments into the market space. The proposed rule could, inadvertently, serve as a catalyst to cause the adverse results that the EPA seeks to avoid. [EPA-HQ-OAR-2015-0111-1309-A1 p.3-4]

## **South Dakota Corn Growers Association**

I've experienced the revitalization that the RFS and ethanol have created in small towns like mine. My local ethanol plant opened a year before I graduated from college and helped provide the opportunity for me to return home making me the 6<sup>th</sup> generation on our family farm. That plant has created many value-added opportunities and jobs. [EPA-HQ-OAR-2015-0111-0269-A1 p. 1]

According to a 2012 study by South Dakota State University, the ethanol industry in South Dakota alone has an annual economic impact of \$3.8 billion and directly employs 1,900 people who earn an average wage of \$60,000. [EPA-HQ-OAR-2015-0111-0269-A1 p. 1]

South Dakota produces over a billion gallons of corn ethanol, reducing America's dependence on foreign oil. In just eight short years, ethanol has established itself as a vital tool that increases gasoline's octane level and serves as an environmentally friendly oxygenate, displacing cancer-causing benzene. [EPA-HQ-OAR-2015-0111-0269-A1 p. 1-2]

The success of the RFS didn't just happen on its own as farm families invested heavily in ethanol plants, precision farm equipment and seed technology to help deliver the results we have today as producers continue to meet the growing global demands for food, feed, fuel and fiber. Cutting the corn ethanol volumes in the RFS, which were passed by Congress into law, simply pulls the rug out from under the backbone of rural America. If EPA follows through on this proposal, future investment will be scarce, although it's likely that investor sentiment has already been damaged due to the continued delays by your agency. [EPA-HQ-OAR-2015-0111-1811-A1 p.2]

## **The Valero Companies**

According to analysis conducted by NERA,<sup>36</sup> there is no reason to believe that the increase in RIN prices has affected the cost of ethanol to blenders, including to integrated refiners/blenders. [EPA-HQ-OAR-2015-0111-2765-A1 p.15]

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<sup>36</sup> NERA Economic Consulting, Analysis of RFS2 RIN Markets, Prepared Report for Monroe Energy, at - pg 35 (Oct. 15, 2013).

## **Response:**

EPA received many comments claiming that if EPA finalized the volumes in our proposed rule it would undermine the confidence of lenders and creditors, resulting in restricted access to capital needed for investment in new technology and operating capital. These comments also claimed that the rule could eliminate incentives to invest in biofuel refueling infrastructure and increase the risk of investment in advanced and cellulosic biofuels. EPA acknowledges the positive impacts the RFS program has had by increasing the diversity of transportation fuel pool and increasing the domestic production of transportation fuel. However, we disagree with this assessment of the likely impacts of this final rule. Many of these comments ignored the fact that the proposed RFS standards continued to increase renewable fuel volumes from previous years. They instead inappropriately assumed that by reducing the required volume of total renewable fuel from the statutory volumes EPA is reducing the volume of renewable fuel that can and will

be supplied in 2016, decrying a wide range of devastating and chilling impacts. The statutory volumes for total renewable fuel for 2014, 2015, and 2016 are beyond the levels the market can achieve in these years, and therefore the benefits that could theoretically be achieved by meeting the statutory volumes cannot be realized. Since we do not consider the statutory volumes attainable (and indeed we are setting the renewable fuel standard at the maximum achievable level), we do not believe it is appropriate to attribute any shortfall in jobs or investment associated with levels of renewable fuel production below the statutory volumes to EPA's decisions.

Rather, in finalizing a total renewable fuel standard that is equal to the maximum reasonably achievable supply of renewable fuel, we believe we are providing the necessary certainty and incentives that the renewable fuel market needs to continue to grow in future years. The total renewable fuel standard for 2016 is approximately 1.1 billion gallons higher than the volume of renewable fuel projected to be supplied in 2015, and is based on projected consumption of all renewable fuels, including ethanol volumes that are beyond the E10 blendwall. As these volumes represent significant growth over previous years, we do not believe that they will have adverse impacts on existing renewable fuel production facilities, nor do we believe they will strand existing investments or result in any overall negative impact on agriculture or the rural economy. EPA is not assuming that the market cannot consume any ethanol beyond the E10 blendwall, in 2016 or in the future, but we believe we must consider the ability of the market to consume ethanol and other renewable fuels when establishing the total renewable fuel standard.

Setting volume requirements beyond the market's ability to achieve these volumes would not be a responsible use of EPA's general waiver authority, and would result in significant uncertainty, rather than the certainty that the renewable fuels market needs to grow and that commenters seek. As the ability for the market to supply renewable fuel for use as transportation fuel in the United States grows, EPA intends to establish the total renewable fuel standard in future years at the maximum reasonably achievable supply (as long as this supply is equal to or less than the statutory volumes), requiring that any potential for increases in the supply, whether due to growth in the ability of the market to produce, import, distribute, or consume renewable fuels, are reflected in our standards. This approach provides an incentive for all those involved in the production and distribution of renewable fuels to address the potential constraints on the renewable fuel supply wherever they occur.

Similarly, the advanced biofuel and cellulosic biofuel standards established for 2016 represent significant increases over the volumes required in prior years. Consistent with our actions in previous years, EPA has increased these standards as greater volumes of advanced biofuel (including biomass-based diesel) and cellulosic biofuels are projected to be available. We believe this sends a strong signal to potential producers of advanced and cellulosic biofuels, and parties that may invest in the production of these fuels while the total renewable fuel volume continues to send a strong signal for conventional biofuels as well. As the projected production and import of these fuels increases EPA anticipates establishing standards that require increasing volumes of these fuels to be used.

A commenter expressed concern about the high cost of RFS compliance on small businesses, particularly refiners and convenience stores. We believe these concerns are misplaced. While some refiners may comply with the RFS standards through the purchase of RINs, the available data supports the conclusion that obligated parties generally are able to recover the cost of

purchasing RINs through higher prices received for their petroleum products (for more detail see EPA supporting document "A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects"). Convenience stores, with the exception of a very few large chains, do not produce or import petroleum based gasoline or diesel, and are therefore not obligated parties under the RFS standards. They therefore will not be forced to install new equipment (although they may find it advantageous to do so if the fuels market incentivizes them). See also responses to comments on the impacts on small refineries and small refiners in Section 10.7.

A commenter expressed concerns that due to a lack of biodiesel availability in their area they were forced to purchase RINs to meet their biomass-based diesel obligation, that unblended diesel was preferred by wholesale purchasers in colder climates, that their RINs purchases were being used to finance blending facilities in other areas, and that if they eventually did blend BBD there would not be a market for their RINs. As noted above, EPA believes that RINs are available for purchase by obligated parties who may not produce a specific product, and that parties who comply through the purchase of RINs are still able to obtain a higher price for their product reflecting the value of the RIN. Moreover, EPA believes that a benefit of the RIN compliance mechanism is to allow relatively more use of BBD in areas where it is cheaper and easier to do so, and allowing obligated parties that do not have access to BBD to satisfy their obligations through the purchase of excess BBD RINs.

A commenter requested that EPA conduct an assessment of the consequences of higher required volumes of renewable fuel, suggesting that if EPA requires volumes above the E10 blendwall refiners could respond by reducing their production of transportation fuel, exporting more or importing less petroleum products, or producing more fuels that do not incur an RVO. In this final rule EPA has conducted an assessment of the fuels market's ability to produce, import, distribute, and consume renewable fuels. While the required volumes in this final rule are higher than the volumes in any previous year we believe this is consistent with the congressional intent of the RFS program and the market's demonstrated ability to respond to higher standards in previous years. We do not believe that obligated parties will respond to the standards at the levels finalized by reducing their production of transportation fuel or exporting greater volumes overseas. Even if an individual party were to do so, other parties would likely step in to meet demand. EPA will continue to monitor the market's response to our standards, and retains the ability to further waive the standards in 2016 or any future year if there is evidence that the standards will cause severe economic harm.

A commenter claimed that EPA's proposed volumes would have an adverse impact on advanced biofuels, and cited a paper that political instability and delays in EPA's rulemakings are primarily responsible for an estimated \$13.7 billion shortfall in investment in advanced biofuels. EPA has reviewed this report and does not believe these claims are accurate or supported by the data. The paper notes that through 2012, EPA issued annual rulemakings on time and upheld the statutory advanced biofuel volumes, and yet the cumulative shortfall in investment in advanced biofuels was estimated to be \$6.9 billion. They attribute this shortfall to the recession and challenges related to developing new technology. They then claim that the majority of the \$13.7 billion shortfall in investment necessary to reach the statutory standards was due to EPA's delays in issuing timely rules. They give no evidence for this, nor does the paper explain why the challenges related to the recession and technology development were no longer factors in 2013 and 2014. While we acknowledge that the delay in EPA's rulemakings was not helpful to the

advanced biofuels industry, we believe challenges associated with developing and commercializing advanced biofuels, and particularly cellulosic biofuels, are the primary reason for the shortfall in the investments needed to meet the statutory targets for advanced and cellulosic biofuels.

A commenter questioned how Brazil can achieve ethanol blend rates of 27% while the United States faces difficulties increasing the ethanol blend level beyond 10%. The vast majority of vehicles and fuel distribution and dispensing infrastructure in Brazil has been designed and produced to be compatible with these higher level ethanol blends for many years. This is not the case in the United States, and thus the ability for the United States to consume gasoline containing greater than 10% ethanol is currently constrained by the number of retail stations that offer these blends and the number of vehicles that can use them.

A commenter stated that the supply of RINs is inelastic, and that as a merchant refiner they are disproportionately impacted by high RIN prices. We disagree with the commenter's assessment of the impacts of RIN prices on renewable fuel production and consumption and on merchant refiners. While we recognize that there are constraints on how quickly the fuel market can absorb additional biofuel, we believe the market has the ability, and the incentive, to take steps to produce additional RINs. Indeed our purpose in this rulemaking is to set the standards in this rule at levels which we believe the market can achieve, and which will not require a drawdown in the total number of carryover RINs. The commenter stated as an example that discounting E85 at the wholesale level does not result in a demand response from consumers due to the non-integrated system of the nation's fuel supply. While the discounted price of E85 may not result in an immediate and significant increase in E85 sales, it may instead result in an increased profit opportunity for E85 retailers. This can in turn result in an increase in the number of retail fuel stations offering E85, and the higher number of stations in increased competition, more competitive E85 pricing, and increased E85 sales over time. The response of other fuels, such as biodiesel or renewable diesel, to higher RIN prices may be more direct. The RFS program, operating through the incentives provided by the price of RINs, may not be able to increase the production, import, distribution, and consumption of renewable fuels as quickly as Congress envisioned, but we believe it can and will result in an increasing supply of renewable fuels over time. Further, after reviewing the available data, EPA has concluded that merchant refiners are generally able to recover the cost of the RINs they purchase through the price of the petroleum fuels they sell, and are therefore generally not disproportionately harmed by the RFS program or higher RIN prices (see Section 2.3.2 and EPA supporting document "An Assessment of the Impact of RIN Prices on the Retail Price of E85" for further discussion of this issue).

A commenter stated that biofuels policies such as the RFS can cause greater connections between petroleum prices and the price for agricultural products such as corn, soy, and wheat. We acknowledge this point, however we do not believe this factor is directly relevant to the standards established in this final rule.

## 7.4 Impact on RINs

### Comment:

#### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

RINs are an ineffective tool for encouraging investment and have shown no ability to create the incentives needed to move E85 volumes enough to solve the blendwall issue in 2016.<sup>42</sup> Any RIN discount a blender passes to retailers varies from market to market depending on competitive factors. The retailer will then make a rational decision on changes in their retail price. [EPA-HQ-OAR-2015-0111-1948-A1 p.26]

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<sup>42</sup> Stock, James H. *The Renewable Fuels Standard: A Path Forward*. Columbia SIPA, Center on Global Energy Policy, April 2015.

#### **Archer Daniels Midland Company (ADM)**

Where the blendwall is concerned, EPA's proposal asserts that 'RIN prices are likely to be higher than historical levels,' which is 'an expected market response to an increased renewable fuel mandate that is pushing volumes' beyond the so-called blendwall. As Craig Willis, President of ADM's Ethanol business, testified at EPA's public hearing, the market response has been the exact opposite — a strong indicator that the volumes proposed when coupled with a significant RIN carryover supply will not result in ethanol exceeding a 10% national blending threshold. [EPA-HQ-OAR-2015-0111-2262-A1 p. 4]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, pp. 40-41.]

EPA's proposal asserts that RIN prices are likely to be higher than at historical levels, which is an expected market response to an increased renewable fuel mandate that is pushing volumes beyond the so-called blend wall. However, the market response to the proposal has been the exact opposite, a strong indicator that the volumes proposed, when coupled with the significant RIN carryover supply, will not, in effect, exceed a 10 percent national blending threshold. This is confirmed by the DOE's recent 2016 forecast.

#### **Aventine Renewable Energy**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 353.]

Second, the EPA's recent ruling is causing a market distortion in RIN pricing by reducing the value of the D6 RIN by 30 cents per gallon in the commercial ethanol markets. Or in other terms, the unintended consequences have resulted in a 30-cent per gallon subsidy, subsidy to import ethanol gallons into the United States.

## **Butamax Advanced Biofuels, LLC**

The current NPRM for 2014, 2015 and 2016 reinforces market perception of EPA withdrawing support for the statutory RFS requirements as evidenced by the sharp fall in market RIN prices upon its initial publication. [EPA-HQ-OAR-2015-0111-1938-A2 p. 10]

## **Growth Energy**

This graph shows the daily price of D6 RINs (which corresponds to non-advanced renewable fuel) performing a “cliff div[e]”<sup>80</sup> as EPA announced its proposal. That “should make it obvious which way the RINs market voted with regard to the degree of push in the EPA proposal.”<sup>81</sup> To put it bluntly, the smart money knows that the proposed renewable fuel volumes mean little or no push beyond current usage levels. [EPA-HQ-OAR-2015-0111-2604-A2 p.13] [The graph can be found on page 13 of EPA-HQ-OAR-2015-0111-2604-A2.]

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<sup>80</sup> Scott Irwin & Darrel Good, *The EPA’s Proposed Ethanol Mandates for 2014, 2015, and 2016: Is There a ‘Push’ or Not?*, *Farmdoc Daily* No. (5):102, at 5 (June 3, 2015), at <http://farmdocdaily.illinois.edu/pdf/fdd030615.pdf>.

<sup>81</sup> Irwin & Good, *supra* note 80, at 5.

## **Iowa Renewable Fuels Association**

3. The RIN program provides a market-based mechanism to allow compliance flexibility for obligated parties The Study does a nice job of outlining this point and the various steps that differently situated parties can take to comply with the program.<sup>51</sup> But I would like to share a discussion I had recently with a 20-year veteran of Capitol Hill who was deeply involved in the crafting of the RFS (both laws). He marveled at how rare it was that Congress got “so right” the RFS market-based RIN mechanism to ensure consumer access to renewable fuels while allowing various parties to meet the requirement in ways that best fit their business model. He then lamented that the EPA has so totally destroyed (or at least proposed to destroy) one of the few instances that Congress got something right. The proposed EPA rule turns the RFS, and RIN values, on their heads. [EPA-HQ-OAR-2015-0111-1957-A2 p. 19]

5. RIN prices are the primary way the RFS program can incentivize the increased blending and consumption of renewable fuels in the US To justify the RFS proposal, the EPA cited a lack of renewable distribution capacity masquerading as a “supply” shortage. As Figure 5 demonstrates, since the proposal was made public on May 29th, RIN values dropped precipitously – reducing the incentive for retailers to offer higher blends of ethanol and biodiesel and increasing, relative to unblended fuels, the cost of E85 and other renewable blends. (Data can be found in Attachment H) [EPA-HQ-OAR-2015-0111-1957-A2 p. 20] [EPA-HQ-OAR-2015-0111-1044 p.68]

[Attachment H can be found on p. 71-90 of docket number EPA-HQ-OAR-2015-0111-1957-A2]

[Figure 5 can be found on p. 20 of docket number EPA-HQ-OAR-2015-0111-1957-A2]

The EPA is not responding to an infrastructure shortage for higher ethanol blends with this proposal – the EPA is creating it. A strong RFS provides the incentive for retailers to offer higher ethanol blends to their customers. By slashing the RFS, the EPA slashes the incentive to install

higher blend distribution infrastructure. This fundamental flaw in EPA’s understanding of the RFS and market dynamics must be addressed and corrected if we are ever to achieve the market competition goals Congress outlined when passing the RFS. [EPA-HQ-OAR-2015-0111-1957-A2 p. 20] [EPA-HQ-OAR-2015-0111-1044 p.69]

It is troubling that the Agency appears to have ignored each and every takeaway of EPA’s own internal RIN analysis. We urge the Agency to review the RIN assessment again, with the addition of the new data we provided, and to incorporate its lessons into the finalized RFS levels. [EPA-HQ-OAR-2015-0111-1957-A2 p. 20] [EPA-HQ-OAR-2015-0111-1044 p.68]

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<sup>51</sup> Burkholder, Dallas. “A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects.” *U.S. Environmental Protection Agency Office of Transportation and Air Quality* 14 May 2015. Page 29.

### **Johns Hopkins University**

The upper range may result in RIN price increases over the baseline scenario, but in all cases the RIN prices are significantly lower than observed in 2013. [EPA-HQ-OAR-2015-0111-3273-A1 p. 36]

### **Linn & Associates**

Now before you think that lower RIN prices are a blessing not a curse, we need to keep in mind that for obligated parties who have made the proper investment, there is no cost to them outside of buying the ethanol itself, which is not well correlated to RIN price movements. In fact, at current market values, blenders earn at least 60 cents per gallon on each gallon of ethanol bought. It should be noted that after the proposal, ethanol plant margins in Nebraska fell to roughly break-even, some even a little bit worse. There is also an unintended consequence of this debasement of the D6 RINs, the narrowing of the D5, D6 RIN spread. As it speaks, we potentially are sending imports of Brazilian ethanol, molecule for molecule the exact same thing, heading to the U.S. We could get into a situation where you have the exact same thing crossing each other in the Atlantic.

### **N. Bowdish Company**

Simply put, your renewable volume obligation proposal for 2014, 2015, and 2016 has already had a very negative impact on increasing the consumption of renewable fuels in the future as is evident by the D6 RIN price dropping from approximately 70 cents per gallon prior to your announcement to the 35 cents per gallon range a few days after.[EPA-HQ-OAR-2015-0111-1202-A1 p.1] [EPA-HQ-OAR-2015-0111-1044 p.335]

### **National Biodiesel Board**

EPA states that “Congress charged [it] with implementing a program whose explicit goal is increased renewable fuel use over time.” 80 Fed. Reg. at 33,119. EPA then, however, contends it is seeking to achieve this goal “in a fashion that maximizes flexibility and the power of the marketplace, while at the same time recognizing the complex and disaggregated structure of the fuel production and distribution systems.” *Id.* As noted above, NBB disagrees that it has authority to eschew the directives of Congress in favor of maximizing flexibility and relying on

the marketplace that Congress clearly intended to change. In any event, EPA's proposal does not achieve any of these goals. [EPA-HQ-OAR-2015-0111-1953-A2 p.43]

Based on these objectives, EPA contends that it is setting the biomass-based diesel volume at a level that will allow other advanced biofuels to compete in the advanced biofuel market. EPA asserts: "Competition is good for obligated parties and consumers, as it permits the market to determine the most efficient, lowest cost, best performing fuels for meeting the increasingly higher volume requirements anticipated year to year under the program." 80 Fed. Reg. at 33,102. The problem with EPA's assertion is that it is factually incorrect in asserting that there is a market that includes two distinct products that are not substitutes for each other. It is like EPA is asserting that there is one market for coffee and baby formula simply because both are beverages. They have different consumers, different purposes, and different factors that affect the markets. One cannot expect a baby to drink coffee, as one cannot expect gasoline substitutes to be used to replace diesel fuel. Further, Congress sought to help renewable fuels "compete" with petroleum fuels, not each other. See E2 2014 Advanced Biofuel Report at 13 ("Success in this industry requires that advanced biofuels become cost-competitive with their petroleum-based counterparts, which means advanced biofuel producers must attempt to minimize operating costs."). Even if EPA's purported goal is to allow for other advanced biofuels, which NBB does not dispute in theory, its proposed approach would actually undermine those goals. "Without a clear signal for continued, strong demand, investors will likely look for other markets." *Id.* at 14. While Congress understood this, EPA appears to have forgotten this key aspect of economic theory. [EPA-HQ-OAR-2015-0111-1953-A2 p.43]

EPA explains, the "RFS program, acting through the mechanism of the RIN system, operates to provide an incentive for renewable fuel producers to increase the production of renewable fuels by, in effect, increasing the price blenders and obligated parties are willing to pay for renewable fuels." 80 Fed. Reg. at 33,119. Then, however, EPA goes off track. It states "renewable fuel producers sell not only the fuels they produce, such as ethanol or biodiesel, but also the RINs that are 'assigned' to the renewable fuel. As the demand for RINs increases, the willingness of the market to pay for renewable fuels and the RINs assigned to them also increases." *Id.* This is incorrect. The "assigned" RINs generally are not valued separately from the fuel. Rather, the RIN requirements allow renewable fuel producers to have a certain market for their fuel. Profit will still largely depend on the feedstock prices and production efficiencies, not on the RIN values. [EPA-HQ-OAR-2015-0111-1953-A2 p.43-44]

The problem with EPA's approach is that, rather than effectuating the intent of Congress, it is seeking to create a cheaper market for *separated RINs*. Unfortunately for EPA, the intent of Congress was not to create a cheap market for separated RINs. Indeed, the credit program was to reward *excess* production and, as such, it could be assumed that Congress wanted such reward to be financial in nature. [EPA-HQ-OAR-2015-0111-1953-A2 p.44]

The RIN value occurs when they are separated from the fuel; that is, when they are used or blended. The prices of *separated RINs*, then creates the market incentives to develop renewable fuel distribution infrastructure by giving distributors and marketers additional financial incentives to use and blend renewable fuels. While EPA contends that this results in a net reduction in the purchase price of the renewable fuel, that is not necessarily the driving factor of use. EPA does recognize that "[b]y increasing the potential profitability of blending renewable fuels, higher RIN prices can incentivize the build out of the infrastructure necessary to blend and

distribute renewable fuel blends as parties seek to enter or expand their position within this market.” 80 Fed. Reg. at 33,119. That is the purpose of a mandate. EPA asserts that the program “likely cannot substantially increase the available supply of renewable fuels to consumers to the volumes envisioned by Congress in the short term.” *Id.* at 33,120. But, the program did substantially increase the available supply for biomass-based diesel to volumes *above* those envisioned by Congress and in the short term. As such, EPA should continue to support that program to ensure those continued increases. [EPA-HQ-OAR-2015-0111-1953-A2 p.44]

EPA turns the purpose of a mandate on its head by arguing that the RIN system should result in reduced costs to consumers which then will create incentives for consumers to purchase the fuel. 80 Fed. Reg. at 33,119. Although the RIN program for biomass-based diesel has reduced the cost of petroleum fuel for consumers,<sup>48</sup> that is not the purpose. If that is all Congress sought, it could simply continue the tax credits and create subsidies as it did to prop up the petroleum industry. That’s not what Congress did. Moreover, EPA provides no analysis of diesel fuel prices and the various factors that contribute to the costs *at the pump*. In fact, Congress knew what it was doing in requiring a mandate under the RFS2 program because it actually results in lowering the cost of diesel fuel at the consumer pump. [EPA-HQ-OAR-2015-0111-1953-A2 p.44]

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<sup>48</sup> See Terminal Pricing Sheet (Attachment 3).

## Poet, LLC

commentators have noted that the market has determined EPA’s proposed Base Renewable target to be a failure, finding that the “huge decline in D6 ethanol RINs prices” immediately following EPA’s NOPR release “suggests the market believes ... the proposed ethanol mandates provide little pressure” for higher volumes of biofuels.<sup>1</sup> [EPA-HQ-OAR-2015-0111-2481-A1 p.5]

Edgeworth Economics has determined through modelling that, under reasonable assumptions, it would be readily achievable for the market to consume 600 million to approximately 1.1 billion gallons of ethanol in E85, at RIN prices of \$0.80 to \$1.45, in 2015 and 2016.<sup>47</sup> [EPA-HQ-OAR-2015-0111-2481-A1 p.14]

A still conservative estimate would be that a typical station dispenses twice that much E85—90,000 gallons per month. Using this higher, reasonable per-station throughput limit, Edgeworth Economics has determined that 1.5 billion gallons of additional ethanol via increased E85 could be used, at RIN prices of approximately \$1.28. Moreover, retail gasoline prices (of E10) do not change by more than 1% in any of these scenarios.<sup>49</sup> [EPA-HQ-OAR-2015-0111-2481-A1 p.14-15]

For instance, Table 1 [The table can be found on p. 13 of docket number EPA-HQ-OAR-2015-0111-2481-A1] shows E85 volumes in the range of 1.1 to 1.5 billion gallons for 2016, based on reasonable RIN price scenarios. [EPA-HQ-OAR-2015-0111-2481-A1 p.16]

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<sup>1</sup> See Scott Irwin and Darrel Good, *The EPA’s Proposed Ethanol Mandates for 2014, 2015, and 2016: Is There a ‘Push’ or Not?* (June 3, 2015), p. 7, available at <http://farmdocdaily.illinois.edu/pdf/fdd030615.pdf>.

<sup>47</sup> See Edgeworth Economics, *Impact of the RFS Mandate on Motor Fuel Volumes and Prices, 2014-2016* (July 2015)(Attachment 1 hereto to POET comments). [Attachment 1 can be found in docket number EPA-HQ-OAR-2015-0111-2481-A2.]

<sup>49</sup> See generally, the Edgeworth Economics report attached hereto.

### **Renewable Fuels Association (RFA)**

Indeed, evidence of the fact that EPA’s proposal requires no change in behavior by obligated parties is found in recent RIN market trends. RIN prices fell dramatically upon the realization that EPA was proposing 2014-2016 RVO levels that are below the E10 “blend wall.” According to data from the Oil Price Information Service (OPIS), prices for 2015 D6 RINs averaged 71 cents in May 2015, but had plunged by nearly half to just 37.5 cents by June 8, 2015—a week after the release of EPA’s proposal (Figure 2). D6 RIN values have slightly recovered in recent weeks, but remain far below pre-proposal levels. [EPA-HQ-OAR-2015-0111-1917-A1 p. 25]

### **Shell Oil Products US**

RIN prices are often discussed as a means to create incentives for retailers to invest in infrastructure to offer E85 and other higher ethanol blends. While it is true, we believe, that if RIN prices stay high enough, long enough, that might cause some expansion of E85 availability by enticing retailers (97% of which are independently owned and operated) to invest in new infrastructure, it is important to keep in mind that there is a time element to this which could result in RIN shortage that limits gasoline and diesel supply and otherwise adversely affects consumers and the economy in the interim. [EPA-HQ-OAR-2015-0111-2716-A2 p.3]

### **Small Refinery Owners Coalition**

Driving investment in infrastructure through RIN prices means destroying small business to reward exempt blenders for thwarting the purposes of the RFS. [EPA-HQ-OAR-2015-0111-2339-A1 p. 19]

### **Response:**

A commenter stated that RINs are an ineffective tool for encouraging investment and have not shown the ability to create the incentives needed to increase sales volumes of E85. EPA acknowledges that the available data indicates that there was a limit to the degree to which higher RIN prices have impacted the retail price of E85, and thus sales volumes of E85 (see “An Assessment of the Impact of RIN Prices on the Retail Price of E85” for our assessment of this issue). The commenter noted that any RIN discount a blender passes to retailers varies from market to market depending on competitive factors. We believe that over time these dynamics will result in an increasing portion of the RIN value being passed on to consumers in the retail price of E85, and subsequently increasing sales of E85. In situations where blenders and/or retailers are able to retain much of the RIN value due to no or low competition, there will be an opportunity for other parties to enter these markets, increasing the competition and ultimately benefiting the customers through lower retail prices for E85. As noted by a commenter, however, this process will take time, and the degree to which higher RIN prices will result in greater sales volumes of E85 in 2016 will be limited. The standards we are finalizing in this final rule reflect our current assessment of the fuels market, which is largely non-competitive for

E85; however we will continue to monitor the markets and expect that future standards will reflect a changing fuels marketplace.

Conversely, another commenter claimed that the price of RINs are the primary way the RFS program can incentivize increased consumption of renewable fuels. They claimed that by proposing to reduce the RFS standards EPA was creating an infrastructure shortage, rather than responding to one, by reducing the incentive for parties to invest in the infrastructure needed to distribute higher level ethanol blends. EPA agrees that the price of RINs, along with other fundamental economic factors such as the relative prices of ethanol and gasoline, can incentivize the fuels marketplace to invest in the infrastructure needed to distribute and consume higher level blends of renewable fuels. Based on our review of the available data, however, we have concluded that higher RIN prices are sometimes limited in their ability to or the speed at which they can drive increasing sales volumes of fuels containing higher levels of renewable fuels, particularly E85 in 2016 (see EPA supporting documents "An Assessment of the Impact of RIN Prices on the Retail Price of E85" and "Correlating E85 consumption volumes with E85 price" for more detail on our assessment). We anticipate that the total renewable fuel volume for 2016 in this final rule, which is established at the maximum reasonably achievable supply of renewable fuel in 2016, will provide the necessary incentives for an increased use of renewable fuels (including E85), as well as the investment in the infrastructure needed to expand the use of renewable fuels even further in the future.

Several commenters noted that in our proposed rule EPA stated that we expected RIN prices would likely be higher than historic levels, and that D6 RIN prices instead dropped after the proposal was released. They claimed that this was an indication that the volumes would not provide an incentive for growth beyond the E10 blendwall, and that our proposal was already having a negative impact on the consumption of renewable fuels. We note that RIN prices are impacted by many different factors, not only the RFS standards but also the relative prices of commodities such as corn, ethanol, crude oil, and gasoline. Nevertheless, EPA has continued to review the available information, including comments submitted by stakeholders, since our proposal. Based on this information, including increasing projected gasoline demand and a better understanding of ethanol exports from the United States, we are finalizing total renewable fuel standards for each year (2014-2016) that are higher than the proposed standards. The total renewable fuel standard for 2016 is significantly higher (approximately 1.1 billion gallons higher) than the total volume of renewable fuel expected to be supplied to the market in 2015.

EPA disagrees with commenters that claimed that our proposed rule reinforces the perception that EPA is withdrawing support for the RFS program. It is true that we do not believe it is possible to achieve the statutory volumes in 2014 – 2016. Despite this, EPA continues to support growth in renewable fuels through the RFS program. The 2016 standards represent our assessment of the maximum reasonably achievable volume, and as noted above are significantly higher than the projected available supply of renewable fuels in 2015. We do not think it would be appropriate to uphold the statutory volumes if we have determined that there will be an inadequate domestic supply of renewable fuels, nor would it be beneficial to the renewable fuels market to set the standards beyond what can be achieved. We will continue to monitor the growth in the ability of the market to produce, import, distribute, and consume renewable fuels, and we anticipate that our future standards will reflect this growth.

A commenter stated that because the price of ethanol is not well correlated to RIN price movements, obligated parties that purchase ethanol and separate and sell the RINs associated with the ethanol they purchase benefit from high RIN prices. This statement is similar to statements by other commenters that obligated parties that purchase ethanol with attached RINs acquire RINs for free, and that there is no cost to these parties. It does not consider the relative prices of ethanol, un-blended gasoline (E0) and blended gasoline (E10), which are important factors in the economics of fuel blending and the costs of parties that acquire RINs by blending renewable fuels. Data EPA has reviewed indicates that when RIN prices are high, the price received for blended fuel (E10) is lower than the price for the component fuels (i.e., the price for one gallon of E10 is less than the price for the 0.9 gallons of unblended gasoline plus 0.1 gallons of ethanol that comprise a gallon of E10). For obligated parties that purchase ethanol and sell blended fuel the “cost” of acquiring RINs is incurred when they sell blended fuel for a lower per gallon price than the component fuels. Ignoring this cost and focusing solely on the correlation (or lack of correlation) between the price of ethanol and RIN prices inappropriately ignores a significant element of the fuels market. Any costs incurred by fuel blenders when they sell fuels containing renewable fuels (such as E10) must be considered in any assessment of the way various parties are affected by varying RIN prices (see "A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects" for more detail).

A commenter claimed that in EPA’s proposal we have prioritized maximizing flexibility and competition over Congress’s intention to increase renewable fuel use over time. EPA disagrees with this assessment. As this final rule makes clear, we are establishing the total renewable fuel standard at the maximum reasonably achievable supply of renewable fuels in 2016. In doing so we have made an assessment of the maximum reasonably achievable volume of biodiesel and renewable diesel that can be produced, imported, distributed, and consumed in the United States in 2016, and included this full volume in our assessment of the total renewable fuel supply (see Section II.E of the final rule for further detail). After determining this total volume, we next considered the portion of this total that could be advanced biofuel, seeking to provide the necessary incentives for continued growth in advanced biofuels (see Section II.F for more detail). It is only in the context of the biomass-based diesel standard that EPA has considered factors such as allowing for non-biodiesel fuels to compete for market share. We believe this is an appropriate consideration, and in line with congressional intent to promote the ongoing development and commercialization of advanced biofuels, including, but not limited to, biodiesel (see Section III of the final rule and Section 3.4 and subsections of the RTC for more information). This is especially the case as we have included the full maximum reasonably achievable supply of biodiesel and renewable diesel in the total renewable fuel standard.

A commenter disputes EPA’s statement that renewable fuel producers sell not only the fuels they produce but also the RINs assigned to the renewable fuel, claiming that the RINs generally are not valued separately from the fuel. With few exceptions, renewable fuels are sold with RINs attached when they are sold to blenders or obligated parties, and the blender or obligated party’s decision whether or not to purchase the fuel will be influenced both by the expected sales price for the RIN as well as the liquid fuel. This is no different from the price an ethanol plant is willing to pay for corn, taking into consideration both the value of the ethanol and animal feed products it will produce from that corn. EPA disputes that our proposal and this final rule are an attempt to create lower prices for separated RINs. We note once again that we have established the total renewable fuel standard at the maximum reasonably achievable volume of renewable

fuel, not the volume expected to produce a particular RIN price. Contrary to the commenter's statements, we recognize the ability for the RFS program to incentivize increased production and use of renewable fuels, and have projected the available supply of renewable fuels with this demonstrated ability in mind.

EPA's statements that the RIN system should result in reduced costs to consumers is taken out of context by the commenter. We have stated, and continue to believe, that higher RIN prices should result in lower effective prices for renewable fuels relative to the price for these fuels without the impact of the RIN and relative to petroleum fuels. Whether increasing volumes of renewable fuels will result in higher or lower fuel costs to consumers will be a function of the cost of production of these fuels relative to the petroleum fuels they displace (see EPA's supporting document "A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects" which is available in the docket for this rulemaking for more detail). While it may be true that decreasing the cost of biomass-based diesel blends at the pump was not a stated goal of the RFS program, enabling lower prices through the value of the RIN is the primary mechanism at work in the program to increase the production, import, distribution, and use of biomass-based diesel and other renewable fuels. We do not believe it is appropriate to simply compare the retail price of biomass-based diesel blends to the retail price of petroleum diesel, as data EPA has reviewed suggest both are significantly impacted by the RFS program through RIN prices (see "A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects" for more detail). For EPA's illustrative cost estimates of the RFS program see Section II.I of the final rule.

A commenter stated that higher RIN prices could enable significantly higher volumes of E85 to be sold in 2015 and 2016 than projected by EPA and cited a study by Edgeworth Economics as support. EPA has reviewed this study as well as the paper by Pouliot and Babcock on which it is based. We disagree with the commenters' assessment of the amount of E85 that can be consumed in 2016. EPA concluded that two key assumptions made by Babcock and Pouliot (and subsequently Edgeworth Economics) are not supported by the available data: that sales of E85 will increase in a non-linear fashion beyond the point of price parity with E10, and that the full RIN value will be passed on to E85 consumers and reflected in the retail price of E85 (for a further discussion on each of these issues see EPA memos "Correlating E85 consumption volumes with E85 price" and "An Assessment of the Impact of RIN Prices on the Retail Price of E85" available in the docket for this rulemaking). A more recent paper published by Babcock and Pouliot in September 2015 projected much lower E85 sales from metro areas, which are expected to account for a significant majority of all E85 sales.<sup>33</sup> This paper projected E85 sales of 250 million gallons if E85 was priced at parity on a cost per mile basis (23% less on a cost per gallon basis) with E10, and 1 billion gallons of E85 if E85 were priced to save drivers 23% on a cost per mile basis (approximately 50% less on a cost per gallon basis). These projections still rely on a non-linear relationship between E85 sales and the price ratio at the pump, and we believe projecting that E85 will be priced 50% less than E10 is not a reasonable assumption given expected 2016 market conditions. For further details of EPA's assessment of the potential for E85 see Sections II.E.ii and II.E.iii of the final rule.

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<sup>33</sup> *How Much Ethanol Can Be Consumed in E85*. Bruce A. Babcock, Sebastien Pouliot. CARD Policy Brief 15-BP 54, September 2015.

EPA disagrees with a comment that “driving investment in infrastructure through RIN prices means destroying small business to reward exempt blenders for thwarting the purposes of the RFS”. We believe the RFS program is well designed to create market opportunities that provide the necessary incentives for investment to overcome the potential constraints to increase the production, import, distribution, and use of renewable fuels. The RIN provisions in the RFS program were designed specifically to enable compliance by obligated parties that would have otherwise had much greater difficulty blending renewable fuels into their petroleum fuels directly. Rather than blend renewable fuels themselves they can purchase RINs from other marketplace participants that do the blending on their behalf. We do not believe the RFS program will result in the destruction of small businesses. For further discussion of the point of obligation in the RFS program see Section 10.6.7 of the RTC.

## **7.5 Retail Fuel Prices**

### **Comment:**

**AL-Corn Clean Fuel; Badger State Ethanol; Big River Resources, LLC; Central Indiana Ethanol (CIE); Husker Ag LLC; Iowa Corn Growers Association (ICGA); Pacific Ethanol, Inc.; Syngeta; The Andersons, Inc.**

If finalized, the rule could have the following effects:

- Increased gas prices. Lower ethanol blending would result in higher gasoline demand and increased pump prices. According to analysis by Louisiana State University, gasoline prices would rise 4.1-6.5 cents per gallon in 2015-2016, meaning Americans would spend nearly \$15 billion more on gasoline in 2015 and 2016—or \$46 per American citizen over the two years. [EPA-HQ-OAR-2015-0111-1214-A2 p.5]

### **American Farm Bureau Federation (Farm Bureau)**

Finally, the RFS2 has been integral in keeping gasoline prices at lower price levels. Ethanol is currently selling at \$0.40 per gallon less than a gallon of Reformulated Blendstock for Oxygenate Blending (RBOB) gasoline. This price spread essentially means that a gallon of E10 (gasoline containing 10 percent ethanol) is more than 4 cents per gallon cheaper than a gallon of conventional gasoline with no ethanol. At today’s market prices, if refiners slow their blending of ethanol, octane demand would have to be met with other higher cost sources and this higher cost to the refiner would most likely be passed on to the consumer in the form of higher gasoline prices at the pump. Higher gas prices will also increase the cost of food, given that energy and transportation costs are significant factors in determining the price consumers pay for goods. [EPA-HQ-OAR-2015-0111-2355-A1 p. 3]

### **Biotechnology Industry Organization**

RFS RINs are effectively designed to force technological improvements, and compliance costs have not been passed to consumers at the pump. There is no correlation between RIN prices and retail fuel prices, as demonstrated in Figure 7 below, which is a sufficient indication that RIN costs are not reflected in pump prices. EPA has correctly noted that “rising RIN prices did not

result in an increase in retail transportation fuel prices in 2013.”<sup>155</sup> Competitive pressure among obligated parties employing varying RFS compliance strategies protects consumers from the costs of RINs. [EPA-HQ-OAR-2015-0111-1958-A2 p. 46]

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<sup>46</sup> Dallas Burkholder, EPA (OTAQ), A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects 31, (May 14, 2015) (Docket ID No. EPA-HQ-OAR-2015-0111-0062) [RIN Market Dynamics], available at <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2015-0111-0062>.

**Board of Commissioners, Mercer County; Crawford County; Greenville-Reynolds Development Corporation; Office of Commissioners, Lawrence County, Pennsylvania**

There are significant reasons that mandated ethanol blend rates should be lowered. They include:

**4. Higher fuel costs.** Consumers could see rising fuel prices due to the costs associated with blending, transporting and distributing higher levels of E85 and E15 to filling stations that have no demand for it. [EPA-HQ-OAR-2015-0111-1223-A1 p.2]

**Board of County Commissioners of Putnam County, Ohio**

The more than thirteen billion gallons of ethanol in the pipeline has reduced our dependence on foreign oil and given our citizens a lower pump price. [EPA-HQ-OAR-2015-0111-3289-A1 p. 1]

**Butamax Advanced Biofuels, LLC**

The RFS contains effective mechanisms to stimulate growth in renewable fuels blending well beyond current trends if targets are set and enforced appropriately. When the target is set beyond the current trend, the RIN price will rise to level necessary to create the necessary incentives for parties in the supply chain to offer the products needed to meet the targets. [EPA-HQ-OAR-2015-0111-1938-A2 p. 1]

Recent analysis posted to the docket by EPA confirms prior analyses by Butamax and many others that the RFS and RIN prices do not materially impact retail gasoline prices. Further, even though high RIN prices should not flow through to consumers, refiners and retailers can mitigate any exposure to the RFS as follows: [EPA-HQ-OAR-2015-0111-1938-A2 p. 8]

**East Kansas Agri-Energy, LLC (EKAE)**

Having spent a substantial part of my career in trading, sales, business Development and marketing, I can tell you that the proposal will increase, not decrease, the price of gas, as lower cost ethanol moves out of the gasoline supply. Gas prices would increase - about \$0.06 per gallon, according to Louisiana State University. [EPA-HQ-OAR-2015-0111-2607-A2 p.2-3]

**Energy Policy Research Foundation, Inc. (EPRINC)**

EPA will be raising the price of E10 to lower the price of E85, but the magnitude of the cross subsidy is not easily known nor are the price risks easily contained given uncertainties described above. [EPA-HQ-OAR-2015-0111-1946-A1 p.2]

we would caution that any calculation on the cost of producing transportation fuels under EPA volumetric targets comes with considerable uncertainty. [EPA-HQ-OAR-2015-0111-1946-A1 p.5]

### **Florida Chamber of Commerce**

The costs associated with ethanol also outweigh any perceived benefits, such as lower fuel prices. Consumers are actually spending more on fuel since Congress first passed the Renewable Fuel Standard in 2005. Spending on fuel has increased an average of 8 percent per year, with the average household spending more than \$2,600 on fuel in 2013. This is because the energy output for ethanol is 33 percent less than pure gasoline, so cars are unable to travel as far as they could on pure gasoline alone. [EPA-HQ-OAR-2015-0111-3425 p.2]

### **Growth Energy**

The proposed volume requirements could hurt American consumers at the gas pump. In fact, adhering to the volume requirements prescribed by Congress would not cause retail gasoline prices to rise appreciably, if at all, for two primary reasons. First, blending ethanol into gasoline tends to result in a significant *reduction* in retail gasoline prices. Second, as EPA itself has found, even if volume requirements caused RIN prices to increase, any such increase would have no discernible effect on retail gasoline prices. [EPA-HQ-OAR-2015-0111-2604-A2 p.75]

More to the point, the reduced blending of ethanol called for by EPA's proposal would cost U.S. drivers billions of dollars in 2016 alone. One recent analysis determined that reducing ethanol consumption by 1 bil gal—as EPA's proposal for 2016 would do—“will raise [gasoline prices by 4.1 cents per gallon.”<sup>429</sup> Another study estimated that consumers saved an average of six cents per gallon of gasoline for every billion gallons of ethanol produced.<sup>430</sup> Therefore, with EIA estimating that U.S. drivers will consume 137 bil gal of gasoline in 2016, the EPA's proposal could cost consumers between \$5.6 and \$8.2 billion. [EPA-HQ-OAR-2015-0111-2604-A2 p.75-76]

Second, any increase in RIN prices would not change this analysis. As EPA has found, higher RIN prices do not result in higher retail transportation fuel prices.<sup>431</sup> This is primarily due to the lower net cost of renewable fuels enabled by high RIN prices: “While higher RIN prices increase the cost of RFS compliance for obligated parties purchasing separated RINs, these obligated parties generally recover these costs in the price of their petroleum blendstocks.”<sup>432</sup> Other studies have reached the same conclusion: although RIN prices can at times increase in correlation with retail gasoline prices, increased RIN prices do not *cause* an increase in gasoline prices.<sup>433</sup> To the extent retail prices do increase, any movement is modest at most. One recent study found that RIN prices in the range of \$0.75 to \$1.50 could incentivize consumption of 1-2 billion gallons of E85, and doing so would result in an E10 price increase of only 0.51.3%.<sup>434</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.76]

Ultimately, the claim that the RFS increases gas prices is a misleading distraction. Wholesale ethanol has historically traded well below the price of wholesale gasoline. While modest short-term investments will be needed to overcome the E10 blendwall, those one-time costs will be dwarfed by the long-term benefit to consumers, who will be able to save money on every trip to the pump by choosing higher-ethanol blends. The more ethanol in the transportation-fuel supply,

the more money American drivers will save. [EPA-HQ-OAR-2015-0111-2604-A2 p.76-77]

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<sup>429</sup> See Renewable Fuels Association, Economic and GHG Impacts of EPA's 2014-2016 Proposed Rule at 1, at [http://www.ethanolrfa.org/page/-/RFA%20Impact%20of%20EPA%20Proposal\\_2014-2016.pdf?nocdn=1](http://www.ethanolrfa.org/page/-/RFA%20Impact%20of%20EPA%20Proposal_2014-2016.pdf?nocdn=1).

<sup>430</sup> Hassan Marzoughi & P. Lynn Kennedy, *The Impact of Ethanol Production on the U.S. Gasoline Market*, at 15 (Feb. 2012), at <http://ageconsearch.umn.edu/bitstream/119752/2/Kennedy%20Marzoughi%20SAEA%20-%202012.pdf>.

<sup>431</sup> See Report of Dallas Burkholder, Office of Transportation and Air Quality, EPA-HQ-OAR-2015-0111-0062, *A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects*, at 1, 31 (May 14, 2015) ("Burkholder Report"); see also 80 Fed. Reg. at 33,119 n.49.

<sup>432</sup> Burkholder Report, *supra* note 431, at 31.

<sup>433</sup> Informa Economics, *Analysis of Whether Higher Prices of Renewable Fuel Standard RINs Affected Gasoline Prices in 2013*, Whitepaper Prepared for the Renewable Fuels Association, at 1, 7 (Jan. 2014) ("2014 Informa Study") (attached as Exhibit 9).

<sup>434</sup> See *Impact on Motor Fuel Prices* at 8 (attached as Exhibit 1).

## **Iowa Renewable Fuels Association**

### **RINs Lower Fuel Prices [EPA-HQ-OAR-2015-0111-1957-A2 p. 13]**

One of the biggest frauds perpetuated by the petroleum industry is that, somehow, RINs increase the cost of fuel. While this notion defies common sense for those who understand the RIN and fuels markets, it quickly gained traction with opponents of the RFS in Congress and, it would appear, inside the White House. Concerns over RINs driving up consumer fuel prices appeared to underpin the original 2014 RFS level proposal that has since been withdrawn. [EPA-HQ-OAR-2015-0111-1957-A2 p. 13]

During the public comment period on that proposal, IRFA sought to demonstrate with both public facts and figures, as well as marketplace logic, that in fact RINs *lower* fuel prices. We supplied data to the OMB via a teleconference as well as to the public docket on the proposed rule. We have updated and expanded our data collection since those comments were made. [EPA-HQ-OAR-2015-0111-1957-A2 p. 13]

For that reason, we noted with special interest the Agency's recently released analysis of RINs and their impact on both retail motor fuel costs and their role in incentivizing greater access to higher renewable fuels blends of ethanol and biodiesel.<sup>42</sup> [EPA-HQ-OAR-2015-0111-1957-A2 p. 13]

The takeaways from the EPA Office of Transportation and Air Quality's assessment (Study) of RIN market dynamics, prices and effects are clear: [EPA-HQ-OAR-2015-0111-1957-A2 p. 13] [EPA-HQ-OAR-2015-0111-1044 p.67]

1. RIN prices do not impact overall fuel prices;
2. RIN prices can reduce the wholesale and retail cost of fuels with high renewable content like E85 and B20;
3. The RIN program provides a market-based mechanism to allow compliance flexibility for obligated parties;

4. To the extent that some obligated parties are impacted differently, these impacts are due to individual business decisions; and most importantly,
5. RIN prices are the primary way the RFS program can incentivize the increased blending and consumption of renewable fuels in the US. [EPA-HQ-OAR-2015-0111-1957-A2 p. 13-14] [EPA-HQ-OAR-2015-0111-1044 pp.67-68]

In fact, the EPA analysis concluded: “the RIN market seems to be functioning generally as expected; providing an incentive for the continued growth of renewable fuels in the transportation fuel market without causing overall increases to the retail price of transportation fuel.”<sup>43</sup> [EPA-HQ-OAR-2015-0111-1957-A2 p. 14] [EPA-HQ-OAR-2015-0111-1044 p.68]

Let’s examine four of these takeaways in more detail. [EPA-HQ-OAR-2015-0111-1957-A2 p. 14]

1. RIN prices do not impact overall fuel prices The Study noted that even with relatively high RIN prices in 2013 there was not a corresponding increase in the prices across the entire fuel pool because “the RIN price, rather than acting as an additional cost, generally acts as a transfer payment between parties that blend renewable fuels and obligated parties who produce or import petroleum-based fuels and are required to obtain RINs for compliance purposes.”<sup>44</sup> [EPA-HQ-OAR-2015-0111-1957-A2 p. 14]

The Study goes on to note that: “High RIN prices are expected to reduce the price of fuel blends that contain a higher percentage of renewable fuels, such as E85 or B20, while increasing the price of fuels that contain little or no renewable fuels.”<sup>45</sup> The notion that obligated parties increase the price of their non-renewable blends is an area we encourage the Agency to explore further. This would seem logical if all obligated parties were similarly situated, but they are not. While the Study correctly notes there are additional strategies to satisfy their obligations (such as contractual arrangements to retain RINs on unblended fuel or expanding their blending and distribution infrastructure),<sup>46</sup> each obligated party has a different RFS obligation based on their refining/importing footprint and a different ability to acquire “free” RINs by selling pre-blended products to their branded retailing network (if they have one). [EPA-HQ-OAR-2015-0111-1957-A2 p. 14]

A thought experiment will show that the interactions between three hypothetical obligated parties would lead to RIN values lowering the price of renewable blends, but would not allow the disadvantaged party to raise the price of non-blended fuels. For the sake of ease we’ll give each hypothetical obligated party a nickname. [EPA-HQ-OAR-2015-0111-1957-A2 p. 14]

“Valera” is a refiner with a large share of the U.S. refining market (and therefore a large share of the RFS obligation) but a relatively small branded network. This means it often has to purchase RINs on the open market to meet its RFS obligation. [EPA-HQ-OAR-2015-0111-1957-A2 p. 14]

“EM” is a large refiner whose share of the U.S. refining market and share of retail sales through its branded network is roughly equal. It may buy and sell RINs on the open market upon occasion, but its transactions would generally equal out. [EPA-HQ-OAR-2015-0111-1957-A2 p. 14]

“British Oil” is a refiner with a smaller share of the U.S. refining market and a relatively larger share of the retail market through its branded retail network. It acquires “free” RINs through its blending operations far in excess of its RFS obligations and it sells the extra RINs on the open market. [EPA-HQ-OAR-2015-0111-1957-A2 p. 14-15]

In a competitive market area (whether that be Denver or Des Moines or Dallas), Valera may want to increase the price of its unblended products to recoup some of its RIN costs. While it may be able to leverage this through its small branded network, it risks upsetting its branded retailers with uncompetitive prices. Further, it would lose market share in the fight for the business of unbranded retailers. After all, with no need to buy RINs on the open market, EM and British Oil have no need to pass a “RIN cost” through on unblended products. [EPA-HQ-OAR-2015-0111-1957-A2 p. 15]

We believe the Study’s numerous references to passing the RIN costs along on unblended products is a flaw. Obligated parties like our hypothetical Valera will be “price takers,” not “price makers.” They would not raise their prices and, in turn, lose market share. The market forces them to reduce their profit margins and, likely, look for a better compliance strategy. [EPA-HQ-OAR-2015-0111-1957-A2 p. 15]

(The only way these market forces don’t apply is if there is insufficient market competition. If that is the case, then do not lay the blame for higher prices on the RFS or renewable fuels. After all, the RFS only adds competition to the marketplace. Any lack of market competition only highlights the need for robust implementation of the RFS.) [EPA-HQ-OAR-2015-0111-1957-A2 p. 15]

One alternative compliance strategy would be for the hypothetical Valera to reduce prices at the rack in an attempt to gain unbranded market share, thereby obtaining more “free RINs” by increasing its sales of renewable blends. In fact, just this sort of action was reported during the temporary RIN price spike during 2013. Reportedly, a refiner short of RINs aggressively lowered rack prices and offered discounts to gain blending business and the associated RINs.<sup>47</sup> [EPA-HQ-OAR-2015-0111-1957-A2 p. 15]

Another area IRFA would urge the Agency to further review is the Study’s comparison of ethanol and gasoline prices on a net energy basis. For blends up to E30, ethanol is blended for its octane value and there is no meaningful mileage impact. For those blends, ethanol could be priced higher than gasoline (even unadjusted for Btu content) and still be lowering the price of fuel at the retail pump. This is because petroleum alternatives for adding octane to create an 87-octane product from the standard V-grade fuel (84-octane) are much more expensive than V-grade. You can witness this easily in Iowa where almost every retail station offers two 87-octane products, E0 and E10. The retail price today for E10 is 23 to 40 cents per gallon cheaper than E0. (Attachment F) [EPA-HQ-OAR-2015-0111-1957-A2 p. 15]

[Attachment F can be found on p. 49-50 of docket number EPA-HQ-OAR-2015-0111-1957-A2]

2. RIN prices can reduce the wholesale and retail cost of fuels with high renewable content Continuing our thought experiment supports the observations and conclusions of the Study on this point. Consider that British Oil may decide to gain market share in the renewable blends markets by passing some of the RIN value for E15 or E85 along to non-branded retailers

to capture market share – or it may be forced to do this by another blender (perhaps an ethanol plant) that is motivated to pass along the RIN value. [EPA-HQ-OAR-2015-0111-1957-A2 p. 15]

Since the fall of 2013, IRFA has collected weekly wholesale prices of E85 from a number of suppliers in Iowa – both ethanol plant blenders (publically available data) and traditional terminal suppliers (courtesy of OPIS). Since that time, the wholesale price of E85 has been consistently lower than the cost of the components (gasoline and ethanol) used to produce it. As noted in the Study: “The fuel blender can only profitably sell a blended fuel for less than the component costs of that fuel if they are realizing value elsewhere.”<sup>48</sup> [EPA-HQ-OAR-2015-0111-1957-A2 p. 16]

Therefore, IRFA has taken the weekly average wholesale price of ethanol plants<sup>49</sup> offering E85 (3 to 5 plants depending on the timeframe) and compared it to the average cost of blending a gallon of E85 based on that week’s wholesale component prices for V-grade gasoline and ethanol as reported for the Des Moines terminal by OPIS. The discount for preblended E85 from the ethanol plants was then compared to the national average RIN price for that week prorated by the percentage of ethanol in the E85 blend at that time (actual ethanol content in E85 can vary from 70 to 85 percent based on the market and time of year). The full Iowa E85 wholesale price dataset can be found in Attachment G. [EPA-HQ-OAR-2015-0111-1957-A2 p. 16]

[Attachment G can be found on p. 51-70 of docket number EPA-HQ-OAR-2015-0111-1957-A2]

As you can see from Figure 2, the discount for preblended E85 from ethanol plants closely tracks the RIN value associated with the ethanol content of the fuel blend. [EPA-HQ-OAR-2015-0111-1957-A2 p. 16]

[Figure 2 can be found on p. 16 of docket number EPA-HQ-OAR-2015-0111-1957-A2]

In fact, the ethanol plants on average sell E85 for even less than one would expect based on RIN value alone. This is the result of several possible factors including, but not limited to, direct access to ethanol (no supplier markup), no terminal storage or access charges, use of cheaper denaturants, and the difference between RINs sold under contract compared to the spot RIN prices reported by OPIS. The nature of comparing average E85 prices to average RIN prices can sometimes also lead to lags in correlation due to changes in the ethanol content during certain times of the year and the time for RIN values to work their way into E85 pricing calculations. [EPA-HQ-OAR-2015-0111-1957-A2 p. 17]

But two things are clear. E85 is being sold both inside and outside the terminal for less than the cost of the components to produce the blend and the E85 price discount largely tracks the value of RINs. [EPA-HQ-OAR-2015-0111-1957-A2 p. 17]

Further, while it is very important to understand how RIN values lower the price of blended fuels like E85 and thereby make them attractive to retailers and consumers, it is equally important to understand that other factors impact the sales (and potential sales) of E85 as well. The single biggest determining factor of E85 sales is consumer availability. As Figure 3 below shows, E85 sales in Iowa continued to go up even as RIN prices and petroleum prices retreated from 2013 levels.<sup>50</sup> But based on conversations with retailers, the RIN value proposition is key to many decisions to add E85 or a blender pump to their operations. [EPA-HQ-OAR-2015-0111-1957-A2 p. 17]

[Figure 3 can be found on p. 17 of docket number EPA-HQ-OAR-2015-0111-1957-A2]

The correlation between RIN prices and renewable blends selling at a discounted price compared to their component value is not limited to E85. Iowa's competitive retail climate also reveals the same dynamic occurring with E10 sales. While the connection is easier to see in E85 given its higher ethanol content, it's important to also look at E10 because it makes up the vast majority of fuel sales in Iowa and nationwide. [EPA-HQ-OAR-2015-0111-1957-A2 p. 18]

Utilizing weekly rack average prices for the Des Moines terminal from OPIS, IRFA compared the average wholesale price for E10 compared to its component costs (90% V-grade and 10% E100). Just as before, there is a consistent discount for buying preblended E10. When a retailer purchases preblended E10, the supplier (and blender in this case) keeps the RIN. If the retailer purchases the components separately and becomes the blender of record themselves, the supplier does not keep the RIN. As with E85, IRFA compared the discount for buying preblended E10 with the prorated (10%) national average RIN price. The full Iowa E10 wholesale price dataset can be found in Attachment H. [EPA-HQ-OAR-2015-0111-1957-A2 p. 18]

[Attachment H can be found on p. 71-90 of docket number EPA-HQ-OAR-2015-0111-1957-A2]

Figure 4 below clearly displays the correlation between the preblended discount for E10 and the RIN value. Once again, you see the value of a RIN being passed through and actually lowering fuel prices. It's also important to note that in this case, all of the E10 options are at the terminal (no ethanol plant options). Under normal circumstances one might expect a slight upcharge for preblended E10 because of the service (blending and RIN reporting compliance) being offered. Yet, the RIN value overcomes these considerations in Des Moines' competitive market. [EPA-HQ-OAR-2015-0111-1957-A2 p. 18]

[Figure 4 can be found on p. 19 of docket number EPA-HQ-OAR-2015-0111-1957-A2]

If wholesale price data in other markets fails to show a similar correlation, it would be informative to assess the competitiveness of the local market. As stated earlier, a lack of competition does not reflect poorly on the RFS, rather it serves to highlight its necessity. [EPA-HQ-OAR-2015-0111-1957-A2 p. 19]

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<sup>42</sup> Burkholder, Dallas. "A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects." *U.S. Environmental Protection Agency Office of Transportation and Air Quality* 14 May 2015.

<sup>43</sup> *Ibid.* page 31.

<sup>44</sup> *Ibid.* page 2.

<sup>45</sup> *Ibid.* page 2.

<sup>46</sup> *Ibid.* page 3.

<sup>47</sup> Ang, Edgar and Denton Cinquegrana. "Valero's Aggressive Wholesale Mogas Push Coincides with RIN Spike." *OPIS Biofuels Update* 2 Aug 2013.

<sup>48</sup> Burkholder, Dallas. "A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects." *U.S. Environmental Protection Agency Office of Transportation and Air Quality* 14 May 2015. Page 24.

<sup>49</sup> We used the average ethanol plant E85 price because the data shows they are more motivated to pass RIN savings through to retailers in order to develop the E85 market compared to other potential E85 suppliers.

<sup>50</sup> "2015 Retail Fuels Report." National Association of Convenience Stores. Jan 2015, page 10

[http://www.nacsonline.com/YourBusiness/FuelsReports/2015/Documents/2015-NACS-Fuels-Report\\_full.pdf](http://www.nacsonline.com/YourBusiness/FuelsReports/2015/Documents/2015-NACS-Fuels-Report_full.pdf)

## **Johns Hopkins University**

There is very little impact on retail gasoline and diesel prices as a result of changing the proposed volume standard. [EPA-HQ-OAR-2015-0111-3273-A1 p. 37]

*The volume scenario proposed by EPA will not dramatically affect the retail price of fuel paid by consumers.* Even if the consumption of E85 is severely constrained in future years, it is unlikely that retail fuel prices will change dramatically.

## **Little Sioux Corn Processors**

Every gallon of ethanol produced in the United States has a RIN attached to it. The RIN is free, the marketplace creates a value for the RIN but blending over the 10% level does not push RIN values higher, the market does and I humbly submit doesn't make gas prices move higher. [EPA-HQ-OAR-2015-0111-1664-A1]

## **Mass Comment Campaign sponsored by anonymous 4 (web) - (786)**

Despite this, the EPA's proposal assumes that drivers will demand even higher blends of ethanol, such as E85, at an even greater cost to their wallets. According to a Congressional Budget Office report issued in June 2014, incentives designed to encourage the sale of E85 will increase costs of other gasoline blends at the pump. CBO found that the price of regular diesel would increase by 30 to 51 cents per gallon. The cost for a gallon of E10, the most common transportation fuel in the U.S., would rise by 13 to 26 cents, the report concluded. [EPA-HQ-OAR-2015-0111-0127 p.1]

## **Mass Comment Campaign sponsored by Minnesota Corn Growers Association - (784)**

You know what else is great about the RFS? It's played a role in loosening Big Oil's grip, at least a little bit, on my wallet and the overall transportation fuels market. Finally, the oil companies have some long overdue competition. Since ethanol is less expensive than gasoline on the wholesale market, blending it with gasoline helps reduce prices at the pump.

You know what else is great about the RFS? It's played a role in loosening Big Oil's grip, at least a little bit, on my wallet and the overall transportation fuels market. Finally, the oil companies have some long overdue competition. Since ethanol is less expensive than gasoline on the wholesale market, blending it with gasoline helps reduce prices at the pump. [EPA-HQ-OAR-2015-0111-2570-A2 p.1]

## **National Association of Truck Stop Operators (NATSO)**

EPA faces a delicate balance with respect to biodiesel: On the one hand, increasing mandates under the RFS can enable NATSO members to sell the product to consumers and lower prices and thereby increase consumer demand for biodiesel; at the same time, if RVOs are set *too high*, it could lead to increased prices for diesel fuel, which would have an adverse effect on NATSO members and the U.S. economy as a whole. [EPA-HQ-OAR-2015-0111-2478-A1 p.2]

Highway travel plazas and truck stops sell 90 percent of all diesel fuel sold at retail in the United States. NATSO members prefer long markets with a variety of supply options to offer their customers. As with any successful retailer, NATSO members simply want to sell products that

their customers want to buy. In their effort to provide the most competitively priced fuel to their customers, many NATSO members buy and blend biodiesel into the diesel fuel sold at their locations. While the entire industry is not involved in blending biodiesel, many NATSO members buy and blend biodiesel into diesel fuel when the blending economics allow them to do so. As the biodiesel industry matures, more and more truck stop operators are considering expanding into biodiesel blending.

The success of the Renewable Fuel Standard will hinge on NATSO's members' ability to acquire, blend, and sell biodiesel on a cost-effective basis relative to traditional diesel fuel. Given the central importance of trucking and diesel fuel in our nation's supply chain for goods, low-cost biodiesel not only makes fuel cheaper for fleets and truck drivers, but it subsequently makes all goods more affordable. [EPA-HQ-OAR-2015-0111-2478-A1 p.3]

In light of the Agency's wise decision to tie RVOs to market realities, achieving this balance requires EPA to consider the fluid variety of economic factors influencing biodiesel prices in the United States.

Historically, biodiesel fuel has been more expensive to produce than its petroleum-derived counterpart. However, a number of federal policies – including the RFS – have encouraged biodiesel blending and sales.

Under the RFS, for example, NATSO members can acquire biodiesel with Renewable Identification Numbers (“RINs”) attached, blend the product with diesel fuel, and separate the RINs from the biodiesel. The RIN then becomes a commodity that our members can sell to obligated parties. This transaction can make biodiesel less expensive than diesel fuel for NATSO members. A RIN, in effect, closes the price gap between what a refiner or blender would be willing to pay for the energy value of a gallon of biodiesel and the price for which the producer is able to sell it and still earn a profit. [EPA-HQ-OAR-2015-0111-2478-A1 p.4-5]

### **National Taxpayers Union (NTU)**

In addition to engine problems caused by higher temperatures, corrosion, and even phase separation, as ethanol content increases consumers are also subject to overall higher spending on gasoline. Because a gallon of ethanol contains roughly two-thirds the energy of a gallon of gasoline, as ethanol content increases gas mileage decreases, forcing consumers to fill up more often. [EPA-HQ-OAR-2015-0111-3279-A1 p.1]

### **Office of the Lt. Governor, Indianapolis, Indiana**

Greater availability of biofuels will also support broader installation of blender pumps and the manufacturing of more flex fuel vehicles, leading to increased fuel options for consumers, which will put downward pressure on fuel prices and drive our economy forward. [EPA-HQ-OAR-2015-0111-2482-A1 p.2]

### **Poet, LLC**

EPA itself acknowledges that D6 RIN costs do not increase – and tend to reduce – retail gasoline prices. EPA states that “While RIN prices were significantly higher in 2013 than in previous years, we did not see, nor would we expect to see, a corresponding net increase in the overall

retail price of transportation fuels across the entire fuel pool.”<sup>120</sup> EPA has similarly found that “An increase in D6 RIN prices ... is expected to result in a significant *decrease in the price of E85*” and “a very *small decrease in the price of E10*.”<sup>121</sup>

Harvard professor James Stock, a former member of President Obama’s Council of Economic Advisers, has similarly found that there is “negligible estimated effect of RIN prices on pump E10 prices,” and if anything increasing RIN price support *decreases* retail gasoline prices.<sup>122</sup> [EPA-HQ-OAR-2015-0111-2481-A1 p.33]

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<sup>120</sup> See EPA, “*A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects*” (May 14, 2015)(hereafter “EPA RIN Market Analysis”)(Docket ID No. EPA-HQ-OAR-2015-0111-0062), at 2.

<sup>121</sup> *Id.* at 2. Backing up this analysis, EPA found that, looking at past data, the one “sharp rise in D6 RIN prices did not have a measurable impact on the prices of ethanol with attached RINs.” *Id.* at 15.

<sup>122</sup> See James Stock, *The Renewable Fuel Standard: A Path Forward* (April 2015), pp. 19, available at [http://energypolicy.columbia.edu/sites/default/files/energy/Renewable%20Fuel%20StandardA%20Pat\\_h%20ForwardApril%202015.pdf](http://energypolicy.columbia.edu/sites/default/files/energy/Renewable%20Fuel%20StandardA%20Pat_h%20ForwardApril%202015.pdf). Stock finds that if RIN prices increase by \$1.00, “In a competitive market, the petroleum producer passes on the \$0.088 extra cost, the blender (who gets to sell the RIN) passes on the \$0.10 savings, and the consumer comes out ahead by \$0.012.” So, gasoline (E10) prices go down. *Id.* at 18.

### **Renewable Fuels Association (RFA)**

In reality, there is no evidence that fluctuations in RIN prices have had any impact on retail prices for gasoline (i.e., E10), and in fact there is evidence, as discussed in previous sections of these comments, that higher RIN prices result in lower retail prices for fuel blends containing higher levels of ethanol. [EPA-HQ-OAR-2015-0111-1917-A1 p. 31]

EPA now definitively concludes that “the RIN market seems to be functioning generally as expected; providing an incentive for the continued growth of renewable fuels in the transportation fuel market without causing overall increases to the retail price of transportation fuel.”<sup>54</sup>

EPA's finding is corroborated by analyses conducted by academia and private economic consulting firms [EPA-HQ-OAR-2015-0111-1917-A1 p. 32]

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<sup>54</sup> Burkholder, Dallas. “A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects,” U.S. EPA-Office of Transportation and Air Quality (May 14, 2015). Available at: <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2015-0111-0062>

### **State of Indiana**

Ethanol lowers gas prices by \$1.09 per gallon in the Midwest, saving the average American household \$1,200 per year. [EPA-HQ-OAR-2015-0111-3347-A1 p.2]

### **Response:**

We received a wide range of comments on the potential impacts on gasoline and fuel prices and costs to consumers that result from either raising the RFS volumes above their current levels, or from waiving the RFS volumes below the statutory volumes. Some claimed that the RFS increased fuel prices, while others claimed that the RFS reduced fuel prices. Still others claimed that the RFS had little-to-no effect on retail fuel prices whatsoever. EPA acknowledges the

impact that greater renewable fuel production and consumption has had on energy security, as well as the potential for renewable fuels to impact transportation fuel prices.

Several commenters claimed that our proposal to use our waiver authorities to reduce the statutory volumes would lead to lower ethanol blending, which would in turn lead to increased gasoline prices. In doing so these commenters assume that if EPA were to maintain the statutory volume for total renewable fuel in 2016, then more ethanol would be used. We disagree with this assumption, as we believe the total renewable fuel standard for 2016 in this final rule represents the maximum reasonably achievable volume of renewable fuel; maintaining the unattainable statutory volumes would not result in increased use of ethanol. The impacts highlighted by the commenters therefore are hypothetical rather than real. The fact that our proposed (and final standards) require increased volumes of renewable fuels, not decreased volumes is not reflected in their comments. In their comments they also tend to ignore the energy content of ethanol. While ethanol is generally cheaper than gasoline on a per gallon basis, it is currently more expensive per unit energy. This means that even in situations where ethanol costs less per gallon than gasoline, drivers often must pay more on a per mile traveled basis when buying fuels that have a higher ethanol content.

The vast majority of the benefits of ethanol blending in the studies cited by commenters result from blending ethanol into gasoline at a 10% level (E10). We anticipate that almost all gasoline in the United States would be blended with 10% ethanol with or without the RFS standards, as this is generally a profitable practice for fuel blenders and retailers (this is why the blending of ethanol as E10 increased faster than otherwise required by the RFS standards until 2013), and since the gasoline market is already virtually saturated with E10, any higher RFS standards would not increase E10 use further. Additionally, the total renewable fuel standard for 2016 is significantly higher than in any previous year. It is highly unlikely that refiners and blenders will reduce their blending of ethanol into gasoline in response to these standards. Finally, the total renewable fuel standard is set at the maximum reasonably achievable supply of renewable fuels in 2016, including the maximum supply of ethanol that we think can be consumed in 2016. Maintaining the statutory total renewable fuel standard is unlikely to result in additional blending of ethanol, or any other renewable fuels, into the transportation fuel supply of the United States relative to the volumes we are finalizing in this rule, resulting in no further reduction in gasoline demand or supply. Reducing the required volume of total renewable fuel to the levels in this final rule therefore is unlikely to result in the loss of any of the commenter's claimed benefits to fuel prices in the real world.

Commenters also presented studies, including those conducted by EPA, suggesting that RIN prices do not impact gasoline prices. Many implied that because of this EPA should set higher standards, and that the higher RIN prices that would result would incentivize additional renewable fuel production and distribution without negatively impacting consumers through higher gas prices. We acknowledge that studies by EPA and others found that higher RIN prices in 2013 and 2014 had little to no impact on retail E10 prices, however we also note that we found that higher RIN prices did cause higher retail diesel prices. Perhaps more importantly, each of these studies considered only historical data, when obligated parties were able to meet their obligations through increased use of renewable fuels and the use of abundant carryover RINs. They did not consider a scenario where obligated parties were unable to meet their obligations, such as would be the case if EPA were to enforce the statutory volumes in 2014 –

2016. In these cases it is possible that RIN prices may begin to cause increases in both retail gasoline and diesel prices. We also do not believe that the available data support statements by commenters on the degree to which higher RIN prices can result in additional sales of E85. For a further discussion on this issue see Section II.E.2 of the final rule, Sections 2.3.2 and 2.7.1 of the RTC, and EPA's supporting documents "An Assessment of the Impact of RIN Prices on the Retail Price of E85" and "Correlating E85 consumption volumes with E85 price". Finally, these studies are focused on the impact of RIN prices on retail fuel prices, not the impact of renewable fuel volumes of fuel prices or overall consumer costs. Even when RIN prices are very low (as they were prior to 2013), renewable fuels may still be more costly to consumers – particularly on a per mile driven basis. As long as renewable fuel costs are greater than the cost of the petroleum fuels they replace, the RFS standards will increase overall fuel costs to consumers less any impact that the RFS volumes might have on depressing overall world fuel prices (e.g., crude oil prices). In section II.I of the final rule we provide illustrative cost estimates of the final RFS standards.

Some commenters requested that EPA lower the mandated ethanol blend rate to protect consumers from higher fuel prices. None of the standards in this final rule require the use of ethanol, and EPA does not mandate an ethanol blend rate. Reducing the total renewable fuel standard would reduce the incentives for the blending of all renewable fuels, including ethanol, which could have the result the commenter desires. The RFS program, however, was explicitly designed to increase the production, distribution, and use of renewable fuels, including both ethanol and non-ethanol fuels. EPA only has authority to reduce the volume for total renewable fuel below the level in our proposed rule in situations where there is an inadequate domestic supply of renewable fuel or when the standards would cause severe economic or environmental harm. Protecting consumers from the possibility of higher fuel prices is not a sufficient justification in and of itself for EPA to reduce the total renewable fuel volume further.

A commenter stated that the RFS program contains effective mechanisms to stimulate growth in renewable fuels if the standards were set appropriately. We agree that the RFS program can stimulate additional growth in the production, distribution, and use of renewable fuels. We note, however, that many of the changes and investments necessary to increase the production, distribution, and use of renewable fuels take time, and the ability of the market to respond to ambitious standards and increase the renewable fuel supply in 2016 is limited. We have considered the ability for the RFS program to incentivize an increasing supply of renewable fuels in 2016, and have established the total renewable fuel standard at the maximum reasonably achievable supply in light of these incentives. For further discussion on this issue see Section II.E of the final rule and Section 2.3.2.

A commenter stated that any calculation of the cost of production of transportation fuels under EPA's standards comes with considerable uncertainty. We agree with this commenter. Many factors that cannot be predicted with precision, such as the price of oil and the price of corn and other renewable fuel feedstocks, will impact the cost of renewable fuels and traditional petroleum based fuels.

A commenter claimed that the costs associated with the use of ethanol as transportation fuel outweigh the benefits. Without weighing in on the validity of the commenter's assessment, we note that EPA is not authorized to establish the total renewable fuel standard at the level that

achieves the highest net benefits. Doing so would not be an appropriate use of EPA's general waiver authority.

A commenter disputed a claim made by EPA in a supporting document to the proposed rule ("A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects") that obligated parties are generally able to recover the price of RINs through increased prices for their petroleum blendstock, and that because of this, higher RIN prices actually lower transportation fuel prices. Central to the arguments made by the commenter is the idea that obligated parties that obtain RINs by blending ethanol get them for "free." As discussed in the supporting document mentioned above, we do not believe this is the case. EPA presented data that revealed that parties that were selling gasoline blended with 10% ethanol (E10) were selling it for less than the price of the two component fuels (in other words, they were selling E10 for less than 90% of the per gallon gasoline price plus 10% of the per gallon ethanol price). The commenter presents data that shows that in Iowa fuel blenders are currently selling E10 and E85 at prices less than the cost of the components of each of these fuels (i.e. 0.9 gallons of gasoline and 0.1 gallons of ethanol for E10). Thus, while they were acquiring RINs through blending ethanol, if we assume these RINs were free these parties were losing money for every gallon of E10 they sold. While the obligated parties were not directly paying for RINs, there was a cost associated with obtaining them. This cost was approximately equal to the value of the D6 RINs obtained through blending, thus parties that obtain RINs by blending E10 and E85 "pay" for the RINs by selling blended fuels at a loss in order to acquire the RINs associated with the renewable fuels they blend. If all parties have approximately the same cost for acquiring RINs, whether they do so through purchasing separated RINs or by purchasing ethanol with attached RINs and selling blended products, and these costs are directly related to the volume of unblended fuel they sell (because of the obligations associated with selling petroleum based fuels) it is reasonable to assume they will increase the price of the petroleum products to recover this costs. This conclusion is supported by comparing the price of fuels with a RIN obligation to very similar fuels without a RIN obligation (for a further discussion of these issues see "A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects").

This commenter also discussed the ability for RIN prices to reduce the retail price of fuels with high renewable content such as E85. The RIN value can theoretically be used to discount fuels with high renewable content, and in some parts of the country and some parts of the market, such as wholesale E85 prices in Iowa, it is indeed happening. Currently, however, a lack of competition is preventing the full value of the RIN to be passed along to consumers in the retail price of E85. This, along with the fact that current data reveal that consumers are purchasing significantly less E85 when it is priced lower than E10 on an energy content basis, limits the potential for higher RIN prices to result in greater E85 sales in 2016 (see EPA supporting documents "An Assessment of the Impact of RIN Prices on the Retail Price of E85" and "Correlating E85 consumption volumes with E85 price" for a further discussion of these topics).

EPA disagrees with comments that stated that in blends up to E30 ethanol is blended for its octane value and that there is no meaningful mileage impact. While it may be possible to design and build future engines that are optimized for higher octane fuels that minimize or potentially even eliminate the mileage impact of E30 relative to E10, the current vehicle fleet is not optimized to operate on E30 and would only benefit to a small degree if at all from the increased octane. Vehicles in the existing fleet would be expected to experience approximately a 6%

mileage reduction when operating on E30 relative to E10 and a 10% reduction when operating on E30 relative to E0 based on the lower energy content of ethanol.

A commenter recognized the impact that increasing RFS standards can have in the diesel fuel market, stating that “increasing mandates under the RFS can enable NATSO members to sell the product to consumers and lower prices and thereby increase consumer demand for biodiesel; at the same time, if RVOs are set *too high*, it could lead to increased prices for diesel fuel, which would have an adverse effect on NATSO members and the U.S. economy as a whole.” They support EPA’s decision to consider market realities in establishing the RFS standards. EPA generally agrees with the commenter’s assessment of the impact of the RFS standards on the diesel fuel market, including the potential for high RIN prices to increase diesel fuel prices. Though it should be pointed out that even at achievable RFS volumes, the impact of RINs on fuel prices does not necessarily reflect the impact on fuel costs to consumers, as the lower price of the renewable fuel is generally subsidized by increases in prices of petroleum fuels. The renewable fuel price (e.g., biodiesel) is enabled to be lower because the petroleum fuel (e.g., diesel fuel) price is higher. As long as renewable fuel costs are higher than petroleum fuel costs, there is a net increase in fuel costs.

EPA acknowledges that a gallon of ethanol contains less energy than a gallon of gasoline, and that if ethanol blended fuels are not handled properly that they can cause harm to engines. These factors, however, are not directly related to the standards established in this final rule, especially as none of the standards specifically require the use of ethanol.

A commenter stated that greater availability of biofuels will lead to the broader installation of blender pumps and more flex fuel vehicles. While this may be the case, we note that the United States already produces and imports more ethanol than can be consumed in domestic markets. Our final standards for 2016 take into account any new blender pumps or FFVs that may be attributable to this greater availability of ethanol (see Section II.E.2 of the final rule for further discussion of EPA’s assessment of the market’s ability to produce, import, distribute, and consume ethanol in 2016).

## **7.6 Energy Security**

### **Comment:**

**American Farm Bureau Federation (Farm Bureau); Indiana Farm Bureau**

#### **Impact on Energy Security and Policy**

The RFS2 has been playing a critical role in improving the energy security of the United States. The crude oil market is notoriously volatile, influenced by the complex interplay of economic and political variables that are largely beyond the control or even the effective influence of American companies or the U.S. government. Recent history amply attests to the disruptive potential of volatile energy markets. For example, in 2008 the price of crude oil reached an historic high of nearly \$145 per barrel on July 1 only to crash to \$31 per barrel by the end of the year. Just last fall crude oil was trading near \$100 per barrel but dropped as low as \$44 per barrel by mid-January of this year. [EPA-HQ-OAR-2015-0111-2355-A1 p. 4]

Clearly, the crude oil market is highly unpredictable, leaving American businesses and consumers vulnerable to severe price shocks that stifle business investments, redirect consumer spending from other sectors of the economy, and impede economic growth. Developing a comprehensive, domestic energy source is a critical hedge against foreign sources of energy market volatility, and keeping the RFS2 as it is in the 2007 EISA serves as a key component to achieving this overall goal. [EPA-HQ-OAR-2015-0111-2355-A1 p. 4]

### **Board of County Commissioners of Putnam County, Ohio**

The more than thirteen billion gallons of ethanol in the pipeline has reduced our dependence on foreign oil and given our citizens a lower pump price. [EPA-HQ-OAR-2015-0111-3289-A1 p. 1]

### **Cornelius Seed Corn Company**

The RFS has been great for my home state of Iowa. Because of ethanol and other biofuels, thousands of jobs have been created, and we've created a domestic source of fuel that decreases our dependence on foreign oil. [EPA-HQ-OAR-2015-0111-3247-A1 p.1]

### **Growth Energy**

The RFS plays a crucial role in cushioning the impact of price disruptions due to shocks in the price and supply of oil, by stimulating increased production and consumption of domestic renewable fuels. As was anticipated in the RFS, ethanol in particular has been critical to the United States' improved energy independence. The surge in ethanol production due to the RFS has increased the volume of domestic fuel available by about 10%, and allowed the United States to switch from a net importer of finished gasoline to a net exporter.<sup>452</sup> In doing so, the RFS has decreased U.S. dependence on foreign energy sources and lowered gas prices.<sup>453</sup> In 2005—just prior to implementation of the RFS—60% of petroleum products were imported, but this was reduced dramatically to 33% in 2013.<sup>454</sup> As found by the Department of Energy, petroleum imports would have been markedly higher (41%) without ethanol.<sup>455</sup> In fact, ethanol production accounts for 58% of the fuel supply growth between 2005 and 2011.<sup>456</sup> Without the RFS, there would be little competitive alternative to imported oil. [EPA-HQ-OAR-2015-0111-2604-A2 p.79-80]

As in other areas, EPA merely pays lip service to its statutory obligations. It observes, “By aiming to diversify the country’s fuel supply, Congress also intended to increase the Nation’s energy security.”<sup>457</sup> But, as explained above, EPA’s proposal would in effect maintain current levels of production and consumption of ethanol-based renewable fuels and therefore would fail to advance the goal of ensuring the Nation’s energy independence and security. [EPA-HQ-OAR-2015-0111-2604-A2 p.80]

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<sup>452</sup> Urbanchuk, *Contribution of the Ethanol Industry to the Economy of the United States in 2014*, *supra* note 414, at 5.

<sup>453</sup> Philip K. Verleger, Jr., *RFS Kept Gas Prices Down*, The Hill, Jan. 23, 2014, at <http://thehill.com/blogs/congress-blog/energy-environment/196135-rfs-kept-gas-prices-down>.

<sup>454</sup> See U.S. Dept. of Energy, Alternative Fuels Data Center, at [http://www.afdc.energy.gov/fuels/ethanol\\_benefits.html](http://www.afdc.energy.gov/fuels/ethanol_benefits.html) (last visited July 21, 2015).

<sup>455</sup> *Id.*

<sup>456</sup> *Id.* at 9.

<sup>457</sup> 80 Fed. Reg. at 33,101.

### **Kentucky Beverage Association**

Similarly, arguments stating that the RFS is needed to reduce our foreign dependency on oil have simply not proved true. From 2007 to 2012, increased ethanol production had no effect on gasoline production. The recent increase of American production of oil has further decreased any American dependency on foreign fuels. [EPA-HQ-OAR-2015-0111-2356 p.2]

### **Mass Comment Campaign sponsored by anonymous 7 (email) - (82)**

I also know and have seen firsthand the ways in which America's addiction to foreign oil is putting American lives at risk. That's why I urge you to consider not only the financial, but also the human cost of our addiction to oil. As you consider your proposal to drastically change the RFS, remember that these changes will increase the burden on American families, our economy and our soldiers by directly linking us to the volatility of the global oil market and those who control and benefit from it. [EPA-HQ-OAR-2015-0111-0209-A1 p.1]

Since 2005, the RFS has increased the amount of renewable fuel that is blended into our gasoline supply, and this increase has dramatically reduced foreign oil interests' stranglehold on our marketplace, helping to decrease foreign oil imports by more than 50 percent. But EPA's proposal would increase America's consumption of oil from hostile foreign regions, and risk sending more troops into harm's way for the benefit of foreign oil interests. [EPA-HQ-OAR-2015-0111-0209-A1 p.1]

America remains a net importer of oil. The more foreign oil America consumes, the more embroiled our nation becomes in conflicts in unstable, oil-rich regions. Moreover, foreign oil imports drive up the global price of oil, helping to fill the coffers of America's enemies overseas, who depend on oil profits to fund hostility and instability. Homegrown, renewable fuels can help end this cycle. [EPA-HQ-OAR-2015-0111-0209-A1 p.1]

This rule, as proposed, is a win for foreign oil interests and a loss for consumers. We should be investing in secure, American energy here at home instead of sending nearly a billion dollars a day overseas. This rule is exactly what foreign interests and cartels like OPEC love. It shows that the U.S. is not serious about developing real alternatives to foreign oil. [EPA-HQ-OAR-2015-0111-0209-A1 p.1]

We must move forward, not backward, when it comes to developing alternatives to fossil fuels and foreign oil. Renewable fuel is the clear answer to decreasing our dangerous dependence on foreign oil. Biofuels are better for our national security, energy security and climate security, and they benefit veterans like me by opening the door to competition and savings at the pump. [EPA-HQ-OAR-2015-0111-0209-A1 p.1]

After years of success with the RFS, we must not move backward. We have tripled our supply of renewable fuel, and the ethanol industry alone has created nearly 400,000 green, secure jobs that can't be sent overseas. We must capitalize on that momentum and continue to invest in the future development and commercial scale production of next generation biofuels. A rule such as this

would slow any further innovation, investment and growth in an industry that is fueling America's security. [EPA-HQ-OAR-2015-0111-0209-A1 p.2]

**Mass Comment Campaign sponsored by anonymous 9 (email) - (230)**

If these volumes are not increased, we will simply continue our dangerous dependence on foreign oil and ensure that dirty fossil fuels continue to pollute our environment. [EPA-HQ-OAR-2015-0111-0212-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 11 (email) - (695); Mass Comment Campaign sponsored by anonymous 30 (email) - (26); Mass Comment Campaign sponsored by anonymous 31 (paper) - (301)**

- If these proposed volumes are not increased, we will simply continue our dangerous dependence on foreign oil and ensure that dirty fossil fuels continue to pollute our environment. [EPA-HQ-OAR-2015-0111-2560-A1 p.1]
- With these cuts, our nation will not see the dramatic decrease in greenhouse gas (GHG) emissions assumed under the RFS. With full implementation, the RFS would reduce GHG emissions by 138 million metric tons, which is the equivalent of taking 27 million cars off the road. [EPA-HQ-OAR-2015-0111-2560-A1 p.1]

This proposed rule, as it stands, is a win for oil companies and a loss for consumers and farmers. We should be investing here at home instead of sending nearly a billion dollars a day overseas to Big Oil. This rule is exactly what groups like OPEC love — it shows that the U.S. is not serious about developing real alternatives to foreign oil. [EPA-HQ-OAR-2015-0111-2560-A1 p.2]

Over the last 40 years we have experienced price shock after price shock due to unrest and instability in the Middle East. Egypt, Libya, Saudi Arabia, Kuwait, Iraq, Iran and Syria are all unstable oil producing nations in a region where the slightest disruptions can have a drastic ripple effect on the supply and price of oil. [EPA-HQ-OAR-2015-0111-2560-A1 p.2]

Wars have been fought, trillions of dollars have been spent to protect the flow of oil and trillions more of our wealth has been transferred to foreign nations. But most importantly, the precious lives of American soldiers have been lost due to our addiction to foreign oil. [EPA-HQ-OAR-2015-0111-2560-A1 p.2]

**Mass Comment Campaign sponsored by anonymous 15 (email) - (2485)**

If these proposed volumes are not increased, we will simply continue our dangerous dependence on foreign oil and ensure that dirty fossil fuels continue to pollute our environment. [EPA-HQ-OAR-2015-0111-0217-A1 p.1]

This rule, as it stands, is a win for oil companies and a loss for consumers. We should be investing here at home instead of sending nearly a billion dollars a day overseas. This rule is exactly what groups like OPEC love – it shows that the U.S. is not serious about developing real alternatives to foreign oil. Over the last 40 years we have experienced price shock after price shock due to unrest and instability in the Middle East. Egypt, Libya, Saudi Arabia, Kuwait, Iraq, Iran and Syria are all unstable oil producing nations in a region where the slightest disruptions

can have a drastic ripple effect on the supply and price of oil. Wars have been fought, trillions of dollars have been spent to protect the flow of oil and trillions more of our wealth has been transferred to foreign nations. But most importantly, the precious lives of American soldiers have been lost due to our addiction to foreign oil. [EPA-HQ-OAR-2015-0111-0217-A1 p.1-2]

**Mass Comment Campaign sponsored by anonymous 33 (paper) - (164)**

If these proposed volumes are not increased, we will simply continue our dangerous dependence on foreign oil and ensure that dirty fossil fuels continue to pollute our environment. [EPA-HQ-OAR-2015-0111-2957-A1 p.1]

We should be investing here at home instead of sending nearly a billion dollars a day overseas. This is our opportunity to show the U.S. is serious about developing real alternatives to foreign oil. [EPA-HQ-OAR-2015-0111-2957-A1 p.1]

**Mass Comment Campaign sponsored by Corn, LP (web) - (37); Mass Comment Campaign sponsored by Little Sioux Corn Processors (web) - (44); Mass Comment Campaign sponsored by Quad County Corn (web) - (37); Mass Comment Campaign submitted by employees of Siouxland Energy Cooperative (web) - (30)**

**The RFS is working for energy security.** Ethanol already makes up 10% of our nation's fuel supply, while U.S. dependence on foreign oil has decreased from 61% in 2005 to 28% in 2014. Without the production of 14.3 billion gallons of American-made ethanol last year, net imports would have been 35%. Here at Corn, LP, we are proud to be manufacturing an Iowa product that displaces foreign oil. In 2014, U.S ethanol production displaced an equivalent of 512 million barrels of imported crude oil, slightly more than all the oil the U.S. imports from Saudi Arabia. [EPA-HQ-OAR-2015-0111-2047-A1 p.1-2]

On the other hand, it saddens us that exports of our locally-produced ethanol reached a record high last year due to EPA's delay in finalizing the RVOs. These gallons should have been blended into domestic transportation fuels, giving Americans even greater access to cleaner-burning ethanol blends instead of fueling cars in South Korea and the Philippines. Let's give our consumers more fuel choices and healthier air to breathe by restoring RVO levels to fulfill Congressional intent. [EPA-HQ-OAR-2015-0111-2047-A1 p.2]

**Mass Comment Campaign sponsored by employees of Western Dubuque Biodiesel (web) - (1)**

**The RFS is working for energy security.** This forward-looking policy has already achieved a decrease in this country's dependence on foreign oil. Oil imports have already decreased from 61% in 2005 to 28% last year. Here at Western Dubuque Biodiesel, we are proud to be manufacturing an Iowa product that displaces foreign oil with a clean-burning, efficient fuel. [EPA-HQ-OAR-2015-0111-1961-A1 p.1]

Here in Iowa, since 2010 when RFS2 went into effect, both biodiesel production and biodiesel sales have soared, multiplying by a factor of roughly four and a half. Biodiesel production has jumped from 48 million gallons in 2010 to 227 million gallons in 2014, while total B100 sales in

Iowa have expanded from 7.4 million gallons in 2010 to 33.3 million gallons in 2014. [EPA-HQ-OAR-2015-0111-1961-A1 p.1]

### **Mass Comment Campaign sponsored by POET Biorefining 1 (paper) - (692)**

For me personally, the EPA should enforce the law as written for the additional reasons:

need to support local farmers and local communities with renewable fuel production rather than continued support of foreign oil. [EPA-HQ-OAR-2015-0111-2963-A1, p.10]

### **Mass Comment Campaign sponsored by unknown organization 23 (email) - (10)**

By growing this cleaner, greener, renewable fuel source, the more independent we are from OPEC. We should look to the honest, hardworking American farmer than the volatile Middle East for our energy needs. [EPA-HQ-OAR-2015-0111-1479-A1 p.1]

### **Michigan Corn Growers Association**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 36-37.]

Second, we're proud that ethanol plays an important role in boosting national security. The use of ethanol prevents more than \$44 billion every year from being sent to other nations to pay for imported oil, and our military doesn't need to be deployed to defend our cornfields. We believe that we can build on the tremendous accomplishments achieved to date by America's biofuels industry. Ethanol has revitalized rural communities in Michigan, reduced our dependence on foreign oil, and reduced our greenhouse gas emissions not just in Michigan, but across the nation. It's a product corn growers take pride in.

### **Minnesota Farm Bureau**

In addition to the economic impact renewable fuels has on Minnesota's economy, the RFS2 has reduced our country's dependence on foreign crude oil and reduced air pollution [EPA-HQ-OAR-2015-0111-2263-A1 p. 1]

### **Minnesota Soybean Processors (MnSP)**

It is appropriate to remind EPA that the statute that authorizes EPA to oversee the RFS program is titled "Energy INDEPENDENCE and Security Act of 2007. (Emphasis added.) It is a stretch to imagine that Congress desired to rely on foreign biofuel to achieve energy independence. We ask EPA to pay particular attention to NBB's comments relative to the harm potentially imposed to the domestic biodiesel industry by foreign produced imports. [EPA-HQ-OAR-2015-0111-2505-A1 p.3]

### **Monsanto**

Beyond agriculture, the RFS is a policy tool designed to reduce our dependence on oil, delivering environmental, economic, and security benefits to our nation. Since 2007, the RFS has not only driven a significant increase in direct domestic and foreign investments, but also driven

economic growth by the direct reduction in gas prices. Every year the RFS offsets millions of gallons of foreign oil imports, keeping investments and jobs growing in the U.S., while spurring innovation and industry collaboration to further advance technology that supports low carbon fuel. [EPA-HQ-OAR-2015-0111-1945-A1 p.1]

### **National Biodiesel Board**

EPA admits that the “wider use of any advanced biofuels, including BBD and sugar cane or sorghum ethanol, diversify the U.S. liquid fuel mix and provide energy security benefits.” EPA-HQ-OAR-2015-0111-0008 at 5. As such, EPA simply asserts that the supplemental analysis “does not appear to suggest a distinct energy security advantage associated with selecting any particular BBD applicable volume.” *Id.* at 5-6. Again, EPA’s supplemental analysis lacks any actual analysis. Rather it is a mere conclusory statement based on the fallacy that increasing the biomass-based diesel requirement will only shift the advanced biofuels used. [EPA-HQ-OAR-2015-0111-1953-A2 p.52]

Instead, increasing the biomass-based diesel requirement will “diversify the U.S. liquid fuel mix and provide energy security benefits” in allowing for *greater* advanced biofuel volumes.<sup>53</sup> “While securing accessible and affordable feedstock is a challenge to the industry, the range of different feedstocks serves as a strength to an industry that is working to diversify transportation fuel choices.” E2 2014 Advanced Biofuel Report at 17; *see also* Denial of API/AFPM Reconsideration Petitions at 15-16 (“Energy security does not solely relate to the amount of imported oil but also to the ability of the U.S. to diversify and rely on domestic sources of energy to meet the energy needs of the U.S. ... Creating a new fuel supply that has a different, and likely reduced, probability of disruptions provides an energy security benefit because it reduces ‘financial and strategic risks caused by potential sudden disruptions in the supply of imported petroleum to the U.S.’”). [EPA-HQ-OAR-2015-0111-1953-A2 p.52]

It cannot be disputed that increased use of biodiesel promotes energy security, and biodiesel production and use will contribute to a U.S. energy security benefit. *See, e.g.*, 76 Fed. Reg. at 38,869 77 Fed. Reg. at 59,470-59,471. Biodiesel plays a major role in expanding domestic refining capacity and reducing this country’s reliance on foreign oil. In addition, biodiesel is an extremely efficient fuel that creates 5.5 units of energy for every unit of fuel that is required to produce the fuel. [EPA-HQ-OAR-2015-0111-1953-A2 p.68]

As stated by the EPA, a higher applicable volume “will assure an increased use of biomass-based diesel in the U.S. and help to improve U.S. energy security. Reducing U.S. petroleum imports and increasing the diversity of U.S. liquid fuel supplies lowers both the financial and strategic risks caused by potential sudden disruptions in the supply of imported petroleum to the U.S.” 77 Fed. Reg. at 59,470. Further, EPA recognized “[e]nergy security does not solely relate to the amount of imported oil but also to the ability of the U.S. to diversify and rely on domestic sources of energy to meet the energy needs of the U.S. ... Therefore, ‘regardless of the incremental effect of this proposal on net imports, increasing the diversification of the U.S. and global diesel fuel pools would likely confer some reduction in the severity of a future potential disruption in the world oil market.’” Denial of API/AFPM Reconsideration Petitions at 15 (citation omitted). [EPA-HQ-OAR-2015-0111-1953-A2 p.68]

When analyzing the 2013 biomass-based diesel volume, EPA found 280 million gallons of biodiesel equals about 255 million gallons of diesel equivalent. Based on analysis of historical and projected future variation in U.S. petroleum consumption and imports, EPA estimated that approximately 50 percent of the reduction in fuel consumption resulting from adopting renewable fuels is likely to be reflected in reduced U.S. imports of refined fuel, while the remaining 50 percent is expected to be reflected in reduced domestic fuel refining. Of the latter, 90 percent was anticipated to reduce U.S. imports of crude petroleum for use as a refinery feedstock, while the remaining 10 percent was expected to reduce U.S. domestic production of crude petroleum. EPA then estimated each gallon of fuel saved due to the RFS reduces total U.S. imports of petroleum by 0.95 gallons, providing approximately \$0.15/gallon benefit. 77 Fed. Reg. at 59,470-59,471. The 300 million gallon increase proposed by NBB would provide at least \$42.75 million in additional energy security benefits. [EPA-HQ-OAR-2015-0111-1953-A2 p.68]

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<sup>53</sup> Soybean oil remains a significant feedstock for the U.S. biodiesel industry, and “U.S. farmers planted a record 85.1 million acres of soybeans this year.” Mark Ash, *Oil Crops Outlook* (July 14, 2015), available at <http://www.ers.usda.gov/media/1869335/ocs15g.pdf>; see also *id.* at Table 3. Canola oil and animal fats also represent significant feedstocks used for biodiesel production, and the use of corn oil from ethanol production and of recycled greases has substantially increased since 2010. See EIA, *Monthly Biodiesel Production Report, With Data for December 2012, Tables 3 and 3a* (Feb. 2013); EIA, *Monthly Biodiesel Production Report, With Data for April 2015, Tables 3 and 3a* (June 2015), available at <http://www.eia.gov/biofuels/biodiesel/production/>. Certain of these feedstocks continued to increase in 2014.

### **North Dakota Ethanol Council**

The RFS has improved the economic well-being of North Dakota in the following ways:

- Independence from Foreign Oil - If ethanol volumes are not increased, our dependence on foreign oil will rise instead of keeping those dollars in the country and in our state. Use of domestic ethanol in 2013 decreased dependence on foreign oil by seven percent – from 35 to 28 percent. [EPA-HQ-OAR-2015-0111-1927-A1 p. 1]

### **Northern Canola Growers Association**

Well beyond the canola and agricultural sector, biodiesel provides numerous benefits for consumers and society as a whole, including:

-a more diversified energy market

-increased domestic energy production [EPA-HQ-OAR-2015-0111-2036-A1 p.2]

### **Office of the Lt. Governor, Indianapolis, Indiana**

A nation with a diverse energy supply is better equipped to handle the challenges of the 21<sup>st</sup> Century and supply consumers with a broader array of energy choices. With certainty in regulations and markets, our farmers and our biofuels industry will confidently make the investments that help our country achieve greater energy independence and security by reducing our reliance on foreign oil. [EPA-HQ-OAR-2015-0111-2482-A1 p.1-2]

## **St. Louis Clean Cities Program**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 49-50.]

In closing, we improve our U.S. energy security by using American fuels. Renewable fuels like biodiesel are diversifying the U.S. fuel supplies and expanding domestic refining capabilities so that our economic stability and national security are not so vulnerable to global oil markets. That improves U.S. energy security that because despite U.S. oil production, petroleum is still a global commodity that is sharply shaped by geographical factors beyond our control.

## **State of Indiana; State of Indiana House of Representatives**

Indiana drivers consumed 314 million gallons of ethanol in 2013, helping reduce our dependence on foreign oil. Furthermore, ethanol lowers gas prices by \$1.09 per gallon in the Midwest, saving the average American household \$1,200 per year. [EPA-HQ-OAR-2015-0111-3466-A1 p.2]

## **State of South Dakota**

Ethanol and other renewable fuels are good for my state and our country. They are making our country more independent from foreign oil. They have kept our farm economy strong while also improving our air quality. [EPA-HQ-OAR-2015-0111-1919-A1 p.1]

## **The Ohio House of Representatives**

Additionally, ethanol provides energy-specific benefits to our economy. First among those considerations is its value to our energy independence. Even with the rise of domestic natural gas and oil production, ethanol is still making a significant impact in reducing our reliance on foreign-sourced energy. [EPA-HQ-OAR-2015-0111-3486-A1, p.1]

## **Vets for Energy**

One of the original intents of the RFS was to expand the use of renewable fuels to reduce our reliance on foreign oil. However, America has already reduced our imports from those who seek to harm us through the development of our vast stores of domestic oil and natural gas. [EPA-HQ-OAR-2015-0111-2473-A1, p.1]

Unfortunately, the current RFS is not the policy to secure America's interests. [EPA-HQ-OAR-2015-0111-2473-A1, p.1]

## **Response:**

Numerous commenters lauded the energy security benefits associated with the RFS program and the renewable fuels it requires. EPA agrees that the production of biofuels improves the energy security of the U.S. by diversifying the supply of U.S. transportation fuels and displacing mainly imported petroleum. Also, all of the biofuels that displace petroleum are less likely to subject to periodic supply disruptions or “oil shocks.” More details on these conclusions are reflected in a more thorough analysis conducted by EPA of the energy security benefits associated with the full implemented of the RFS program in the RFS2 rulemaking in 2010.

This final rule increases the advanced and total renewable fuel standards through 2016 By increasing the amount of renewable fuels, both advanced and conventional, this final rule improves the energy security position of the U.S. A number of commenters suggest that EPA should set the RFS standards at the statutory volumes to further improve the U.S.'s energy security position. For example, one commenter suggested that EPA's proposed use of the general waiver authority would have negative effects on the Nation's energy independence, contrary to the express goal of the EISA to "move the United States toward greater energy independence and security—after all, its full name is the Energy Independence and Security Act". The final standards will continue to increase renewable fuel volumes, which in turn continue to increase the energy security benefits from the RFS program. However, for reasons explained elsewhere, the statutory volumes are not attainable at this time and any additional perceived energy security benefits associated with them also not attainable.

Comments with respect to the energy security benefits associated with raising the BBD standard are addressed in section 3.4.3.

## **7.7 Impact on Jobs and Local/State Economy 721**

### **Comment:**

#### **Ace Ethanol/Fox River Valley Ethanol**

Specifically, an extrapolation of data from a 2014 economic study by John Dunham & Associates indicates that our businesses contribute \$840 million in economic output, support 3,800 indirect jobs and \$192 million in indirect wages as well as \$16.8 million in taxes. [EPA-HQ-OAR-2015-0111-1200-A1 p. 2]

#### **American Soybean Association (ASA)**

Biodiesel has and will continue to create and sustain jobs in the United States, including many in rural America. An economic study conducted for the National Biodiesel Board estimates that the biodiesel industry, at 1.7 billion gallons of production, supports more than 62,000 jobs, \$2.6 billion in wages, and \$16.8 billion in overall economic impact. The industry's economic impact is poised to grow significantly with continued production increases. The industry supports jobs in a variety of sectors, from manufacturing to transportation, agriculture and service industries. [EPA-HQ-OAR-2015-0111-1818-A1 p.2]

#### **Board of County Commissioners of Putnam County, Ohio**

Thousands of jobs have been created by the ethanol industry. [EPA-HQ-OAR-2015-0111-3289-A1 p. 1]

#### **American Cleaning Institute (ACI)**

ACI continues to be concerned with the RFS's serious and significant impact on ACI member companies' ability to source animal fats for use as an oleochemical feedstock. The proposed

volumes would continue to divert large quantities of a finite inelastic supply of animal fats to the biofuels market, thereby critically disadvantaging the domestic oleochemical industry. EPA has a responsibility, if not duty, to equally protect all industries that rely on animal fats to produce goods. Agency mandates should not choose winners and losers. Therefore, we respectfully request that EPA use its discretionary authority to lower the volume requirement for biomass-based diesel, or, alternatively, to exclude animal fats as a feedstock option [EPA-HQ-OAR-2015-0111-1934-A1 p.1]

The proposed volumes would continue to divert large quantities of a finite inelastic supply of animal fats to the biofuels market, thereby critically disadvantaging the domestic oleochemical industry. [EPA-HQ-OAR-2015-0111-1934-A1 p.1-2]

- Agency mandates should not choose winners and losers. EPA has a responsibility, if not duty, to equally protect all industries that rely on animal fats to produce goods
- The price of animal fats has increased 95 percent since 2006 under the combined policies of the RFS and tax incentives for biofuels
- Biofuel production consumes a significant amount of the total supply of animal fats and current policies threaten not only the price but the availability of animal fats for oleochemical production
- Since 2011 (a historical first) the price of animal fats have exceeded that of Malaysian palm oil
- Switching to foreign-sourced palm oil by the oleochemical industry threatens 25,000 U.S. jobs
- EPA must use all its available discretion to exempt or minimize the use of animal fats under the RFS mandates and include the Proposed Rule's impact on the oleochemical industry in its analysis of impacts on other sectors and industries; specifically, EPA must address the potential job loss in collateral industries [EPA-HQ-OAR-2015-0111-1934-A1 p.2]

### **California Dairy Campaign**

The advanced biofuels industry has made progress in moving toward commercialization. The main argument against cellulosic biofuel is that it is too expensive to produce. However, production costs are falling and those costs will continue to fall as more facilities open and the industry matures. This nascent but growing industry promises to create thousands of jobs in rural America. It will also create economic development opportunities and increased investment in rural economies. [EPA-HQ-OAR-2015-0111-1816-A1 p.1-2]

### **Conference of Professional Operators for Response Towing**

Why are we opposed to this proposal? It is bad for boating. There are over 88 million Americans who enjoy recreational boating. Their boating supports marine industry from local marinas to national boat builders to service industries such as ours across our country. It cannot be ignored that a large portion of the boating population fuels their vessels at land based gas stations prior to launching their vessels at the ramp. [EPA-HQ-OAR-2015-0111-1718-A1 p. 1]

### **Cornelius Seed Corn Company**

The RFS has been great for my home state of Iowa. Because of ethanol and other biofuels, thousands of jobs have been created, and we've created a domestic source of fuel that decreases our dependence on foreign oil. [EPA-HQ-OAR-2015-0111-3247-A1 p.1]

### **Crawford County**

The EPA has proposed Renewable Fuel Standards (RFS) for 2014, 2015 and 2016. Unfortunately, the EPA is attempting to force high-ethanol fuel blends into the market and potentially putting American consumers, their vehicles and our economy at risk. As a sitting County Commissioner from rural Pennsylvania, I am concerned about the negative impact these new standards will have on my constituents and the local economy. [EPA-HQ-OAR-2015-0111-1666-A1 p. 2]

### **East Kansas Agri-Energy, LLC (EKAE)**

This proposal would increase, not decrease, unemployment as renewable fuel producers employing hundreds of thousands of Americans cut back, putting American jobs and rural economies at risk. [EPA-HQ-OAR-2015-0111-2607-A2 p.3]

### **Governor of Iowa, et al.**

State leaders recently traveled to Kansas City, Kansas, to testify on the shortcomings of the proposed rule. This was only the most recent example of State of Iowa leaders actively engaging on this issue, which is so important to a healthy economy in rural America. Another example came in January 2014, when we hosted the “Hearing in the Heartland” in cooperation with the entire Iowa congressional delegation, state leaders, interested citizens and community leaders from across the Midwest. At this open forum where all interested citizens were invited to present, we heard from 83 panelists from across the Midwest that spoke from the heart about the importance of the RFS to their livelihoods and a healthy rural economy; only two individuals presented in opposition to a robust RFS. There remains a strong consensus in the Heartland for the EPA to reverse course on the most recent proposal and reject Big Oil’s arguments and attempt to get rewarded for bad behavior. The use of biofuels in the Midwest has continued to grow and we are confident that this trend can extend nationally. The RFS as enacted, was one of the best recent examples of a Federal policy success, because of the policy predictability it provided to nurture growth and innovation. [EPA-HQ-OAR-2015-0111-1915-A1 p.2]

As state leaders, we are keenly focused on helping create a business and public policy environment that drives job growth throughout the State – in communities both large and small, urban and rural. We share the concerns of many Iowans and citizens throughout the Midwest that the EPA’s current proposal will undermine our shared goal of a healthy economy in rural America and abandon the various public policy benefits that flow from the RFS. [EPA-HQ-OAR-2015-0111-1915-A1 p.2]

## Growth Energy

Since then, the RFS program has been an overwhelming success. It has created American jobs, revitalized rural America, injected much-needed competition into a monopolized vehicle-fuels market, lowered the price at the pump, reduced greenhouse gas emissions, and made our nation more energy independent and secure by reducing our dependence on foreign oil. [EPA-HQ-OAR-2015-0111-2604-A2 p.1] [EPA-HQ-OAR-2015-0111-1044 p.32]

“Congress expected the RFS program to compel the industry to make dramatic changes in a relatively short period of time.”<sup>3</sup> Accordingly, EPA recognizes here that “the proposed volume requirements are ... intended to drive significant growth in renewable fuel use beyond what would occur in the absence of such requirements.”<sup>4</sup> But by that measure, this proposal is a total failure. If EPA persists with its proposal, this rule would halt meaningful growth in renewable fuels and eviscerate the RFS program. The resulting stagnation in renewable fuels would contravene Congress’s intent and disserve the public interest. [EPA-HQ-OAR-2015-0111-2604-A2 p.1]

The proposed rule would upend the industry that makes these important contributions to the U.S. economy, and harm the farmers and others who depend upon that industry. Unlike the oil industry, which can respond nearly instantaneously to changes in supply and demand, farmers decide how much corn to plant only once a year. Based in large part on the reasonable expectation that Congress’s prescribed volume requirements would apply, America’s farmers have made significant long-term investments in land, equipment, and seed to produce and bring to market sufficient amounts of corn to meet the statutory volumes.<sup>40</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.74]

The broader economic impact of the proposed rule would also be profound, particularly in rural communities. The amount of available ethanol capacity in the United States exceeds the proposed volume of conventional biofuels in 2016; as a result, a reduced mandate would result in either the idling or permanent closure currently operating facilities, or the continued idling of facilities that are not currently producing, but would be if the volume requirements were increased.<sup>41</sup> Idling these ethanol facilities—which are often important economic engines in rural communities—would cause a series of cascading economic effects. Plants would lose operating profits generated by the current level of production, lay off workforces, cut back or cease inputs from local vendors, and reduce their local tax payments.<sup>42</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.74]

Specifically, a recent study found that EPA’s proposal would result in the closure or continued idling of approximately 13 ethanol plants, along with the direct loss of 800 jobs at those facilities and reduced revenues from ethanol and co-product sales of \$2.6 billion.<sup>43</sup> These economic impacts would fan through the local, primarily rural communities, ultimately resulting in the indirect loss of approximately 3,200 jobs in ethanol producing regions.<sup>44</sup> State and local government budgets would be harmed to the tune of approximately \$31 million in lost tax revenues in regions hosting ethanol plants.<sup>45</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.74-75]

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<sup>3</sup> 80 Fed. Reg. at 33,118.

<sup>4</sup> *Id.* at 33,109.

<sup>420</sup> The proposed rule is estimated to reduce corn demand by 1.3 billion bushels. See *Iowa Corn Growers Association Criticizes EPA Announcement on the Renewable Fuel Standard* (May 29, 2015), at [http://www.iowacorn.org/index.cfm/30321/35759/iowa\\_corn\\_growers\\_association\\_criticizes\\_epa\\_announcement\\_on\\_the\\_renewable\\_fuels\\_standard](http://www.iowacorn.org/index.cfm/30321/35759/iowa_corn_growers_association_criticizes_epa_announcement_on_the_renewable_fuels_standard). The USDA projects 2015/16 corn prices to average \$3.75 per bushel, resulting in a \$4.875 billion loss for corn growers. See Iowa State University, *Iowa Farm Outlook & News*, available at <http://www2.econ.iastate.edu/ifo/>.

<sup>421</sup> Edgeworth Economics, *The Impact of an RFS Waiver on the Ethanol Industry and Broader Economy in 2016*, at 1 (July 27, 2015) (attached as Exhibit 8).

<sup>422</sup> *Id.* at 1-2.

<sup>423</sup> *Id.* at 3.

<sup>424</sup> *Id.* at 4.

<sup>425</sup> *Id.*

### **Indiana Corn Growers Association (ICGA)**

Indiana's ethanol industry generated economic activity or revenues from ethanol and its interlinked industries in 2014<sup>4</sup> in the order of \$3.6 billion. This added economic activity within Indiana resulted in a net contribution to the state's GSP of \$934 million in 2014 and an increase on household income, including farmer income, of \$315 million. The ethanol industry contributes, either directly or through indirect and induced effects, \$44 million per year to state and local taxes. Without Indiana's ethanol industry, none of this economic impact within the state would have occurred. The contribution of Indiana's ethanol industry, independent of the economic impacts of the overall national ethanol industry, is summarized in Exhibit 1. [EPA-HQ-OAR-2015-0111-2503-A1 p.11] [Exhibit 1 can be found on page 11 of EPA-HQ-OAR-2015-0111-2503-A1.]

Highlights of the economic contributions of Indiana's ethanol industry within the state are listed below.

- **Job Creation** - The ethanol industry created 4,146 new full-time jobs within Indiana. The industry directly employs 526 individuals and 6.88 additional jobs are created within the state for every direct job. This is a total employment multiplier of 7.88.
- **Contribution to Indiana's GSP** - The ethanol industry contribution to Indiana's GSP is \$934 million. This is limited to the Indiana ethanol industry – it does not include the economic impact that the overall U.S. ethanol industry has had on corn prices, farmer's income, and farmland appreciation.
- **Economic Activity or Sales within Indiana** - The ethanol industry generated \$2,881 million in ethanol, DDGS and corn oil sales in 2014. This in turn generates \$739 million in additional economic activity across other sectors and households for a combined economic activity totaling \$3,620 million.
- **Household Income** – The increase of income to households directly or indirectly linked to ethanol production, including the impact farmers receive from a higher basis is \$207 million. Induced impacts of \$108 million provide for a combined total impact on household income in 2014 of \$315 million.

- **State and Local Taxes** – The ethanol industry generated approximately \$44 million in state and local taxes in 2014. A large portion of these taxes are property and sales tax. [EPA-HQ-OAR-2015-0111-2503-A1 p.12]

### **Indiana Farm Bureau**

In 2014, Indiana's ethanol industry directly employed 526 people and created 3,620 full-time equivalent jobs elsewhere in Indiana's economy. In addition to investing in jobs, the ethanol industry's direct capital investment here in the state totals \$1.5 billion since 2006. [EPA-HQ-OAR-2015-0111-2486-A1 p.2]

### **Kansas Soybean Association**

Biodiesel has and will continue to create and sustain jobs in the United States, including many in rural America. A recent economic study conducted for the National Biodiesel Board estimates that the biodiesel industry, at 1.7 billion gallons of production, supports more than 62,000 jobs, \$2.6 billion in wages, and \$16.8 billion in overall economic impact. The industry's economic impact is poised to grow significantly with continued production increases. The industry supports jobs in a variety of sectors, from manufacturing to transportation, agriculture and service industries. [EPA-HQ-OAR-2015-0111-2340 p.2]

### **Kentucky Corn Growers Association**

The agriculture industry invested in human capital, as well. The RFS created hundreds of thousands of private sector jobs at a time when national employment statistics looked very grim. Job growth in the agriculture sector nearly doubled the growth of all other sectors during the time period 2005, when the RFS was enacted, through 2010. The signals that EPA sends to employers by throttling back the RFS jeopardize these jobs. [EPA-HQ-OAR-2015-0111-2499-A1 p.1]

If EPA finalizes this rule as proposed, it will prompt a devastating impact on farmers and rural communities. [EPA-HQ-OAR-2015-0111-2499-A1 p.1]

### **Little Sioux Corn Processors**

I have never testified in a hearing such as this previously but I thought it was imperative I make my case today because of its importance to our industry and our country. Little Sioux is a grass roots organization. We have over 800 investors who made an investment in Little Sioux hoping to raise the price of corn and improve the economic well-being of their community. They knew full well the venture carried some risk but they moved forward anyway. LSCP began production in April 2003 as a 40 million gallon annual production plant. We have since expanded twice and are undergoing our third this year. The third expansion will take our capacity beyond 135 million gallons annual production. The Third expansion exceeds the grandfathered production limit of 120 million gallons and was approved by the EPA demonstrating greenhouse gas reductions greater than 20% thru the Efficient Producer Program. You may ask why this background, to me it's pretty simple. Without the RFS and its mechanism for market access the industry would never have grown this fast which includes Little Sioux. The affect the law has had on the

economic well-being of NW Iowa and the country cannot be taken lightly. [EPA-HQ-OAR-2015-0111-1664-A1] [EPA-HQ-OAR-2015-0111-1044 pp. 320-321]

**Mass Comment Campaign sponsored by anonymous 22 (email) - (57)**

Here in Indiana, corn farmers helped produce almost one billion gallons of ethanol last year. Ethanol is responsible for over 525 direct jobs, \$30 million in salary and benefits, and over 4,100 indirect jobs in our state. That represents \$3.6 billion in total economic activity and revenue for our state. [EPA-HQ-OAR-2015-0111-1478-A1 p.1]

The advent of American made Ethanol has been the single greatest rural economic driver in the since the depression. The EPA is about to shut the door on this economic driver. Your proposed rule will shrink rural tax bases, negatively impacting schools, hospitals, fire departments, and roads. Forcing land values and rents down will harm landowners, many of whom are elderly and living on fixed incomes. Rural America cannot afford another hit. [EPA-HQ-OAR-2015-0111-1478-A1 p.1]

Furthermore, Indiana consumed 314 million gallons of ethanol in 2013, helping reduce our dependence on foreign oil. [EPA-HQ-OAR-2015-0111-1478-A1 p.1]

**Mass Comment Campaign sponsored by anonymous 25 (email) - (11)**

As an investor in two ethanol businesses in Wisconsin, one in Stanley and one near Oshkosh, I have witnessed firsthand the positive impact these businesses have on our local economy. These businesses have also stimulated investments regionally and nationally. Investments in these businesses have led to the development of new and innovated processes that have resulted in saving consumers more money at the pump, reduced our dependency on foreign oil, gives us cleaner air and has created many good paying jobs in our rural communities.

Specifically, an extrapolation of data from a 2014 economic study by John Dunham & Associates indicates that our businesses contribute \$840 million in economic output, support 3,800 indirect jobs and \$192 million in indirect wages as well as \$16.8 million in taxes. These two businesses are a huge economic engine for our local rural communities. In addition to producing about 100,000,000 gallons of ethanol, the plants also produce 250,000 tons of distillers' grain, a high protein cattle feed, as well as 110,000 tons of liquid carbon dioxide.

As an investor in two ethanol businesses in Wisconsin, one in Stanley and one near Oshkosh, I have witnessed firsthand the positive impact these businesses have on our local economy. These businesses have also stimulated investments regionally and nationally. Investments in these businesses have led to the development of new and innovated processes that have resulted in saving consumers more money at the pump, reduced our dependency on foreign oil, gives us cleaner air and has created many good paying jobs in our rural communities. [EPA-HQ-OAR-2015-0111-2567-A1 p.1]

Specifically, an extrapolation of data from a 2014 economic study by John Dunham & Associates indicates that our businesses contribute \$840 million in economic output, support 3,800 indirect jobs and \$192 million in indirect wages as well as \$16.8 million in taxes. These two businesses are a huge economic engine for our local rural communities. In addition to

producing about 100,000,000 gallons of ethanol, the plants also produce 250,000 tons of distillers' grain, a high protein cattle feed, as well as 110,000 tons of liquid carbon dioxide. [EPA-HQ-OAR-2015-0111-2567-A1 p.1]

**Mass Comment Campaign sponsored by Indiana Corn Growers Association and Indiana Soybean Alliance (email) - (304)**

I am writing in response to your proposal to reduce the use of ethanol in the Renewable Fuel Standard. As a corn farmer from Indiana, I have done my part, responsibly planting more than enough corn acres to cover all needs for feed, food, fuel and fiber. With corn prices hovering at or below the cost of production, this reckless decision by the EPA can make or break my farm and imperil nearly a decade of much needed growth in the rural economy and revitalization of rural communities. [EPA-HQ-OAR-2015-0111-3387-A1 p.1]

Here in Indiana, we produced almost one billion gallons of ethanol last year. Ethanol is responsible for over 525 direct jobs, \$30 million in salary and benefits, and over 4,100 indirect jobs in our state. That represents \$3.6 billion in total economic activity and revenue for our state. [EPA-HQ-OAR-2015-0111-3387-A1 p.1]

**Mass Comment Campaign sponsored by Indiana Soybean Alliance (email) - (250)**

Here in Indiana, three biodiesel plants have a combined capacity of more than 120 million gallons of biodiesel. That accounts for almost 300 million pounds of soybean oil from Indiana soybeans used in the production of biodiesel. Our state is home to the world's largest fully integrated soybean processing and soy biodiesel facility — Louis Dreyfus in Claypool. [EPA-HQ-OAR-2015-0111-2569-A2 p.1]

EPA's actions over the past year have led to tremendous uncertainty and hardship for U.S. biodiesel producers and thousands of their employees. As a result, many plants have been forced to reduce production and some have been forced to shut down, leading to layoffs and lost economic productivity. [EPA-HQ-OAR-2015-0111-2569-A2 p.1]

**Mass Comment Campaign sponsored by Minnesota Corn Growers Association - (784)**

Minnesota family corn farmers have been pioneers in expanding the use of homegrown ethanol. Our state was the first to blend 10 percent ethanol in all of our fuel supply, which helped clean the air in the Twin Cities metro and bring the region into compliance with EPA air quality standards. [EPA-HQ-OAR-2015-0111-2961-A1 p.1]

More recently, Minnesota corn farmers were part of a broad coalition that brought E15 to our state. Less than two years after E15 was introduced to Minnesota consumers, sales are spiking and the number of stations offering the fuel — along with other higher ethanol blends through blender pumps — continues increasing. [EPA-HQ-OAR-2015-0111-2961-A1 p.1]

I've seen communities like the one I farm in brought back to life by Minnesota's ethanol industry. Main streets went from empty to thriving. Well-paying jobs were created. Schools were updated.

Young people had a reason to return to rural Minnesota. [EPA-HQ-OAR-2015-0111-2961-A1 p.1]

**Mass Comment Campaign sponsored by National Corn Growers Association (NCGA) - (24,661)**

I strongly oppose the proposed rule to reduce the volume of ethanol in the Renewable Fuels Standard (RFS). This proposal will have a devastating impact on agriculture and the rural economy. American farmers have planted more than enough corn to cover all needs for feed, food, fuel and fiber. With corn prices near or below the cost of production, the reckless decision can break my farm and imperil nearly a decade of much needed growth in the rural economy and revitalization of rural communities. [EPA-HQ-OAR-2015-0111-3470-A1 p.1]

Your proposal, also has a trickle-down effect on everyone in a small farming community--the stores, the insurance agents, the banks, the schools. Think longer and harder before passing this proposal! [EPA-HQ-OAR-2015-0111-3475-A1 p.1]

Ethanol has created jobs and renewed investment in my rural community, helping the next generation return to farming. [EPA-HQ-OAR-2015-0111-2824-A2 p.1]

**Mass Comment Campaign sponsored by POET Biorefining 1 (paper) - (692)**

I support the Renewable fuel standard. Because it supports rural jobs. [EPA-HQ-OAR-2015-0111-2963-A1, p.3]

We all know that the RFS and biofuels have created jobs that cannot be outsourced, which have helped ensure a robust rural America - especially here in Continental, Ohio. [EPA-HQ-OAR-2015-0111-2963-A1, p.7]

**Minnesota Corn Growers Association (MCGA)**

There are 21 ethanol plants in Minnesota (nearly half of which are farmer-owned cooperatives) that support nearly 13,000 jobs. Ethanol has rejuvenated the rural economy in many parts of our state, leading to better schools, updated infrastructure and vibrant Main Street businesses. For every \$1 invested to build a Minnesota ethanol plant, more than \$8 has been returned to the economy. [EPA-HQ-OAR-2015-0111-1920-A1, p.2]

**Minnesota Farm Bureau**

Renewable fuels are critical to Minnesota's economy. In Minnesota, 1.1 billion gallons of ethanol is produced annually and the industry contributed \$2.34 billion to the state's economy in 2014, generated \$7.6 billion in revenue for Minnesota businesses, \$1.74 billion in household income and supported 18,630 jobs. [EPA-HQ-OAR-2015-0111-2263-A1 p. 1]

**National Association of Charterboat Operators**

We have not seen any social and economic study by the EPA or any other governmental agency providing information on the negative impacts to the charter boat industry by requiring the use of

E-15 gas nor have we seen any similar study on the impact to recreational boaters in general. Such a drastic requirement will certainly have severe negative social and economic impacts. Such a study should be done prior to forcing this requirement on users. [EPA-HQ-OAR-2015-0111-1812-A1 p.2]

### **National Biodiesel Board**

EPA's supplemental analysis also purports to consider job creation and rural economic development, price and supply of agricultural commodities and food prices related to proposed increases in the biomass-based diesel applicable volume. EPA-HQ-OAR-2015-0111-0008 at 8-10. For each, however, EPA continues the fallacy that the renewable fuels industry is a zero sum game. In so doing, it simply finds that these factors are a wash because there would be offsetting impacts. This again illustrates why EPA's consideration cannot be what Congress had in mind. [EPA-HQ-OAR-2015-0111-1953-A2 p.55]

EPA also focuses on soybean oil, as opposed to recognizing the ability of the industry to expand its use of other feedstocks. As further explained below, each of these considerations supports continued, and greater, increases in biomass-based diesel requirements. [EPA-HQ-OAR-2015-0111-1953-A2 p.55]

As outlined in LMC International, *The Economic Impact of the Biodiesel Industry on the U.S. Economy* (Nov. 2013) (Attachment 10), there are substantial direct and indirect economic benefits from increasing the volume obligation for biomass-based diesel. Although EPA refers to biodiesel as one of the "existing successful biofuels" fuels that it must "support," 80 Fed. Reg. at 33,102, the biomass-based diesel industry is relatively new compared to ethanol and, certainly, the petroleum industry. [EPA-HQ-OAR-2015-0111-1953-A2 p.74]

As with many young industries, there will be job opportunities created with the increased development and deployment of advanced biofuels. Jobs associated with advanced biofuel production include temporary construction jobs for facilities, permanent production employees, and numerous employees for research and development. There is also substantial potential for job creation along the supply chain, including in feedstock development and distribution. [EPA-HQ-OAR-2015-0111-1953-A2 p.74]

### **National Corn-to-Ethanol Research Center (NCERC)**

#### **Overlap of Research, Development, Commercialization and Employment**

- Through the NCERC Workforce Education and Training Programs, more than 600 unemployed and underemployed persons have received training to gain the skills needed to succeed in the new bioeconomy.
  - 93% of these trainees are now gainfully employed in the biofuels sector, utilizing the new products and technologies brought to market in the past decade.

- If this proposal becomes final, these 600 people, along with thousands more, will find themselves back on the unemployment lines! [EPA-HQ-OAR-2015-0111-1225-A2 p. 2] [EPA-HQ-OAR-2015-0111-1044 p. 58]

## **National Farmers Union (NFU)**

### *B. Rural Communities*

The economic benefits the RFS provides for rural communities are both immediate and long-term. Immediate benefits include investment in conventional and advanced ethanol plants, many of which are farmer-owned and all of which create good jobs in rural America. Encouraging more biofuels plants and requiring strong production from existing plants creates more jobs, secures existing jobs, and provides a stable tax base that will allow rural communities to flourish. A formal economic paper commissioned by the Renewable Fuels Association determined that the ethanol industry contributed nearly \$53 billion to the U.S. Gross Domestic Product' and supported over 379,000 jobs in 2014<sup>8</sup>, despite the policy challenges the industry faced that year. [EPA-HQ-OAR-2015-0111-1657-A1 p. 4]

In addition to the sustainability of the food system, climate change's impact on agriculture may hazard the sustainability of American communities. Climate change, through its impact on agriculture, places communities in harm's way because the consequences of climate change are likely to be greater for family farmers than other agricultural producers. According to a report by USDA, 'Current climate change effects are challenging agricultural management and are likely to require major adjustments in production practices over the next 30 years.'<sup>10</sup> The severity of the necessary adjustments increases the likelihood that they will be expensive. In many cases, the expense of farming in a changing climate will drive out family farmers with insufficient capital or access to investors and bar new entrants from starting farm businesses by increasing the initial investment needed, leaving their land available for farm consolidation. These major adjustments will also require policy shifts that, if not executed carefully and equitably, may also place family farmers at risk and encourage farm consolidation. [EPA-HQ-OAR-2015-0111-1657-A1 p. 4]

The loss of family farmers presents serious challenges to the economic sustainability of rural communities. As farmers leave and farmland consolidates, businesses and community institutions lose customers and tax revenue, weaken, and eventually close, causing other institutions and businesses in the community to do the same. Rural residents are left without access to critical services or jobs. To the extent that climate change contributes to this process, it presents a serious environmental justice issue to family farmers and rural residents. The RFS helps keep family farmers farming in two distinct and important ways: it contributes to climate change mitigation, helping family farmers avoid the most costly consequences of climate change, and offers family farmers direct value for helping build climate resiliency by stabilizing prices for biofuel feedstocks and opening investment opportunities in biofuel plants. EPA would best pursue these important goals by adjusting the proposed biofuel volume standards to match the standards in the EISA. [EPA-HQ-OAR-2015-0111-1657-A1 p. 4-5]

EPA's proposed rule contains volume standards for advanced biofuel and total renewable fuel that are lower than the standards agreed to by Congress in the EISA. Though EPA should set both standards at the statutory levels contained in the EISA, EPA offered distinct reasons for

lowering each standard. Below, NFU asserts why the statutory volume standards for both categories of biofuel should be implemented in the final rule. [EPA-HQ-OAR-2015-0111-1657-A1 p. 5]

### **Indiana Farmers Union**

Biofuels are especially beneficial to the economy in Indiana. A 2013 fact sheet published by the Indiana State Department of Agriculture reported that the state was home to 13 completed ethanol plants with combined production of 768 million gallons annually.<sup>9</sup> [EPA-HQ-OAR-2015-0111-1661-A1 p. 3]

### **Illinois Farmers Union**

ILFU is especially concerned that EPA's proposed rule does not provide the policy support that Illinois' 14 ethanol plants require to maintain the 4,000 direct jobs the industry has created in the state.<sup>9</sup> [EPA-HQ-OAR-2015-0111-1662-A1 p. 4]

### **Northwest Farmers Union**

Northwest communities are likely to benefit from job growth in the future as the RFS increases demand for experimental and advanced biofuels derived from feedstocks traditionally found in the region, such as woody biomass and canola. [EPA-HQ-OAR-2015-0111-1679-A1 p. 4]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, p. 28.]

The volume targets are also needed to drive advances in advanced and cellulosic ethanol. It is anticipated that producing biofuel from these feedstocks will establish additional environmental benefits.

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<sup>7</sup> Urbanchuk, John M. *Contribution of the Ethanol Industry to the Economy of the United States in 2014*, at 8. [http://ethanolrfa.3cdn.net/94596be2e72251b795\\_nkm6ii26n.pdf](http://ethanolrfa.3cdn.net/94596be2e72251b795_nkm6ii26n.pdf)

<sup>8</sup> *Id.* at 9.

<sup>9</sup> Walthall, C.L., J., et al at 119.

**Indiana** <sup>9</sup> <http://www.in.gov/isda/biofuels/factsheet.pdf>

**Illinois** <sup>9</sup> Illinois Department of Agriculture, <http://www.agr.state.il.us/departement-urges-us-environmental-protectionagency-to-reconsider-proposed-renewable-fuel-standard-rules-2015/>.

### **National Restaurant Association**

While we commend the Environmental Protection Agency (EPA) for your continued focus on improving our environment, we urge you to carefully examine the effects this rule will have on consumers and small businesses. We are particularly concerned that the proposed rule will increase the problematic effects of the RFS on the foodservice industry and lead to further increases in food prices across the country. [EPA-HQ-OAR-2015-0111-2267-A1 p. 1]

The restaurant and foodservice industry is also the United States' second largest private-sector employer and employs 14 million people or 10 percent of the U.S. workforce. In addition, the industry generates more than \$1.9 billion in sales on a typical day.<sup>1</sup> The restaurant industry is a

tremendous contributor to our economy and when the industry, as a whole, experiences economic harm, so does our nation's economy. [EPA-HQ-OAR-2015-0111-2267-A1 p. 1]

With these facts in mind, we would like to provide comments on how this rule will affect our industry and our economy. [EPA-HQ-OAR-2015-0111-2267-A1 p. 1]

Restaurants operate on very thin profit margins, and must deal in real time with price spikes to labor, benefits, fuel and food costs. While the RFS has been a well-intentioned effort to diversify the fuel supply and develop additional domestic fuel resources, we believe that the targets in the proposed rule will increase food prices and have more economic harm than good. [EPA-HQ-OAR-2015-0111-2267-A1 p. 2]

Food costs are one of the top business challenges for the restaurant industry, accounting for approximately one-third of every dollar in sales. With the slim profit margins restaurants operate on, any increase in food costs can have a dramatic impact on a restaurant's bottom line. [EPA-HQ-OAR-2015-0111-2267-A1 p. 3]

However, rising food costs are unfortunately not new for the restaurant industry which has seen steady increases each year since the implementation of the RFS. In fact, during the last five years, average wholesale food prices have increased approximately 25%.<sup>8</sup> These types of increases are extremely difficult for our nation's restaurants to absorb. [EPA-HQ-OAR-2015-0111-2267-A1 p. 2]

In addition, more than 90 percent of restaurants in the U.S. are classified as small businesses with fewer than 50 employees. Therefore, the price increases caused by increasing ethanol requirements will hit these businesses, and the millions of customers they serve, particularly hard. [EPA-HQ-OAR-2015-0111-2267-A1 p. 4]

For example, the previously mentioned study conducted by PricewaterhouseCoopers concluded that the RFS is driving commodity costs upward and will result in an increase in costs to U.S. chain restaurants by as much as \$3.2 billion annually or \$18,000 per year for each chain restaurant location.<sup>9</sup> [EPA-HQ-OAR-2015-0111-2267-A1 p. 4]

The report further estimated that quick service restaurants would incur cost increases of \$2.5 billion and full service restaurants' costs would increase by \$691 million.<sup>10</sup> [EPA-HQ-OAR-2015-0111-2267-A1 p. 4]

Restaurants are often the cornerstones of their communities and this is money that could be spent on job creation and investments that benefit restaurant customers, their communities, and the economy. [EPA-HQ-OAR-2015-0111-2267-A1 p. 4]

Clearly, the evidence suggests that the corn ethanol mandate of the RFS has increased food costs and negatively impacted the restaurant industry, among many other businesses. [EPA-HQ-OAR-2015-0111-2267-A1 p. 4]

<sup>1</sup> 2015 Restaurant Industry Forecast, National Restaurant Association

<sup>8</sup> 2015 Restaurant Industry Forecast, National Restaurant Association, Economic Outlook, p. 14.

<sup>9</sup> 'Federal Ethanol Policies and Chain Restaurant Food Costs,' PricewaterhouseCoopers study, November 2012.

<sup>10</sup> Id.

## **Nebraska Energy Office**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 122.]

When the EPA changes the rules, it creates uncertainty and hampers job creation.

## **North Dakota Corn Growers Association (NDCGA), et al.**

We believe that the ethanol industry has been to date the best economic development for rural America. [EPA-HQ-OAR-2015-0111-2541-A4 p.1] [EPA-HQ-OAR-2015-0111-1044 pp.174-175]

Let's take just a moment to look at the ethanol industry at a mile-high view. What you see are several industries capitalizing with one another, developing the rural economy into what you see today. It's a domino effect: from the individual who sells the property to build the ethanol plant, to the land value increasing due to building the facility. This in turn increases the tax rate on that property, which translates to more school revenue. You have the construction company, which hires local residents to build the facility. Local businesses, such as gravel pits, ready mix plants, electricians, and plumbers supply the materials to build it. Hotels, gas stations, and restaurants all benefit from these workers and activity as well. [EPA-HQ-OAR-2015-0111-2541-A4 p.1] [EPA-HQ-OAR-2015-0111-1044 p.175]

Along with providing immediate, short-term economic growth, it supplies long-term growth as well. To name a few: the good paying middle-class jobs for those who run the facility, local millwright and crane crews coming to do required repairs and maintenance, trucking companies moving the products in and out of the facility, and the livestock industry getting an excellent and cost effective feed source for their animals. [EPA-HQ-OAR-2015-0111-2541-A4 p.1] [EPA-HQ-OAR-2015-0111-1044 pp.175-176]

The ethanol industry also promotes economic rural development by producing factories outside of cities, giving Americans a reason to move away from urban areas. Creating these factories in a rural setting, and spaced randomly throughout America, also benefits us in times of war and peace. [EPA-HQ-OAR-2015-0111-2541-A4 p.1] [EPA-HQ-OAR-2015-0111-1044 p.176]

From 2008-2012, North Dakota's corn industry alone has contributed \$9.73 billion dollars to the economy. North Dakota has 5 ethanol plants, each with an average of 50 workers who earn an average salary of \$45,000-\$48,000. Those 250 people use a total of 163 million bushels of corn, producing a total of 435 million gallons of ethanol, and 1.3 million tons of distiller's grain for high quality livestock feed. North Dakota fuel stations on a percentage basis are selling more ethanol than currently mandated.[EPA-HQ-OAR-2015-0111-2541-A4 p.1] [EPA-HQ-OAR-2015-0111-1044 p.176]

The numbers I've just briefly touched on emphasize that ethanol has been the single largest factor in economic rural development. I will leave you with this question: now that the ethanol industry is up and running - and subsidy free - would you want to take the legs out from underneath its steady forward pace? [EPA-HQ-OAR-2015-0111-2541-A4 p.1] [EPA-HQ-OAR-2015-0111-1044 pp.176-177]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 177-178.]

First, in my long farming career, there has not been one single policy that has done more to revitalize our area than the renewable fuel standard. In the 1980s, with low market prices, we lost an entire generation of farmers. The RFS has reversed the trend of young people leaving rural areas.

Since 2005, 14 young persons have come back to our community to farm. This has added young families to our rural school districts and our local churches. We have also seen a large build-out of grain-handling infrastructure with the increased yields that corn has proven in our area.

### **North Dakota Ethanol Council**

The RFS has improved the economic well-being of North Dakota in the following ways:

- Jobs - Ethanol production accounts for more than 10,000 direct and indirect jobs across all sectors of North Dakota's economy.
- Ag and Rural Economy - Each of North Dakota's five ethanol plants is located in a community with a population of less than 2,500 and contributes an average of 49 jobs and an average annual payroll of \$3.3 million to the community. The proposed cut will have a devastating impact on agriculture and our rural economies. [EPA-HQ-OAR-2015-0111-1927-A1 p. 1]

### **North Dakota Farmers Union (NDFU)**

When setting standards for the RFS, the goals for the program and the program's importance to one our nation's most vital industries must be considered. The program: [EPA-HQ-OAR-2015-0111-1916-A1 p. 1]

- **Benefits rural America.** The benefits the RFS provides for rural communities are both immediate and long-term. Immediate benefits include investment in conventional and advanced ethanol plants, many of which are farmer-owned and create jobs in rural areas. [EPA-HQ-OAR-2015-0111-1916-A1 p. 1]

### **North Dakota Office of the Governor**

The ethanol industry is an important contributor to North Dakota's economy, accounting for more than 10,000 direct and indirect jobs across the state. Ethanol plants stimulate the economy in rural areas by offering well-paying jobs in small communities, as each of North Dakota's five

ethanol plants are located in a community with a population of less than 2,500. These plants contribute an average of 49 jobs and an average payroll of \$3.3 million to their respective communities. In addition, the plants offer a dedicated market for feed-stocks for hundreds of local farmers. The State of North Dakota has supported the use of renewable fuels in our state by providing incentives to establish flex fuel pumps, which resulted *in* 200 flex fuel pumps being provided in over 40 communities throughout the state. [EPA-HQ-OAR-2015-0111-1763-A2 p. 1]

The proposed revisions could stifle investment in new ethanol plants, and hinder valuable economic activities in rural communities across the country. [EPA-HQ-OAR-2015-0111-1763-A2 p. 1]

### **Northern Canola Growers Association**

Well beyond the canola and agricultural sector, biodiesel provides numerous benefits for consumers and society as a whole, including:

-new jobs and economic development, particularly in rural America [EPA-HQ-OAR-2015-0111-2036-A1 p.2]

Biodiesel has and will continue to create and sustain jobs in the United States, including many in rural America. An economic study conducted for the National Biodiesel Board estimates that the biodiesel industry, at 1.7 billion gallons of production, supports more than 62,000 jobs, \$2.6 billion in wages, and \$16.8 billion in overall economic impact. The industry's economic impact is poised to grow significantly with continued production increases. The industry supports jobs in a variety of sectors, from manufacturing to transportation, agriculture and service. [EPA-HQ-OAR-2015-0111-2036-A1 p.2]

### **South Dakota Corn Growers Association**

My wife and I have witnessed a wave of sons and daughters returning to family farms and rural businesses, which was not taking place prior to the RFS. I only hope this progress can continue to allow my children to proudly be the 7th generation. [EPA-HQ-OAR-2015-0111-0269-A1 p. 1]

Our farm communities that are either near or home to a biofuel facility have witnessed an economic transcendence from the 80's and 90's when families were experiencing bankruptcy and encouraging their children to pursue careers off of the farm. Since the passing of the Renewable Fuel Standard, a new trend has been set as young people are once again returning to the family farm. Educated individuals are returning to their rural roots because of the quality jobs available at ethanol plants and agriculture in general has become a hotbed for career opportunities. Cuts to the RFS will undoubtedly hamper this progress. [EPA-HQ-OAR-2015-0111-1811-A1 p.1-2]

Currently, our state's family farmers are on track to grow another bumper crop. Those families are faced with extremely tight margins as prices sit below the cost of production for many. Cutting the corn ethanol volumes in the RFS will only further hurt those who have been

committed to growing the necessary feed stocks that have made the RFS a success. [EPA-HQ-OAR-2015-0111-0269-A1 p.2]

### **South Dakota Farmers Union**

The ethanol industry has provided rural South Dakota good paying jobs that stimulate the rural economy. South Dakota Ethanol plants provide about 1900 jobs that average annual salaries \$60,000 per year. These plants provide job opportunities to rural South Dakota. They help stimulate their local economy by purchasing vehicles, fuel, office supplies and many things a large company needs to operate. With the presence of an ethanol plant in a community, the local school stands to be a high recipient by means of tax revenue. Ethanol plants contribute a substantial percentage of the tax base for a rural community and their school district. [EPA-HQ-OAR-2015-0111-2358-A1 p. 1]

The economic benefits the RFS provides for rural communities are both immediate and long-term. Immediate benefits include investment in conventional and advanced ethanol plants, many of which are farmer-owned and all of which create good jobs in rural America. Encouraging more biofuels plants and requiring strong production from existing plants creates more jobs, secures existing jobs, and provides a stable tax base that will allow rural communities to flourish. A formal economic paper commissioned by the Renewable Fuels Association determined that the ethanol industry contributed nearly \$53 billion to the U.S. Gross Domestic Product<sup>1</sup> and supported over 379,000 jobs in 2014<sup>2</sup>, despite the policy challenges the industry faced that year. [EPA-HQ-OAR-2015-0111-2358-A1 p. 1]

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<sup>1</sup> Urbanhuk, John M. *Contribution of the Ethanol Industry to the Economy of the United States in 2014*, at 8. [http://ethanolrfa.3cdn.net/94596be2e72251b795\\_nkm6ii26n.pdf](http://ethanolrfa.3cdn.net/94596be2e72251b795_nkm6ii26n.pdf)

<sup>2</sup> *Id.* at 9.

### **State of Indiana; State of Indiana House of Representatives**

The economic impacts to our state cannot be overstated. Ethanol is responsible for over 525 direct jobs, \$30 million in salary and benefits, and over 4,100 indirect jobs in our state, which represent \$3.6 billion in total economic activity and revenue in the state. [EPA-HQ-OAR-2015-0111-3466-A1 p.1]

### **State of Nebraska**

The EPA's reduction of the RFS leaves me concerned for the future economic growth of my state. During a recent trade mission to Denmark, the CEO of a biotech company with a major presence in Nebraska had considered expanding in the United States, but uncertainty resulting from the EPA's proposal caused them to halt future expansion plans. This was one example of a significant growth opportunity cut short because of the proposal to lower the RFS. [EPA-HQ-OAR-2015-0111-1810-A1 p.1]

### **Syngenta**

If finalized, the rule could have the following effects:

- **Destabilized farm economy.** Following the harvest of a record corn crop in 2014, grain supplies are rising and corn prices fell to nine-year lows. Corn prices in some locations have fallen below the cost of production. With another large corn harvest expected in 2015, EPA's proposal would take away an important demand stimulus at a time when farmers need it most. The end result would be lower farm income. [EPA-HQ-OAR-2015-0111-2493-A1 p.5]

### **U.S. Canola Association (USCA)**

Biodiesel has and will continue to create and sustain jobs in the United States, including many in rural America. An economic study conducted for the National Biodiesel Board estimates that the biodiesel industry, at 1.7 billion gallons of production, supports more than 62,000 jobs, \$2.6 billion in wages, and \$16.8 billion in overall economic impact. The industry's economic impact is poised to grow significantly with continued production increases. The industry supports jobs in a variety of sectors, from manufacturing to transportation, agriculture and service. [EPA-HQ-OAR-2015-0111-1819-A1 p.2]

### **Joni Ernst, United States Senator**

As you know, Iowa leads the nation in biofuels production, and the long delay in issuing RVOs for 2014, 2015 and 2016 has created uncertainty for the biofuels industry. This has hampered investment in 2nd generation biofuels, which has been detrimental to the economy of rural Iowa and the Midwest. [EPA-HQ-OAR-2015-0111-3427 p.2]

### **Response:**

Numerous commenters state that greater biofuel mandates increase employment, raise farm incomes and spur rural development in the U.S. For example, the South Dakota Farmers Union states that the ethanol industry has provided rural South Dakota with good paying jobs that stimulate the rural economy. According to the commenter, South Dakota ethanol plants provide about 1,900 jobs that average annual salaries \$60,000 per year. The Indiana Farm Bureau claims that in 2014, Indiana's ethanol industry directly employed 526 people and created 3,620 full-time equivalent jobs elsewhere in Indiana's economy. In addition to investing in jobs, the ethanol industry's direct capital investment in Indiana has totaled \$1.5 billion since 2006 according to the commenter. The North Dakota Ethanol Council suggests that each of the five existing ethanol facilities have created almost 49 direct jobs, and an average payroll of \$3.3 million.

The National Biodiesel Board (NBB) commissioned LMC International to produce a study called "Economic Impact of the U.S. Biodiesel Industry," published in November 2013. It assesses economic impacts (e.g., employment, wages, value added in the supply chain) of 2013 biodiesel production along with impacts of a range of biodiesel scenarios for 2014. NBB submitted this study along with their comments. Among the findings, LMC estimated "2013 biodiesel production at 1.7 billion gallons, supporting \$16.8 billion in total economic impact, more than 62,000 jobs, and \$2.6 billion in wages paid." See Section 3.4.3 for more on this topic.

On the other hand, the American Cleaning Institute suggests that proposed RVOs would continue to divert large quantities of a finite, inelastic supply of animal fats to the biofuels market, thereby critically disadvantaging the domestic oleochemical industry. The commenter suggests that the U.S. oleochemical industry could likely switch to foreign-sourced palm oil, which could result in

a loss of potentially 25,000 U.S. jobs. The National Restaurant Association cites a study by PricewaterhouseCoopers that concludes that the RFS is driving commodity costs upward and will result in an increase in costs to U.S. chain restaurants by as much as \$3.2 billion annually or \$18,000 per year for each chain restaurant location. The Association further states that restaurants are often the cornerstones of their communities and this is money that could be spent on job creation and investments that benefit restaurant customers, their communities, and the economy.

EPA believes that higher renewable fuel 2014-2017 RVOs will result in increases in employment, income, and tax revenues to many rural communities throughout the U.S. While the comments on employment and rural economic development provide insights into the impacts of increasing RVOs on the renewable fuels and related industries, they do not necessarily provide a complete picture of the impact of a change in the volume standards on the whole U.S. economy. The example of the oleochemical industry shows that there could be employment and income losses outside of the biofuel and their related industries from the greater use of renewable fuels as a result of the RFS.

Numerous State and local governments and biofuel producers provide information on the tax revenue benefits of the greater use of biofuels. For example, the Indiana Corn Growers Association claims that the state's ethanol and interlinked industries generated economic activity or revenues in 2014 of roughly \$3.6 billion. This added economic activity within Indiana resulted in a net contribution to the state's gross state product of \$934 million in 2014 and an increase of household income, including farmer income, of \$315 million. According to the Indiana Corn Growers Association, the ethanol industry contributes, either directly or through indirect and induced effects, \$44 million per year to state and local taxes. In general, supporters of biofuels are requesting that EPA not reduce the RVO's for the 2014-2017 standards below the statutory volumes since this will result in the loss of employment, income, and tax revenues to numerous rural communities across the U.S.

The National Biodiesel Board asserts that "EPA continues the fallacy that the renewable fuels industry is a zero sum game" (in terms of impacts on job creation, rural economic development, and the supply of agricultural commodities). EPA disagrees with this assertion. We acknowledge that the renewable fuels industry has and can produce employment and rural economic development. However, it is important to acknowledge the potential for offsetting economic impacts in other sectors and industries, both in terms of employment and income, related to the growth of renewable fuels. While the LMC International study does not assess impacts of this rulemaking, EPA acknowledges the findings of positive economic impacts attributable to U.S. biodiesel production. See Section 3.4.3 for more discussion on this topic.

From an economy-wide perspective, consider an example estimating the overall impacts on employment in the U.S. of an environmental requirement. When the economy is at full employment, an environmental regulation is unlikely to have much impact on net overall U.S. employment; instead, labor would primarily be shifted from one sector of the economy to another sector. On the other hand, if a regulation comes into effect during a period of high unemployment, a change in labor demand due to regulation may affect net overall U.S. employment because the labor market is not in equilibrium. In the longer run, the net effect on employment is more difficult to predict and will depend on the way in which the related industries respond to the regulatory requirements. For this reason, caution is needed when

assessing the net employment impacts for the whole economy of an individual environmental standard. Similar concerns arise with estimating the impacts on income and output of the whole economy from an environmental standard.

In setting the total renewable fuel RFS standard, EPA only considered “inadequate domestic supply” under the general waiver authority. In this context, EPA is precluded from considering employment impacts of the total renewable fuel standard. When lowering the advanced standard, EPA used the cellulosic waiver authority so that a broader range of factors can be considered than in setting the total standard. While employment considerations can be considered in this context, they were not a primary driver in setting the RVO’s given the varied impacts of different fuels and other impacts. See Section 3.3.1 and 3.4.3 for discussions on this topic as it relates to the biomass-based diesel standard.

## **7.8 Cost to Consumer**

### **Comment:**

#### **American Farm Bureau Federation (Farm Bureau)**

Finally, the RFS2 has been integral in keeping gasoline prices at lower price levels. Ethanol is currently selling at \$0.40 per gallon less than a gallon of Reformulated Blendstock for Oxygenate Blending (RBOB) gasoline. This price spread essentially means that a gallon of E10 (gasoline containing 10 percent ethanol) is more than 4 cents per gallon cheaper than a gallon of conventional gasoline with no ethanol. At today’s market prices, if refiners slow their blending of ethanol, octane demand would have to be met with other higher cost sources and this higher cost to the refiner would most likely be passed on to the consumer in the form of higher gasoline prices at the pump. Higher gas prices will also increase the cost of food, given that energy and transportation costs are significant factors in determining the price consumers pay for goods. [EPA-HQ-OAR-2015-0111-2355-A1 p. 3]

#### **Cornelius Seed Corn Company**

I run the Cornelius Seed Corn Company, which was started by my great grandfather in the early 20th Century. I'm the fourth generation in my family in the company, and my son recently joined us to make the 5th generation. My company and all of its employees would be impacted by a decrease in the Renewable Fuel Standard because it would impact our customers. [EPA-HQ-OAR-2015-0111-3247-A1 p.1]

#### **Florida Chamber of Commerce**

While consumers are spending more on gasoline due to the use of ethanol, they are also spending more on goods and services as businesses face increased costs in production and distribution of these goods and services. [EPA-HQ-OAR-2015-0111-3425 p.2]

### **Iowa Corn Growers Association (ICGA)**

Increased fuel prices. Lower ethanol blending would result in higher gasoline demand and increased pump prices. According to analysis by Louisiana State University, gasoline prices would rise 4.1-6.5 cents per gallon in 2015-2016, meaning Americans would spend nearly \$15 billion more on gasoline in 2015 and 2016—or \$46 per American citizen over the two years. [EPA-HQ-OAR-2015-0111-1820-A1 p. 5]

### **Mass Comment Campaign sponsored by anonymous 11 (email) - (695)**

and they benefit consumers by providing them with a choice and savings at the pump. [EPA-HQ-OAR-2015-0111-0214-A1 p.1]

### **Mass Comment Campaign sponsored by anonymous 15 (email) - (2485)**

Ethanol consistently trades around 50 cents cheaper than gasoline. By cutting the volumes of ethanol and other biofuels, EPA is creating high prices at the pump for American consumers – some estimate an increase between \$6.8 and \$11.3 billion for 2014. [EPA-HQ-OAR-2015-0111-0217-A1 p.1]

### **Mass Comment Campaign sponsored by anonymous 22 (email) - (57)**

Ethanol lowers gas prices by \$1.09 per gallon in the Midwest, saving the average American household \$1,200 per year. [EPA-HQ-OAR-2015-0111-1478-A1 p.1]

### **Mass Comment Campaign sponsored by anonymous 30 (email) - (26)**

Ethanol consistently trades around 50 cents cheaper than gasoline. By cutting the volumes of ethanol and other biofuels, EPA is creating high prices at the pump for American consumers — some estimate an increase between \$6.8 and \$11.3 billion for 2014. [EPA-HQ-OAR-2015-0111-2560-A1 p.1]

### **Mass Comment Campaign sponsored by anonymous 9 (email) - (230)**

Ethanol consistently trades around 50 cents cheaper than gasoline. By cutting the volumes of ethanol and other biofuels, EPA is creating high prices at the pump for American consumers – some estimate an increase between \$6.8 and \$11.3 billion for 2014. [EPA-HQ-OAR-2015-0111-0212-A1 p.1]

**Mass Comment Campaign sponsored by Corn, LP (web) - (37); Mass Comment Campaign sponsored by Little Sioux Corn Processors (web) - (44); Mass Comment Campaign sponsored by Quad County Corn (web) - (37); Mass Comment Campaign submitted by employees of Siouxland Energy Cooperative (web) - (30)**

The RFS is working for consumers. According to National Association of Convenience Stores, price is the most important factor when buying gas. Since ethanol is the lowest cost

transportation fuel and octane source in the world, ethanol is contributing a cost savings to American motorists. Drivers in Iowa and around the nation are now seeing more homegrown, lower-cost fuel options such as E15 and E85 at the pump, and these choices will continue to expand if the RFS is allowed to continue working as intended. [EPA-HQ-OAR-2015-0111-2047-A1 p.2]

### **Mass Comment Campaign sponsored by employees of Western Dubuque Biodiesel (web) - (1)**

The RFS is working for consumers. The RFS has promoted greater consumer fuel choice. Drivers in Iowa and around the nation are now seeing more homegrown, lower cost, cleaner burning fuel options such as B5, B10 and B20 at the pump, and these choices will only expand if the RFS is allowed to continue working as intended. In Iowa, the average blend level of biodiesel reached 9.4 percent in 2014, increasing by more than 260 percent in the last five years. [EPA-HQ-OAR-2015-0111-1961-A1 p.2]

### **National Biodiesel Board**

EPA provides an analysis of estimated costs of using biodiesel to replace petroleum diesel. While EPA purports to compare the cost of biodiesel against the cost of petroleum diesel, its assessment is incorrect. EPA contends that increasing the amount of biomass-based diesel by 100 million gallons from 2015 to 2016 would result in double the increase in costs. EPA then contends that requiring additional volumes of biomass-based diesel to compete with other advanced biofuels rather than increasing the biomass-based diesel volume may also “temper to some extent BBD prices.” EPA-HQ-OAR-2015-0111-0008 at 8. While EPA provides no support for such conclusory statements, this notion that additional gallons of biomass-based diesel should compete with other advanced biofuels remains counter to the goal of Congress to increase production. Moreover, the increase of 280 million gallons for applicable volume from 2012 to 2013 (and actual over 600 million gallons in increased production) did not substantially increase the price of diesel fuel. Accounts indicate that petroleum diesel blended with biodiesel has been cheaper, as a result of the RFS2 program. [EPA-HQ-OAR-2015-0111-1953-A2 p.54-55]

Regardless, the purported costs translate into approximately \$0.004 per gallon for 2015 and \$0.008-\$0.012 per gallon for 2016.<sup>55</sup> As noted above, this is similar to the cost estimate EPA previously found to not present an “unreasonable burden.” Denial of API/AFPM Petitions for Reconsideration at 20. Although EPA previously found that costs should not trump the other factors, it now states that the market should allow parties to choose biomass-based diesel “over competing products in meeting the advanced and total RFS standards.” EPA-HQ-OAR-2015-0111-0008 at 8. Moreover, real-world experience shows that blending with biomass-based diesel has allowed prices at the pump to be reduced. A Terminal Pricing Sheet (Attachment 3) shows that diesel fuels blended with biodiesel (B5, B10 and B15) have a lower cost than B0. See also Section VI.B.5. In some cases, these savings were greater than the purported increases in price estimated by EPA. Again, EPA’s supplemental analysis must be rejected. [EPA-HQ-OAR-2015-0111-1953-A2 p.55]

The impact of the use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods. [EPA-HQ-OAR-2015-0111-1953-A2 p.71]

For the 2013 volume, EPA found that the 1.28 billion gallon mandate translated into a per gallon cost over the diesel pool of between \$0.006 and \$0.008. 77 Fed. Reg. at 59,479. EPA provides cost estimates in the new proposal, which translate into purported increases in per gallon costs of approximately \$0.004 per gallon for 2015 and \$0.008-\$0.011 per gallon for 2016. Although obligated parties continue to claim that the requirement to use renewable fuel is resulting in increased costs to the consumer, this is simply incorrect. In fact, the program has resulted in providing the public with an alternative fuel source at a lower cost. Each gallon of RFS2-qualified biodiesel is accompanied by a RIN credit. The value of that credit, which is traded on the open market, is factored into the value of each gallon of biodiesel. This added value allows biodiesel to be sold at a lower price to fuel distributors or fleet managers, who can then pass along savings to consumers.<sup>59</sup> [EPA-HQ-OAR-2015-0111-1953-A2 p.71]

Testimony at the June 25, 2015 hearing support this finding. Michael Whitney of Musket Corp., which provides diesel fuel through Love's Travel Stops directly to consumers, testified that "we put biodiesel in our fuel because it is cheaper than diesel," and that RINs help his company obtain additional revenue to reduce the prices at the pump. [EPA-HQ-OAR-2015-0111-1953-A2 p.71]

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<sup>55</sup> Based on EPA's diesel fuel estimate use for those years in "Calculation of % standards for annual rulemaking" (EPA-OAR-2015-0111-0005).

<sup>59</sup> See Terminal Pricing Sheet (Attachment 3).

### **North Dakota Ethanol Council**

The RFS has improved the economic well-being of North Dakota in the following ways:

Consumer Savings - Growth in ethanol production has lowered the price of gasoline by \$0.29 per gallon on average since 2000. In recent years, this number has been over \$1 per gallon, which correlates to a \$1,200 savings for the average American household in a year. [EPA-HQ-OAR-2015-0111-1927-A1 p. 1]

### **Renew Kansas**

The EPA's proposed rule is inconsistent with Congress' intent to provide consumers with greater access to renewable fuel. Neither does the proposed rule fulfill the EPA's statutory target obligation. The RFS has also been the main driver of reducing costs for consumers at the pump - encouraging economic growth and stability across the country. The proposed rule on the RFS would reduce the availability of higher-blend ethanol fuel to consumers, leading to higher fuel prices. Rather than reduce the RFS, the EPA should follow the Clean Air Act requirements to provide certainty to farmers, consumers, and the entire renewable fuels industry. [EPA-HQ-OAR-2015-0111-1309-A1 p.3]

## **South Dakota Corn Growers Association**

Cuts to the RFS wouldn't only hurt farmers and the ag economy, but they would also deliver a blow to the nation's fuel consumers. Ethanol helps to keep gas prices down, providing a relief to working families. If you indeed cut the RFS, gas prices would rise 4.1-6.5 cents per gallon in 2015-2016 according to analysis by Louisiana State University, meaning Americans would spend nearly \$15 billion more on gasoline in 2015 and 2016. [EPA-HQ-OAR-2015-0111-1811-A1 p.2]

## **State of Indiana**

Ethanol lowers gas prices by \$1.09 per gallon in the Midwest, saving the average American household \$1,200 per year. [EPA-HQ-OAR-2015-0111-3347-A1 p.2]

## **The George Washington University**

### Need for Incremental Analysis

In this proposed rule, EPA provides some cost estimates for increased production of corn ethanol, sugarcane ethanol, and soybean-based biodiesel, but does not provide any estimated benefits. EPA justifies this omission by referring back to two initial analyses of the overall RFS program, which were finalized in 2007<sup>7</sup> and 2010.<sup>8</sup> Because these analyses examine the costs and benefits of the RFS as implemented in 2022, and because they assume that EPA will be able to meet the statutory goals for biofuel production, it's difficult to parse out the actual effects of EPA's proposal. [EPA-HQ-OAR-2015-0111-1815-A1 p.5-6]

Despite this difficulty, EPA maintains that it is not necessary to analyze incremental effects of the RFS program. This approach fails to appreciate the economic and environmental difference between different biofuel sources, which may be significant for different fuel sources (particularly as EPA deviates from the standards prescribed in the authorizing statute). In its proposal, EPA argues that: [EPA-HQ-OAR-2015-0111-1815-A1 p.6]

[Indented quote] The short time frame provided for the annual renewable fuel rule process does not allow sufficient time for EPA to conduct a comprehensive analysis of the benefits of the 2015 and 2016 standards and the statute does not require it. Moreover, as discussed in the [2013 biodiesel proposal], the costs and benefits of the RFS program as a whole are best assessed when the program is fully mature in 2022. We continue to believe that this is the case, as the annual standard-setting process encourages consideration of the program on a piecemeal (i.e., year to year) basis, which may not reflect the long-term economic effects of the program. Therefore, for the purpose of this annual rulemaking, we have not quantified benefits for the 2015 and 2016 proposed standards. We do not have a quantified estimate of the GHG impacts for the single year (e.g., 2015, 2016). [EPA-HQ-OAR-2015-0111-1815-A1 p.6]

It is true that Congress, in authorizing the EPAct and the EISA, did not give EPA a significant amount of time to conduct a thorough analysis. This is a shortcoming of the legislation rather than a shortcoming with the Agency. [EPA-HQ-OAR-2015-0111-1815-A1 p.6]

However, EPA is not correct in its assertion that incremental analysis would not be helpful for evaluating the RFS program. Because the program is implemented on a yearly basis, and each yearly standard reflects marginal changes both from the previous standard and from the levels prescribed in the authorizing statute, incremental analysis would be useful for researchers and the public in understanding the effect of EPA's individual proposed renewable fuel standards. This is particularly true in a rulemaking such as this one, in which ethanol and cellulosic fall short of their statutory levels—by 1 billion and 4.19 billion gallons, respectively—and biodiesel exceeds its statutory level by 800 million gallons. In this case, the benefits of the overall RFS program that EPA calculated in 2007 and 2010 only represent the benefits and costs of a hypothetical RFS program that has not been implemented and likely will not be implemented in the future. [EPA-HQ-OAR-2015-0111-1815-A1 p.6]

### Opportunity to Revisit Analytical Assumptions

Since the initial regulatory impact analyses were first conducted in 2007 and 2010, new information has emerged that may affect the assumptions EPA made in its regulatory analyses. Availability of new data and the proliferation of new third-party analyses provide EPA with a key opportunity to revisit the assumptions about environmental effects and demand for gasoline that underpinned its initial benefit-cost assessment. [EPA-HQ-OAR-2015-0111-1815-A1 p.7]

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7 Environmental Protection Agency. April 10, 2007. "Regulatory Impact Analysis: Renewable Fuel Standard Program." <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2005-0161-0282>

8 Environmental Protection Agency. February 2010. "Renewable Fuel Standard Program (RFS2) Regulatory Impact Analysis."

### Urban Air Initiative

UAI's comments make the following points:

-Recent developments give reason for hope, including an Argonne National Labs WTW study on High Octane Fuels (HOFs) that concluded higher ethanol blends (e.g., E25 – E40) were 'major enablers' of HOFs that could also achieve substantial WTW reductions in GHGs (18 – 32%) with little or no marginal cost to refiners and consumers.<sup>7</sup> [EPA-HQ-OAR-2015-0111-1821-A1 p.3-4]

7 'Well to Wheels Greenhouse Gas Emissions Analysis of High-Octane Fuels with Various Market Shares and Ethanol Blending Levels', Jeongwoo Han et al., Argonne National Laboratory, ANL/ESD-15-10, July 14, 2015.

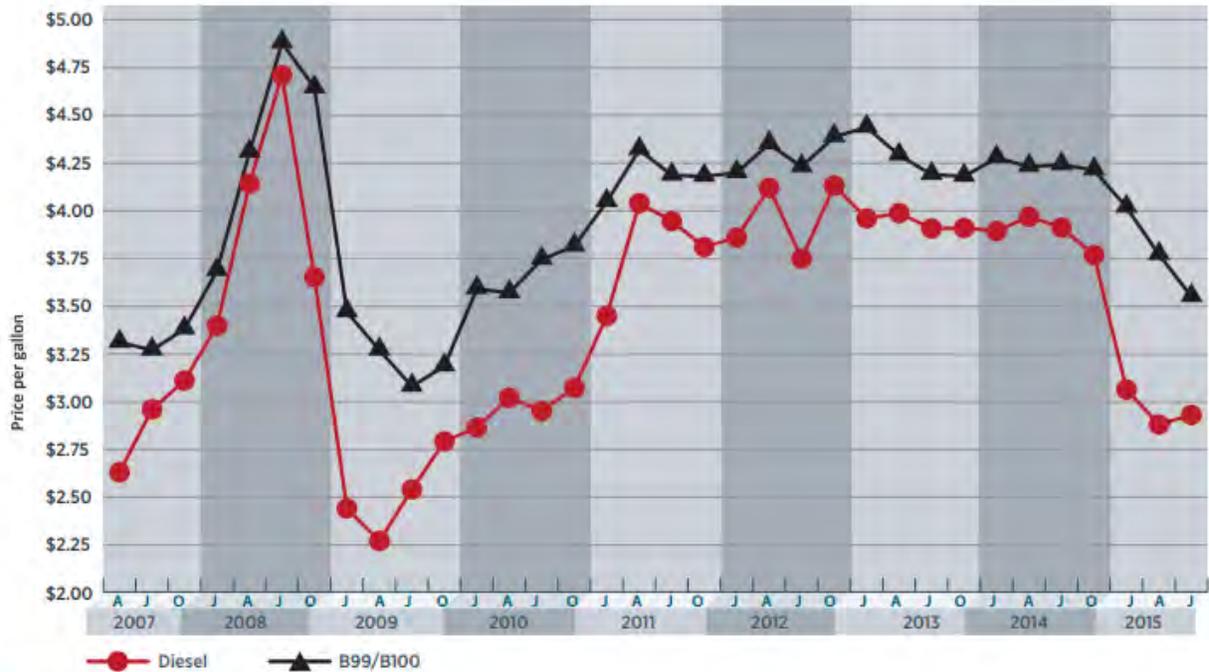
### Response:

EPA received numerous comments related to the costs of the proposed RFS 2014-2017 standards setting renewable fuel volumes. Most commenters assert that greater use of renewable fuels would lower transportation fuel costs and fuel prices for U.S. consumers. For example, multiple commenters (e.g., American Farm Bureau Federation, Iowa Corn Growers Association) claimed that blending ethanol reduces the price of transportation fuel to consumers because the cost of a

gallon of corn ethanol is cheaper than a gallon of reformulated blendstock oxygenated blend (RBOB). Alternatively, the Florida Chamber of Commerce suggests that consumers are spending more on gasoline due to the use of ethanol. They suggest that consumers are also spending more on goods and services as businesses face increased costs in production and distribution of goods and services due to the RFS. Regarding biodiesel, the National Biodiesel Board believes that EPA overestimated the cost of additional biodiesel volumes. They claim that “the program has resulted in providing the public with an alternative fuel source at a lower cost”, and they provided documentation of a testimony in which a diesel provider claims to use biodiesel because it’s cheaper than diesel fuel.

These and other commenters, along with commenters on RIN prices and retail fuel prices discussed in sections 7.5 and 7.6, tend to confuse prices with the costs of the RFS program to consumers. In the case of ethanol, one cannot simply compare the price of a gallon of ethanol to that for a gallon of gasoline, as they have different values in terms of both their energy content (e.g., how far a vehicle will go on that gallon of fuel) and on its blending value as a gasoline blendstock (e.g., the higher octane of ethanol increases its value whereas its impact on gasoline volatility lowers its value). The energy content is easy to calculate – roughly 1/3 less energy per gallon of ethanol than in a gallon of gasoline. Thus, to be of equal cost to consumers ethanol would have to be priced about 2/3 that of gasoline. The other blending values vary over time, but ethanol’s market value should already reflect this

In the case of biodiesel, it also has lower energy content than the diesel fuel it replaces by about 10%, but the real issue in the comments is that the commenters are ignoring the distortionary impact of the RIN. The RIN from the RFS program is reducing the price of biodiesel blends and increasing the price for diesel fuel in the marketplace, but that doesn’t mean that biodiesel is costing consumers less. One needs to look at the costs to produce and deliver to market renewable fuels without the distortionary impact of the RIN on their prices to assess the cost to consumers. If one does this, it is obvious that biodiesel costs considerably more than the diesel fuel it displaces on a per gallon basis as seen in the chart below (the chart does not adjust for the 10% lower energy content of biodiesel).



**FIGURE 13**  
**HISTORICAL B99/B100 PRICES VERSUS DIESEL**

Source: *Clean Cities Alternative Fuel Price Report*, July 2015. U.S. Department of Energy<sup>34</sup>

NBB points to the discount that RINs can provide to biofuel producers in support of the claim that biodiesel is cheaper than diesel fuel. EPA acknowledges that biofuels may be reduced due to RIN values, thus helping making the biodiesel price competitive with diesel fuel. However, the discount due to the RIN is not a cost or a savings, it is a transfer. In EPA’s cost methodology, we attempt to calculate the real resource costs associated with using biofuels in comparison to the fossil fuels that they replace. We do not attempt to capture transfers as a result of RIN prices, which we acknowledge have distributional impacts. When EPA undertook its illustrative cost analysis of the RFS program, we evaluated the total societal cost to consumers by considering the difference in wholesale costs of biofuels against their petroleum alternative per energy equivalent gallon given current and projected market prices. Because we focus on the wholesale level, this comparison does not consider taxes, retail margins, and any other costs (e.g., infrastructure costs) or transfers that occur at or after the point of blending. Given that EPA focuses on the cost of transportation fuels at the wholesale level, we did not attempt to estimate the impact of the RFS standards on the price of fuels used by transportation fuel users in the marketplace. Increasing supplies of renewable fuels would be expected to reduce overall world fuel and crude oil prices. However, the impacts of the volume changes from this final rule would be relatively small.

For more information on the extent and ways in which EPA considered cost in setting the standards, please see Section 7.1 of this RTC.

<sup>34</sup> Image taken from the *Clean Cities Alternative Fuel Price Report*, July 2015. Alternative Fuels Data Center, U.S. Department of Energy.  
[http://www.afdc.energy.gov/uploads/publication/alternative\\_fuel\\_price\\_report\\_july\\_2015.pdf](http://www.afdc.energy.gov/uploads/publication/alternative_fuel_price_report_july_2015.pdf)



## **8. Environmental Impacts of the Proposed Rule**

### **8.1 General Comments on Environmental Impacts**

#### **Comment:**

**AL-Corn Clean Fuel; Badger State Ethanol; Big River Resources, LLC; Commonwealth Agri-Energy, LLC; Husker Ag LLC; Pacific Ethanol, Inc.**

**EPA must carefully examine the potential negative economic impacts of the proposed RVO reductions.**

We believe EPA must be cognizant of the potential negative economic and environmental consequences of its actions. Unfortunately, the proposal is void of any analysis on the possible impacts of cutting the RFS on the agricultural economy, gasoline prices, greenhouse gas (GHG) emissions, investment in infrastructure, or investment in advanced and cellulosic biofuels.

#### **American Farm Bureau Federation (Farm Bureau)**

Renewable fuels have been a tremendous success story for the nation as a whole as well as to the rural economy. The RFS2 has reduced our country's dependence on foreign crude oil, reduced air pollution, increased farm incomes and provided good paying jobs in rural America.

#### **Central Indiana Ethanol (CIE)**

Unfortunately, the proposal is void of any analysis on the possible impacts of cutting the RFS on the agricultural economy, gasoline prices, greenhouse gas (GHG) emissions, investment in infrastructure, or investment in advanced and cellulosic biofuels.

#### **Clean Air Task Force**

A reduction in the implied corn ethanol mandate can benefit the environment in two related ways. First, reduced demand for corn ethanol in the United States could result in reduced production levels, which would lessen the net negative impact that corn ethanol production and consumption have on the environment (climate change, air quality, water quality, and soil quality) and food security. Second, a reduction in the implied corn ethanol mandate creates headroom under the E10 blend wall for environmentally superior types of cellulosic and other "advanced" ethanols.

We disagree, however, with Agency's view that it is also "appropriate to provide continued growth of conventional renewable fuels at this time." Allowing the implied corn ethanol mandate to expand will aggravate the environmental and social harms to which it contributes, while also complicating the difficult task of achieving the various goals of the RFS within the constrained context of the E10 blend wall. Increased demand for soy biodiesel would indirectly increase the overall demand for vegetable oil, which in turn would expand the market for palm oil. An increase in the production of Southeast Asian palm oil is likely to have a range of negative environmental and social consequences. [EPA-HQ-OAR-2015-0111-1828-A1 p.11]

### **Corn Producers Association of Texas (CPAT)**

From an environmental standpoint, it could be argued that no one has a greater stake in looking out for and caring for our natural resources than farmers. For farmers, their very livelihood depends on the good stewardship of their land and natural resources. Many of our members' families have been farming for multiple generations, and want to give future generations the opportunity to also work with the land and continue a farming legacy.

### **East Kansas Agri-Energy, LLC (EKAE)**

Additionally, renewable fuels are better for the air we breathe and for our environment — and they are making a difference by decreasing our dangerous dependence on foreign oil. This approach, if adopted, would damage the RFS, lock this coon by into our reliance on oil, lead to even more windfall profits for the oil sector, cost consumers at the pump, halt the deployment of advanced biofuels, and increase greenhouse gas and toxic air emissions.

### **Environmental Working Group (EWG)**

Ultimately, EWG would like to encourage the growth and commercial application of advanced and cellulosic biofuels that actually deliver a benefit to our environment. As EPA works to finalize this proposed rule, we strongly encourage you to consider the environmental and human health impacts of corn ethanol.

### **Florida Chamber of Commerce**

Increasing the amount of ethanol to be blended in gasoline is irresponsible and increases costs to both consumers and the environment. I urge that you retreat from increasing the amount of ethanol in gasoline and consider the costs to consumers, businesses and the environment if you do not.

### **The George Washington University**

However, the availability of new scientific, technical, and economic information shows that the RFS program does not work as it was intended to, and is likely causing significant environmental harm through increased greenhouse gas emissions and damage to waterbodies and ecosystems. Given the environmental damage and the large economic impact of the standards, EPA should update its benefits analysis and consider using its waiver authority to further reduce the standards. Responsibility rests with Congress to reevaluate the effects of the statutes it authorized, which are now causing economic and environmental harm.

### **Illinois Department of Agriculture**

To date, the RFS program has played a pivotal role in reducing petroleum imports to the lowest level since the 1990s, lowering gas prices, improving air quality, and strengthening the economic health of rural America and Illinois specifically.

## **Illinois Farm Bureau**

The RFS2 has reduced our country's dependence on foreign crude oil, reduced greenhouse gas emissions, increased farm incomes and provided a source of good paying jobs in rural America.

## **Iowa Corn Growers Association (ICGA)**

**EPA proposed RVO reductions will have negative impacts.** This proposal does not include analysis on the possible impacts of cutting the RFS on the agricultural economy, gasoline prices, greenhouse gas (GHG) emissions, or investment in infrastructure. If the rule is finalized as is, it could have very real and negative impacts.

## **Iowa Farm Bureau Federation (IFBF)**

Beyond the positives for agriculture, the RFS2 has been a broader success for the United State. The expansion of the biofuels industry has improved air quality, reduced tailpipe emissions, reduced prices at the pump, and has decreased U.S. dependence on the volatile foreign oil market. Additionally, the RFS2 has benefited rural communities in Iowa and across the country.

## **Kansas Corn Growers Association**

**The RFS provides market access for ethanol to enter a fuel system that is largely dominated by oil companies. In return, ethanol use is decreasing GHG emissions, decreasing our country's dependence on foreign oil, providing domestic jobs and improving rural economies. These are things EPA should support, not undermine.**

## **Kansas Farm Bureau**

Renewable fuels are a tremendous success story, not only for the nation but also for rural communities. The RFS2 has reduced our country's dependence on foreign crude oil, reduced air pollution, increased farm incomes and provided good paying jobs in rural America. Since the RFS2 was put in place in 2007, the U.S. has seen tremendous growth within the agricultural sector. If the Proposed Rule requirements are finalized, this decision will stall growth and progress in renewable fuels as well as the broader agricultural economy.

## **Kansas Soybean Association**

Biodiesel has contributed to increased domestic energy production while also delivering significant greenhouse gas emissions reductions and creating jobs and boosting the farm and rural economy.

## **Kentucky Beverage Association**

Ten years after the RFS became law, the mass production of ethanol has resulted in little to no environmental benefits. Recent studies have found that the RFS is actually increasing air pollution and greenhouse gas emissions, degrading water sources and damaging biodiversity. A 2011 National Academy of Sciences study found that the production of ethanol is also likely to increase air pollutants such as particulate matter, ozone and sulfur oxides. Additionally, ethanol has only 67% of net energy per gallon, reducing fuel economy.

**Mass Comment Campaign sponsored by ActionAid USA (web) - (2629)**

ActionAid remains strongly opposed to mandates for food-based biofuels. Land, especially arable land that is suitable for agriculture, is not an unlimited resource. Expanding production of biofuel crops means displacing food production or clearing forests, wetlands or other ecosystems. This not only presents environmental problems with decreasing biodiversity and emissions from land use change, but also undermines land rights. ActionAid works with communities who have had their land threatened and communities who lost their land to biofuel-plantations, in violation of their rights.

**Mass Comment Campaign sponsored by anonymous 3 (web) - (893)**

The over promise of the Renewable Fuel Standard, or RFS, has never come to fruition - but it seems like the EPA is still holding on to the dream. Despite a preponderance of evidence that shows the mandate has harmed land, water and air, the EPA recently proposed raising the — amount of corn ethanol blended into gasoline in 2014, 2015 and 2016. Ten years of the RFS program have shown that the ends don't justify the means in achieving this policy's environmental objectives. Increasing the use of ethanol, and therefore the necessary production of it, runs counter to ongoing climate concerns and undermines this administration's other policy initiatives. All of this to say that the EPA should refer to the facts and lower the ethanol volumes in their proposal before the rule becomes final.

**Mass Comment Campaign sponsored by Care2 (email) - (9720)**

The green promise of the Renewable Fuel Standard, or RFS, has never come to fruition but it seems like the EPA is still holding on to the dream. Despite a preponderance of evidence that shows the mandate has harmed land, water and air, the EPA recently proposed raising the amount of corn ethanol blended into gasoline in 2014, 2015 and 2016. Ten years of the RFS program have shown that the ends don't justify the means in achieving this policy's environmental objectives. Increasing the use of ethanol, and therefore the necessary production of it, runs counter to ongoing climate concerns and undermines this administration's other policy initiatives. All of this to say that the EPA should refer to the facts and lower the ethanol volumes in their proposal before the rule becomes final.

**Mass Comment Campaign sponsored by anonymous 24 (postcard) - (207)**

America's race cars have driven more than 7 million miles on 15% corn ethanol. Renewable ethanol is better for the environment than petroleum and reduces greenhouse gas emissions by 50%.

**Mass Comment Campaign sponsored by anonymous 8 (email) - (505)**

Finally, I'm concerned about what this will do to the air we breathe. We cannot forget the important environmental benefits of ethanol, which provides up to a 50 percent reduction in greenhouse gas emissions, compared to gasoline. Ethanol is a sustainable octane source that is much better for the environment than particulate-generating petroleum alternatives.

**Mass Comment Campaign sponsored by National Corn Growers Association (NCGA) - (24,661)**

The EPA should not forget its mission to protect human health and the environment. Ethanol reduces greenhouse gas emissions and is a better octane source than petroleum. Your decision to reduce corn ethanol levels HARMS BOTH THE RURAL ECONOMY AND THE ENVIRONMENT which it is your mission to protect. [EPA-HQ-OAR-2015-0111-2566-A1 p.1]

Your decision harms both the environment and rural economy. The RFS is doing exactly what is was intended to do. It is successfully driving adoption of renewable fuel alternatives to petroleum, supporting jobs across the country, ensuring the United States remains a global leader in developing new renewable energy sources while decreasing GHG emissions here at home. The continued health of the rural economy and the nation's environmental improvements hinge upon this decision.

**Mass Comment Campaign sponsored by Nebraska Corn Board (paper) - (1856)**

The continued health of the rural economy and the nation's environmental improvements hinge upon this decision. The RFS has laid the foundation for the domestic biofuels industry, by helping to generate jobs, revive rural economies, reduce oil imports, lower gasoline prices, reduce air pollution and cut greenhouse gas emissions.

**Mass Comment Campaign sponsored by POET (email) - (661)**

The EPA's proposed cuts could lead to higher prices you pay at the pump, increased dependence on foreign oil, higher greenhouse gas emissions and lost opportunities for family farms.

**Mass Comment Campaign sponsored by POET Biorefining 1 (paper) - (692)**

Bio Fuels have given us cleaner air. Has given corn farmers a better market. The extra income has helped with our family's needs. Please give us your support! The EPA's proposed cuts could lead to higher prices you pay at the pump, increased dependence on foreign oil, higher greenhouse gas emissions, and lost opportunities for family farms. For rural America, American energy independence, cleaner air, higher octane, slowing climate change, and to promote real consumer fuel choice with higher ethanol blends - the EPA needs to force oil companies to comply with the intent and letter of the law as written.

**Minnesota Corn Growers Association (MCGA)**

The use of ethanol in our fuel supply also means American drivers are reducing harmful vehicle emissions and paying less at the pump. As you can see, a reduction in the RVO numbers would make an impact far beyond our fuel tanks. It would also result in job losses, reduced air quality and fewer rural economic development opportunities. There are already enough barriers and obstacles to ethanol in this country. By cutting the RFS, EPA is creating yet another one. For example, E10 has been granted a 1 pounds-per-square inch (psi) waiver in the summer months. However, E15 has a lower vapor pressure than E10, but has not been granted the same waiver. Refiners are able to make reformulated gasoline (RFG) with Reid Vapor Pressure as low as 7.8 psi. If refiners were required to make RFG, there would be no need for a 1 psi waiver on E10 or E15 and there would be additional environmental benefits. Instead of cutting the RFS, EPA

would be better off working to address issues like these. Imagine obstacles like Reid Vapor pressure being removed from the advancement of E15. If all gasoline contained 15 percent ethanol, we'd replace 7 billion gallons of foreign oil and remove as much as 8 million tons of greenhouse gas emissions from the air in one year.

### **Minnesota Farmers Union (MFU)**

MFU has been a longtime supporter of biofuels believes that the RFS is important not just to the profitability of Minnesota's farm families, but also an important part of national security and crucial part of improving the environment and addressing climate issues.

### **Missouri Coalition for the Environment**

The 2005 and 2007 Energy Bills deeply distorted and heavily subsidized the corn market—directly incentivizing unsustainable and environmentally detrimental land disturbance. Corn ethanol was billed as a 'green' alternative, a cleaner-burning fuel for our cars promising air quality benefits and the reduction of the greenhouse gas emissions that contribute to climate change. If the development of cellulosic alternatives had materialized as hoped, corn ethanol may have served the transitional purpose intended by the original law. However, the federal corn ethanol mandate has failed to deliver on any of its promised environmental benefits. Mandating minimal ethanol blending in commercial fuel production created an artificially high demand for corn—propping up corn prices at the expense of the environment and all of us that rely on clean air and water. Higher corn prices effectively incentivize commodity crop production. This decreases the incentives to invest in renewable fuel sources or grow the food people eat. The mandate is a clear price signal to the agricultural industry. Missouri is among the top ten corn producing states in the country and our farmers have responded to this signal. Growing corn is profitable. Preserving a wetland or sustainably growing spinach is not. The government-guaranteed market for corn ethanol may be profitable for industrialized agriculture, but the conversion of Midwest land into heavily-subsidized corn fields also yields poor air, soil, and water quality and has resulted in the destruction of valuable habitat— all while increasing climate change-causing greenhouse gas emissions. Higher crop prices decrease incentives to grow real food on our valuable cropland or to promote and invest in renewable fuel sources at a high cost to us all. EPA's authority to set volume requirements for the Renewable Fuel Standard program is derived from the Clean Air Act (CAA) — legislation designed to protect our natural resources. The science is indisputable: corn ethanol and the policy that mandates its production is devastating to our environment and has not demonstrated air quality benefits. The corn-based ethanol mandate serves the narrow interest of the corn ethanol lobby and the corn ethanol lobby alone — while we pay the costs. At this major milestone, we must finally put our environment and science before narrow special interests, support using quality farm land for sustainable agricultural production, and invest in renewable fuels that don't harm our environment. Corn ethanol has no place in a clean fuel future.

### **National Farmers Union (NFU)**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 167.]

Finally, in summary, EPA's proposed ethanol production targets are not consistent with the administration's efforts to reduce the carbon emissions that drive global warming, not consistent with the intent of Congress, not consistent with our nation's efforts to improve air quality

### **Nebraska Energy Office**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 123.]

Finally, I'm confused by an administration that claims to want cleaner, less carbon-producing sources of overall energy for the nation and then makes a policy proposal that does exactly the opposite. The scientific evidence exists to support ethanol's claims as a cleaner-burning fuel than conventional gasoline.

### **North Dakota Grain Growers Association**

We must move forward, not backward, when it comes to developing alternatives to fossil fuels and foreign oil. We all know that the RFS and biofuels have created jobs that cannot be outsourced, which have helped revitalize rural America. Additionally, renewable fuels are better for the air we breathe and for our environment – and they are making a difference by decreasing our dangerous dependence on foreign oil.

### **Northern Canola Growers Association**

Consistent with the intent of the RFS, canola biodiesel provides significant benefits to our national energy security, the environment, and the economy. Canola biodiesel is a domestically produced renewable fuel that displaces petroleum, reduces emissions and improves air quality, and provides jobs and additional economic benefits, especially in rural communities.

### **Ohio Corn & Wheat Growers Association**

The RFS has been a tremendous success and has met all it was set out to do. It has helped to significantly reduce air pollution and greenhouse gases, improve human health, and reduce our dependence on foreign oil, all while saving consumers billions of dollars each year.

### **Smithfield Foods, Inc.**

Furthermore, the promise of ethanol as a green, renewable fuel that would make the U.S. energy-independent has not come to fruition. Many environmental groups are dubious of corn ethanol's purported environmental benefits. Ethanol's negative impact on land use, soil erosion, and nitrogen releases and greenhouse gas emissions have led leading environmental organizations, such as the World Wildlife Fund, to conclude that Congress and the President should 'suspend the Renewable Fuel Standard (RFS) mandate' and rework it entirely to reduce the role of corn ethanol in the mandate.

### **South Dakota Corn Growers Association**

The Renewable Fuel Standard (RFS) has been a tremendous success throughout South Dakota and is working exactly as intended. The program has played a pivotal role in reducing petroleum

imports to the lowest level since the 1980s, lowering gas prices, improving air quality, and strengthening the economy in rural America in ways never seen before. In closing, we strongly encourage your agency to carefully consider and calculate the potential negative economic and environmental harm that this proposal would indeed provoke across the country.

### **The Ohio House of Representatives**

Secondly, ethanol has positive environmental benefits as a clean burning fuel, helping keep our air quality standards high.

### **Union of Concerned Scientists**

While EPA clearly has authority to make such an enlargement, it is important that the exercise of this authority is made with consideration of all the goals and criteria set forth in section 211 (o)(2)(B)(ii) of the Clean Air Act, which include the impact on climate change, ecosystems, wildlife habitats, infrastructure, the price and supply of agricultural commodities and food prices.

### **Union of Concerned Scientists (UCS), Clean Air Task Force, Environmental Working Group, ActionAid USA, and National Wildlife Federation (NWF)**

As EPA modifies the RFS volume obligations for 2016 and beyond, the Agency must focus on RFS-driven cropland expansion. We urge EPA to improve its implementation of the RFS's habitat-conversion and soil carbon-loss protections and its accounting for the carbon emissions from domestic land use change. Expanding on regional assessment of land use change driven by cropland expansion by Wright (2013) and others, Lark and colleagues (2015) conducted the first national-level analysis of land use change in the RFS era, using a variety of data sources and methods to reduce errors, and found that 7.3 million acres of land was converted to cropland, with a net cropland expansion of 2.9 million acres.

### **Wisconsin Corn Growers Association (WCGA)**

The Renewable Fuel Standard is working as intended. The RFS has reduced greenhouse gas emissions, decreased our reliance on foreign oil, lowered gasoline prices for consumers and increased economic stability in rural America.

### **Response:**

Many commenters claimed environmental benefits of replacing petroleum-based fuels with biomass-based fuels. Generally identifying improvements to air emissions and more specifically GHG reduction benefits, these comments supported the RFS program. While air quality impacts of replacing petroleum-based fuel with biofuel are treated in section 8.3, EPA does believe that the expanded biofuel use of biofuels provides GHG benefits especially for the use of those fuels qualifying as advanced biofuels. One commenter noted ethanol resulted in emission benefits up to 50% compared to gasoline. Emission benefits from ethanol can be over 50% for advanced ethanol sources such as sugarcane-based ethanol but also much lower as in the case of ethanol from corn starch. Some comments indicated that even greater use of renewable fuels would provide even greater benefits and went on to criticize EPA for not quantifying the benefits that would have occurred if statutorily anticipated volumes of renewable fuels had been proposed rather than the lower volumes proposed by EPA. While EPA agrees in general that the GHG

benefits would be higher were we able to support adoption of the statutory volumes, as noted elsewhere, such volumes were not supportable and the GHG benefits associated with them not achievable. However we disagree that EPA should have quantified the GHG benefits foregone when comparing the proposed or the final volumes adopted to some other unattainable higher volume, either those specified in EISA or some other hypothetical but also unattainable higher volume. In exercising our waiver authorities in the FRM to lower the statutory volumes there is no requirement for EPA to conduct such a specific analysis nor to conduct such analyses comparing GHG benefits of the adopted standards to any of a range of alternative volumes. Many commenters also discussed a wide variety of negative environmental impacts associated with increased corn ethanol and other renewable fuels resulting from the RFS program. While supporting the need for GHG emission reductions and the need for cellulosic and advanced biofuels, some also disagreed with EPA's assessment that corn ethanol in particular reduces GHG emissions compared to petroleum-based gasoline it replaces. EPA performed a comprehensive assessment of the lifecycle GHG impacts of all the eligible renewable fuel pathways under the RFS program. At that time EPA found that ethanol produced from corn starch at a new natural gas, biomass, or biogas fired facility (or expanded capacity from such a facility) using advanced efficient technologies (ones that we expect will be most typical of new production facilities) will meet the 20% GHG emission reduction threshold compared to the 2005 gasoline baseline. Though much of the corn ethanol volume was grandfathered under the RFS program per the statute and does not need to meet the 20% GHG threshold, production from new facilities or from facilities which have expanded their volume production capability must meet the 20% GHG emission reduction threshold. Since that rule, EPA has approved some petitions that incorporate such technologies into the production of ethanol, and analysis has shown performance above the 20% threshold for new volumes produced. This rulemaking did not propose reassessment of those emission performance estimates and such reassessment is outside the scope of this rulemaking. EPA also has assessed the non-GHG impacts of renewable fuel production and use and these impacts are discussed further in sections 8.3, 8.4 and 8.5 of this response to comments. GHG related comments are further discussed in section 8.2.

The Union of Concerned Scientists and others comment that EPA needs to take into consideration impacts on land use change including expansion of domestic acres devoted to crop production and, particular to Union of Concerned Scientists, consideration of the goals and criteria set forth in section 211(o)(2)(B)(ii) of the Clean Air Act, which include impact on climate change, ecosystems, wildlife habitats, infrastructure, the price and supply of agricultural commodities and food prices. EPA did assess the impacts of greater renewable fuel demand on land use and land use change as part of its assessment of the lifecycle GHG impacts of renewable fuels included in the 2010 final rule adopting RFS2 and subsequently when assessing the impacts of new renewable fuel pathways since that rule. Changes to these assessments is considered outside the scope of this rule. Regarding the multiple factors in addition to impacts on GHG emissions, EPA also considered these factors in its 2010 final rule and, in the context of the proposed biodiesel standards for this rule, prepared an assessment of a number of these factors provided as a memo to the docket of the proposed rule. This document has been updated and provided as part of the rulemaking documentation for this final rule.<sup>35</sup>

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<sup>35</sup> Final Rule: Assessment of Statutory Factors for 2016-2017 biomass-based diesel (BBD) Applicable Volumes pursuant to CAA section 211(o)(2)(B)(ii)(I)-(VI); EPA Air Docket EPA-HQ-OAR-2015-0111

Comments pertaining to economic benefits are addressed in section 7.1 of this response to comment document.

## **8.2 Climate Change (GHG Impacts)**

### **Comment:**

**AL-Corn Clean Fuel; Badger State Ethanol; Big River Resources, LLC; Central Indiana Ethanol (CIE); Husker Ag LLC; Pacific Ethanol, Inc.**

If finalized, the rule could have the following effects:

- Increased GHG emissions. Under EPA's proposal, low-carbon biofuels would be supplanted with gasoline refined from tar sands, tight oil from fracking, oil from deepwater drilling, or imported oil. The obvious result would be an increase in GHG emissions from the transportation sector.

### **American Coalition for Ethanol (ACE)**

It is critical for EPA to recognize that ethanol production is becoming more efficient and sustainable as documented by many respected scientists.

### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

(T)here will likely be little room for advanced biofuels with lower lifecycle GHG scores than corn starch ethanol to displace the latter in the gasoline fuel pool.

### **Bates White**

As result of advances in biodiesel production with the increased ability to use low-carbon footprint feedstocks, such as waste greases, animal fats, and distiller's corn oil, biodiesel currently reduces CO<sub>2</sub> emissions by 81 percent, compared with petroleum diesel. While the biodiesel accounts for only 3 percent of total U.S. petroleum diesel consumption, biodiesel reduced U.S. CO<sub>2</sub> emissions by over 16 million tons in 2014, equivalent to eliminating 3.6 million cars. If U.S. biodiesel volumes were to grow by 350 million gallons annually, by 2025, it would still amount to less than 9 percent of U.S. diesel consumption, but it would provide 18 percent of the entire transportation sector's share of the U.S. commitment to reduce CO<sub>2</sub> emissions. The cost-effectiveness of biodiesel as a means of reducing CO<sub>2</sub> emissions can be measured as a difference between the cost to produce biodiesel and the wholesale price of petroleum diesel. In recent years, this cost differential has narrowed as a result of investments in processing technology and production capacity. In 2011, the cost of using biodiesel to reduce CO<sub>2</sub> emissions was approximately \$158 per avoided ton of CO<sub>2</sub> emissions. By 2014, this cost had declined by 78 percent to \$34 per ton of CO<sub>2</sub>. These estimates are highly conservative, as they do not account for biodiesel's substantial other benefits, from energy security and reduced particulate emissions. Although this cost of reducing CO<sub>2</sub> emissions increased in 2015, this was

not due to increased biodiesel production costs, but rather to a sharp decline in world petroleum prices. And as petroleum prices recover, the cost of using biodiesel to reduce CO2 emissions will drop back to their 2014 level or below. The recent rapid growth of biodiesel as a low- carbon alternative fuel represents a major success of the RFS2 program. In 2010 at the start of RFS2, the U.S. produced only 340 million gallons of biodiesel. By 2013, it produced fully 1.4 billion gallons. While biodiesel was almost an afterthought in the initial RFS policy formulation, the industry's response has resulted in a widely available product that contributes significantly to U.S. CO2 reduction goals while also promoting retail competition at the pump.

### **BioEnergy R&D**

On May 29, the EPA released its proposed rule for 2014, 2015 and 2016 renewable volume obligations under the RFS. The EPA has proposed reducing the oil industry's obligation to blend renewable fuel in to gasoline. That directly contradicts the EPA's other efforts to reduce greenhouse gas emissions. This proposal would increase greenhouse gas emissions by almost 10 million metric tons, the same effect as putting 2.1 million more cars on the road. In the final rule, EPA should require obligated parties to comply with the law by blending increasing volumes of renewable fuels.

### **Biotechnology Industry Organization**

EPA's failure to set RFS volumes that guarantee an increasing displacement of fossil fuels over time subverts the intent of Congress and the design of the program. Greenhouse gas intensity of petroleum fuels, measured in carbon dioxide equivalents (CO<sub>2</sub>e), has grown worse since 2007.<sup>148</sup> At the same time, the greenhouse gas intensity of biofuels has improved.

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<sup>148</sup> Wang, M., J. Han, J. Dunn, H. Cai, and A. Elgowainy, 2012, "Well-to-Wheels Energy Use and Greenhouse Gas Emissions of Ethanol from Corn, Sugarcane and Cellulosic Biomass for US Use," Environmental Research Letter, 7 (2012) 045905 (13pp).

### **Board of Commissioners, Mercer County; Crawford County; Greenville-Reynolds Development Corporation; Office of Commissioners, Lawrence County, Pennsylvania**

There are significant reasons that mandated ethanol blend rates should be lowered. They include:

**5. Corn-based ethanol raises GHG emissions.** According to studies conducted by the Associated Press and Environmental Working Group, the RFS has increased GHG emissions. Plowing pristine land releases carbon dioxide locked in the soil; and new fertilizer plants and the ethanol factories also increase GHG emissions.

### **Brazilian Sugarcane Industry Association (UNICA)**

**Sugarcane ethanol produces significant greenhouse gas benefits compared to fossil fuels and other biofuels.**

### **Canola Council of Canada**

Utilizing renewable biomass as a form of energy provides numerous economic and environmental benefits. Diversification of feedstocks for renewable fuels is also important to

move toward increased use of advanced biofuels. Canola epitomizes these important goals. Both the government of Canada and the provincial governments have numerous programs that encourage farmers to employ good farming practices, including conservation of lands. In particular, canola has a unique place in sustainable crop rotations and played a significant role in substantially reducing the number of acres of non-sustainable fallow land. Thus, canola is grown sustainably and in a manner that reduces greenhouse gas emissions associated with its production.

### **Carbon Green BioEnergy, LLC**

Using the University of Nebraska BESS model, the CGBE carbon index for the full 2014 production year was 34.4 grams CO<sub>2</sub>e/MJ, not including an indirect land use (IDLU) factor, which is significantly lower than the carbon index commonly used for gasoline (92.0 grams CO<sub>2</sub>e/MJ).

### **Clean Air Task Force**

Carbon dioxide releases from palm oil production are attributable to an RFS-driven increase in total demand for vegetable oil, the releases would constitute “lifecycle greenhouse gas emissions” as defined by CAA §211(o)(1)(H) and must be accounted for within the context of the RFS’s GHG reduction requirements.<sup>36</sup>

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<sup>36</sup> As EPA knows, volume is a key parameter in lifecycle emissions modeling of biofuels. If an underlying assumption about the production/consumption levels for a particular fuel turn out to be incorrect—for example, if biodiesel use exceeds projected levels—“there is a real risk that [indirect land use change] could undermine the environmental viability of biofuels,” write Perrihan Al-Riffai and others. “Non-linear effects, in terms of biofuels volumes and behavioral parameters, pose a risk.” Perrihan Al-Riffai, *et al. Global Trade and Environmental Impact Study of the EU Biofuels Mandate* 71 (2010) (study carried out for the Directorate General for Trade of the European Commission) ([http://trade.ec.europa.eu/doclib/docs/2010/march/tradoc\\_145954.pdf](http://trade.ec.europa.eu/doclib/docs/2010/march/tradoc_145954.pdf)).

### **Commonwealth Agri-Energy, LLC**

If finalized, the rule could have the following effects:

- **Increased GHG emissions.** Under EPA’s proposal, low-carbon biofuels would be supplanted with gasoline refined from tar sands, tight oil from fracking, oil from deep-water drilling, or imported oil. The obvious result would be an increase in GHG emissions from the transportation sector.

### **Energy Resources Center at the University of Illinois-Chicago**

Our peer-reviewed research has demonstrated that today's average corn-based ethanol significantly reduces greenhouse gas emissions compared to petroleum-based gasoline, even when potential indirect land use change emissions are considered. It is our belief that the renewable fuel standard has played an important role in creating a stable market environment that encourages development of and investment in new biorefinery and agricultural technologies. Our work has shown that the biofuels industry has a uniquely high rate of innovation and technology adoption, which has resulted in steady reductions in greenhouse gas impacts. Specifically, our research shows energy use and related greenhouse gas emissions by

biorefineries have been trending downward over the past decade. Secondly, emerging agricultural practices and technologies have been shown to further reduce land demands and emissions from biofuels production. Thirdly, recent analyses demonstrate potential indirect land use change emissions are substantially lower for ethanol than initially estimated by the U.S. EPA and others. These reductions in predicted emissions are primarily due to improved indirect land use change modeling for a number of factors. The Argonne GREET lifecycle emissions model estimates that corn ethanol greenhouse gas emissions are on average 34 percent lower than gasoline. In light of the greenhouse gas reduction potential that can be achieved from using ethanol, we are concerned about the proposed renewable volume obligations released by EPA. EPA's adjustment from the original RVO will likely leave conventional biofuels short by 1.6 billion gallons in 2015. This shortage represents increased greenhouse gas emissions of approximately 4.5 million tons of carbon dioxide equivalents for that year. According to the EPA equivalency calculator, this is comparable to the annual greenhouse gas emissions of just under 1 million passenger vehicles. In closing, we believe that the renewable fuel standard results in substantial greenhouse gas savings by stimulating innovation at the feedstock production and biorefinery level. However, the proposed standards fail to fully realize these greenhouse gas savings.

### **Environmental Working Group (EWG)**

A recent paper published by researchers Tyler Lark and colleagues at the University of Wisconsin, Madison, found that between 2008 and 2012, 7 million acres of previously uncultivated land—an area the size of Maryland—was plowed up largely in response to biofuels mandates. The primary crops grown on converted grasslands were corn and soy, which are used for biofuels production.<sup>1</sup>

A critical component of the RFS was the provision that biofuels production could not be responsible for the conversion of uncultivated grasslands and wetlands. In order for feedstock's to qualify as "renewable," they could not be grown on recently converted and previously uncultivated land. To safeguard against land conversion the EPA established the "aggregate compliance approach," which set maximum national crop acreage thresholds.<sup>2</sup> If this threshold were passed, the EPA would require biofuels facilities to check that feedstock's were produced on eligible cropland. A major flaw in this approach is that aggregate compliance glosses over the trend of land coming out of production in some places, while millions of acres of land are being plowed up in North and South Dakota, as well as other mid-western states.

According to the paper by Lark and colleagues, up to 1.9 million acres of new corn plantings and 1.5 million acres of new soy could be ineligible as renewable biomass. This land conversion not only has disastrous impacts on the wildlife that depend on these habitats, it also results in large amounts of GHG emissions. New plantings for corn and soy were responsible for 94 to 186 million metric tons of carbon emissions, yet these emissions were not accounted for in the EPA's estimates of the carbon intensity of corn ethanol. Even given this error in emissions accounting, assuming no domestic land use change emissions, the EPA estimated that corn ethanol would be a net emitter of carbon - when compared to gasoline - until 2036, and wouldn't reduce emissions by 20 percent until 2050, 43 years after the enactment of the Energy Independence and Security Act of 2007 (EISA).<sup>3</sup>

We encourage EPA to use its authority to waive the conventional RVO to prevent further expansion of croplands at the expense of grasslands and wetlands.

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<sup>1</sup> Lark, et al. 2015 Cropland expansion outpaces agricultural and biofuel policies in the United States. *Environmental Research Letters* 10 044003

<sup>2</sup> Environmental Protection Agency 2010. Federal Register Vol. 75, No. 236

<sup>3</sup> EPA (U.S. Environmental Protection Agency) 2010c Renewable Fuel Standard Program (RFS2) Regulatory Impact Analysis. Page 483 <http://www.epa.gov/otaq/renewablefuels/420r10006.pdf>

## **Growth Energy**

Using less ethanol in fuel, as EPA proposes, will lead to more greenhouse gas emissions.

(C)orn growers have greatly improved the efficiency, minimized the local environmental impact of their operations, and adopted new technologies at ethanol facilities at a faster rate than anticipated by EPA.

## **Highwater Ethanol, LLC**

We have identified a few items below which requires immediate attention on the proposed rule from the U.S EPA in regards to the renewable fuels standards.

1. Increased use of renewable fuels means less use of fossil fuels, which results in lower GHG emissions over time as advanced biofuel production and use becomes more commonplace.”

## **Illinois Farm Bureau**

Finally, Illinois Farm Bureau feels obligated to point out that EPA’s disappointing lack of enthusiasm for biofuels is wildly inconsistent for an agency and administration that has been willing to pull out all of the stops to pursue a vigorous climate change agenda. It’s seems incomprehensible that an agency and administration so single minded fails to recognize and take full advantage of the scientifically proven GHG reduction contributions of corn-based ethanol, biodiesel and next generation renewable fuels. If addressing climate change is EPA’s goal, please recognize that a robust American renewable fuels industry must be part of the solution.

## **Iowa Corn Growers Association (ICGA)**

**Increased Green House Gas emissions.** Under EPA’s proposal, low-carbon biofuels would be supplanted with gasoline refined from tar sands, fracking, offshore drilling, or imported oil. Corn ethanol provides up to a 50 percent reduction in greenhouse gas emissions, compared to gasoline. Global ethanol production and use is estimated to reduce greenhouse gas emissions by 100 million metric tons annually, the equivalent of taking more than 20 million vehicles off the road. This Administration has made cleaner air a priority, yet the proposed rule seems to walk back on that commitment.

## **Illinois Corn Growers Association (ICGA) and Illinois Renewable Fuels Association (IRFA)**

Update the greenhouse gas emissions reductions realized with corn starch ethanol based on the recent body of science and new publications

USEPA has assumed that corn starch ethanol would be 20% better than baseline gasoline by 2022 with the addition of specified technologies incorporated in the new plants and expansions constructed after 2007. Plants on-line or under construction when the Energy Independence and Security Act was passed was grandfathered in according to the law. Since corn starch ethanol could only contribute up to 15 billion gallons of the 36 billion gallons established for the RFS II, USEPA did not move to update the Life Cycle Analysis numbers for corn starch ethanol.

The corn starch ethanol industry has changed tremendously with new investments in efficiencies, new processes, and new co-products. The studies have also proven that the indirect land use penalties have dropped significantly. When the numbers related to the new carbon footprint for producing corn are updated the overall greenhouse gas emissions for corn starch ethanol are 40 to 50% less than 2005 base gasoline. The CO<sub>2</sub> savings are even greater when compared to the current crude oil mix refined by the U.S. refineries due to the increased production of crude oil from the tar sands. Not updating the data and models used to determine the real carbon footprint for corn starch ethanol, makes it easier for USEPA to roll back the volume numbers for conventional biofuels. The EISA was passed to reduce the use of petroleum in the transportation sector and to reduce greenhouse gas emissions. Based on the real numbers for the reduced greenhouse gas emissions for corn starch ethanol means that we will lose many tons of greenhouse gas emissions reductions if the ethanol volumes are reduced. The costs of keeping the RFS II volumes in place through 2014 to encourage the oil companies to move beyond the blend wall will then be weighed against the lost in significant CO<sub>2</sub> reductions.

### **Kansas Soybean Association**

As you know, biodiesel is a domestic, renewable fuel source and the most prevalent and commercially available advanced biofuel. The EPA itself has determined that biodiesel reduces lifecycle greenhouse gas emissions by 57 percent to 86 percent compared to petroleum diesel.

### **Mass Comment Campaign sponsored by anonymous 1 (web) - (23)**

That directly contradicts the EPA's other efforts to reduce greenhouse gas emissions. This proposal would increase greenhouse gas emissions by almost 10 million metric tons, the same effect as putting 2.1 million more cars on the road.

### **Mass Comment Campaign sponsored by anonymous 24 (postcard) - (207)**

This will harm the air we breathe. Ethanol reduces greenhouse gas emissions up to 50% compared to gasoline. It is a sustainable octane source that is much better for the environment than petroleum.

**Mass Comment Campaign sponsored by anonymous 3 (web) - (893)**

Furthermore, numerous peer-reviewed papers have shown that ethanol is actually worse than pure gasoline when it comes to the emissions blamed for global warming. As the EPA works toward limiting greenhouse gases from power plants, it appears to be condoning more of them out of tailpipes.

**Mass Comment Campaign sponsored by anonymous 33 (paper) - (164)**

With these cuts, our nation will not see the dramatic decrease in greenhouse gas (GHG) emissions assumed under the RFS. With full implementation, the RFS would reduce GHG emissions by 138 million metric tons, which is the equivalent of taking 27 million cars off the road.

**Mass Comment Campaign sponsored by Care2 (email) - (9720)**

Furthermore, numerous peer-reviewed papers have shown that ethanol is actually worse than pure gasoline when it comes to the emissions blamed for global warming. As the EPA works toward limiting greenhouse gases from power plants, it appears to be condoning more of them out of tailpipes.

**Mass Comment Campaign sponsored by Corn, LP (web) - (37)**

**The RFS is working for the environment.** Simply put, ethanol burns cleaner and lowers carbon pollution compared to gasoline. In 2014, the use of ethanol slashed greenhouse gas emissions by 40 million metric tons, which is the equivalent of removing 8.4 million vehicles from the road. If left intact, the RFS can do even more to displace oil and reduce greenhouse gas emissions by bringing increasingly low carbon alternatives to market, such as cellulosic ethanol and other advanced biofuels. It's also important to note that as renewable fuels continue to get cleaner and more energy efficient, oil production continues to get dirtier and more energy intensive.

**Mass Comment Campaign sponsored by employees of Western Dubuque Biodiesel (web) - (1)**

**The RFS is working for the environment.** As the only EPA-designated Advanced Biofuel with commercial-scale production nationwide, biodiesel reduces lifecycle greenhouse gas emissions by 57 percent to 86 percent compared to petroleum diesel. With some 4.6 billion gallons used since 2005, biodiesel has reduced lifecycle greenhouse gas emissions by 74 billion pounds—the same impact as removing 5.4 million passenger vehicles from America's roadways. If left intact, the RFS can do even more to displace oil and reduce greenhouse gas emissions by bringing additional low carbon alternatives to market, such as cellulosic ethanol and other advanced biofuels. It's also important to note that as renewable fuels continue to get cleaner and more energy efficient, oil production continues to get dirtier and more energy intensive.

**Mass Comment Campaign sponsored by Indiana Corn Growers Association and Indiana Soybean Alliance (email) - (304)**

The EPA should not forget its mission to protect human health and the environment. I support that mission and am proud to say that corn ethanol advances this mission. Corn ethanol provides up to a 50 percent reduction in greenhouse gas emissions, compared to gasoline. Global ethanol

production and use is estimated to reduce greenhouse gas emissions by 100 million metric tons annually, the equivalent of taking more than 20 million vehicles off the road. Ethanol is a sustainable octane source that is much better for the environment than particulate-generating petroleum alternatives.

**Mass Comment Campaign sponsored by Little Sioux Corn Processors (web) - (44)**

**The RFS is working for the environment.** Simply put, ethanol burns cleaner and lowers carbon pollution compared to gasoline. In 2014, the use of ethanol slashed greenhouse gas emissions by 40 million metric tons, which is the equivalent of removing 8.4 million vehicles from the road. If left intact, the RFS can do even more to displace oil and reduce greenhouse gas emissions by bringing increasingly low carbon alternatives to market, such as cellulosic ethanol and other advanced biofuels. It's also important to note that as renewable fuels continue to get cleaner and more energy efficient, oil production continues to get dirtier and more energy intensive.

**Mass Comment Campaign sponsored by National Corn Growers Association (NCGA) - (24,661)**

Ethanol is a cleaner burning domestic fuel source that reduces greenhouse gas emissions.

In addition, corn ethanol provides up to a 50% reduction in greenhouse gas emissions, compared to gasoline. Global ethanol production and use is estimated to reduce greenhouse gas emissions by 100 million metric tons annually, the equivalent of taking more than 20 million vehicles off the road. Ethanol is a sustainable octane source that is much better for the environment than particulate-generating petroleum. If the mission of the EPA is to make the environment cleaner, then the RFS surpasses that goal.

Also, we can't forget the environmental benefits of ethanol, which provides up to a 50 percent reduction in greenhouse gas emissions, compared to gasoline. Ethanol is a sustainable octane source that is much better for the environment than particulate-generating petroleum alternatives.

**Mass Comment Campaign sponsored by Quad County Corn (web) - (37)**

**The RFS is working for the environment.** Simply put, ethanol burns cleaner and lowers carbon pollution compared to gasoline. In 2014, the use of ethanol slashed greenhouse gas emissions by 40 million metric tons, which is the equivalent of removing 8.4 million vehicles from the road. If left intact, the RFS can do even more to displace oil and reduce greenhouse gas emissions by bringing increasingly low carbon alternatives to market, such as cellulosic ethanol and other advanced biofuels. It's also important to note that as renewable fuels continue to get cleaner and more energy efficient, oil production continues to get dirtier and more energy intensive.

**Mass Comment Campaign submitted by employees of Siouxland Energy Cooperative (web) - (30)**

**The RFS is working for the environment.** Simply put, ethanol burns cleaner and lowers carbon pollution compared to gasoline. In 2014, the use of ethanol slashed greenhouse gas emissions by 40 million metric tons, which is the equivalent of removing 8.4 million vehicles from the road. If left intact, the RFS can do even more to displace oil and reduce greenhouse gas emissions by bringing increasingly low carbon alternatives to market, such as cellulosic ethanol and other

advanced biofuels. It's also important to note that as renewable fuels continue to get cleaner and more energy efficient, oil production continues to get dirtier and more energy intensive.

### **Minnesota Bio-Fuels Association (MBA)**

According to Dr. Michael Wang (lead researcher), 'Well-to-wheels energy use and greenhouse gas emissions of ethanol from corn, sugarcane and cellulosic biomass for US use' (December 2012), the lifecycle GHG emissions (including the full range of energy inputs for crops, refining and combustion of fuel in a vehicle) for conventional renewable biofuel is on average 44%, and up to 57%, less compared to petroleum gasoline.

### **Missouri Coalition for the Environment**

- Between 2008 and 2011, 23 million acres of grassland, shrub land and wetlands were converted to commodity crop production in large part a response to higher demand for corn. These acres once served as carbon sinks. Now they release stored carbon and eliminate that function. University of California-Berkeley scientists note that such ethanol-related land conversion results in higher greenhouse gas emissions than fossil fuels.

### **Monsanto**

The RFS directly advances the mission of the EPA, as renewable fuels provide a significant reduction in greenhouse gas emissions, when compared to conventional petroleum-based fuels. According to studies by the Global Renewable Fuels Alliance, it has been estimated that global ethanol production and use is reducing greenhouse gas emissions by 100 million metric tons annually, the equivalent of taking more than 20 million vehicles off the road.

The RFS is successfully driving the adoption of renewable fuel alternatives, supporting jobs across the country, and ensuring the U.S. remains a global leader in developing new renewable energy sources while decreasing greenhouse gas emissions.

### **National Association of Charterboat Operators**

Studies done over the past 10 years show that growing and burning ethanol fuel produces higher amounts of CO<sub>2</sub> pollution than the use of the fossil fuel it replaces.

### **National Farmers Union (NFU)**

#### *A. Climate Resiliency*

The fact that climate change poses threats to the American economy, as well as the physical safety of the American people and global population, is well-documented and overwhelmingly agreed to by the scientific community.<sup>2</sup> In addition to these alarming concerns, NFU must highlight the hazards climate change carries for American agriculture and the specific problems a changing climate will create for family agriculture.

The U.S. offers the most secure food system in the world' and is a substantial contributor to the global food supply. This achievement begins with farmers and will be jeopardized when farmers' ability to produce is disrupted. Such disruption is anticipated due to climate change. *Climate*

*Change and Agriculture in the United States: Effects and Adaptation*, a report by the United States Department of Agriculture (USDA), isolated a number of challenges climate change presents to farmers. These challenges include: lowered productivity due to increases in temperature and precipitation variability; increased temperature stress on livestock; changing pest, weed, and disease pressures; disturbances in pollinator services and soil maintenance; and more frequent extreme weather events.<sup>4</sup> It will take time and effort for American agriculture to adapt to these changes, and in the meantime the overall amount of production and food prices are likely to fluctuate. Some production losses may become long-lasting or permanent. The security of a sustainable food supply, one that puts adequate and adequately-nutritious food within reach of all people regardless of race, color, national origin, or income, is threatened by climate change.

Even with as much uncertainty as surrounds the economic impact of climate change on agriculture, it is clear that the risk to those who rely on farmers for food is unprecedented in modern times. The USDA report stated 'ultimately climate change effects will depend on how production and consumption systems adjust, or adapt, in response to those biophysical effects,' but also noted that 'even in the short-term, climate change will likely increase the incidence of global hunger through effects on the world's poorest and most at-risk populations.'<sup>5</sup>

EPA should pursue GHG emission reductions at every opportunity to try to mitigate climate change as much as possible. The RFS offers tremendous capacity to reduce GHGs by encouraging the use of transportation fuels that emit fewer GHGs than petroleum-based transportation fuels. EPA asserts that the EISA volume standards will cut GHG emissions by 138 million metric tons by 2022.<sup>6</sup> To achieve these emissions reductions, EPA should implement the biofuel volume standards Congress agreed to in the Energy Independence and Security Act (EISA). The volume standards in the proposed rule must be adjusted because they forego GHG emission reductions in the immediate term and impede future growth by holding investment at bay and validating the unwarranted use of waiver authority.

In addition to the direct climate advantages the volume standards in the EISA would create, the volume standards are important to maintain because farmers and rural communities are enormously important to building climate resiliency. The RFS is an important tool for initiating other essential conversations around climate and agriculture with producers. Farmers will need to consider information on how climate change will impact their operations in order to make decisions that will maintain the security of our food supply. Farmers may also be able to make production decisions that mitigate climate change by reducing or sequestering greenhouse gasses, or that alleviate some of the symptoms of climate change, such as soil enhancement efforts that help with irregular rainfall. If policymakers hope such actions might be adopted by enough farmers to create a positive impact, it would be very helpful to establish trust with farmers and rural communities around climate change by maintaining the EISA's proposed volume standards. That policy stability would allow farmers to participate in climate resiliency in a way that directly adds value to their operations and communities, securing their receptiveness to future conversations around climate.

Given the RFS' importance in building climate resiliency and rebuilding rural economies discussed above, it is of critical importance that the volume standards EPA issues match those Congress agreed to in the EISA. This is true of the advanced biofuel volume requirement as well as the total renewable fuel volume standard. Advanced biofuels are especially important to the

climate resiliency goals of the RFS because they hold enormous potential for lowering GHG emissions from the transportation sector. While conventional biofuels certainly carry a GHG emissions advantage over transportation fuels derived from fossil sources, and while that advantage continues to grow as new efficiencies in conventional biofuel production are realized, advanced biofuels offer even more GHG emission reductions.

#### **From Illinois Farmers Union:**

The University of Illinois Extension has offered some insight as to how Illinois in particular may be impacted by climate change, noting 'For Illinois, the prediction is that our summer climate will gradually become similar to the current climate of southeast Texas- hotter, wetter in spring and fall, and drier in the summer. This has enormous implications for our crop and animal food-production systems ... Crops such as corn and soybeans, which require planting in spring, harvest in fall, and pollination can be especially sensitive to changes in precipitation and temperature.'<sup>4</sup>

#### **From Northwest Farmers Union:**

Climate change presents significant challenges specifically to many important industries in the Northwest, including agriculture. EPA notes that 'Higher temperatures, changing stream flows, and increases in pests and disease threaten forests, agriculture, and salmon populations in the Northwest.'<sup>4</sup> The Agency further asserts that 'Decreasing supplies of water for irrigation, increasing incidence of pests and disease attacks, and growing competition from weeds threaten Northwest agriculture, particularly the production of tree fruits such as apples.'<sup>5</sup> These hazards to the economy of the Northwest and the well-being of the region's residents compel NWFU to ask EPA to make full use of the opportunity to mitigate climate change and enhance climate resiliency that the RFS presents.

#### **From Michigan Farmers Union:**

Michigan farmers face a number of challenges that will increase in severity as the changes in climate become more dramatic. A presentation posted to Michigan State University Extension's website by Dr. David P. Lusch, Distinguished Senior Research Specialist MSU's Department of Geography, Institute of Water Research, notes that while increased temperatures may add time to the growing season, the resulting potential yield increases may be mitigated by 'predicted changes in the distribution of rain- wetter periods are expected during times that could delay planting or harvest and mid-growing season droughts are more likely.'<sup>4</sup> This may result in more need for irrigations, 'causing additional pressures on surface water and groundwater resources.'<sup>5</sup> Lusch also warns that increases in severe storms could depress yields and encourage soil erosion and non-point source pollution, and that higher summer temperatures could lower livestock productivity.

#### **From New England Farmers Union:**

New England farmers face a number of challenges that will increase in severity as the changes in climate become more dramatic. The introductory letter to USDA's Northeast Regional Climate Hub Assessment of Climate Change Vulnerability and Adaptation and Mitigation Strategies, a report detailing the climate impacts anticipated in an area wholly including NEFU's territory, "the northeastern region of the United States faces an array of climate-related challenges, including heavier rainfall and greater rainfall totals...Crops and forests in the Northeast are also under increasing pressure from weeds, insects, and diseases, and these pest pressures are compounded by the additional stress of variable weather and a changing climate."<sup>4</sup>

### From Ohio Farmers Union:

Producers in Ohio face challenges that will become increasingly dramatic as climate change and its impacts grow more severe. Ohio farmers are likely to experience changes in rainfall that lead to flooding and drought, as well as more intense and frequent extreme weather events with adverse consequences for crops. Agriculture is the top industry in Ohio; these negative impacts place the state's entire economy in jeopardy.<sup>2</sup>

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2. USDA Blog, 'Secretary Vilsack Announces Partnerships with Farmers and Ranchers to Address Climate Change,' April 23, 2015. Secretary Vilsack Announces Partnerships with Farmers and Ranchers to Address Climate Change - See more at: <http://blogs.usda.gov/2015/04/23/secretary-vilsack-announces-partnerships-with-farmers-and-ranchers-to-address-climate-change> <https://www.usda.gov/press/releases/2015/04/23/secretary-vilsack-announces-partnerships-with-farmers-and-ranchers-to-address-climate-change>3. 'The Global Food Security Index,' The Economist Group, <http://foodsecurityindex.eiu.com/Country/Details#United%20States>.<sup>4</sup> Walthall, C.L., J. Hatfield, P. Backlund, L. Lengnick, E. Marshall, M. Walsh, S. Adkins, M. Aillery, E.A. Ainsworth, C. Ammann, C.J. Anderson, I. Bartomeus, L.H. Baumgard, F. Booker, B. Bradley, D.M. Blumenthal, J. Bunce, K. Burkey, S.M. Dabney, J.A. Delgado, J. Dukes, A. Funk, K. Garrett, M. Glenn, D.A. Grantz, D. Goodrich, S. Hu, R.C. Izaurralde, R.A.C. Jones, S-H. Kim, A.D.B. Leaky, K. Lewers, T.L. Mader, A. McClung, J. Morgan, D.J. Muth, M. Nearing, D.M. Oosterhuis, D. Ort, C. Parmesan, W.T. Pettigrew, W. Polley, R. Rader, C. Rice, M. Rivington, E. Rosskopf, W.A. Salas, L.E. Sollenberger, R. Srygley, C. Stockle, E.S. Takle, D. Timlin, J.W. White, R. Winfree, L. Wright-Morton, L.H. Ziska. 2012. Climate Change and Agriculture in the United States: Effects and Adaptation. USDA Technical Bulletin 1935. Washington, DC. 186 pages. At 1. [http://www.usda.gov/oce/climate\\_change/effects\\_2012/CC%20and%20Agriculture%20Report%20%2802-04-2013%29b.pdf](http://www.usda.gov/oce/climate_change/effects_2012/CC%20and%20Agriculture%20Report%20%2802-04-2013%29b.pdf)<sup>5</sup>. *Id.* at 118.<sup>6</sup> <http://www.epa.gov/climatechange/EPAactivities/regulatory-initiatives.html>  
**Illinois:** <sup>4</sup> <https://web.extension.illinois.edu/illinoissteward/openarticle.cfm?ArticleID=SSO>  
**Northwest:** <sup>4</sup> EPA, 'Climate Impacts in the Northwest,' <http://www.epa.gov/climatechange/impactsadaptation/northwest.html#impactsagriculture>.  
**Michigan:** <sup>4</sup> [http://msue.anr.msu.edu/uploads/234/62936/Climate\\_Change\\_Water\\_Implications\\_for\\_Michigan.pdf](http://msue.anr.msu.edu/uploads/234/62936/Climate_Change_Water_Implications_for_Michigan.pdf)<sup>5</sup>. *id.*  
**New England:** <sup>4</sup> Tobin, Daniel; Janowiak, Maria; Hollinger, David Y.; Skinner, R. Howard; Swanston, Christopher; Steele, Rachel; Radhakrishna, Rama; Chatchyan, Allison. At 5. <http://climatehubs.oce.usda.gov/sites/default/files/Northeast%20Regional%20Hub%20Vulnerability%20Assessment%20Final.pdf>  
**Ohio:** <sup>2</sup> <http://changingclimate.osu.edu/features/climate-and-ohio-farms/>

### Michigan Corn Growers Association

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 35-36.]

In addition to the local economic benefits our State enjoys from ethanol production, corn growers have a sense of pride in creating a product that competes with the oil industry. First, because ethanol is a cleaner-burning product, a study last year by Michigan State University researchers showed that the use of ethanol in Michigan reduces dangerous greenhouse gas emissions entering our atmosphere by 1.4 million metric tons annually. That is one of the goals of the RFS2. And using EPA's estimates, this greenhouse gas reduction is equivalent to the emissions of about 300,000 cars in our State, and that's every year. As a result, researchers have shown ethanol is creating a healthier environment for our families while protecting our air, land,

and the Great Lakes. Reducing the volumes of ethanol called for in the RFS will reverse the advancements made in this greenhouse gas reductions.

### **National Renderers Association (NRA)**

The process of rendering animal byproducts sequesters about four times as much CO<sub>2</sub>e as it emits, creating a significant net carbon credit. CO<sub>2</sub>, methane and other GHG emissions from natural decomposition in a compost pile or landfill are avoided

Rendered animal fats and used cooking oil/grease are rich (76 percent carbon on average) in recycled carbon which, when used as feedstocks for biomass based diesel, can contribute significantly to biomass-based diesel's reduced CO<sub>2</sub> emission level compared to that of petroleum diesel.

### **New Leaf Biofuel, LLC**

There is no doubt in my mind that if the 2016/17 RVO is finalized as written, it will lead to more closures and scale backs by biodiesel plants that utilize waste feedstocks. The overall GHG of the biodiesel will increase as imported higher GHG fuels squeeze us out, and worse, biodiesel blenders will scale back blending due to poor economics, resulting in a return to fossil fuels.

### **North Dakota Corn Growers Association (NDCGA), et al.,**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 179.]

Thirdly, ethanol production has reduced our carbon footprint as we meet the demands of a growing world population and is environmentally friendly in air quality improvements. The EPA recognizes that corn ethanol provides a 21 to 52 percent greenhouse gas reduction compared to ordinary gasoline.

Global ethanol production and use is estimated to reduce greenhouse gas emissions by 100 million metric tons in 2012, according to energy experts, the equivalent of taking 20.2 million vehicles off the road.

### **Northern Canola Growers Association**

Well beyond the canola and agricultural sector, biodiesel provides numerous benefits for consumers and society as a whole, including:

-significant reductions in greenhouse gas emissions resulting in improved air quality

The EPA itself has determined that biodiesel reduces lifecycle greenhouse gas emissions by 57 percent to 86 percent compared to petroleum diesel. Substituting higher amounts of biodiesel for traditional diesel fuel is a simple, effective way to immediately reduce diesel emissions. Since biodiesel provides a greenhouse gas benefit compared to the petroleum-based diesel it is replacing, increasing its use will contribute to reduced climate change impacts.

## Novozymes Americas

**The window of opportunity to reduce emissions and avoid significant climate change impacts is becoming shorter and the time for bold action is now. Novozymes has an ambitious goal to reduce 100 million tons of annual greenhouse gas emissions annually through the use of our products. Our technology and investments are critical weapons in the fight against climate change....Federal officials have also made clear that they want to reduce greenhouse gas emissions. In May of this year, the United States said it would reduce emissions 26 to 28 percent over 2005 levels by 2025. This month, 13 major U.S. corporations announced \$140 billion in investments to decrease their carbon footprints as part of a White House initiative on climate action. If the EPA finalizes the existing proposal, however, it would have exactly the opposite effect by substantially increasing emissions. The existing proposal would abandon the people and the companies that have built technologies capable of reducing emissions right now.**

Lowering RVO targets directly contradicts the EPA's efforts to reduce greenhouse gas emissions. While the Obama Administration is limiting emissions from the airline and power plant sectors, it is proposing to increase them in the road transportation sector....In March 2015, leading up to the Paris climate talks in December; the United States said it would reduce emissions 26 to 28 percent over 2005 levels by 2025.

“The U.S. is strongly committed to reducing greenhouse gas pollution, thereby contributing to the objective of the Convention,” said the announcement. “The target is fair and ambitious. The United States has already taken substantial policy action to reduce emissions, taking the necessary steps to place us on a path to achieve the 2020 target of reducing emissions in the range of 17 percent below the 2005 level in 2020. Additional action to achieve the 2025 target represents a substantial acceleration of the current pace of greenhouse gas emission reductions.” However, the Renewable Fuel Standard is the only federal law in the United States with lifecycle greenhouse gas reduction requirements and the Obama Administration's EPA has – since 2013 – attempted to waive the climate reduction standards for the obligated parties.

“The Environmental Protection Agency (EPA) in November 2013 issued a proposed rule for the Renewable Fuel Standard that will for the first time decrease use of biofuels in the United States,” BIO said in an announcement. “A recent study from BIO demonstrates that this proposal would increase carbon emissions for 2014 and significantly reverse the progress the United States has made in reducing carbon emissions from the transportation sector that is noted in the National Climate Assessment.” “The White House National Climate Assessment says plainly that the transportation sector accounts for more than a quarter of U.S. greenhouse gas emissions, and hails the fact that between 2008 and 2012 those emissions were reduced,” said Brent Erickson, executive vice president of BIO's Industrial & Environmental Section. “Yet, the White House recently proposed to reverse course on the only greenhouse gas reduction policy on the books today for transportation.” Senators Barbara Boxer and Edward Markey raised similar concerns in a letter to President Obama regarding the 2014 proposal:

“We must use every tool at our disposal to address climate change. We are writing today to raise concerns about the 2014 Renewable Volume Obligations (RVOs) under the Renewable Fuel Standard (RFS) proposed by the Environmental Protection Agency (EPA),” the letter read. “If adopted, this rule would increase, not decrease, carbon pollution.” The RFS is a critical piece of

our nation's climate mitigation policies. It is helping to break the oil sector's monopoly over our nation's liquid fuel supply by opening the market to competition from America's growing renewable fuel industry, bringing low carbon cellulosic, advanced biofuels and biomass-based diesel to market.

### **Rider, Allen**

Researchers at our DOE national laboratories have found that mid-level ethanol fuel blends between 25 and 40 percent not only enable higher-octane fuels but offer real gains of 5 to 10 percent in vehicle efficiency and significant reductions in greenhouse gas emissions. In fact, lifecycle analysis models show that conventional biofuels now reduce emissions by up to 48 percent, as compared to fossil fuels, while cellulosic biofuels achieve even better reductions. Even with taking land use change into account, new data shows that total emissions from the biofuels are much lower than that of petroleum fuels. Going forward, efficiencies in feedstock production, improvements in biomass conversion processes, and improved engine technologies will further enhance the carbon lifecycle for biofuels while the search for harder to reach crude supplies will adversely impact the carbon lifecycle for petroleum.

### **South Dakota Corn Growers Association**

The increased use of ethanol has also drastically reduced carbon emissions because our carbon score keeps improving. Farmers are growing higher-yields with fewer inputs and less tillage, reducing our impact on the environment and sequestering carbon in our soils. I'm proud to say we've always strived to be good stewards on our farm, using a form of no-till for over 30 years and adopting precision technologies to place specific amounts of fertilizer and seed where and when it is most efficient.

After the RFS was enacted in 2007, EPA and Argonne National Labs life cycle assessments showed corn ethanol to be equivalent to gasoline in carbon emissions. Since that time, using updated science, productivity gains and real world data on land use change, Argonne has updated corn ethanol's life cycle GHGs several times, most recently indicating that corn ethanol is 40% below gasoline. At the same time, petroleum fuel GHGs are increasing due to an energy intensive extraction and refining processes. Updates to EPA's modeling recognizing improvements in farming and at the ethanol plants are imperative to accurately show the environmental differences between energies.

We have the ability to approach a 60% reduction in carbon emissions in some regions because of our climate, increased yields, tillage reductions and fertilizer efficiency.

Recently administrator McCarthy was quoted as saying 'climate change is the greatest challenge of our time' and that the 'time for action is now'. I wholeheartedly agree with her sentiment but then don't understand why the EPA has 'hit the brakes' on the most successful program we've seen to reduce carbon emissions in the U.S....Corn farmers and ethanol producers have worked hard to uphold our role in the RFS and the environment -- constantly and consistently improving....If fighting climate change is a goal of your agency, then how can you subject automobile drivers to additional volumes of fuels with a higher carbon footprint? Your own agency research demonstrates that corn ethanol can reduce greenhouse gas emissions by up 52% when compared to conventional gasoline. A reduction in ethanol would certainly mean an

increase in the use of benzene and other harmful pollutants found in non--ethanol fuel. This proposal would be a step backwards in both your climate and clean air efforts.

### **South Dakota Farmers Union**

In addition to the sustainability of the food system, climate change's impact on agriculture may hazard the sustainability of American communities. Climate change, through its impact on agriculture, places communities in harm's way because the consequences of climate change are likely to be greater for family farmers than other agricultural producers. According to a report by USDA, "Current climate change effects are challenging agricultural management and are likely to require major adjustments in production practices over the next 30 years."<sup>3</sup> The severity of the necessary adjustments increases the likelihood that they will be expensive. In many cases, the expense of farming in a changing climate will drive out family farmers with insufficient capital or access to investors and bar new entrants from starting farm businesses by increasing the initial investment needed, leaving their land available for farm consolidation. These major adjustments will also require policy shifts that, if not executed carefully and equitably, may also place family farmers at risk and encourage farm consolidation.

To the extent that climate change contributes to this (loss of farming jobs) process, it presents a serious environmental justice issue to family farmers and rural residents. The RFS helps keep family farmers farming in two distinct and important ways: it contributes to climate change mitigation, helping family farmers avoid the most costly consequences of climate change, and offers family farmers direct value for helping build climate resiliency by stabilizing prices for biofuel feedstocks and opening investment opportunities in biofuel plants. EPA would best pursue these important goals by adjusting the proposed biofuel volume standards to match the standards in the EISA.

In South Dakota where agriculture is the primary industry successful farmers and ranchers are the backbone of the economy. The ethanol industry, has given new market options for agriculture producers. A single bushel of field corn yields 2.8 gallons of fuel ethanol and 17.5 pounds of high-protein **distillers dried grain for livestock feed**.

Ethanol is a renewable and cleaner fuels source. Ethanol and ethanol blended gasoline have reduced greenhouse gas emissions. Every barrel of American-made ethanol produced directly displaces 1.2 barrels of crude oil. Ethanol blended fuels at 30% or higher does not contain Benzene. Benzene is a harmful chemical that is omitted through the tailpipe emissions of a vehicle. There are no safe levels of Benzene. Ethanol contributes to cleaner air to breathe. The EPA has repeatedly said they are for clean air and clean water. Your job is to protect the environment as the Environmental Protection Agency. Ethanol is a product that will aid in cleaner air and a cleaner environment, but this proposal steps backward. Reducing the RFS will not provide cleaner air.

Why are you doing this? Americans have a right to breathe clean air.

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<sup>3</sup> Walthall, C.L., J., et all at 119.

## **State of Indiana**

You must not forget the important environmental benefits of ethanol, which contributes up to a 50 percent reduction in greenhouse gas emissions, compared to gasoline. Ethanol is a sustainable octane source that is much better for the environment than particulate-generating petroleum alternatives.

## **State of Indiana House of Representatives**

I would like to note biofuels are good for non-farmers, too. Please do not forget the important environmental benefits of ethanol, which contribute up to 50 percent in reduction in greenhouse gas emissions, compared to gasoline. Ethanol is a sustainable octane source that is much better for the environment than particulate-generating petroleum alternatives.

## **The Andersons, Inc.**

Under EPA's proposal, low-carbon biofuels would be supplanted with gasoline refined from tar sands, tight oil from fracking, oil from deep-water drilling, or imported oil. The obvious result would be an increase in GHG emissions from the transportation sector.

## **The Funding Farm**

Being a pioneer with over 20 years in the ethanol industry, I have seen many drivers and how the ethanol industry responded to deliver solutions....These are a few of the 'key drivers' in the past but the big one lies ahead and that is addressing 'Climate Change. We need these Renewable Volume Obligations to drive innovation.

Climate change is real and being a farmer I see the effects of it each and every day. With that said, how do we aggressively address this problem? In my opinion one of the best ways is to convert CO<sub>2</sub> to fuels like ethanol. There is a company called Joule that is doing exactly that. They are just getting started and their potential is unlimited. In order for companies like Joule to attract investors we need long-term stable policy like those in the original enactment of the 2005 RFS.

Hopefully in my lifetime I can see some reversals in the effect of climate change brought on by human activities from the over use of fossil fuels and say

'Create a solution to climate change'...Ethanol Responded

## **The George Washington University**

While the stated goals of the RFS are to reduce crude oil imports and increase the use of renewable fuels, an implicit purpose of the RFS program is to benefit the environment by moving away from fuels that result in substantial carbon emissions (e.g. gasoline and diesel). However, while crude oil imports and gasoline demand have decreased, it is less clear whether the increased production of biofuels has actually reduced emissions or benefitted the environment.

The literature is mixed on the environmental effects of biofuel production, with many estimates indicating that the production of ethanol and biodiesel may significantly increase emissions,

specifically of the greenhouse gases carbon dioxide (CO<sub>2</sub>) and nitrous oxide (N<sub>2</sub>O) and criteria pollutants such as particulate matter.

### Relevant Literature

There has been significant development in the relevant literature on the environmental impacts of renewable fuel production since EPA's analyses were conducted, especially post-2007. Recent research indicates that the environmental effect of the RFS is extremely modest<sup>10</sup> at best and, at worst, could result in a significant increase in CO<sub>2</sub> emissions over gasoline.<sup>11</sup> Overall, the post-2007 literature largely reinforces this worst-case scenario, although estimates differ as to the extent of the environmental damage posed by biofuel mandates. A number of factors influence the extent of any potential environmental damage as a result of the RFS.

First, increased biofuel production causes land use changes (LUC) that result in the release of soil organic carbon. Increased demand for corn and soy provides farmers with an incentive to produce more crop and convert unused lands into cropland, which releases a significant amount of soil organic carbon and foregoes future carbon sequestration and storage. This increase in release of CO<sub>2</sub> may, depending on tillage practices and land type, outweigh any potential CO<sub>2</sub> savings from combusting ethanol.

For example, in 2008, Searchinger et al. find that that biofuels increase carbon emissions by 93% compared to gasoline when the effects of LUC are considered.<sup>12</sup> Fargione et al. find that diverting domestic grassland and abandoned cropland in the Midwest to ethanol production incurs between 69 and 134 megagrams (Mg) of CO<sub>2</sub> per hectare<sup>-1</sup>, requiring a payback period of between 48 and 93 years to repay the initial carbon debt.<sup>13</sup> While LUC in the literature is primarily described as it relates to corn ethanol, researchers have also found that the carbon emissions from LUC are 34% greater per megajoule for soybean-based biodiesel.<sup>14</sup> This is particularly troubling as EPA's proposal relies heavily on increases in biodiesel production to meet total renewable fuel mandates.

In addition, these effects are not limited to the United States: change in worldwide agricultural markets as a result of biofuel mandates may also lead to international land use change (or *indirect* land use change, "ILUC"), which occurs when other countries alter growing habits to replace crops that were previously imported from the U.S. When taking ILUC into account, Chakravorty and Hubert find that international emissions may increase by 33%, in comparison to a modest 1% reduction in domestic emissions.<sup>15</sup> Bento et al. find that the RFS "unambiguously" increases carbon emissions, offsetting more than 70% of the intended emissions savings.<sup>16</sup> Other research finds that, when considering ILUC, the environmental benefit of the RFS is very modest at best.<sup>17,18</sup> [EPA-HQ-OAR-2015-0111-1815-A1 p.8]

EPA considered both potential LUC and ILUC in its 2010 analysis of RFS by weighing factors such as tilling practices, irrigation, crop yields over time, and supply and demand for agricultural products.<sup>19</sup> However, EPA estimated that production of ethanol results in 34 grams of CO<sub>2</sub> per megajoule, which recent evidence suggests is on the very low-end of plausible values for carbon emissions.<sup>20</sup> Recent research finds that potential carbon emissions could be as great as 800g/MJ, meaning that EPA may have seriously undervalued the potential environmental costs of implementing the RFS program.<sup>21</sup>

Second, fertilizer input for the production of crops used to produce biofuels results in emissions of N<sub>2</sub>O, a greenhouse gas that contributes to climate change. A 2012 analysis found that the necessary fertilizer input for the increased production of corn and rapeseed leads to N<sub>2</sub>O emissions that matched or exceeded the corresponding cooling achieved by the reduction in CO<sub>2</sub> emissions resulting from fossil fuel replacement.<sup>22</sup>

Third, increased international gasoline demand and consumption could displace any domestic reductions resulting from the RFS, which could offset any domestic environmental benefit. EPA estimates that the largest benefit of the RFS program is a “monopsony” benefit. That is, because the U.S. is such a major consumer of international crude oil, reduced crude oil imports as a result of RFS can reduce the price of crude oil, and any remaining barrels of crude oil imported will be imported into the U.S. at a lower price. However, this lower price has a rebound effect on international gasoline demand, offsetting any reductions effected at the domestic level. This rebound effect could offset more than 60% of the intended emissions savings of the RFS program.<sup>24</sup>

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<sup>10</sup>Chen et al. 2014. “Alternative transportation fuel standards: Welfare effects and climate benefits” *Journal of Environmental Economics and Management* 67: 241–257

<sup>11</sup>Searchinger et al. 2008. “Use of U.S. Croplands for Biofuels Increases Greenhouse Gases Through Emissions from Land-Use Change.” *Science*. Vol. 319 no. 5867 pp. 1238-1240

<sup>12</sup> Searchinger et al. 2008. “Use of U.S. Croplands for Biofuels Increases Greenhouse Gases Through Emissions from Land-Use Change.” *Science*. Vol. 319 no. 5867 pp. 1238-1240

<sup>13</sup> Fargione et al. 2008. “Land Clearing and the Biofuel Carbon Debt.” *Science* 29: 1235-1238

<sup>14</sup> Chen, Huang, and Khanna. “Land Use and Greenhouse Gas Implications of Biofuels: Role of Technology and Policy.” Paper prepared for presentation at the Agricultural & Applied Economics Association’s 2011 AAEA & NAREA Joint Annual Meeting, Pittsburgh, Pennsylvania, July 24- 26, 2011.  
[http://ageconsearch.umn.edu/bitstream/103216/2/CCE\\_for\\_AAEA2011.pdf](http://ageconsearch.umn.edu/bitstream/103216/2/CCE_for_AAEA2011.pdf)

<sup>15</sup> Ujjayant Chakravorty and Marie-Hélène Hubert. 2012. “Global Impacts of the Biofuel Mandate under a Carbon Tax.” *American Journal of Agricultural Economics*

<sup>16</sup> Bento, Klotz, and Landry. “Are there Carbon Savings from US Biofuel Policies? The Critical Importance of Accounting for Leakage in Land and Fuel Markets” (2012; forthcoming 2015 in *Energy Journal*)

<sup>17</sup> Oliver and Khanna. 2015. “Implementing the Renewable Fuel Standard with the Renewable Portfolio Standard in the US: Implications for Policy Costs and Greenhouse Gas Emissions.”

<sup>18</sup> Chen, Huang, and Khanna. “Land Use and Greenhouse Gas Implications of Biofuels: Role of Technology and Policy.” Paper prepared for presentation at the Agricultural & Applied Economics Association’s 2011 AAEA & NAREA Joint Annual Meeting, Pittsburgh, Pennsylvania, July 24- 26, 2011.

<sup>19</sup> Environmental Protection Agency. 2010. “Renewable Fuel Standard Program (RFS2) Regulatory Impact Analysis.” §2.4.4 - §2.4.5.

<sup>20</sup> Plevin, O’Hare, Jones, Torn and Gibbs. 2010. “Greenhouse Gas Emissions from Biofuels’ Indirect Land Use Change are Uncertain but May Be Much Greater than Previously Estimated.” *Environmental Science & Technology* 44: 8015–8021

## **Trenton Agri Products LLC**

The White House and EPA say they want a reduction of carbon emissions. These words ring hollow, or are even hypocritical, with the proposed RVO carbon emissions will actually increase! [EPA-HQ-OAR-2015-0111-1686-A1 p.2] [EPA-HQ-OAR-2015-0111-1043, p.321]

## **U.S. Canola Association (USCA)**

Since biodiesel provides a greenhouse gas benefit compared to the petroleum-based diesel it is replacing, increasing its use will contribute to reduced climate change impacts. [EPA-HQ-OAR-2015-0111-1819-A1 p.2]

## **Unilever**

As a company dedicated to the reduction of greenhouse gasses, we are very concerned that biofuel production does not actually have a lower greenhouse gas balance compared to fossil fuels<sup>3</sup>. We believe advances in the calculations of indirect land use change have shown that overall, when indirect land use changes (ILUC) are taken into account, most varieties of biodiesel often turn out to produce more emissions than fossil fuels. The ILUC emissions for soybeans are about twice as high as the direct emissions. On this basis we ask EPA to reassess the advanced biofuel status for soybean oil based biodiesel. [EPA-HQ-OAR-2015-0111-2273-A2 p.2]

We also encourage EPA to include ILUC when calculating the greenhouse gas balance compared to traditional biofuels. [EPA-HQ-OAR-2015-0111-2273-A2 p.3]

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<sup>3</sup><http://ec.europa.eu/energy/en/topics/renewable-energy/biofuels/land-use-change>

## **Union of Concerned Scientists**

Increasing the availability and use of renewable fuels will help reduce greenhouse gas emissions from the transportation sector and diversify the fuel supply, thus furthering the goals of EISA. [EPA-HQ-OAR-2015-0111-3523-A1 p. 1]

## **Union of Concerned Scientists; Natural Resources Defense Council; National Wildlife Federation**

This coalition supports and works to advance low carbon renewable fuel technologies and development in order to decrease our reliance on fossil fuels and to reduce GHG emissions. Substantial environmental benefits could be realized by establishing biofuel pathways that minimize agricultural and land use footprints by capturing and using carbon from waste gases as bioprocess inputs. We know that the RFS was conceived of in part to promote such low carbon renewable fuel pathways, and we want to make sure that all of the most promising biofuel technologies can both contribute to a low-carbon future and qualify for inclusion in the RFS program. EPA should adopt a flexible and inclusive approach to these highly technical issues that expands rather than constricts the available pathways to develop low carbon fuel technologies. [EPA-HQ-OAR-2015-0111-2477-A1 p.1-2]

EPA should address the technical distinctions needed to understand its stance on this important issue. We encourage EPA to adopt an inclusive and flexible approach that supports as many pathways to clean low carbon fuels as possible. Combined with the lifecycle assessment provisions of the RFS, this approach will foster research and innovation and ensure that the policy maximizes the opportunity to cut fossil oil use and carbon emissions from the transportation sector. We urge EPA to make the needed clarifications in its final rule to allow all

of the applicable “algae” biofuel pathways to be included in the RFS program. [EPA-HQ-OAR-2015-0111-2477-A1 p.3]

### **Urban Air Initiative**

UAI’s comments make the following points:

-Recent developments give reason for hope, including an Argonne National Labs WTW study on High Octane Fuels (HOFs) that concluded higher ethanol blends (e.g., E25 – E40) were 'major enablers' of HOFs that could also achieve substantial WTW reductions in GHGs (18 – 32%) with little or no marginal cost to refiners and consumers.<sup>7</sup> [EPA-HQ-OAR-2015-0111-1821-A1 p.3-4]

Another recent development that further validates these comments was the July 14, 2015 release of the previously mentioned Argonne National Labs study on WTW GHG reductions of high octane fuels (see footnote 7). Its conclusion states that 'ethanol can be a major enabler in producing HOF [high octane fuel] and result in additional reductions in WTW GHG emissions when compared to regular E10 gasoline'. The study identifies the two most critical fuel blending specifications as RVP and octane. On p. 5, the study notes that refinery reformers, when operated at high severity to maximize octane levels, produce a smaller volume of product with a higher octane and a higher RVP. [EPA-HQ-OAR-2015-0111-1821-A1 p.8]

Another recent development that further validates these comments was the July 14, 2015 release of the previously mentioned Argonne National Labs study on WTW GHG reductions of high octane fuels (see footnote 7). Its conclusion states that 'ethanol can be a major enabler in producing HOF [high octane fuel] and result in additional reductions in WTW GHG emissions when compared to regular E10 gasoline'. The study identifies the two most critical fuel blending specifications as RVP and octane. On p. 5, the study notes that refinery reformers, when operated at high severity to maximize octane levels, produce a smaller volume of product with a higher octane and a higher RVP. [EPA-HQ-OAR-2015-0111-1821-A1 p.8]

Argonne frequently references the 2014 MathPro – auto LP study, which found that using E30 to produce 100 RON high-octane gasoline results in a 60% reduction in aromatic hydrocarbons. From a GHG perspective alone this is significant. EPA says that aromatic hydrocarbons are 25% more carbon intensive than gasoline itself. Consequently, it would seem that the ethanol in E30 should be given credit for a 15% reduction in GHG emissions for its aromatics displacement alone (automobile exhaust system/three way catalysts do not effectively capture the aromatics' combustion by-products, see 2014 Robinson – Maricq study on SOA emissions, Appendix A). [EPA-HQ-OAR-2015-0111-1821-A1 p.8][Appendix A can be found in Docket # EPA-HQ-OAR-2015-0111-1821-A2]

Thus, EPA can cost-effectively and simultaneously achieve several important goals by reversing course and enforcing the law as Congress intended: 1) provide automakers with the higher-octane fuels they have requested; 2) facilitate compliance with the new fuel efficiency and carbon reduction rules; 3) substantially reduce harmful urban emissions of PM2.5, UFP-borne and SOA-bound PAHs, BETX, and black carbon; and 4) cost-effectively comply with mandated renewable fuels consumption targets as set forth in RFS2. To make all of these desirable things happen, EPA should use its considerable powers under Sec. 202(l) to require 'clean octane' E30 blends, flex fuel cars, and flex fuel pumps and infrastructure, just as it did so successfully in the

even more difficult transition from leaded to unleaded gasoline 30 years ago. [EPA-HQ-OAR-2015-0111-1821-A1 p.8-9]

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<sup>7</sup>'Well to Wheels Greenhouse Gas Emissions Analysis of High-Octane Fuels with Various Market Shares and Ethanol Blending Levels', Jeongwoo Han et al., Argonne National Laboratory, ANL/ESD-15-10, July 14, 2015.

**Response:**

Most of the comments pointed to the GHG (and therefore climate) benefits of replacing petroleum-based fuel with renewable fuels. This is consistent with the analyses conducted by EPA in adopting the pathways of eligible renewable fuels as part of the 2010 RFS2 final rule and subsequently updated either through rulemaking or via the regulation-based petition approval process. Some of the comments suggested that the GHG and climate benefits would be greater had EPA required the higher levels of renewable fuels envisioned by Congress when adopting EISA. However, for reasons explained elsewhere, these production and use volumes are not feasible at this time and therefore the lower renewable fuel volume requirements are being adopted. Some comments pointed to increased productivity on the farm and improvements in biofuel production technology over time; EPA recognized these trends and incorporated them in its assessment of GHG benefits of particular renewable fuels. Others suggested that changes in petroleum sources, particularly the heavy crudes such as oil or tar sands from Canada, make the use of renewable fuels even more beneficial than in the past. EPA has not assessed the impacts of changing petroleum feedstock of transportation GHG emissions but notes that under the Clean Air Act as amended by EISA, renewable fuel performance is mandated to compare to the petroleum mix used in the U.S. in 2005.

Others took a different view of the benefits of renewable fuels compared to petroleum, commenting that renewable fuels (corn ethanol most often mentioned specifically) resulted in higher GHG emissions compared to petroleum, therefore worsening transportation GHG emissions and impacts on climate change. EPA has evaluated the GHG impacts of renewable fuels, including both the direct and indirect impacts on land use change, and determined for the approved pathways, the use of renewable fuels, especially those qualifying as advanced biofuel, provide GHG benefits.

While EPA is setting specific volume requirements for biomass-based diesel, advanced biofuel, cellulosic biofuel, and total renewable fuel, EPA did not use the GHG impact of any specific pathway in assessing the volumes of renewable fuel that are expected to be available in exercising our general waiver authority. It is important to point out that EPA did not propose to change the lifecycle GHG assessments of individual renewable fuel pathways and therefore such changes are considered outside the scope of the rulemaking.

Similarly, some commenters encouraged EPA to expand the eligibility of renewable fuel pathways to encourage their use and further the GHG benefits of the RFS program. The Union of Concerned Scientists in particular encouraged the EPA to expand the types of fuel that would be eligible under the approved pathway for algae. EPA continues to evaluate new pathways and expand on the number of eligible pathways but did not propose to do so under this rulemaking; such action is considered to be out of scope of this rule. Regarding the specific issue of eligible pathways for algae-based fuels, EPA only proposed to clarify the specific pathway considered

when adopting the algae pathway; we are finalizing the clarification as part of this rule. Some comments suggest updating our current assessments of GHG performance for specific fuel pathways in particular for corn ethanol; such updates were not proposed as part of this rulemaking and are thus considered beyond the scope of this rule.

One commenter highlighted some recent technical information associated with the octane benefits of higher-level ethanol blends and their potential to reduce both GHG emissions and the level of aromatics in gasoline. On this basis they then called upon EPA to “require 'clean octane' E30 blends, flex fuel cars, and flex fuel pumps and infrastructure” in order to maintain the statutory volumes and provide various other benefits. Consideration of such a requirement is outside the scope of this rulemaking.

Comments regarding the air quality impacts of using biofuels are considered in section 8.3. Comments relating to the economic impacts of producing and using biofuels are considered in section 7. Comments regarding change in land use in particular those from the Environmental Working Group and aggregate cropland approach are also addressed in section 8.5 of this document.

### **8.3 Air Quality**

#### **Comment:**

#### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

Biodiesel is known to increase tailpipe NO<sub>x</sub> emissions, an ozone precursor, from diesel engines.<sup>128</sup> Consequently, EPA’s proposal to increase the biomass-based diesel standard by over 48% from 1.28 billion gallons in 2013 to 1.9 billion gallons in 2017 will make efforts to meet ozone NAAQS standards more difficult for state and local air quality planners. If ozone standards are further tightened in the future, the air quality impact of biodiesel relative to other sources could become even more significant. [EPA-HQ-OAR-2015-0111-1948-A1 p.56]

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<sup>128</sup> See, for example:

- US Environmental Protection Agency, *A Comprehensive Analysis of Biodiesel Impacts on Exhaust Emissions*, EPA420-P-02-001, October 2002
- Coordinating Research Council, *Investigation of Biodiesel Chemistry, Carbon Footprint and Regional Fuel Quality*, CRC Report No. AVFL-17a, January 2011
- California Air Resources Board, *NO<sub>x</sub> Emission Impacts of Biodiesel Blends*, <http://www.arb.ca.gov/fuels/diesel/altdiesel/meetings/20141024LyonsStatistics.pdf>

#### **Association of Nebraska Ethanol Producers (ANEPP)**

In the comments below, ANEPP addresses primarily the last point regarding improved air quality as this benefit is the one most often overlooked in the national debate on biofuels. Cleaner and more environmental friendly biofuels would be a very effective means for USEPA to provide clean air to the American public. Emissions associated with transportation fuels impact the majority of Americans, especially those living in larger urban areas. The current transportation fuel mix produces emissions of aromatic hydrocarbons including benzene, toluene, ethyl benzene and xylene (BTEX), which are regulated by the Clean Air Act as hazardous air pollutants (HAPs) due to their documented adverse health effects as carcinogens. Biofuels would

improve urban air quality by providing immediate and substantial reductions in the need to add aromatics such as BTEX to the gasoline stocks used for transportation fuels in America. [EPA-HQ-OAR-2015-0111-1809-A1 p.2]

With biofuels, the need to add harmful aromatics such as BTEX for gasoline octane enhancement disappears. The result is cleaner burning fuels with significantly lower BTEX concentrations and significant reductions in HAPs released from fuel combustion by the US transportation fleet. These changes would provide lasting and far reaching improvements in air quality. [EPA-HQ-OAR-2015-0111-1809-A1 p.2]

In addition to reductions in HAP emissions, including known carcinogens as BTEX, reducing the aromatics within the national fuel mix would also improve air quality through reductions in PM-10/PM-2.5 emissions along with reductions in precursors to ozone formation. PM-10/PM-2.5 and ozone are some of the most challenging air quality issues facing USEPA today. USEPA needs significant emission reductions from the transportation sector to meet the current national PM-10/PM-2.5 and ozone challenges. In the current RFS proposal, USEPA is in effect throwing away opportunities for real and substantial air quality improvement in urban air quality, including improvements in PM-10/PM-2.5 and ambient ozone, solely to address perceived but untrue shortcomings in the RFS that have been advanced by petroleum industry interests. [EPA-HQ-OAR-2015-0111-1809-A1 p.2-3]

ANEEP recommends that USEPA consult technical comments submitted elsewhere in this docket by Urban Air Initiative which document in greater detail the air quality improvements that can be achieved by replacing aromatics in gasoline with higher blends of cleaner-burning ethanol and other biofuels. [EPA-HQ-OAR-2015-0111-1809-A1 p.3]

The air quality improvements associated with the RFS actually have a historical parallel in the USEPA phase-out of lead in gasoline. What you may not know is that Nebraska actually led the nation toward the development of cleaner transportation fuels through the transition to unleaded gasoline. In 1971, the Nebraska Legislature passed LB 776 which established the Nebraska Ethanol Board. The Statement of Intent for the introduction of LB 776 was as follows:

1. To remove the lead in gasoline and replace it with ethanol as an octane enhancing element.
2. To provide a more environmentally friendly fuel.
3. To provide an additional market for farm crops. [EPA-HQ-OAR-2015-0111-1809-A1 p.3]

That bill was passed by the Nebraska legislature only one year after the adoption of the 1970 Clean Air Act Amendments, passed by the Congress, and signed into law by President Nixon. Also in 1970, the Nebraska Legislature enacted LB 939 which created the Nebraska Department of Environmental Quality (NDEQ). [EPA-HQ-OAR-2015-0111-1809-A1 p.3]

Like the current RFS, petroleum industry interests vigorously opposed LB 776 in 1971. These interests testified that lead was an essential element of gasoline required to lubricate engine valves. There were statements such that there would never be a viable consumer product such as

unleaded gasoline along with dire predictions regarding automobile performance should transportation fuels move to reduce or eliminate the lead content of gasoline. However, due to the foresight of USEPA and others regarding the need to reduce public exposure to lead emissions from automotive fuel combustion, federal regulations followed Nebraska's lead and were adopted in 1974 to require gasoline retailers to offer unleaded gasoline and designed fuel nozzles so that cars with catalytic converters can accept only unleaded gasoline. [EPA-HQ-OAR-2015-0111-1809-A1 p.3]

USEPA needs to move the RFS forward using the same foresight toward improving the transportation fuel mix that the Agency showed when the nation moved from leaded to unleaded gasoline. [EPA-HQ-OAR-2015-0111-1809-A1 p.3]

I offer for your information Table 1 Federal Standards for Lead Phasedown Source United States Code of Federal Regulations 1996. [EPA-HQ-OAR-2015-0111-1809-A1 p.3] [Table 1 can be found on page 5 of EPA-HQ-OAR-2015-0111-1809-A1.]

It is nothing less than a tragedy that the petroleum industry was allowed to use lead as an octane enhancing element for many years after qualified researchers had provided other evidence that emissions from leaded gasoline could cause serious health problems for our citizens. The U.S. EPA first announced regulations to limit the amount of lead in gasoline in November 1973, which were prompted by two factors. First, the increased recognition of the negative health effects associated with lead exposure from gasoline, particularly for children in urban areas. Second, the introduction of catalytic converters in new cars beginning in 1975. After the phase out, elevated lead blood levels decreased from 88% of children before the phase out to approximately one percent in 2006. There is also research available that lead in gasoline could cause Alzheimer's, stroke, and other medical problems. The fact that USEPA successfully removed lead from gasoline has undoubtedly reduced the number of citizens suffering from these devastating ailments. [EPA-HQ-OAR-2015-0111-1809-A1 p.3-4]

E15 would also allow for a decreased public exposure to aromatic hydrocarbons as BTEX and benefit the nation's fight to reduce PM-10/PM-2.5 and ambient ozone levels. [EPA-HQ-OAR-2015-0111-1809-A1 p.4]

### **Board of County Commissioners of Putnam County, Ohio**

The ethanol industry has been a tremendous environmental benefit for the United States of America by reducing fuel pollutants and breathing problems. [EPA-HQ-OAR-2015-0111-3289-A1 p. 1]

### **Environmental Working Group (EWG)**

The production of corn ethanol has also adversely impacted U.S. air and water quality. [EPA-HQ-OAR-2015-0111-2040-A1 p.3]

### **Florida Chamber of Commerce**

Furthermore, the production and use of ethanol actually hurts our air quality- increasing smog and dangerous emissions that are worse than pure gasoline alone. [EPA-HQ-OAR-2015-0111-3425 p.1]

### **Governors' Biofuels Coalition**

The average gallon of gasoline sold in the United States is composed of 25 to 30 percent aromatics. Petroleum refiners use an energy intensive process to convert crude oil into aromatics, which is added to gasoline to increase octane. When crude oil prices rise, subsequently do, aromatics costs, which are then passed onto the consumer. Today, aromatics are the most expensive, least energy efficient, carbon intensive part of a gallon of gasoline. More importantly, in recent years, scientific advances have confirmed that aromatics are the primary precursor of urban particulate matter, specifically PM2.5 secondary aromatic aerosols and nano-sized ultrafine particulates — also known as UFPs. UFPs are coated with polycyclic aromatic hydrocarbons (PAHs), which are the product of incomplete combustion of aromatics. Automakers confirm that the advanced engine designs needed to meet new fuel efficiency standards are likely to make UFP and PAH emissions worse, not better. [EPA-HQ-OAR-2015-0111-1722-A1 p. 10]

### **Mass Comment Campaign sponsored by anonymous 15 (email) - (2485)**

With these cuts, our nation will not see the dramatic decrease in greenhouse gas (GHG) emissions assumed under the RFS. With full implementation, the RFS would reduce GHG emissions by 138 million metric tons, which is the equivalent of taking 27 million cars off the road. [EPA-HQ-OAR-2015-0111-0217-A1 p.1]

### **Mass Comment Campaign sponsored by anonymous 22 (email) - (57)**

Finally, I'm concerned about what this will do to the air we breathe. We cannot forget the important environmental benefits of ethanol, which provides up to a 50 percent reduction in greenhouse gas emissions, compared to gasoline. Ethanol is a sustainable octane source that is much better for the environment than particulate-generating petroleum alternatives. [EPA-HQ-OAR-2015-0111-1478-A1 p.1]

### **Mass Comment Campaign sponsored by anonymous 23 (email) - (10)**

Global ethanol production and use is estimated to reduce greenhouse gas emissions by 100 million metric tons annually, the equivalent of taking more than 20 million vehicles off the road. Ethanol is a sustainable octane source that is much better for the environment than particulate-generating petroleum alternatives. [EPA-HQ-OAR-2015-0111-1479-A1 p.1]

### **Mass Comment Campaign sponsored by anonymous 24 (postcard) - (207)**

NASCAR chooses American ethanol, racing more than 7 million miles on corn ethanol and leaving cleaner air in its wake. I have seen its performance on the race track and in my engine at home.

NASCAR chooses American ethanol, racing more than 7 million miles on corn ethanol and leaving cleaner air in its wake. I have seen its performance on the race track and in my engine at home. [EPA-HQ-OAR-2015-0111-2563-A1 p.2]

### **Mass Comment Campaign sponsored by anonymous 3 (web) - (893)**

Recent studies show that ethanol refining actually worsens the pollutants that cause ground-level ozone, or smog, a pollutant the EPA is preparing to further clamp down on later this year. How can the agency support a policy to increase ethanol when doing so will undermine its own goals of cleaning up smog' [EPA-HQ-OAR-2015-0111-0126 p.1]

### **Mass Comment Campaign sponsored by anonymous 9 (email) - (230)**

With these cuts, our nation will not see the dramatic decrease in greenhouse gas (GHG) emissions assumed under the RFS – with full implementation, the RFS would reduce GHG emissions by 138 million metric tons, which is the equivalent of taking 27 million cars off the road. [EPA-HQ-OAR-2015-0111-0212-A1 p.1]

### **Mass Comment Campaign sponsored by Care2 (email) - (9720)**

Recent studies show that ethanol refining actually worsens the pollutants that cause ground-level ozone, or smog, a pollutant the EPA is preparing to further clamp down on later this year. How can the agency support a policy to increase ethanol when doing so will undermine its own goals of cleaning up smog? [EPA-HQ-OAR-2015-0111-1476-A1 p.1]

### **Minnesota Farm Bureau**

In addition to the economic impact renewable fuels has on Minnesota's economy, the RFS2 has reduced our country's dependence on foreign crude oil and reduced air pollution [EPA-HQ-OAR-2015-0111-2263-A1 p. 1]

### **Missouri Coalition for the Environment**

University of Minnesota experts this year found that corn ethanol's total life cycle emissions are 'twice as damaging to the air quality as gasoline.' And adding to the overwhelming body of independent research, a Stanford University study concluded that ethanol-fueled cars generate higher ozone concentrations compared to those fueled by pure gasoline. [EPA-HQ-OAR-2015-0111-2271-A1 p.1]

### **National Biodiesel Board**

Air Quality: Referring to its Regulatory Impact Analysis (RIA) from 2010, EPA contends that increased use of biomass-based diesel would lead to increases in some criteria pollutant and air toxics emissions and decreases in others. EPA-HQ-OAR-2015-0111-0008 at 3. The Regulatory Impact Analysis, of course, compares emissions to petroleum fuel. EPA then states that “given that other advanced biofuels also result in air quality impacts, and that the volumes at issue are relatively small when considered in the context of transportation fuel use throughout the geographic area in which the RFS program applies ... , the overall impacts of marginal shifts between BBD and other advanced biofuels is expected to be small.” Id. This assessment

illustrates the fallacy with EPA's approach where the purpose of moving to renewable fuels was to reduce air emissions compared to petroleum. In any event, the only evidence EPA cites to shows that, while some NOx emissions might increase, biodiesel use results in significant decreases in particulate matter, carbon monoxide, and hydrocarbons. RFS2 RIA at 513 (Feb. 2010); see also Section VI.B.1. Indeed, these emissions benefits were identified with respect to use of B20, and, thus, this factor shows to achieve the emissions benefits identified EPA should push the industry toward higher levels of biomass-based diesel. This does not show that there would be limited impacts, it still shows that increasing biomass-based diesel will result in greater emissions reductions. Notwithstanding that EPA has not provided information as to the emissions associated with other advanced biofuels, as EPA previously found, it is better to have actual gallons and more certainty in ensuring these reductions, like Bryce Harper getting on base, than the potential that some other advanced biofuel can step up to the plate and hit a home run in the first at bat. [EPA-HQ-OAR-2015-0111-1953-A2 p.48-49]

The impact of the production and use of renewable fuels on the environment, including on air quality, climate change, conversion of wetlands, ecosystems, wildlife habitat, water quality, and water supply. [EPA-HQ-OAR-2015-0111-1953-A2 p.58]

EPA presents no new information regarding air quality impacts as a result of increasing the biomass-based diesel volume under the RFS2 program. Its analysis for the 2013 volume showed minimal adverse effects, and the proposed increase in volumes here are within the volumes analyzed. Notwithstanding, biomass-based diesel clearly presents substantial air quality benefits over petroleum diesel fuel. EPA consistently cites tailpipe emissions from traditional diesel—primarily from older trucking fleets and other heavy-duty vehicles—as a major national health hazard. Substituting higher amounts of biodiesel for petroleum diesel fuel is the simplest, most effective way to immediately reduce diesel emissions. [EPA-HQ-OAR-2015-0111-1953-A2 p.61]

Biodiesel's emissions significantly outperform petroleum-based diesel. Research conducted in the United States shows biodiesel emissions have decreased levels of all target polycyclic aromatic hydrocarbons (PAH) and nitrated PAH compounds, as compared to petroleum diesel exhaust. See NBB Comments on Draft Report to Congress at 23-24 (Feb. 28, 2011) (EPA-HQ-ORD-2010-1077-0022).<sup>57</sup> According to EPA, biodiesel reduces diesel exhaust emissions that are harmful to human health. EPA, A Comprehensive Analysis of Biodiesel Impacts on Exhaust Emissions: Draft Technical Report, EPA420-P-02-001 (2002), available at <http://www.epa.gov/otaq/models/analysis/biodsl/p02001.pdf>. Based on EPA's assessment, this includes reducing unburned hydrocarbons by 67 percent, reducing carbon monoxide by 48 percent, reducing particulate matter by 47 percent, reducing polycyclic aromatic hydrocarbons by 80 percent, reducing nitrated PAHs by 90 percent, and reducing ozone potential of speciated hydrocarbons by 50 percent. See Emissions Benefits of Biodiesel and the Renewable Fuel Standard (Attachment 7). These compounds have been identified as potential cancer causing compounds. The net impact of these emission reductions from 1.5 billion gallons of biodiesel is 9,350,000 pounds of diesel particulate matter, 12,690,000 pounds of hydrocarbons, and 104,085,000 pounds of carbon monoxide. Id. [EPA-HQ-OAR-2015-0111-1953-A2 p.61-62]

Biodiesel is the only alternative fuel to voluntarily perform EPA Tier I and Tier II testing to quantify emission characteristics and health effects. That study found that B20 provided significant reductions in total hydrocarbons; carbon monoxide; and total particulate matter. See NBB Comments on Draft Report to Congress at 24 (EPA-HQ-ORD-2010-1077-0022). Biodiesel production also has been found to produce less smog forming emissions than petroleum diesel production. *Id.* at 81. Pure biodiesel typically does not contain sulfur and, therefore, reduces sulfur dioxide exhaust from diesel engines to virtually zero. [EPA-HQ-OAR-2015-0111-1953-A2 p.62]

EPA has recognized that diesel emissions continue to pose health risks. Diesel pollution is linked to asthma, other respiratory problems and heart attacks, and is especially dangerous for children. EPA Press Release, *Maine Companies Honored by Northeast Diesel Collaborative for Efforts to Reduce Air Pollution*, Nov. 14, 2013, <http://yosemite.epa.gov/opa/admpress.nsf/0/2446FED87354EFC085257C230067ECAF> (last updated July 26, 2015). The use of biodiesel allows for reductions of these harmful emissions. In a partnership recognized by EPA for its efforts, Oakhurst Dairy was able to reduce its overall fuel emissions by up to 70 percent annually in its diesel fleet by using biodiesel, while also reducing costs. *Id.* [EPA-HQ-OAR-2015-0111-1953-A2 p.62]

As noted above, while EPA need not quantify the benefits for purposes of a cost benefit analysis when assessing the statutory factors, EPA did seek to quantify the air quality benefits in setting the 2013 biomass-based diesel volume at 1.28 billion gallons. 77 Fed. Reg. at 59,480–59,482. Nonetheless, as noted in its prior comments, NBB attempted to quantify the significant additional benefits biodiesel has in reducing emissions of other pollutants, such as particulate matter, carbon monoxide and unburned hydrocarbons. See David W. DeRamus, Ph.D., Bates White Economic Consulting, and Marc Chupka, The Brattle Group, *Cost of Carbon reduction from Biodiesel: Summary of Preliminary Results*, at 2 (Jan. 2014) (Attachment 8). Based on benefit values estimated by EPA for particulate matter reductions under implementation of the Diesel Emissions Reduction Act, the production of 1.7 billion gallons of biodiesel provides annual benefits on the order of \$1.12 billion, or approximately \$0.66 per gallon of biodiesel, for particulate matter reduction alone. *Id.* EPA has identified health benefits of reducing particulate matter emissions to include reduced mortality of adults and infants, reduced chronic and acute bronchitis, reduced acute myocardial infarctions, reduced cardiovascular hospital admissions, reduced upper and lower respiratory symptoms, reduced exacerbation of asthma, and reduction in lost work days. See generally EPA, *Report to Congress on Black Carbon* (March 2012), available at <http://www.epa.gov/blackcarbon/2012report/fullreport.pdf>. EPA has identified the monetary benefits of these health impacts range between \$230 and \$880 per ton of particulate matter reduced. *Id.* at 143. In 2013, the U.S. biodiesel industry reduced particulate matter emissions by more than 4500 tons. See *Emissions Benefits of Biodiesel and the Renewable Fuel Standard* (Attachment 7). Thus, accounting for the benefits obtained by reducing such other pollutants would further reduce the above estimates of the cost of reducing CO2 emissions using biodiesel. [EPA-HQ-OAR-2015-0111-1953-A2 p.62-63]

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<sup>57</sup> These comments and attachments are incorporated by reference herein.

## **Northern Canola Growers Association**

Well beyond the canola and agricultural sector, biodiesel provides numerous benefits for consumers and society as a whole, including:

-significant reductions in greenhouse gas emissions resulting in improved air quality [EPA-HQ-OAR-2015-0111-2036-A1 p.2]

## **State of South Dakota**

Ethanol and other renewable fuels are good for my state and our country. They are making our country more independent from foreign oil. They have kept our farm economy strong while also improving our air quality. [EPA-HQ-OAR-2015-0111-1919-A1 p.1]

## **Urban Air Initiative**

UAI's comments make the following points:

-EPA is aware of recent automaker and other studies that confirm E30+ blends substantially reduce the most dangerous urban air toxics (MSATs). Experts have found 45% reductions in PM and black carbon in direct injection (DI) engines, and 80+% reductions in PM and PN in port fuel injection (PFI) engines. Reductions of this magnitude cannot be achieved with costly vehicle hardware changes.<sup>6</sup> [EPA-HQ-OAR-2015-0111-1821-A1 p.3]

Congress made clear in the 1990 Clean Air Act Amendments (1990 CAAA) that the American public should never again suffer the unnecessary and enormous human and economic costs of the leaded gasoline experience. After extensive debate, in the same piece of legislation that banned the use of lead in gasoline, Congress directed EPA to establish (and from time to time revise) rules governing emissions of hazardous air pollutants caused by motor vehicle fuels. In the 1990 CAAA, Congress made it clear that reductions in toxic air pollutants necessarily required regulation of the 'aromatic hydrocarbon content' of gasoline, and that EPA's rules should 'reflect the greatest degree of emission reduction achievable through the application of technology which will be available.' In other words, the mandate is technology-forcing. [EPA-HQ-OAR-2015-0111-1821-A1 p.5-6]

Unfortunately, despite the fact that automakers have urged EPA to provide it with higher octane gasoline (to facilitate their compliance with the new fuel efficiency and carbon reduction rules), and despite the vast body of scientific evidence that confirms toxic aromatic compounds' adverse health effects, EPA has not complied with this legal requirement. This failure to enforce the law goes beyond reliance on invalid 'factual predicates,' like those used in its 2007 MSAT final<sup>11</sup> rule. In January 28, 2013, EPA Ann Arbor's Fuels Center Director stated that '[o]ctane historically has had little or no effect on criteria pollutants or air toxics . . .'.<sup>12</sup> Since toxic aromatics have historically been relied upon by petroleum refiners as their 'octane workhorse,' and since they are widely known to be the primary source of some of the most dangerous pollutants in the urban environment, it is difficult to discern a scientific basis for EPA's stated position on 'octane' and its relationship to air toxics and other emissions. [EPA-HQ-OAR-2015-0111-1821-A1 p.6]

UAI is particularly concerned about the mounting evidence of the potency and lethality of gasoline's heavy molecular weight (HMW) polycyclic aromatic hydrocarbons. The June 2003 Senate Environment and Public Works Committee (Inhofe) report on S. 791 said the following: [EPA-HQ-OAR-2015-0111-1821-A1 p.6]

[Indented quote paragraph] There is no specific deadline in the Act for EPA to further reduce toxic air pollutants from mobile sources. Section 204 [now Section 202], however, requires EPA to promulgate final regulations addressing hazardous air pollutants from vehicles and fuels by July 1, 2004, as per the MSAT rule. The Agency retains general authority to control emissions from motor vehicles of any air pollutant that causes or contributes to air pollution which may reasonably be anticipated to endanger public health or welfare. In a discussion focused on maintaining air toxics reductions from the RFG program, EPA's [1999] Blue Ribbon Panel on Oxygenates in Gasoline specifically recommended that EPA should explore and implement mechanisms to achieve equivalent or improved public results that focus on reducing those compounds that pose the greatest risk. The Panel recognized that the current mass-based performance requirements in the RFG program may not adequately account for and consider that the different exhaust components pose differential levels of risk to public health due in large part to their variable potency.<sup>13</sup>

(Emphasis added.) [EPA-HQ-OAR-2015-0111-1821-A1 p.6]

In the ten years that have passed since this statement, best available science has confirmed that the heavy molecular weight (HMW) polycyclic aromatic hydrocarbons (PAHs)—the predominant urban source of which are gasoline aromatics—are the most potent substances emitted out of a gasoline tailpipe. UAI respectfully urges EPA to immediately correct this oversight, and re-shape its MSAT regulatory program accordingly.<sup>14</sup> [EPA-HQ-OAR-2015-0111-1821-A1 p.6-7]

EPA Cannot Adequately Protect the Public from the Serious Health Threat Posed by Urban PM<sub>2.5</sub> Pollution Unless It Overcomes the Blend Wall. Unfortunately, EPA's refusal to recognize the serious health effects of carcinogenic gasoline aromatic hydrocarbons and their potent MSAT combustion byproducts leaves a huge hole in the urban "health safety net." In its comments on EPA's 2012 PM<sub>2.5</sub> rule, Urban Air identified the primary issues:

1. Particle size and composition are interconnected and have enormous impact on human health.
2. Gasoline exhaust is the primary source of urban primary and secondary PM, BC, and PAHQ toxics.
3. PAHQs are known toxics, have proven and serious health effects, and should require no additional epidemiological proof for EPA to act.
4. Ultrafine particles, PAHs, and BC are inextricably tied to gasoline composition, and their emissions will increase in urban areas if fuel quality improvements do not complement advanced engine designs.

5. Cost-effective and technologically available methods of improving fuel quality exist.

6. EPA has clear statutory authority, and indeed the legal obligation, to improve gasoline quality standards. [EPA-HQ-OAR-2015-0111-1821-A1 p.7]

The comments UAI and the Energy Future Coalition submitted with regard to the proposed Tier 3 rule<sup>15</sup> reinforced these points with extensive citations of the health literature and automaker studies that conclusively show that mid-level ethanol blends, such as E30, are the most cost-effective way for EPA's rule to 'reflect the greatest degree of emissions reduction achievable through the application of technology which will be available' as required by the Clean Air Act Amendments of 1990. [EPA-HQ-OAR-2015-0111-1821-A1 p.7]

Recommended Near-, Mid-, and Long-Term Actions by EPA. Congress has spoken clearly, and the best available science is irrefutable: Gasoline aromatic hydrocarbons and the potent MSAT emissions they cause impose enormous damage on the public health and welfare. Numerous benefits will result if they are reduced and replaced by high-octane, clean-burning ethanol, commensurate with the levels required by the RFS. EPA has all of the authority it needs—indeed EPA has the legal obligation—to take the actions set out below. Once it does, the E10 Blend Wall will be a thing of the past, and the nation will have achieved a rare win-win-win: cleaner air and better health; higher quality gasoline at a lower cost; and a market-driven, robust renewable fuels industry consistent with the RFS targets set by Congress. [EPA-HQ-OAR-2015-0111-1821-A1 p.9]

-Extend RVP waivers to E10+ blends.

-Encourage a nationwide flex fuel transportation system—clean octane fuels, cars, and pumps—just as Brazil has successfully done.

-Establish an E30 certification and commercial gasoline system.

-Correct EPA's flawed models, especially the MOVES2014 model, so that gasoline aromatic hydrocarbons' true contributions to BTEX, PM2.5 SOAs- UFP-borne PAHs, and NOx emissions are fully accounted for and reported.

-Ensure market-driven access and maximize consumer choice by leveling the playing field for ethanol's 'Clean Octane' vs. toxic aromatics' 'Dirty Octane'. [EPA-HQ-OAR-2015-0111-1821-A1 p.9]

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<sup>6</sup> See, e.g., M. Matti Maricq, et al., The Impact of Ethanol Fuel Blends on PM Emissions from a Light-Duty GDI Vehicle, 46 Aerosol Sci. & Tech. 580 (2011); Costagliola, et al., Combustion Efficiency and Engine Out Emissions of a S.I. Engine Fueled with Alcohol/Gasoline Blends, Applied Energy 1, 10 & fig. 17 (2012) (in press, corrected proof); 2010 CARB/Zhang paper (PFI engines). Additional citations can be found in Attachment A to these comments, in UAI's PM2.5 comments and Tier 3 comments. Comments of the Energy Future Coalition and Urban Air Initiative on the U.S. Environmental Protection Agency's Proposed Rule: Control of Air Pollution from Motor Vehicles: Tier 3 Motor Vehicle Emissions and Fuel Standards. Docket ID No. EPA-HQ-OAR-2011-0135 78 Fed. Reg. 29816 (July 1, 2013).

<sup>11</sup> See detailed discussion in Comments of the Energy Future Coalition and Urban Air Initiative, Control of Air Pollution from Motor Vehicles: Tier 3 Motor Vehicle Emission and Fuel Standards, EPA-HQ-OAR-2011-0135, 78 Fed. Reg. 29816 (July 1, 2013), at 52-57.

<sup>12</sup> Statutory and Regulatory Backdrop for Fuel Standards (Jan. 28, 2013), InsideEPA.com (Doc ID: 2430455), slide 13.

<sup>13</sup> <http://www.congress.gov/cgi-bin/cpquery/T?&report=sr057&dbname=108&>

<sup>15</sup> Comments of the Energy Future Coalition and Urban Air Initiative on the U.S. Environmental Protection Agency's Proposed Rule: Control of Air Pollution from Motor Vehicles: Tier 3 Motor Vehicle Emissions and Fuel Standards. Docket ID No. EPA-HQ-OAR-2011-0135 78 Fed. Reg. 29816 (May 21, 2013).

<sup>14</sup> See references in Attachment B to HMW PAHs' relative toxicity and potency weighted rankings compared to other MSATs.

## **Response:**

The Agency received many comments on the non-CO<sub>2</sub> air quality impacts associated with ethanol, biodiesel, and the RFS standards in general with some claiming tremendous air quality benefits and opportunities from renewable fuels, while others criticized the Agency for pursuing a policy that results in negative air quality impacts. (Note: comments related to air quality impacts are also found in section 8.0 and consideration of comments related to the air quality impacts in setting the BBD standard can be found in section 3.4.)

EPA conducted a detailed assessment of the air quality impacts associated with an increase in production, distribution, and use of the renewable fuels sufficient to meet the RFS2 volumes, including different ethanol blends, as part of the RFS2 rulemaking in 2010. That air quality assessment is described in Section VI.D of the preamble for that rule (<http://www.gpo.gov/fdsys/pkg/FR-2010-03-26/pdf/2010-3851.pdf>) and Chapter 3.4 of the RIA for that rule (<http://www.epa.gov/otaq/renewablefuels/420r10006.pdf>). The air quality assessment that supported the RFS2 rule was the result of years of rigorous analysis and modeling and it remains the Agency's best estimate of the air quality impacts associated with the renewable fuel standards. EPA did not conduct a new air quality impact assessment in assessing the volumes of renewable fuel that are expected to be available in exercising our general waiver authority or cellulosic waiver authority for this rulemaking. Therefore, the environmental impacts of the renewable fuel volumes did not factor into the determination of reasonably available volumes for 2014–2016.

Prior studies summarized in the RFS2 RIA indicate that the impacts of biodiesel on VOC, PM and air toxics emissions at the tailpipe are generally favorable compared to petroleum diesel fuel, but the impact on NO<sub>x</sub> is slightly detrimental. However, that work was done on engines without NO<sub>x</sub> or PM after treatment, so the impacts on new engines is less well understood. The RFS2 RIA also indicates that the upstream emissions (PM, VOC, NO<sub>x</sub>, CO, and SO<sub>2</sub>) of biodiesel production (emissions associated with the upstream production and distribution of biodiesel) are detrimental to air quality. Upstream air toxics emissions impacts are negligible to slightly detrimental to air quality. Taking both tailpipe and upstream emissions into account, the net impacts yield increases in the pollutants that contribute to both ambient concentrations of ozone and particulate matter as well as air toxics.

Several stakeholders raised the possibility of reducing the aromatics content of gasoline as a means for reducing emissions of toxic pollutants. In fact, the aromatics content of gasoline would tend to decrease as the ethanol content increases, both due to the effects of dilution as well as the fact that ethanol is a high octane additive. Thus the RFS program, which will provide

incentives in 2016 to increase the pool-wide ethanol content of gasoline, will indirectly reduce aromatics. We have also previously acted under Clean Air Act section 202(l)'s mandate to control hazardous air pollutants from motor vehicles and fuels. One specific aspect of the most recent 202(l) rule addresses the aromatics content of gasoline through required limits on benzene, one of the most potent aromatic compounds in motor vehicle fuels.<sup>36</sup> Consideration of other regulatory actions to directly reduce the aromatics content of gasoline is outside the scope of the RFS program.

A number of comments state that aromatics in gasoline create higher emissions of numerous pollutants, including PAHs and other toxics, BC, and precursors of SOA and UFPs. Such comments are outside the scope of this rulemaking. However, it is worth noting that the Agency continues to research how various fuel properties and combustion processes affect emissions of PAHs, other toxics, BC, UFPs, and SOA precursors. Many factors affect formation of secondary organic aerosols, including emissions of PAHs and other aromatic compounds from diesel and gasoline motor engines, as well as other SOA precursors, such as isoprene and  $\alpha$ -pinene. NO<sub>x</sub> also plays an important role in SOA formation. EPA is conducting ongoing research to better understand relationships between fuel properties and emissions of aromatics and other SOA precursors, as well as their reactions in the atmosphere under different conditions.

## **8.4 Water Quality**

### **Comment:**

#### **Environmental Working Group (EWG)**

The production of corn ethanol has also adversely impacted U.S. air and water quality.

#### **Florida Chamber of Commerce**

To produce one gallon of corn ethanol, over 1.7 thousand gallons of water are used. This is at a time where some areas of the country are experiencing severe drought, and other areas, like Florida, are focusing on long-term water solutions to ensure enough water is available as the state continues to grow.

#### **Missouri Coalition for the Environment**

As the EPA is well aware, the pesticides and fertilizer used in industrial corn production cause fish kills, contributes to the Dead Zone in the Gulf of Mexico, and pollutes our drinking water supplies when it runs off farm fields.

#### **National Biodiesel Board**

*Water Quality and Water Supply.* EPA again finds that the other advanced biofuel that might replace soybean oil biomass-based diesel are likely to have impacts on water quality and water supply which are comparable to those of soy-based biomass-based diesel. Given the relatively small amount of these other biofuels, EPA does not find this factor to provide a good reason for

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<sup>36</sup> 72 FR 8428, February 26, 2007.

setting a higher or lower nested volume requirement. *Id.* As with the other considerations, this renders the entire analysis Congress required pointless. Moreover, EPA identifies no assessment of these issues for these other biofuels by which the public can assess the accuracy of this conclusory statement. Again, EPA admits that its proposal would allow other advanced biofuels with similar impacts on water supply and water quality as soybean oil biodiesel, but then asserts that certain advanced biofuels “will have little or no impact on water quality and water supply,” and keeping the biomass-based diesel volume down would provide a “continuing incentive” for further development and marketing of such fuels. *Id.* Again, EPA simply makes a conclusory statement.

While soybean oil has not been found to have significant impacts on water quality or water supply, EPA also ignores that increasing the biomass-based diesel volume requirement supports use of other feedstocks, including waste oils. For example, certain of the feedstocks approved for biomass-based diesel are used as rotational crops which, in fact, allow for less use of fertilizer and pesticides and help retain moisture, reducing water needs. As noted, soybeans are not grown for the oil and, as such, any purported impacts are likely to occur without any increases in biomass-based diesel volumes. Again, it makes little sense to compare the impacts of certain advanced biofuels over others. They are, by definition, *advanced* biofuels, and Congress wanted them *all* in the market.

The impact of the production and use of renewable fuels on the environment, including on air quality, climate change, conversion of wetlands, ecosystems, wildlife habitat, water quality, and water supply....EPA again does not provide any new information regarding the potential impacts on water quality or quantity as a result of increasing the biomass-based diesel volume. As EPA previously recognized, soybean farming provides water quality benefits. 76 Fed. Reg. at 38,872 (“Water quality generally benefits when soybeans are rotated with corn, since the next corn crop requires less fertilizer and fewer pesticides.”). Soybeans when used as part of a crop rotation program (usually corn) promote sustainability, including reducing impacts of agricultural production on water. Soybeans fix nitrogen from the atmosphere and convert it to useful nutrients for soil health and plant growth. Soybeans are a very efficient crop for improving soil health in rotation with other crops while producing protein for livestock feed. Soybeans are 80 percent protein meal and 20 percent oil. This ratio of oil to meal corresponds to the plants natural production and does not correspond to domestic demand for oil and meal. Soybeans require an insignificant amount of fertilizer, pesticide, and irrigation inputs, and therefore represent significantly less potential water quality and quantity impacts. For more information, see H2O’C Engineering, *Water Quantity and Quality Issues Related to Biodiesel* (2010) (Attachment 6 to NBB Comments on 2012 RFS, EPA-HQ-OAR-2010-0133-0159). Biodiesel processing also uses “much less” water than ethanol production, and some facilities recycle the water used. *See* 77 Fed. Reg. at 59,476. Again, the use of waste oils, fats and greases has been on the rise, and EPA properly found any potential impacts on water would not be directly attributable to biodiesel production. *Id.* at 59,474.

Although EPA stated that biodiesel spills can also impact water quality, EPA recognized that biodiesel is not toxic, and degrades four times faster than regular diesel. 77 Fed. Reg. at 59,476. This significantly reduces the environmental risk associated with any unlikely biodiesel spills. This benefit continues even when biodiesel is blended with diesel fuel. Blends of biodiesel and petroleum diesel provide less threat to aquatic organisms than petroleum diesel alone. EPA

points to, instead, potential emissions related to and discharges of glycerin. *Id.* EPA continues to fail to recognize that 99.9 percent of glycerin from biodiesel plants is sold for one purpose or another. See NBB, *Glycerin Use as a Byproduct of Biodiesel Production* (Jan. 2010) (Attachment 8 to EPA-HQ-OAR-2010-0133-0159). Biodiesel facilities also use technology that reprocesses the glycerin into additional biodiesel product. The production of biodiesel also produces less harmful byproducts than production of petroleum diesel. EPA has recognized that the production of biodiesel compared to the production of petroleum fuels generates 79 percent less wastewater and 96 percent less hazardous waste. See EPA, *Environmental Laws Applicable to Construction and Operation of Biodiesel Production Facilities*, EPA-907-B-08-001, at I-3 (Nov. 2008) (citation omitted). [EPA-HQ-OAR-2015-0111-1953-A2 p.66]

Again, the lifecycle analysis cited by EPA was done using a prior mix of crude oils that would not have included, for example, shale oil or oil sands production, which can have higher uses and impacts on water quality. A significant amount of water is needed to conduct hydraulic fracturing operations. See, e.g., Hilary Hylton, *Frackers Guzzle Water as Texas Goes Thirsty*, TIME (Sept. 29, 2013), <http://nation.time.com/2013/09/29/frackers-guzzle-water-as-texas-goes-thirsty/> (“Fracking giant Schlumberger estimates there will be a million new wells drilled around the world in the next 20 years. The fracking process pumps large amounts of pressurized water deep into the earth to dislodge oil and gas deposits. The amount of water needed varies, depending on the geology of the formation, but the average South Texas well takes some four to six million gallons of water over a period of several days as the rock formations are fractured, according to an industry source.”). “The safe disposal of large volumes of liquid waste associated with natural gas and oil production is a major challenge because the waste fluids often contain high levels of salinity, toxic metals, and radioactivity.” Nathaniel R. Warner, *et al.*, *Impacts of Shale Gas Wastewater Disposal on Water Quality in Western Pennsylvania*, *Environ. Sci. Technol.*, 2013, 47(2), 11,849, 11,849, available at <http://sites.biology.duke.edu/jackson/est2013.pdf>. A recent study examined the water quality of discharged effluents, surface waters, and stream sediments associated with a treatment facility site in western Pennsylvania, finding the elevated levels of chloride and bromide, combined with the strontium, radium, oxygen, and hydrogen isotopic compositions of the effluents reflect the composition of Marcellus Shale produced waters. *Id.*

Moreover, oil spills from offshore oil and gas extraction can have devastating effects on the marine and coastal environments. A study conducted in 2012 indicates that, despite the recommendations made in response to the *Deepwater Horizon* incident, “little to no progress has been made to improve the regulation and safety conditions of offshore drilling in the U.S.” Oceana, *Offshore Drilling Reform Report Card*, at 1 (2012), available at <http://oceana.org/sites/default/files/reports/2OffshoreDrillingReportCard2012FINAL.pdf>. Biodiesel is a bio-based alternative to the dispersants that have typically been used to clean up oil spills and recently have been called into question. See Jenna Higgins Rose, *Biodiesel producers stand ready to help clean up oil spill*, *Biodiesel Magazine*, July 13, 2010, <http://biodieselmagazine.com/articles/4281/biodiesel-producers-stand-ready-to-help-clean-up-oil-spill/>.

Even normal storage and distribution of petroleum can have significant impacts on water sources as a result of spills. In 2013, at least three major spills occurred from pipelines within a week, impacting waterways. See *Third Major Oil Spill in a Week: Shell Pipeline Breaks in Texas*, Apr.

7, 2013, <http://salem-news.com/articles/april072013/oil-texas.php>. One of these spills includes oil brought from the oil sands in Canada. *Id.* There are significant concerns that tar sands oil is heavier and dirtier than other forms of crude, making any spills from pipelines carrying tar sands oil extremely difficult to clean up. Elizabeth Shogren, *EPA: Tar Sands Pipelines Should Be Held To Different Standards*, Apr. 24, 2013, <http://www.npr.org/2013/04/24/178844620/tar-sands-pipelines-should-get-special-treatment-epa-says>. A recent report found that “[m]ore crude oil was spilled in U.S. rail incidents [in 2013] than was spilled in the nearly four decades since the federal government began collecting data on such spills.” Curtis Tate, *Crude-oil spills on U.S. railways in 2013 topped total since 1975*, Washington Post, Jan. 21, 2014, <http://www.washingtonpost.com/politics/crude-oil-spills-on-us-railways-in-2013-topped-total-since-1975/2014/01/21/8f7c5204-82ea-11e3-9dd4-e7278db80d86> The report found more than 1.15 million gallons of crude oil was spilled from rail cars in 2013, compared to 800,000 gallons from 1975-2012. *Id.*; *see also* Joby Warrick, *Trains are carrying—and spilling—a record amount of oil*, Washington Post, Feb. 17, 2015, <http://www.washingtonpost.com/news/energy-environment/wp/2015/02/17/trains-are-carrying-and-spilling-a-record-amount-of-oil/> (“More than 141 ‘unintentional releases’ were reported from railroad tankers in 2014, an all-time high and a nearly six-fold increase over the average of 25 spills per year during the period from 1975 to 2012, according to records of the federal Pipeline and Hazardous Materials Safety Administration.”). While many of these spills were small, the potential for significant spills with significant environmental impacts is not speculative. Biodiesel, on the other hand, is non-toxic and biodegradable.

This year has already seen several large oil spills from pipelines and transportation of petroleum. *See, e.g.*, Holly Yan, *After oil spilled in Yellowstone River, residents told not to drink water*, CNN, Jan. 20, 2015, <http://www.cnn.com/2015/01/20/us/yellowstone-river-spill/index.html>; *California oil spill pipeline had been left to rust paper-thin*, The Guardian, June 3, 2015, <http://www.theguardian.com/environment/2015/jun/04/us-oil-pipeline-left-to-rust-to-paper-thin-before-145km-pacific-ocean-slick>; *see also* *At least 35,000 gallons of oil spills after Montana train derailment*, FOX News, July 18, 2015, <http://www.foxnews.com/us/2015/07/18/at-least-35000-gallons-oil-spills-after-montana-train-derailment/> (“The spill marked the latest in a series of wrecks across the U.S. and Canada that have highlighted the safety risks of moving crude by rail.”). More oil is expected to be transported by rail despite ongoing safety concerns. *See* *America’s oil glut problem: How to move it safely*, CNN Money, Feb. 18, 2015, <http://money.cnn.com/2015/02/18/news/oil>.

## **Nestle**

### *Water*

Ethanol is a relatively profligate user of water. Increasingly, Americans are aware that we cannot think of a holistic approach to sustainability and the environment without considering water use. The present emergency in California and other states should be ample warning that water availability will be a critical environmental issue for both government and the private sector in the years ahead. Heightened scrutiny should apply to policies that would encourage or subsidize water use beyond what market forces would otherwise dictate – and such is the case for the RFS corn ethanol mandate.

The Renewable Fuels Association acknowledges that every gallon of ethanol requires close to 3 gallons of water for its production, in contrast to gasoline which requires between 2 and 2.5 gallons. (The University of Illinois provides very similar estimates.) However, ethanol has only 67% the energy content of gasoline. Therefore, to produce the same amount of energy as one gallon of gasoline, an ethanol plant actually requires about 4.5 gallons of water (3 gallons of water per gallon of ethanol / .67 times energy content of gasoline).

### **The George Washington University**

One additional result of increased fertilizer usage—especially for corn ethanol—is water pollution. Increased fertilizer runoff damages ecosystems, harms biodiversity, and is contributing to the Gulf of Mexico's 'Dead Zone.'<sup>23</sup> This damage is most pronounced when acreage is diverted from another crop to corn production, which relies heavily on nitrogen fertilization and requires more irrigation than displaced crops, such as cotton.

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<sup>23</sup> Welch, H.L., Green, C.T., Rebich, R.A., Barlow, J.R.B., and Hicks, M.B., 2010, Unintended consequences of biofuels production—The effects of large-scale crop conversion on water quality and quantity: U.S. Geological Survey Open-File Report 2010–1229, 6 p.

### **Response:**

Several commenters highlight the relatively high use of water in growing corn and the potential for adverse impacts due to fertilizer and pesticide runoff on water pollution. In previous rulemakings, EPA has recognized the potential impacts of water use and water quality of row crops, especially corn. These impacts were assessed in the First Triennial Report to Congress, which qualitatively assessed both potential impacts and opportunities for mitigation. These potential impacts remain a concern. However, EPA did not use water quality impacts in exercising our general waiver authority. Nevertheless EPA is encouraged by the growing adoption of mitigation techniques such as no till farming and better control of fertilizer usage.

In their comments, the National Biodiesel Board (NBB) claims a variety of water quality advantages of biodiesel or lack of the disadvantages associated with other biofuels, particularly those types of concerns often raised with corn ethanol, a conventional biofuel. (Similar comments from NBB are considered in Section 3.4.3 of this response to comments.) NBB criticized EPA's assessment of impacts on water usage and water quality, suggesting in particular that EPA should instead compare soy-oil biodiesel to potential petroleum impacts on water use and water quality rather than to other advanced biofuels for determining the BBD standard. We disagree as discussed in Sections 3.3 and 3.4.

## 8.5 Wetlands, Ecosystems and Wildlife Habitats

### Comment:

#### **Board of Commissioners, Mercer County; Crawford County; Greenville-Reynolds Development Corporation; Office of Commissioners, Lawrence County, Pennsylvania**

There are significant reasons that mandated ethanol blend rates should be lowered. They include:

**6. Loss of Conservation Land and Pristine Land.** Five million acres of land that should have been set aside for conservation has been lost since 2009 to farming to meet ethanol and biodiesel mandates - this is more land than Yellowstone, the Everglades and Yosemite National Parks combined. Additionally millions of acres of pristine land has been converted to farmland to meet ethanol and biodiesel mandates.

**7. Impact to Wildlife.** Plowing millions of acres has destroyed the habitats for wildlife, such as pheasants, ducks, bees and monarch butterflies, and this problem is further magnified by the impacts of increasing use of pesticides.

#### **Missouri Coalition for the Environment**

- Between 2008 and 2011, 23 million acres of grassland, shrub land and wetlands were converted to commodity crop production in large part a response to higher demand for corn. These acres once served as carbon sinks. Now they release stored carbon and eliminate that function. University of California-Berkeley scientists note that such ethanol-related land conversion results in higher greenhouse gas emissions than fossil fuels.
- Land conversion destroys valuable habitat. For example, as reported in the Kansas City Star, corn ethanol production has contributed to the annual destruction of 1 million acres of milkweed, the Monarch Butterfly's only food source.

#### **National Biodiesel Board**

*Wetlands, Ecosystems and Wildlife Habitats.* EPA finds that the other advanced biofuel that might replace soybean oil biomass-based diesel are likely to have impacts on wetlands, ecosystems, and wildlife habitats which are roughly comparable to those of soy-based biomass-based diesel. Given the relatively small amount of these other biofuels, EPA does not find this factor to provide a good reason for setting a higher or lower “nested volume” requirement. *Id.* Similar to the air quality analysis, this renders the entire analysis Congress required pointless. Moreover, EPA identifies no assessment of these issues for these other biofuels. For example, EPA does not explain how sugarcane produced in more sensitive ecosystems in Brazil than soybean oil in the United States would not have a greater impact on wetlands, ecosystems and wildlife habitats. While soybean oil has not been found to have significant impacts on wetlands, ecosystems and wildlife habitats, EPA also ignores that increasing the biomass-based diesel volume requirement supports use of other feedstocks, including waste oils. For example, canola used as a rotational crop has been identified as serving as habitat for wildlife.

Again, EPA admits that its proposal would allow other advanced biofuels with similar impacts on wetlands, ecosystems and wildlife habitats as soybean oil biodiesel, but then asserts that other advanced biofuels are not made directly from crops and “would therefore likely have significantly lower impacts on wetlands, ecosystems, and wildlife habitats than soy biodiesel,” and keeping the biomass-based diesel volume down would provide a “continuing incentive” for further development and marketing of such fuels. As an initial matter, there is simply no support to state that a feedstock from a crop will necessarily have “significantly [higher] impacts” than other feedstocks. Getting CNG/LNG to market, for example, likely requires newer and greater infrastructure than soybean oil, resulting in land use impacts. Moreover, soybeans are not grown for the oil and, as such, any purported impacts are likely to occur without any increases in biomass-based diesel volumes. Regardless, it is utterly counter to Congressional intent that EPA (and even proponents of certain biofuels) be required to undergo the process of comparing the impacts of certain advanced biofuels over others. They are, by definition, *advanced* biofuels, and Congress wanted them *all* in the market.

The impact of the production and use of renewable fuels on the environment, including on air quality, climate change, conversion of wetlands, ecosystems, wildlife habitat, water quality, and water supply. EPA does not present any new information regarding the potential impacts of increased biodiesel production on wetlands, ecosystems, and wildlife habitats. As an initial matter, EPA continues to find that cropland in the United States is on the decline. Thus, as NBB has continually maintained, there is no evidence of land use impacts as a result of increased biofuel production.<sup>58</sup> As was noted by scientists at Oak Ridge National Labs, the findings in the draft report relied on by EPA in assessing these impacts for the 2013 volume “about what is occurring or could possibly occur” is contradicted by the actual data on land use and environmental changes in the United States since 2001 during the period of rapid biofuel expansion.

Improved farming practices generally reduce the potential impacts of agricultural production. See NBB Comments on Draft Report to Congress at 26-40 (EPA-HQ-ORD-2010-1077-0022); H2O’C Engineering, *Water Quantity and Quality Issues Related to Biodiesel*, at 5 (2010) (Attachment 6 to NBB Comments on 2012 RFS, EPA-HQ-OAR-2010-0133-0159). This is unlike the impacts that continue to occur as a result of runoff from developed land. NBB Comments on Draft Report to Congress at 26-40 (EPA-HQ-ORD-2010-1077-0022). In particular, studies have shown that, where soybeans are grown, sediment and phosphorus is ten times greater from non-agricultural land than from agricultural land. *Id.* at 43-44. Biofuel production gives the rural economy additional incentives not to convert their lands for purposes of development. The American Farmland Trust has found that the United States loses nearly 50 acres of farmland every hour. American Farmland Trust, *Farmland*, <https://www.farmland.org/our-work/areas-of-focus/farmland> (last visited July 26, 2015). This loss of valuable farmland is due to the economic hardships faced by farmers and pressures to convert productive land into shopping malls, parking lots, and subdivisions. This trend has a devastating impact on ecology, and habitat, including but not limited to high peak surface water discharge rates, decreased perennial flow, and decreased groundwater recharge as a result of increased impervious surfaces. These disrupted stream flows also carry high concentrations of chemical pollutants and excess nutrient loads from industrial, and residential sources including lawn fertilizers and leaking or ineffective sanitary sewers. The Natural Resource Conservation Service (NRCS) and others have established that developed land contributes significantly more

to nutrient loading of streams than agricultural land. NBB Comments on Draft Report to Congress at 16 (EPA-HQ-ORD-2010-1077-0022).

While biodiesel helps make rotational farming of soybeans more economically sustainable, that economic benefit does not drive expansion beyond the historical footprint of row crop agriculture. In addition the RFS2 land use restrictions on renewable biomass, existing laws, regulations, and basic economic principles already result in restraining U.S. agriculture to its historical footprint. Federal requirements administered through the USDA's NRCS and the Farm Service Agency provide many barriers to farmers who might otherwise expand production of commodity crops onto lands that do not have a historical record of crop production. Some of these restrictions are known as the Sodbuster and Swamp Buster provisions of the Food Security Act of 1985. Those requirements specifically limit conversion of wetlands, grass lands, or highly erodible soil. Farmers ignoring these requirements forfeit the benefit of USDA programs for crop assistance, and are also unlikely to receive crop insurance on new ground. The ability to secure crop insurance on land with a prior history of farming and the inability to secure crop insurance on new land is a significant barrier to planting crops on new land. These factors combine to restrain soybean production to the previously established footprint of row crop agriculture in the United States.

Conservation practices continue to be adopted by U.S. farmers with increased effectiveness in protecting soil health, reducing impacts to water quality and enhancing wildlife habitat and biodiversity. A trend in the implementation of conservation practices is to target specific areas to achieve optimum gains. The strategic pairing of conservation practices alongside production agriculture provides the optimum balance of environmental stewardship while producing food for the world and maintaining agriculture as the economic backbone of this country. The environmental benefits of biodiesel and advanced biofuels and the economic benefits of the RFS2, which enhance the conservation efforts in rural communities, are reasons why the National Association of Conservation Districts supports the RFS2 and why the association leader of 3,000 locally led conservation districts warned that adoption of EPA's November 2013 proposal to reduce advanced biofuels would be a step back in ongoing conservation and environmental efforts. EPA-OAR-2013-0479-3945. Recognizing that the United States has the most efficient farming practices and the most advanced commitment to conservation reminds us that the United States should retain its leadership role in production agriculture.

Moreover, there are significant land use impacts of petroleum production, including loss of critically important land and wetland areas. NBB Comments on Draft Report to Congress at 50-51 (EPA-HQ-ORD-2010-1077-0022); *see also* Jason Dearen and Jennifer Kay, *New Hunt for oil in Florida raises environmental concerns*, The Washington Post, July 25, 2015, <http://www.washingtonpost.com/national/energy-environment/new-hunt-for-oil-in-florida-raises-environmental-concerns/2015/07/25/86bb5432-32e6-11e5-a879-213078d03dd3story.html> (“Renewed hunts for oil in sensitive Florida ecosystems have environmental groups raising questions about the state’s regulation of the oil and gas industry.”); Mark Schleifstein, *Wetlands loss linked to Outer Continental Shelf oil and gas pipelines in new study*, The Times-Picayune, Oct 5, 2009, <http://www.nola.com/business/index.ssf/2009/10/wetlandslosslinkedtoouter.html>. These losses could be avoided with increased use of biofuels, particularly as new crops are being developed that can be used as rotational crops or that can be used during fallow periods that provided

benefits to the primary crops, including improving moisture and protections against pests. [EPA-HQ-OAR-2015-0111-1953-A2 p.65]

A key difference between the assessment conducted by EPA for the 2013 volume from today is the increased use of waste fats, oils and greases for biodiesel production. As noted above, these feedstocks, including distillers corn oil, now account for about half of U.S. biodiesel production. EPA recognized that increasing use of corn oil from dry mill ethanol plants will reduce the “potential agricultural impact of biodiesel production.” 77 Fed. Reg. at 59,474. It also found that “waste fats, oils and greases are expected to have negligible environmental impact as a feedstock since they do not impact agricultural land use and would otherwise be used for some lower value purpose or simply discarded.” *Id.*

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<sup>58</sup> The RFS2 itself restricts the use of new lands for production of crops, such as soybeans, for biodiesel production, and decisions regarding planting of soybean acres are largely based on demand for livestock feed and other uses. If soybean oil was not used for biodiesel production, soybeans would continue to be produced to satisfy this demand.

### **Unilever**

Further, the deforestation that occurs in many countries has a significant environmental and ecological impact on those countries. According to a recent report released by the World Wildlife Foundation, “Vast areas of forest, savannah and grassland have been cleared...as soy production has expanded. As these ecosystems are lost, so are the wildlife they support and the vital ecological services they provide, like clean water and healthy soils. Deforestation also fuels climate change.”<sup>2</sup>

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<sup>2</sup> The Growth of Soy: Impacts and Solutions, World Wildlife Foundation – [http://assets.panda.org/downloads/wwf\\_soy\\_report\\_final\\_jan\\_19.pdf](http://assets.panda.org/downloads/wwf_soy_report_final_jan_19.pdf)

### **Response:**

Several commenters focused on the reduction in acres covered by the Conservation Reserve Program. The maximum number of acres eligible under the CRP has decreased over the past decade due to administrative action by the US Department of Agriculture, not due to the RFS program. The Missouri Coalition for the Environment states that 23 million acres of grassland, shrub land and wetlands were converted to commodity crop production between 2008 and 2011. EPA has not independently evaluated this claim but we do note that during this time period, under the aggregate compliance requirements of the RFS program, total agricultural acres cannot exceed the baseline amount of agricultural land in 2007. In fact, the number of acres used for agricultural production in the U.S. has not increased and in some years has decreased compared to the 2007 baseline. Thus in the US, while some shifting in land use has likely occurred (e.g., moving from crops to pasture or pasture to crop production), there has been no net increased in land devoted to agricultural production. Furthermore, changes in the types of crops grown and the location of these crops is due to a host of factors, not just the demand created by the RFS program.

The comments from the National Biodiesel Board note that farming practices continue to evolve and crop yields continue to improve, mitigating potential adverse impacts including those impacting wetlands, ecosystems and wildlife habitats. EPA has not conducted an analysis of the

degree to which crop yields and farming practices mitigate the potential adverse impacts on wetlands, ecosystems and wildlife habitat for this rule. We noted in the first triennial report to Congress an increase in biofuel production could have adverse impacts due to monoculture production adversely impacting biodiversity and the potential adverse impact of runoff from crop lands on wetland pollution. However, we have not quantified the incremental impact likely to result from the annual standards in the final rule.

The National Biodiesel Board criticized EPA's analysis of the impacts of higher biodiesel volumes for setting the BBD standard, arguing that biodiesel's wetland, ecosystem, and wildlife habitat impacts were better than for other biofuels and therefore warranted higher BBD standards. Discussion of comments related to the BBD standard can be found in Sections 3.3 and 3.4. Regarding the adequacy of our assessment for the statutory factors for the range of biodiesel feedstocks, refer to the updated Memorandum to the Docket: "Final Statutory Factors Assessment for 2016-2017 Biomass Based Diesel (BBD) Applicable Volumes".

## **9. Proposed Changes to Regulations**

### **9.1 Algal Biofuel Pathways**

#### **Comment:**

#### **ABO, ACORE and BIO**

In addition to our separate comments on the proposed rule's renewable volume obligations (RVOs) and other matters under the Renewable Fuel Standard (RFS), we wish to share mutual comments on EPA's proposed clarifications for its interpretation of "algal oil" under Table 1 to 40 CFR 80.1426.

We do not object to EPA's clarification in the Proposed Rule that algal oils eligible for a Renewable Identification Number (RIN) under Table 1 to 40 CFR 80.1426 be produced from algae grown photosynthetically, since this was the model system used in determining the lifecycle greenhouse gas emissions reductions of algal oil. However, we urge EPA to clarify that this action in no way should be interpreted as intended to discourage pathway petitions of other algae-derived renewable fuels pursuant to 40 CFR 80.1416.

On the contrary, EPA should reiterate in its final rule the Agency's commitment to interpreting the term "algae" broadly in the context of the RFS. We concur with EPA's assertion that a broad interpretation of "algae" furthers the purposes of the authorizing statute.<sup>1</sup> Specifically, in addition to all microalgae and macroalgae, we urge EPA to include as renewable biomass any autotrophic microorganism used to create a renewable fuel from the biological capture and utilization of carbon in waste gases that have already served a different primary purpose.

Carbon capture and utilization is recognized implicitly in the RFS through the inclusion of algae as renewable biomass. EPA in previous rulemaking correctly included cyanobacteria (blue-green algae). Scientific consistency and the statutory goals of the RFS call for inclusion of other autotrophic microorganisms that perform the same set of biochemical transformations. Arbitrary exclusion of such microorganisms would be inconsistent with basic principles of microbiology and biotechnology, previous EPA interpretations, and the expressed intent of the Energy Independence and Security Act of 2007 (EISA).

We are very supportive of expanding and diversifying low carbon alternatives to petroleum, and we believe that EPA should clarify its interpretation of algae in a manner that is scientifically justified, accommodating of emerging technological developments, and deferential to the statutory intent of EISA. [EPA-HQ-OAR-2015-0111-1950-A1 p.1]

#### **Advanced Biofuels Association (ABFA)**

ABFA was encouraged to see the approval of a new photosynthetic pathway but is concerned that the narrow application of definitions is limiting other viable technologies from garnering their own pathways. The Union of Concerned Scientists has written a very well-reasoned document which we encourage you to consider. It is not in the spirit or letter of the RFS2 authors to deny one single cell organism because it's not an algae and then grant another which is. [EPA-HQ-OAR-2015-0111-2498-A1 p.8]

### **Algae Biomass Organization (ABO)**

Specifically, EPA must reiterate in its final rule the Agency's commitment to interpreting the term "algae" broadly in the context of the RFS. We concur with EPA's assertion that a broad interpretation of "algae" furthers the purposes of the authorizing statute<sup>1</sup> and urge EPA to include as renewable biomass – in addition to all microalgae and macroalgae – any autotrophic microorganism used to create a renewable fuel from the biological capture and utilization of carbon in waste gases that have already served a different primary purpose. [EPA-HQ-OAR-2015-0111-1951-A1, pp.1-2]

Carbon capture and utilization is recognized implicitly in the RFS through the inclusion of algae as renewable biomass. EPA in previous rulemaking correctly included cyanobacteria (blue-green algae). Scientific consistency and the statutory goals of the RFS call for inclusion of other autotrophic microorganisms that perform the same set of biochemical transformations. Arbitrary exclusion of such microorganisms would be inconsistent with basic principles of microbiology and biotechnology, previous EPA interpretations, and the expressed intent of the Energy Independence and Security Act of 2007 (EISA). [EPA-HQ-OAR-2015-0111-1951-A1, p.2]

By converting industrial sources of CO<sub>2</sub> to advanced biofuels, algae and similar carbon-converting organisms offer an unprecedented opportunity to transform CO<sub>2</sub> emissions from environmental challenge to economic opportunity. It's time that federal policy fully embraced this opportunity. [EPA-HQ-OAR-2015-0111-1951-A1, p.2]

The Proposed Rule offers an important first step toward restoring the investment climate for algae based and other advanced biofuels. Additional actions outlined in these comments would provide important additional market confidence for algae-based fuel developers. [EPA-HQ-OAR-2015-0111-1951-A1, p.2]

### **American Council on Renewable Energy (ACORE)**

One advanced biofuel company, which has so far been hamstrung by definitions, uses the fermentation of industrial waste gases to produce ethanol. For this particular company, their non-photosynthetic microorganism is not considered a viable biofuel pathway under the RFS. From a biological point of view, some viable and non-viable microorganisms are so closely related that such stringent categorizations do not make sense. Regulatory acceptance of novel processes such as this can serve to keep jobs in the U.S and realize increased supply, energy independence, and energy security, all while maximizing GHG reductions. As we continue to move towards the development of even more low-GHG alternatives, it is imperative that such language does not hinder further innovation. [EPA-HQ-OAR-2015-0111-1926-A1 p.15]

### **International Council on Clean Transportation (ICCT)**

EPA's proposal to clarify that the existing RFS pathway for biofuels from algal oils applies only to photosynthetically grown algae is consistent with the basis of the algal oil pathway analysis. [EPA-HQ-OAR-2015-0111-1923-A1 p.9]

## **LanzaTech, Inc.**

For the purposes of the term “algae” listed in EISA, and as EPA now recognizes, it is relevant only that a microorganism is autotrophic, because the resulting renewable biomass will be made up of organic carbon derived from inorganic sources. How the conversion from inorganic to organic biomass carbon is powered is irrelevant in determining whether the resulting biomass is renewable. [EPA-HQ-OAR-2015-0111-2038-A1 p.5]

We have concerns that proposing a new definition is overregulating, duplicative, and regressive from previous EPA positions regarding diatoms and cyanobacteria. [EPA-HQ-OAR-2015-0111-2038-A1 p.5]

We see no reason to further limit the definition in this rulemaking. [EPA-HQ-OAR-2015-0111-2038-A1 p.6]

EPA should clarify that the term “algae” in EISA broadly includes all autotrophic microorganisms—not just cyanobacteria and diatoms; otherwise, certain advanced biofuels technologies would be prevented from qualifying under the RFS, while others with the same inputs and outputs would be permitted. [EPA-HQ-OAR-2015-0111-2038-A1 p.6]

*C. auto* is an autotroph that can use inorganic carbon from industrial waste emissions as the sole source of carbon to grow biomass and can use simple gaseous substrates to build complex molecules.<sup>12</sup> In other words, *C. auto* is just like those other autotrophs (i.e., algae and cyanobacteria), but it processes energy more efficiently and in a more environmentally friendly manner, eliminating the need to provide significant land for exposure to the sun as a source of energy to grow biomass and produce fuels.<sup>13</sup> [EPA-HQ-OAR-2015-0111-2038-A1 p.6]

EPA should interpret RFS in a manner consistent with that broad recognition of microorganisms [EPA-HQ-OAR-2015-0111-2038-A1 p.7]

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<sup>12</sup> Photosynthetic organisms use energy from light to store chemical energy in the form of complex molecules. *C. auto* uses the waste chemical energy from the reaction of O<sub>2</sub> with the carbon in steel and transforms it into chemical energy in the form of complex molecules. This chemical energy is not fossil energy, and the LanzaTech process is significantly more efficient than photosynthesis.

<sup>13</sup> The LanzaTech renewable fuel process has little to no impact on land use, while processes relying on cyanobacteria or algae often require extensive land areas. The total land required for end-to-end production of the LanzaTech biofuel is a few acres, depending on plant size and existing wastewater treatment, co-located on industrial property. This enables production rates in the millions of annual gallons per acre, which compares favorably with projections for commercial-scale algal/cyanobacteria-based biofuels of 8,000 annual gallons per acre (<http://www.algenol.com/commercialization/globally-competitive>).

## **Renewable Energy Group, Inc. (REG)**

REG supports this regulatory clarification. This information has been provided as informal guidance to the industry in the past, updating the regulations to include this guidance benefits the renewable fuel community. [EPA-HQ-OAR-2015-0111-1952-A1 p.5]

## **Solazyme Inc.**

As a company that supplies biofuel made from algae grown non-photosynthetically, Solazyme already understood that the lifecycle assessment of our process yields a different GHG emissions value than algae grown photosynthetically. However, we do not understand why the EPA is choosing to focus on the conversion microbe as the microbe is simply the conversion technology. We request that the EPA focus on the lifecycle assessment of the carbon and energy sources for the microbes as it has done in all other cases. For instance, yeast convert sugar to ethanol just as the non-photosynthetic microalgae that Solazyme uses convert sugar into oil (i.e., fuel feedstock). In the case of ethanol, the lifecycle assessment is focused on the sugar source, and not the yeast.

The clarification in Section VI(A) is made more confusing by the fact that it does not mention the multiple non-photosynthetic, non-heterotrophic conversion microbes that are in use today. Will these microbes be treated differently as well, or will they be covered in a subsequent revision? We would like these questions to be addressed in order to prevent inconsistent application of the EPA's rules without scientific basis, potentially denying innovative and clean renewable fuel sources from coming to market. This would be very unfortunate as many of these sources have been supported through federal programs to promote domestic development of fuel. [EPA-HQ-OAR-2015-0111-2497-A1 p.2]

## **Union of Concerned Scientists; Natural Resources Defense Council; National Wildlife Federation**

These comments narrowly focus on a very specific issue of mutual interest and agreement relating to EPA's proposal to clarify that the existing RFS pathway for biofuels from algal oil applies only to algae grown photosynthetically. While we understand this clarification as it pertains to the distinction between autotrophic and heterotrophic algae needed to establish the boundary conditions for lifecycle GHG analyses<sup>1</sup>, we do not believe this distinction is necessary to better understand EPA's interpretation of algae as renewable biomass. We are concerned that EPA's proposed clarifications overlook the more important issue of allowing an unnecessarily narrow interpretation of "algae" to exclude, from the RFS program, some important and promising biofuel processes that make use of carbon captured from waste gases. [EPA-HQ-OAR-2015-0111-2477-A1 p.1]

This coalition supports and works to advance low carbon renewable fuel technologies and development in order to decrease our reliance on fossil fuels and to reduce GHG emissions. Substantial environmental benefits could be realized by establishing biofuel pathways that minimize agricultural and land use footprints by capturing and using carbon from waste gases as bioprocess inputs. We know that the RFS was conceived of in part to promote such low carbon renewable fuel pathways, and we want to make sure that all of the most promising biofuel technologies can both contribute to a low-carbon future and qualify for inclusion in the RFS program. EPA should adopt a flexible and inclusive approach to these highly technical issues that expands rather than constricts the available pathways to develop low carbon fuel technologies. [EPA-HQ-OAR-2015-0111-2477-A1 p.1-2]

The Energy Independence and Security Act of 2007 (EISA) specifies renewable biomass to include "algae", but it does not limit the applicability of the Act to only algae, and it does not

define this term, which allows EPA to interpret its meaning. Since its passage, several pathways for making low carbon renewable fuels have emerged which would clearly fit within both the Congressional intent of EISA and the interpretation of algae made by EPA to date, but EPA has not yet approved any microbial biofuel pathways that capture inorganic carbon from waste gases to produce biofuel that do not derive any of their process energy from a photosynthetic step. This is an important omission in the eyes of both the biotechnology and environmental communities. We urge EPA to clarify that the RFS can accommodate biofuel pathways that are both non-photosynthetic and non-heterotrophic. [EPA-HQ-OAR-2015-0111-2477-A1 p.2]

EISA implicitly recognized bioprocesses that capture and use carbon from waste gases by including algae as a category of renewable biomass. The term was not intended by Congress to be literally and exclusively applied, and it should be interpreted broadly to allow all biofuel technologies that perform similar functions to be considered for inclusion in the RFS program. Indeed, EPA has already agreed with this in part, since it has previously interpreted algae to include photosynthetic bacteria, which are not literally “algae”, but, like algae, they capture and use inorganic carbon to generate biomass via photosynthesis<sup>2</sup>. In fact, EPA has even approved a RFS pathway that uses photosynthetic bacteria to produce biofuel<sup>3</sup>. We support EPA’s flexible approach in this area, and encourage EPA to extend this flexibility to other bioprocesses that capture and use inorganic carbon to produce organic biofuels via non-photosynthetic routes. Beyond listing the term “algae”, EISA says nothing about this form of renewable biomass, and there is not a strong scientific justification to create additional distinctions based on a select set of biological attributes that exclude certain types of biofuel technologies. [EPA-HQ-OAR-2015-0111-2477-A1 p.2]

Although EPA indicated in its proposal that it intends to consider petitions for algae pathways “grown with a non-photosynthetic stage of growth”<sup>4</sup>, this clarification is confusing because all non-photosynthetic algae are also heterotrophic, meaning that they do not derive their biomass from inorganic carbon. One common and essential feature among the listed forms of renewable biomass in EISA is that they represent the initial source for organic biomass in the carbon cycle. The distinction between heterotrophic algae and photosynthetic algae is not relevant to understand EPA’s interpretation of the term “algae” as “renewable biomass.” We encourage EPA to indicate that it intends to extend its interpretation of algae, which currently includes photosynthetic bacteria, to also include appropriate biofuel pathways that use non-photosynthetic microorganisms to capture and use inorganic waste gases as well. Ultimately, these are the clarifications needed to understand EPA’s interpretation of “algae”. [EPA-HQ-OAR-2015-0111-2477-A1 p.2-3]

EPA should address the technical distinctions needed to understand its stance on this important issue. We encourage EPA to adopt an inclusive and flexible approach that supports as many pathways to clean low carbon fuels as possible. Combined with the lifecycle assessment provisions of the RFS, this approach will foster research and innovation and ensure that the policy maximizes the opportunity to cut fossil oil use and carbon emissions from the transportation sector. We urge EPA to make the needed clarifications in its final rule to allow all of the applicable “algae” biofuel pathways to be included in the RFS program. [EPA-HQ-OAR-2015-0111-2477-A1 p.3]

We appreciate that EPA has invited comment on its proposed changes to its interpretation of algae. Our reasons for writing these comments are environmental, technical, procedural, and

statutory. We have detailed these points in an addendum to this letter. We hope that EPA's final interpretation will resolve the issues we have outlined in a scientifically sound manner that builds on earlier EPA interpretations and the goals of EISA. [EPA-HQ-OAR-2015-0111-2477-A1 p.3] [The addendum to this letter can be found on p. 4-10 of docket number EPA-HQ-OAR-2015-0111-2477-A1]

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<sup>1</sup> Autotrophic and heterotrophic refers to whether a microorganism uses inorganic or organic carbon to generate biomass. Autotrophic microorganisms generate organic compounds and biomass from inorganic gases such as CO<sub>2</sub> and CO. Heterotrophic microorganisms generate biomass by breaking down organic compounds such as sugars.

<sup>2</sup> Bacteria and algae are different types of microorganisms categorized into two distinct biological kingdoms; they are prokaryotic and eukaryotic respectively.

<sup>3</sup> "Algenol Biofuels Request for Fuel Pathway Determination under the RFS Program". EPA OTAQ. December 2014.

<sup>4</sup> 80 Fed. Reg. 111, p. 33148. June 10, 2015

### **Response:**

EPA appreciates these comments and recognizes that there are other algal oil pathway configurations in addition to those currently approved. EPA received several comments in support of the regulatory clarifications related to the production of biofuel using algae, citing consistency with algal oil pathway analysis. EPA also received comments advocating that the agency take steps to explain additional related issues. Some commenters expressed concern that the current algae renewable fuel pathways are too narrow and have the effect of limiting other technologies. Specifically, commenters stated that the agency should extend its interpretation to clarify that the term "algae" as used in the Energy Information and Security Act (EISA) includes all autotrophic microorganisms. Commenters provided a series of detailed technical comments on the microbiology of autotrophic microorganisms. Commenters asserted that the carbon source used by these organisms to produce organic carbon further justified their inclusion in the Renewable Fuel Standard (RFS), and that their inclusion would be consistent with previous application of the RFS program. Some commenters supported EPA's decision to not propose a regulatory definition for algae, but urged a more flexible and inclusive approach. According to commenters, such an approach would provide environmental benefits, foster research and development of new technologies, and align with the statutory intent of EISA.

In this action EPA did not propose or seek comment on a regulatory definition for algae. Rather, this rulemaking is limited to specific regulatory clarifications regarding currently approved pathways. Specifically, we are finalizing the proposed replacement of "algal oil" as a feedstock in Table 1 to 40 CFR 80.1426 with "oil from algae grown photosynthetically." We are also finalizing the proposed definition for "algae grown photosynthetically" to 40 CFR 80.1401. Comments regarding other interpretations and pathway configurations are outside the scope of this rulemaking. The regulatory clarifications finalized in this rulemaking should not be interpreted as intended to discourage pathway petitions of other algae-derived renewable fuels. Rather, companies that wish to produce biofuels from algae grown with a non-photosynthetic stage of growth should apply to EPA for approval of their pathway pursuant to the pathway petition process outlined at 40 CFR 80.1416.

## 9.2 Deadlines for Compliance Demonstrations and Attest Engagements

### Comment:

#### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

We support EPA's intent not to require the 2013 RFS compliance report until after the 2014 RFS rule is promulgated. We also support the Agency's proposal to stagger these dates. [EPA-HQ-OAR-2015-0111-1948-A1 p.27]

This proposed schedule does not conflict with the March 31, 2017 date for submission of the RFS compliance report for 2016 (per 80.1451(a)(1)). However, the proposed date for the attest engagement report for the 2015 RFS for obligated parties (June 1, 2017) conflicts with the date for the attest engagement report for the 2016 RFS (June 1, 2017, per 80.1464(d)). [EPA-HQ-OAR-2015-0111-1948-A1 p.27]

In order to ensure an accurate assessment of carryover RINs ahead of the 2017 RFS standards rulemaking process, AFPM and API recommend a faster schedule. Obligated parties do not need five or six months between the compliance and attest engagement reports. In addition, obligated parties do not need five to six months between compliance reports for the 2014 and 2015 RFS compliance periods. [EPA-HQ-OAR-2015-0111-1948-A1 p.27]

Presuming the issuance of final standards by November 30, we suggest the following schedule:

| RFS Compliance Period | RFS Compliance Reports | RFS Attest Engagements |
|-----------------------|------------------------|------------------------|
| 2013                  | February 1, 2016       | March 31, 2016         |
| 2014                  | March 31, 2016         | June 1, 2016           |
| 2015                  | June 1, 2016           | August 1, 2016         |

Our recommendation would maintain the staggered schedule and complete these activities well before the end of 2016, and avoid any conflict for submitting RFS reports for the 2016 compliance period in 2017. [EPA-HQ-OAR-2015-0111-1948-A1 p.27]

#### **Biotechnology Industry Organization**

EPA must avoid unnecessarily extending compliance deadlines, which can further destabilize the program, and which could in some circumstances exceed EPA's legal authority. EPA must also take care to avoid approving compliance deadline extensions that adversely affect the value of RINs, undermining the incentives that are essential to the success of the program as Congress designed it. [EPA-HQ-OAR-2015-0111-1958-A2 p. 28]

## **BP America (BP)**

BP supports EPA's intent not to require the 2013 RFS compliance report until after the 2014 RFS rule is promulgated and its intent to stagger compliance report deadlines throughout 2016. BP is aligned with API/AFPM's recommendation to expedite the Compliance Report schedule as depicted below. [EPA-HQ-OAR-2015-0111-1935-A1 p. 1]

In addition to the expedited compliance schedule, BP also recommends that a single attest engagement report deadline of 1 August 2016 be set for the 2013, 2014 and 2015 compliance periods. Such an approach would promote simplicity and reduce the costs of compliance by requiring Obligated Parties to meet with the selected attest auditor only once to complete all 3 years of attest engagements. [EPA-HQ-OAR-2015-0111-1935-A1 p. 1]

## **Clean Energy Renewables**

For instance, OPs have until December 2016 to show compliance for 2015 obligations. This delay creates cash flow problems for renewable fuel providers. We recommend EPA accelerate the compliance deadline. [EPA-HQ-OAR-2015-0111-1908-A1 p.8]

## **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

The Merchant Refiners Group Supports the Timetable Proposed by EPA for Demonstrating Compliance for 2013-15.

EPA has proposed “that compliance demonstration reports for obligated parties be submitted no later than January 31, 2016 for the 2013 compliance year, June 1, 2016 for the 2014 compliance year, and December 1, 2016 for the 2015 compliance year. Associated attest engagement reports would be due no later than June 1, 2016 for the 2013 compliance year, December 1, 2016 for the 2014 compliance year, and June 1, 2017 for the 2015 compliance year.” The Merchant Refiners Group supports EPA’s proposed timeline for demonstrating compliance and agrees with EPA that “this sequencing of reports, and the time allowed between them will allow obligated parties to proceed in a logical and orderly fashion to submit required reports, with sufficient intervening time so as not to pose an unreasonable burden.” A more compressed timeline could adversely impact the RIN market and result in price volatility. [EPA-HQ-OAR-2015-0111-2603-A2, pp.39-40]

## **Renewable Energy Group, Inc. (REG)**

EPA also proposed changes to the annual compliance report and attest engagement deadlines under the RFS program. While REG is only required to submit the attest engagement on an annual basis, we support these updated reporting deadlines for both reports. EPA will benefit from having this reported information in a timely manner so they can properly implement the RFS program. [EPA-HQ-OAR-2015-0111-1952-A1 p.5]

## **Response:**

Commenters on the proposed due dates for the 2013, 2014, and 2015 RFS compliance and attest engagement reports generally supported the EPA’s approach to staggering the deadlines. However, some commenters argued that EPA should not unnecessarily extend the compliance

reporting deadlines and should even accelerate compliance deadlines. These commenters argued that unnecessarily extending the deadlines could have an adverse impact on the RFS program and RIN prices. On the other hand, a commenter argued that a more compressed compliance deadline timeline could adversely impact the RIN market.

While we recognize the concerns raised, due to constraints on the EPA's reporting systems and staff, we are unable to accommodate a faster compliance reporting schedule. Additionally, we have concerns that obligated parties may have difficulty complying with a more compressed RFS reporting schedule. Obligated parties have several other EPA fuel programs registration and reporting requirements that become effective in 2016 and 2017. These requirements were primarily finalized in the Tier 3 rulemaking and include the registration of all oxygenate blenders (e.g., terminals), the submission of applications for test methods under the Performance Based Analytical Test Method program, and compliance with the new Tier 3 sulfur standards.

The EPA also received comments concerning obligated parties' attest reporting deadline. One commenter noted, the time between the deadline for 2015 RFS attest engagement reports for obligated parties conflicts with 2016 RFS compliance and attest reporting deadlines for obligated parties. The commenter argued that obligated parties rely upon the results of the prior compliance year's attest engagement reports to correct vital information that is needed to accurately determine an obligated party's RVO and RIN balance. Since the proposed deadlines for 2015 attest engagement reporting occurred after the 2016 compliance reporting deadline, obligated parties would have been unable to utilize the 2015 attest engagement report to ensure timely, accurate 2016 compliance reports. The result of this conflict would have been the unnecessary resubmission of 2016 compliance reports by obligated parties to address issues identified in the 2015 attest engagement reports. Additionally, certified public accountants (CPAs) and certified internal auditors (CIAs) would not have been able to rely upon the 2015 attest engagement report for the 2016 attest engagement procedures since the proposed deadlines for 2015 and 2016 attest engagements reports were the same. The commenter noted that six months was too much time between the 2014 and 2015 compliance reporting deadlines for obligated parties. (It should also be noted that the proposed 2014 and 2015 RFS compliance deadlines for obligated parties is only five months apart, not six months.)

Concerning obligated parties' attest reporting deadlines, we believe we can move forward the 2015 RFS attest reporting deadline for obligated parties to more appropriately sequence 2015 and 2016 compliance and attest engagement reporting deadlines. However, we recognize that there are a limited number of CPAs and CIAs that conduct most of the attest engagement reporting across all of EPA's fuels programs for obligated parties. We are concerned that these CPAs and CIAs would become overburdened if we compressed the attest reporting deadlines too much. Although we value the timely submission of information, we believe compressing the 2013 and 2014 attest engagement deadlines would unnecessarily increase compliance costs for many obligated parties.

Another commenter requested that the EPA establish a single reporting deadline for obligated parties' attest engagement reporting deadlines of August 1, 2016 for the 2013, 2014, and 2015 compliance years. The commenter noted that a single attest engagement reporting deadline would be simpler and reduce compliance costs for obligated parties. For reasons discussed above, we believe that it is important to stagger the attest engagement reporting deadlines. Specifically, parties rely upon prior attest engagement reports to ensure that accurate information

is reported to the EPA in subsequent compliance reports. We believe that having all attest engagement reports for 2013, 2014, and 2015 due at the same time would result in the unnecessary resubmission of corrected compliance reports for those years negating potential savings from having a single attest engagement reporting deadline.

Therefore, for obligated parties, we are finalizing the 2013 and 2014 attest engagement reporting deadlines as proposed. We are changing the 2015 attest engagement reporting deadline for obligated parties from June 1, 2017 to March 1, 2017. We believe this helps address comments concerned with having the 2015 and 2016 RFS attest engagement reporting deadlines fall on the same day and should allow obligated parties some time to adjust 2016 compliance reports based on issues identified in the 2015 attest engagement report.

For reasons discussed in Section VI.B of the final rule, for purposes of the final rule the EPA modified the proposed changes to a number of compliance and attest engagement reporting deadlines. The revised annual compliance and attest reporting deadlines for all regulated party categories for the 2013, 2014, and 2015 compliance years are shown in Table VI.B-1 in the final rule. For the 2016 and subsequent compliance years, the deadlines will be back on track with annual compliance demonstration reports due March 31 and attest engagement reports due June 1 of the year following the compliance year.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

Section 2.3.1: Congressional Intent to Increase Volumes

Section 6.1: General Comments on Treatment of Carryover RINs

## 10. Other Comments

### 10.1 Outlook for 2017 and Beyond

#### Comment:

#### Abengoa Bioenergy

EPA's proposal of volumes that would appear to trigger the (7)(F) waiver has been remarked on by investment analysts.<sup>2</sup> Commenters during the interagency review of a draft of the current proposed rule under executive orders 12866 and 13563 also noted 'that if the volumes proposed in the NPRM become final, it will trigger the mandatory reevaluation of the Advanced Biofuels volumes in 2016.'<sup>3</sup> EPA has been publicly encouraged by oil refiners to set the annual RVOs at levels that would trigger a potential (7)(F) rewrite.<sup>4</sup> EPA failed to analyze the availability of RINs and other relevant factors in choosing the proposed volumes; for this and other reasons, BIO and its members are concerned that the Agency has arbitrarily and impermissibly selected the volumes in such a way as to trigger, at least potentially, the (7)(F) waiver.

In addition, it need hardly be said that triggering the (7)(F) waiver cannot be a permissible justification or reason for reducing volume obligations under either the statutory provision governing the cellulosic waiver authority or the statutory provision governing the general waiver authority. A desire or intention to trigger the (7)(F) waiver simply is not relevant to the legal criteria for triggering either of these statutory provisions.

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<sup>2</sup> See, e.g., T. Cheung et al., Senate Takes a Crack at RFS Reform, ClearView Energy Partners (June 18, 2015).

<sup>3</sup> Summary of Interagency Working Comments on Draft Language under E0 12866 Interagency Review. EPA-HQ-OAR-2015-0111-0043, attachment 6 (May 18, 2015).

<sup>4</sup> Statement of Robert Anderson, Chevron USA, at Public Hearing for the 2014, 2015, and for the Renewable Fuel Standard Program. Kansas City, KS, June 25, 2015. 80 Fed. Reg. 2015).

#### Advanced Biofuels Association (ABFA)

Uncertainty in the targets for cellulosic biofuels after 2022 will have an adverse impact on the ability of project sponsors to raise funding. The upcoming reset of the RFS mandates provides an opportunity to increase certainty to 2022 and beyond. Upon waiving any particular RFS mandate category by 50 percent in any single year or 20 percent in any two consecutive years, EPA is required to conduct a rulemaking to adjust the overall schedule of the RFS mandates through 2022. EPA tripped the 50% trigger for the cellulosic category in 2010. Now, if EPA finalizes the volumes as proposed, the 20% trigger will be tripped for both the advanced and general renewable fuel categories.

This opens the door to reset all of the mandated volumes. EPA should move forward with this rulemaking expeditiously to provide certainty for investors in cellulosic biofuels by setting the cellulosic volumes through 2022 and beyond at realistically achievable levels. At the same time, EPA should adjust the advanced and general renewable categories in such a way that the

greenhouse gas emission benefits of the program are maximized while at the same time ensuring that the overall mandates are consistent with the capabilities of infrastructure and vehicles.

### **American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

EPA must finalize the reset volumes by November 30, 2016.

### **Biotechnology Industry Organization**

Triggering the (7)(F) waiver for advanced biofuel volumes and total renewable fuel volumes is unnecessary and inappropriate in 2015 and 2016. For all the reasons discussed in these comments, a proper calculation of available domestic supply of renewable fuels shows that either no waiver at all, or a substantially smaller waiver – at most – of advanced biofuel and total renewable fuel volumes is all that is needed for 2015 and 2016.

### **Biotechnology Industry Organization**

EPA failed to analyze the availability of RINs and other relevant factors in choosing the proposed volumes; for this and other reasons, BIO and its members are concerned that the agency has arbitrarily and impermissibly selected the volumes in such a way as to trigger, at least potentially, the (7)(F) waiver.

### **Brazilian Sugarcane Industry Association (UNICA)**

(I)n view of the statutory reset provisions, EPA should ensure that the reductions of advanced biofuels and total renewable fuels do not reach 20 percent, at least after 2014.

UNICA is particularly concerned with the fact that the 2014, 2015 and 2016 proposed volumes for advanced biofuel fall below 20 percent, as this may potentially lead to a statutory reset in 2017 and beyond for those categories lowered below the 20 percent threshold under section 211(o)(7)(F). Hence, the reductions EPA claims are necessary could have far-reaching and long-term implications for the entire RFS2 program. The same is true for the proposed 2015 and 2016 volumes for total renewable fuels. EPA's ultimate intent with regard to the reset is unclear. Indeed, EPA fails to discuss the reset or its implications anywhere in the Proposed Rule nor how broadly it views its authority to reset other renewable fuel volumes. But the implications of these volumetric discounts are critical to the entities functioning within the RFS program, and raise significant uncertainties which can adversely impact the market for advanced biofuels. As described above, this uncertainty can further limit the growth in production and use of advanced biofuels such as sugarcane ethanol, making the inadequacy of supply a self-fulfilling prophecy. At the very least, EPA should explain its understanding as the reset provisions and its current intentions with regard to future volume requirements. The better route would be to keep volumes above the 20 percent threshold and so obviate the concern.

### **Butamax Advanced Biofuels, LLC**

This impact is further magnified by the §211(o)(7)(F) reset of RFS volume requirements which would be triggered if EPA were to implement the 2014, 2015 and 2016 volume requirements as

currently proposed. The uncertainty which this action causes can reasonably be expected to cause the pace of investment in Advanced Biofuels to dramatically slow.

## **Chevron**

The volumes proposed by EPA for the advanced biofuel and total renewable fuel standards result in percentages that exceed 20 percent in two consecutive years. These waiver volumes would trigger the statutory reset provision. Chevron supports EPA's intention to activate this reset mechanism and encourages EPA to develop long-term RFS standards that are achievable for the market and don't exceed the blend wall.

## **Clean Air Task Force**

EPA must make adjustments to the annual volume requirements in accordance with a multi-criteria analysis that Congress detailed at Clean Air Act sections 211(o)(7)(F) and 211(o)(2)(B)(ii).

EPA is legally obligated to “promulgate a rule ... that modifies the applicable volumes [i.e., for cellulosic biofuels, advanced biofuels, and total renewable fuel]” for 2016 and 2017, based on an assessment of the criteria set forth in section 211(o)(2)(B)(ii). In the proposal, however, EPA makes no mention of this obligation. Instead, the Agency indicates that it plans “to use both the cellulosic biofuel waiver authority and the general waiver authority waiver”—rather than the reset provision in section 211(o)(7)(F).

## **DuPont**

EPA has proposed values for all three categories of fuel that exceed the 20% threshold for two years that would trigger a subsequent rulemaking to modify the statutory biofuels volumes.

## **Growth Energy**

In fact, there is a strong basis to conclude that EPA specifically and improperly set the proposed 2015 and 2016 renewable fuel volume requirements in order to trigger its reset authority. Not only are those volumes remarkably close to the trigger threshold, but also EPA's Acting Administrator for Air and Radiation, testifying before Congress shortly after the proposal was issued, explained that “[w]e actually think it makes a lot of sense to focus a reset on all volumes at one time.”<sup>5</sup>

EPA's proposed renewable fuel volume requirements appear to have been calibrated to enable EPA to trigger its “reset” authority so that EPA could continue to stifle growth in the long term, rather than to pursue the goals of the statute, which would render its proposal unlawful.<sup>88</sup>

EPA would then have substantial autonomy to set new volume requirements as it sees fit, without having to justify invocation of the general waiver authority, and subject only to the six pliable factors laid out in Section 7545(o)(2)(B)(ii). In addition, EPA would potentially be able to avoid having to annually go through the process of setting volume requirements, an obligation that has clearly presented significant challenges for the agency.

Although EPA never mentions the reset power in its proposal, the fact that the proposal would trigger the reset power appears to have been deliberate. Just a few weeks after the proposal was issued, EPA Acting Administrator for Air and Radiation Janet McCabe testified to Congress that “we actually think it makes a lot of sense to focus a reset on all volumes at one time.”<sup>91</sup>

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<sup>5</sup> Testimony of Janet McCabe, EPA Acting Administrator for Air and Radiation, before Committee of the U.S. Senate on Homeland Security and Government Affairs, Subcommittee on Regulatory Affairs and Federal Management, at 23 (June 18, 2015), at <http://www.cq.com/doc/financialtranscripts-4711934?6&search=1E4v24rR>.

<sup>88</sup> See *Michigan v. EPA*, No. 14-46, slip op. at 5 (U.S. June 29, 2015) (“[A]gency action is lawful only if it rests ‘on a consideration of the relevant factors.’” (quoting *Motor Vehicle Mfrs. Ass’n of United States, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983))).

<sup>91</sup> Testimony of Janet McCabe, *supra* note 5, at 21 (June 18, 2015) (emphasis added), at <http://www.cq.com/doc/financialtranscripts-4711934?6&search=1E4v24rR>.

### **Independent Fuel Terminal Operators Association (IFTOA)**

EPA may believe it should set future mandates at high levels so as to compel the market to make dramatic changes, but such changes are also likely to cause great economic harm to consumers and the economy. The potential for these adverse effects must be taken into consideration by the Agency. While it may be appropriate for EPA to establish the mandates at levels that encourage somewhat greater production and use of renewable fuels than the market would achieve in the absence of such mandates, there is nothing that compels EPA -- when exercising its waiver authority -- to establish aspirational or ambitious mandates.

The U.S. energy picture has changed dramatically since the Program was initially established. The Energy Information Administration now predicts declining gasoline demand for the foreseeable future, and due to lower energy content and corresponding additional costs, consumers resist using fuels with higher concentrations of ethanol (E85). The authorizing statute gives EPA substantial authority to adjust the mandates in light of these changed circumstances.

#### **VII. “Reset” Provision**

As stated above, EPA appears to have taken a new approach to the RFS mandates. It will fully recognize market constraints for 2014 and part of 2015, waive a portion of the statutory volumes, and set the mandates at levels that promote growth in renewable fuels -- more than would be achieved without the mandates -- but still at achievable levels. However; for the future, it will establish far more ambitious targets. In the Preamble to the proposed rule, EPA says:

“While we are proposing to use the tools Congress provided to make adjustments to the law’s volume targets in recognition of the constraints that exist today, we are proposing standards for 2015 and 2016 that will drive growth in renewable fuels, particularly those fuels that are required to achieve the lowest lifecycle GHG emissions. We believe that over time, use of both higher ethanol blends and non-ethanol biofuels can and will increase, consistent with Congress’ intent in enacting the Energy Policy Act and the Energy Independence and Security Act. In our view, while Congress recognized that supply challenges may exist as evidenced by the various waiver provisions, it did not intend growth in the renewable fuels market to be ultimately prevented by

those challenges, including such constraints as the ‘E10 blendwall’ or demand for gasoline or diesel. The fact that Congress chose to mandate increasing and substantial amounts of renewable fuel clearly signals that it intended the RFS program to create incentives to increase renewable fuel supplies and overcome limitations in the market. The standards we are proposing are forward-leaning and reflect those incentives.”

We believe that this interpretation of the statute is incorrect. It is clear that Congress wanted to increase the use of renewable fuels in the transportation pool, but when it enacted the mandates, it was unaware of significant market constraints/limitations – e.g. the ‘E10 blendwall,’ and the substantially reduced demand for gasoline. It did not intend for growth in renewable fuels to “overcome those challenges.” It did not know that such challenges existed. Congress and everyone else, industry and consumers, assumed there would be continued, uninterrupted economic growth and continued expansion in the demand for gasoline. Therefore, EPA should adopt an approach for the future that promotes growth in the production and use of renewable fuels, but does so in a more limited manner than seems to be its current plan. As the Agency goes forward, the mandates should not be ambitious. They should promote some growth – more than the market would do in the absence of a regulatory mandate – but still within ranges that recognize market constraints/limitations and are achievable.

The “reset” provision of the RFS Program states that if the Administrator waives (i) at least 20 percent of the applicable volume requirement for two consecutive years; or (ii) at least 50 percent of such volume requirement for a single year, the Administrator shall promulgate a rule that modifies the applicable volumes in the statute for all the years following the final year to which the waiver applies. In doing so, the Administrator must coordinate with the Secretaries of Agriculture and Energy and analyze and consider –

- a. The impact of the production and use of renewable fuels on the environment;
- b. The impact on energy security;
- c. The expected annual rate of future commercial production of renewable fuels;
- d. The impact of renewable fuels on U.S. infrastructure, including deliverability of products other than renewable fuels and sufficiency of infrastructure to deliver and use renewable fuels;
- e. The impact of use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods; and
- f. The impact of the use of renewable fuels on other factors, including job creation, the price and supply of agricultural commodities, rural economic development, and food prices.

Simply stated, while Congress was not aware of the E10 blendwall and did not anticipate a dramatic decrease in the demand for gasoline when it set the mandates, it did recognize that circumstances change. It provided ample authority for the Agency to analyze and consider significant factors and to reset all of the mandatory volumes if certain conditions are met. Indeed, in recent testimony before the Senate Committee on Homeland Security and Government Affairs, EPA acknowledged that the circumstances supporting a “reset” are likely to exist, and said “we actually think that it makes a lot of sense to focus a reset on all volumes at one time and you just will provide a lot more certainty to everybody to do that.” Therefore, the Agency is not

caught in a position where it must set the renewable fuel mandates at such levels that it dramatically changes how transportation fuels are sold and substantially raises the prices of these commodities at the pump. It has the authority to start anew with a more modest approach, balance the enumerated factors set forth by Congress, and establish future mandates that are (1) realistic, recognizing market constraints, and (2) promote moderate growth in the production and use of renewable fuels.

Recommendation: For 2017 and beyond, the EPA should exercise its authority under the reset provision of the RFS Program, 42 USC 7545(o)(7)(F), and establish more modest and achievable RFS mandates.

Specifically, the Association recommends the following:

2. For the future -- beyond 2016 -- EPA should not establish ambitious mandates that are designed to create dramatic changes in the market. Rather, the Agency should, using its “reset” authority, take a more modest approach and continue to balance market conditions/limitations and incentives for renewable fuel growth.

#### **National Corn Growers Association (NCGA)**

EPA conspicuously proposes to set the RFS levels at almost precisely the levels necessary to trigger its reset authority for 2017, the first year it could be triggered.

#### **Office of the Lt. Governor, Indianapolis, Indiana**

Furthermore, I urge you to establish volume requirements beyond 2016 so that business investment decisions can be made with a longer time horizon.

#### **Shell Oil Products US**

EPA is required to conduct a rulemaking to adjust the overall schedule of the RFS mandates through 2022.

#### **Union of Concerned Scientists**

Our specific recommendations include:

- Initiate a rulemaking to update the standards from 2017 to 2022 or 2030. Initiate rulemaking on cellulosic schedule update

As soon as possible upon finalizing the combined RVO, EPA should begin a rulemaking process to reset the RFS mandate schedule for 2017 and beyond. EPA should include discussion of the implications for cellulosic, advanced and renewable mandates in this rulemaking process. The implausibility of the current mandate schedule, including the 16 billion gallon (Bgal) cellulosic target for 2022 and the related 21 Bgal target for advanced and 36 Bgal target for renewable fuels, creates a vacuum in the regulatory framework with implications that go beyond EPA’s administrative processes for the RFS. The associated uncertainty creates challenges for other

federal agencies projecting the future of fuels and agricultural commodities, for market participants in fuel production, distribution, and use, as well as for state governments pursuing complimentary clean fuel policies and for international bodies such as the Food and Agriculture Organization of the United Nations trying to project international trade in fuels and agricultural commodities.

EPA should initiate an open and science-based rulemaking process, decoupled from the annual rulemaking for volume obligations, to develop an ambitious but realistic schedule for cellulosic biofuel growth over the coming years. At a minimum, the schedule should be updated through 2022, but alternatively, the EPA might approach the question of how long it will take to meet the full 16 Bgal cellulosic target, thus looking out past 2022 to 2030 or beyond. Such a roadmap is an important element of a comprehensive approach to climate policy that would complement the clean power plan, vehicle efficiency standards, and other policies.

Such a rule should address the statutory requirement to update the cellulosic mandate schedule in light of the consecutive waivers in years 2010 through 2016, and allow EPA to do the same for advanced and overall mandates. A workable approach to the policy requires an analysis of the impact of the policy in its entirety. The new compliance schedule and RVO criteria should be based on a technical assessment of competing uses for agriculture products, constraints in the vehicle and fueling infrastructure, and a detailed study of how mandate increases impact these factors and land use change and carbon emissions.

This comprehensive proposed rulemaking should fully support the Congressionally-directed goal of advancing the development of cellulosic biofuels that move beyond food as a feedstock while minimizing competition with existing uses of agricultural feedstocks and the associated negative impacts on food markets, land use change emissions. We recognize that such a rulemaking would require a substantial amount of analysis, consultation with United States Department of Agriculture and Department of Energy, stakeholders, and extensive public comment and technical peer review. However, undertaking such a process sooner rather than later would reduce the scope of analysis required for annual RVO rulemakings, reduce uncertainty and provide clarity for all parties affected by RVOs, and would benefit the EPA by simplifying the administrative burdens of the RVO process moving forward.

**Union of Concerned Scientists (UCS), Clean Air Task Force, Environmental Working Group, ActionAid USA, and National Wildlife Federation (NWF)**

(We) urge the EPA to initiate a rulemaking, as soon as practical, to propose a revised compliance schedule for the timeframe beyond 2015 and clarify the data and criteria that EPA will use to set the Renewable Volume Obligation (RVO) in 2016-2022.

Such a rule should address the statutory requirement to update the cellulosic mandate schedule in light of the consecutive waivers in years 2010 through 2016, and allow EPA to do the same for advanced and overall mandates. A workable approach to the policy requires an analysis of the impact of the policy in its entirety. The new compliance schedule and RVO criteria should be based on a technical assessment of competing uses for agriculture products, constraints in the

vehicle and fueling infrastructure, and a detailed study of how mandate increases impact these factors and land use change and GHG emissions.

Undertaking such a process sooner rather than later would reduce the scope of analysis required for annual RVO rulemakings, reduce uncertainty and provide clarity for all parties affected by RVOs, and would benefit the EPA by simplifying the administrative burdens of the RVO process moving forward.

A important outcome of the comprehensive rulemaking we are proposing would be to establish a concrete basis for the RVO process that would ensure that this flexibility is exercised in a manner that maximizes the benefits of the policy while minimizing negative impacts including high and unstable commodity crop prices, land use change, conversion of grasslands, deforestation both in the US and abroad, and associated GHG emissions and other impacts on wildlife, water quality and biodiversity. This should include clarifying the conditions that must be met before mandates can be enlarged beyond the minimum levels set by Congress by requiring volumes originally specified as cellulosic to be met by non-cellulosic advanced biofuels. EPA should evaluate the GHG, economic and other impacts of the policy under a variety of different scenarios, and based on the findings propose the external factors that would be used to make RVO determinations.

**Response:**

Almost all comments regarding the outlook for 2017 and beyond focused on the provisions of section 211(o)(7)(F) of the CAA which provide for modifying the RFS volumes otherwise specified in section 211(o)(2)(B) of the CAA, often referred to as the reset provisions. Consistent with comments provided on the appropriate level of the 2014-16 standards, biofuel providers and related interest groups believed it would be inappropriate for EPA to set the 2014-16 standards at levels that would trigger the reset provisions of section 211(o)(7)(F) of the CAA. Meanwhile petroleum interests supported lower standards for 2014-16, standards that would also trigger the reset provisions. Some commenters suggested that EPA might have proposed levels of the standards to deliberately cause the reset provisions to be triggered. As discussed in detail in section II.B of the final rule, and elsewhere in this RTC document, we do not believe that the statutory volumes for cellulosic biofuel, advanced biofuel, and total renewable fuel can be met for all the years 2014-16 and we are waiving the statutory volumes. As further discussed in detail in section II and IV of the final rule we are waiving the total renewable standard only to the extent necessary, and are setting the advanced biofuel standard to require use of reasonable attainable volumes. We have reached these decisions based on the technical merits without regard to their resultant impact on triggering the reset provisions.

Others commented that it was important or necessary to complete a rulemaking in response to the 211(o)(7)(F) triggering provisions. Some also suggested how EPA should go about setting such standards. EPA intends to fulfill its requirements under 211(o)(7)(F) but would do so in a separate rulemaking. EPA did not propose to exercise authority under section 211(o)(7)(F) and considers comments about when or how to complete such a rulemaking, or other rulemakings related to volumes applicable to 2017 or later, to be beyond the scope of this rulemaking.

More generally, comments indicated the importance of setting the 2017 and later (and in one case, the post-2022) standards soon so as to provide greater certainty to the biofuel market, especially the evolving market for advanced biofuels. In establishing standards for 2014-2016 in this final rule, EPA intends to get back on schedule in setting 2017 and future standards in a timely fashion and believes that this will help provide additional certainty for investment in the ongoing growth of renewable fuels.

We consider those comments stating that as part of the rationale for a reset rule, EPA should take into consideration the commenter's view that Congress never intended the RFS program to require renewable fuel volumes above the E10 blendwall to be beyond the scope of this rulemaking.

## **10.2 Dates/Deadlines**

### **Comment:**

#### **Advanced Biofuels Association (ABFA)**

We would urge the Agency to move the deadline of setting the annual RVOs to March 1<sup>st</sup> of each calendar year after actual use of renewable fuels is publicly known (e.g., the RVO for 2017 would be published on March 1, 2018). This will allow for the actual number of produced gallons minus those gallons exported and those otherwise retired RINs to be fully accounted for in the process of setting the RVOs for each of the obligation categories. [EPA-HQ-OAR-2015-0111-2498-A1 p.4]

### **Response:**

The statute requires EPA to set the volume of annual RVOs no later than November 30<sup>th</sup> of the prior calendar year. See Clean Air Act 211(o)(3)(B)(i). Therefore, EPA is unable to move the deadline of setting the annual RVOs to March 1<sup>st</sup> of each calendar year after actual use of renewable fuels is publically known.

### **Comment:**

#### **Commonwealth of Pennsylvania**

##### *Concerns regarding the program's operation*

Congress had legitimate policy goals in mind when it created the Renewable Fuel Standard Program in 2005. Its twin goals of environmental protection and reducing America's reliance on foreign fuel sources remain of critical importance, but as the program's second decade begins, serious questions remain regarding the its implementation. [EPA-HQ-OAR-2015-0111-1933-A1 p.1]

Even those who completely support the program and how it is currently structured should be troubled that the envisioned annual exercise of setting volume and percentage requirements has

not been followed since 2013. I commend the EPA for recognizing that the continued delays and ambiguity regarding the standards are not acceptable and for indicating a determination to return to the annual schedule originally envisioned in the statute.[EPA-HQ-OAR-2015-0111-1933-A1 p.1]

### **Nestle**

With respect to 2014 RFS quantities, the agency did not meet statutory deadlines for announcing mandates. In these circumstances, simply setting the RFS at actual-use levels is the only sensible approach. To retroactively impose mandates different from actual usage would serve no purpose and would undoubtedly invite costly litigation that would be a poor use of federal resources. [EPA-HQ-OAR-2015-0111-1918-A1 p.2]

### **PBF Holding Company LLC**

Given the harm associated with EPA's continued delay in promulgating annual RFS requirements, EPA should expeditiously finalize the 2014, 2015, and 2016 standards, and must propose and finalize standards for future years in accordance with the respective statutory deadlines. [EPA-HQ-OAR-2015-0111-1724-A1 p.3]

### **National Farmers Union (NFU)**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1044, pp. 165-166.]

So first let's look at timing. EPA is inexcusably late with their decision. EPA was under obligation to set the production targets and propose and finalize the rules well before the 2014 production year began to give the ethanol industry the certainty it needs to prepare for the next year. The 2014 production year has already come and gone. The 2015 rules will not be finalized until the year is almost over. It remains to be seen if the proposed rule is finalized before the 2016 production year begins. In our view, EPA's failure to set production targets in advance of production years is very disappointing and damaging to the ethanol industry by virtue of the uncertainty it creates.

### **Response:**

Many commenters emphasized the importance of the statutory deadlines and the need to keep the statutory schedule. They also encouraged EPA to expeditiously finalize this rule. Some commenters supported our decision to set the standards for 2014 at actual levels due to this delay. We acknowledge that the missed deadlines created uncertainty and the potential for adverse effects on obligated parties and renewable fuel producers, though it is not possible to ascertain the extent to which adverse effects may have occurred, as the renewable fuel volumes continued to increase over time despite the lack of having standards in place. Regardless, we intend to meet the statutory schedule for future rulemakings. For the final rule we are continuing to set 2014 standards at levels of actual supply. It is also important to note that the annual rulemaking schedule and process, which is very challenging to complete each year, was specified by Congress.

## **10.2.1 Statutory Deadlines**

### **Comment:**

#### **62nd Legislative District, Pennsylvania House of Representatives**

##### *Concerns regarding the program's operation*

Congress had legitimate policy goals in mind when it created the Renewable Fuel Standard Program in 2005. Its twin goals of environmental protection and reducing America's reliance on foreign fuel sources remain of critical importance, but as the program's second decade begins, serious questions remain regarding the its implementation.

Even those who completely support the program and how it is currently structured should be troubled that the envisioned annual exercise of setting volume and percentage requirements has not been followed since 2013. I commend the EPA for recognizing that the continued delays and ambiguity regarding the standards are not acceptable and for indicating a determination to return to the annual schedule originally envisioned in the statute. [EPA-HQ-OAR-2015-0111-3462-A1 p. 1]

#### **Abengoa Bioenergy**

EPA admits that its unlawful delays in promulgating 2013 and 2014 standards have lowered actual supply of biofuels that would otherwise be available to satisfy RFS requirements. [EPA-HQ-OAR-2015-0111-2474-A1 p.6]

#### **Advanced Biofuels Association (ABFA)**

The inability to set the standards in a timely fashion, as well as accurately set the obligations relative to actual production, has disproportionately had a negative impact on the second generation advanced and cellulosic producers, which ABFA represents. The past efforts at setting RVOs have seen lawsuits filed for missing the November 30<sup>th</sup> deadline and then lawsuits at the end of the process, forcing EPA to vacate or significantly reduce the cellulosic RVO in particular in both 2012 and 2013. As a result, this is a process that requires reform in order to restore certainty to the market, entice investors, and bring confidence to the RFS2 program at large. We appreciate many of the changes that are proposed in this rulemaking, which move in the direction of providing more clarity, transparency, and certainty for the program. [EPA-HQ-OAR-2015-0111-2498-A1 p.2]

#### **CHS, Inc.**

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015. See Docket Number EPA-HQ-OAR-2015-0111-1044, p. 173.]

We also strongly urge the EPA to set these blending requirements statutory -- by statutory deadlines. Delays in the requirements have caused unnecessary uncertainty for our growers and ethanol producers. They also contribute to the volatility of RINs, which increases cost for refineries.

### **ExxonMobil Refining & Supply Company**

Recognizing the regulatory improvisation that is currently occurring in light of the current timing situation, ExxonMobil is hopeful that this proposal will get the RFS program back on track. ExxonMobil supports EPA's efforts to get the agency back to a program of reasonable deadlines that provide obligated parties with appropriate notice to adequately plan to ensure the continued availability of transportation fuels throughout the US. While ExxonMobil is substantively supportive of some of the standards promulgated by EPA in this proposal, it strongly objects to the retroactive and late timing which put both EPA and industry into this potentially untenable position. ExxonMobil urges EPA to meet its statutory and now court-ordered deadlines going forward. [EPA-HQ-OAR-2015-0111-2270-A1 p.2]

### **Illinois Farm Bureau**

EPA must not allow this issue to linger for months without final action because it really does appear as if the agency is making up the rules as it goes along. EPA's failure to meet statutory deadlines, its arbitrary approach and indefensible definition of 'inadequate supply' are making a mockery of a law that has accomplished so much and has so much potential. EPA must bear responsibility for the growing perception that the RFS isn't working. It's not too late for the agency to reverse the damage its done. [EPA-HQ-OAR-2015-0111-3290-A2 p.4] [EPA-HQ-OAR-2015-0111-1044 p.93]

### **Mass Comment Campaign sponsored by anonymous 5 (web) - (386)**

The agency's continued inability to set standards that are timely and reasonable raises the question as to whether a federal law requiring increased use of biofuels is in the public interest. The financial health of the U.S. refining industry should not be put at risk by federal regulations which fail to consider the realities of the marketplace. [EPA-HQ-OAR-2015-0111-0128 p.1]

### **National Chicken Council (NCC)**

The EPA has not met its statutory deadlines in establishing the required volume obligations under the RFS since 2009. Under the EISA statute, the required volume obligations are to be finalized by 30 November of the preceding year. The actual dates by which these levels were established are shown as follows:

- 2010 – finalized March 26, 2010
- 2011 – finalized December 9, 2011
- 2012 – finalized January 9, 2012
- 2013 – finalized August 5, 2013
- 2014 – proposed in November 2013, re-proposed in May 2015
- 2015 – proposed in May 2015

According to the Government Accountability Office, these late rulings “contribute to industry uncertainty, which can increase costs because industry cannot plan and budget effectively.” [EPA-HQ-OAR-2015-0111-1814-A1 p.1-2]

### **National Corn Growers Association (NCGA)**

The authority to adjust the cellulosic, advanced and total schedules based on cellulosic shortfalls, section 211(o)(7)(D) of EISA requires: EPA to adjust, by November 30 of the preceding year, the volume requirements for cellulosic biofuel if production is likely to be less than called for in the Act. The EPA has failed to meet this deadline – two years after the statutory obligation. [EPA-HQ-OAR-2015-0111-1939-A1 p.3]

### **Novozymes Americas**

The EPA’s actions – and inactions – over the past 18 months have stalled and driven away significant investment and jobs. [EPA-HQ-OAR-2015-0111-3277-A1 p.1]

A guiding principle of the RFS was that obligated parties would be required to blend increasing amounts of renewable fuel into our fuel supply, up to the statutory volumes. Removing that obligation could cause uncertainty in the U.S. alternative fuel industry. Companies like Novozymes will be unable to evaluate future U.S. projects due to market uncertainty. Pollution, greenhouse gas emissions, and price vulnerability at the pump will also increase. [EPA-HQ-OAR-2015-0111-3277-A1 p.7-8]

### **Paul Bertels Farms**

Finally, I am dismayed the Agency has claimed “the past has happened” when setting the 2014 rule. It is EPA’s inability to promulgate rules within the legislated timeline that has put you into the awkward position of proposing rules for past years. [EPA-HQ-OAR-2015-0111-2799-A1 p.2]

### **Response:**

EPA acknowledges the missed statutory deadlines which have caused us to set the 2014 and 2015 standards at the levels of actual supply and projected actual supply, respectively. We acknowledge that investors, producers, distributors, and retailers seek certainty in the standards for decision-making. With this rulemaking, we place the standards back on track, and seek to maintain this for future annual standards to alleviate many of the issues presented by commenters due to untimely standard setting.

We also received comments questioning whether the RFS program is in the public interest, and criticizing EPA’s standards as “fail[ing] to consider the realities of the marketplace.” EPA disagrees with this comment, and carefully considers the fuel marketplace in setting standards for this program.

**Comment:**

**American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

CAA section 211(o)(2)(B)(ii) also expressly requires EPA to provide 14-months lead time when establishing such requirements. [EPA-HQ-OAR-2015-0111-1948-A1 p.13]

Compliance with the statutory lead time requirements for these years now is impossible. EPA also has not undertaken an adequate analysis of the six factors specified in CAA section 211(o)(2)(B)(ii) for 2014, 2015, 2016 or 2017. Consideration of these factors is a statutory requirement precedent to revising the applicable volume of biomass-based diesel for years after 2012. [EPA-HQ-OAR-2015-0111-1948-A1 p.13]

In this regard, section 211(o)(2)(B)(ii) is clear: EPA cannot alter its most recent determination for 2013 of 1.28 billion gallons, because this is the highest volume for which obligated parties have had the requisite advance notice and an opportunity to comment on EPA's application of the six statutory criteria.<sup>21</sup> [EPA-HQ-OAR-2015-0111-1948-A1 p.13]

The fact that the statute set forth specific volumetric requirements in 2009 and 2010 in the NPRA case is significant, because it enabled the court to reason that obligated parties were put on notice by the statute itself as to what their biomass-based diesel blending requirements would be prior to the promulgation of a final rule. There is no such notice here. Instead, the statute establishes a 1 billion gallon floor; in 2013, EPA applied the six statutory criteria to set the applicable volume for biomass-based diesel above that floor, at 1.28 billion gallons. [EPA-HQ-OAR-2015-0111-1948-A1 p.14]

NPRA v. EPA involved the implementation of a new program - the transition from RFS1 to RFS2 following the passage of EISA. [EPA-HQ-OAR-2015-0111-1948-A1 p.15]

That same situation is not present today, as the Agency's original proposal to maintain the 1.28 billion gallon mandate in 2014 and 2015 continues to exceed the statutorily prescribed minimum of 1.0 billion gallons. [EPA-HQ-OAR-2015-0111-1948-A1 p.15]

EPA may increase the biomass-based diesel standards only by correctly applying the six enumerated criteria and by providing obligated parties 14-months lead time. Not having done either, EPA is, therefore, without authority to increase the biomass-based diesel mandate beyond 1.28 billion gallons in the context of this rulemaking. [EPA-HQ-OAR-2015-0111-1948-A1 p.15]

EPA should more fully explain this sequence of events and how it can assure that it will return to the statutory schedule when it has not explained past failures to comply despite having full knowledge of the annual obligations imposed on EPA by the RFS program. [EPA-HQ-OAR-2015-0111-1948-A1 p.53]

Therefore, in the context of this final rule, EPA should include a discussion of how the Agency has devoted and will devote sufficient resources to the RFS program, ensured its coordination with EIA in a timely fashion, and addressed any significant factors that EPA believes impede its

ability to comply with statutory deadlines for the RFS. [EPA-HQ-OAR-2015-0111-1948-A1 p.54-55]

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<sup>21</sup> We would note that even using the 2013 determination would not explicitly satisfy the requirement of CAA section 211(o)(2)(A)(ii) that the Administrator determine applicable volumes for “calendar years after the calendar years specified in the tables” since EPA’s determination was with respect to the year 2013.

### **Countrymark Cooperative Holding Corporation**

[W]e average just under 2% biodiesel in all of our diesel fuel on an annual basis. We have a customer base that desires renewable fuels; however, we still cannot meet our obligation purely through blending renewable fuels. Therefore, we are a net purchaser of RINs and as such we must plan for our compliance at the start of each calendar year. [EPA-HQ-OAR-2015-0111-2264-A1 p.2]

#### II. 2014 Standards

Since there was no other planning resource to use and EPA did not finalize the standards in a timely manner, we were forced to plan to use those standards that were proposed in 2013 as our planning guide for 2014 compliance.

Even though EPA reduced the total renewable fuel requirement in this new proposed standard, they raised the advanced biofuel percentage and subsequently the nested requirements for biomass-based diesel and cellulosic biofuels. The change in cellulosic is almost double and will cost over \$35,000 for additional waiver credits. This is small compared to the financial impact on changing the advanced and total categories. Biodiesel is the only advanced biofuel that we can blend on a commercial scale to satisfy the obligation for both the biomass-based diesel and the advanced biofuel categories. At the end of 2014, we had either blended and/or purchased nearly all of our D4, D5, and D6 RINs for compliance. With the new standards, we became short on D4 and D5 RINs and long on D6 RINs. In addition, D6 RIN price dramatically decreased while D4 and D5 stayed the same or increased. Both of these combined have a real economic impact of over \$1.1 million which is a direct impact on CountryMark income.

CountryMark nor any company should be financially penalized because EPA did not set the compliance standards in a timely fashion. Therefore, we recommend that the 2014 standards remain the same as those proposed in November 2013 which is closer to the intended timeline set by the law. [EPA-HQ-OAR-2015-0111-2264-A1 p.2-3]

If the annual obligation continues to increase as indicated by the EPA there are only two options for compliance at this time:... 2) Blend additional biodiesel. Diesel fuel specification, ASTM D-975, allows for up to 5% biodiesel to be blended within the specification. One approach would be to blend 5% biodiesel from March through November and not provide a choice to our customers. This lack of choice may negatively impact diesel sales volumes. Plus, this approach would still require purchasing additional RINs for compliance. [EPA-HQ-OAR-2015-0111-2264-A1 p.7]

In addition, EPA should reduce the biomass-based mandate to reflect an annual average of 2% biodiesel in the diesel fuel market. [EPA-HQ-OAR-2015-0111-2264-A1 p.8]

### **National Biodiesel Board**

NBB rejects, however, any suggestion that EPA should not implement the RFS2 volumes for 2014-2016 and cannot increase the required volumes for biomass-based diesel because it did not finalize the standards under the deadlines in the statute. At the public hearing, obligated parties continue to beat the drum that EPA cannot increase the biomass-based diesel applicable volume because it missed the statutory deadlines. [EPA-HQ-OAR-2015-0111-1953-A2 p.133]

They are within the volumes required by statute, including the biomass-based diesel volumes, which are within the total advanced biofuel and total renewable fuel volumes. Thus, NBB does not believe that the imposition of standards applicable to the entire year renders EPA's final decision retroactive rulemaking. The final "rule" here is merely a translation of the volume requirement into a percentage of the gasoline and diesel fuel expected to be sold.<sup>116</sup> Moreover, a showing of compliance with these requirements is not yet due. [EPA-HQ-OAR-2015-0111-1953-A2 p.134]

Based on the rule establishing the 2013 biomass-based diesel volume, obligated parties were also on notice that EPA believed increased biomass-based diesel volumes would better meet the advanced biofuel volume. In addition, obligated parties simply cannot claim harm with respect to the proposed volume increase by NBB for biomass-based diesel for 2014, as it is in line with production and use in 2013. NBB also has long advocated for higher volumes of biomass-based diesel. Also, it only benefits obligated parties to purchase RINs even before EPA finalizes the required volume, as excess RINs can be sold or used the next year. [EPA-HQ-OAR-2015-0111-1953-A2 p.135]

Such a final rule would be a logical outgrowth of EPA's proposal. A final rule constitutes a logical outgrowth of a proposed rule where "interested parties should have anticipated that the change was possible, and thus reasonably should have filed their comments on the subject during the notice-and-comment period." *Daimler Trucks N. Am. LLC v. EPA*, 737 F.3d 95, 100 (D.C. Cir. 2013) (citations omitted). The D.C. Circuit has held that it "will deem a final rule to be a logical outgrowth of a proposed rule 'if a new round of notice and comment would not provide commentators with their first occasion to offer new and different criticisms which the agency might find convincing.'" *Id.* (citations omitted). [EPA-HQ-OAR-2015-0111-1953-A2 p.135]

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<sup>116</sup> The Administrative Procedure Act is of limited application here. Section 307(d) of the Clean Air Act outlines the requirements for the promulgation or revision of any regulation pertaining to any fuel or fuel additive under Section 211 of the Act. 42 U.S.C. § 7607(d).

### **Response:**

Commenters suggested the EPA was prohibited from increasing the biomass-based diesel standard above 1.28 billion gallons for 2014 because obligated parties did not have adequate

notice of EPA's intention to increase the biomass-based diesel standard above this amount beginning with the 2014 production year. We do not agree with these commenters and believe that obligated parties were on notice that the BBD volume requirement could be higher than 1.28 billion gallons. First, in proposing 2014 volumes in the November 2013 NPRM,<sup>37</sup> we said that we believed 1.60 billion gallons of biomass-based diesel was the upper-end of BBD volume range for use in deriving the proposed total renewable fuel volume for 2014. While we proposed a 2014 BBD volume requirement of 1.28 billion gallons, we also requested comment on alternative approaches and higher volumes.<sup>38</sup> We also noted in the NPRM that total biodiesel production by the end of 2013 could be as high as 1.7 billion gallons and that the facilities contributing to this production collectively had a capacity of well over 2 billion gallons.<sup>39</sup> Thus, stakeholders were certainly provided notice in November 2013 that a final BBD volume requirement greater than 1.28 billion gallons was possible and could be used in deriving the final 2014 BBD standard. Furthermore, they were provided with notice through the June 10, 2015 NPRM of our intention to increase the volume requirement above 1.28 billion gallons. We note, as well, that the volume requirement is established to reflect actual renewable fuel use in 2014, without the need for a draw-down in the collective bank of carryover RINs, so there are adequate RINs available for compliance, and compliance can be achieved through RIN acquisition. Parties will have until June 1, 2016, to submit their compliance demonstrations for 2014, which is ample time to complete necessary RIN transactions. Obligated parties had the opportunity to and did comment on the proposed volumes for 2014-2017 in this rulemaking, as well as on 2014 and 2015 volumes in the previously proposed rule from November 2013.

These commenters stated that the EPA is acting contrary to the plain language of the statute and the objectives of the RFS program. They stated that EPA's reliance on the D.C. Circuit decisions addressing late issuance of RFS rules to justify our proposed establishment of BBD volume requirements for 2014-2016 was inappropriate because the factual situation is distinguishable. They argued that in prior decisions the DC Circuit noted that the statute provides notice of possible maximum volume requirements, and that with respect to BBD for 2014-2016 there are no comparable statutory references. Additionally these commenters noted the unique circumstances of one of the prior cases as distinguishable because EPA was implementing a new program, and that Congress anticipated the possibility of retroactive impacts.

Our response to these comments is provided in Sections I.C. and III.C.-E. of the final rule. In general, EPA agrees that there are factual distinctions between the situations addressed by the DC Circuit in the two prior decisions that addressed our authority to issue late rules and the possibility that they could be characterized as unreasonably retroactive, but we do not believe that these distinctions mean that EPA is precluded from setting standards for 2014 and 2015 at the levels finalized, or that it is unreasonable for us to do so. We believe that EPA is authorized to issue standards, though late, and that obligated parties had sufficient notice that EPA could finalize larger volume requirements than those proposed in November, 2013, and that the many program flexibilities and extended compliance dates provided in the regulatory program and this final rule, together with our finalization of volume requirements equal to actual supply (without a

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<sup>37</sup> 78 Fed. Reg. 71732, 71767 (November 29, 2013).

<sup>38</sup> 78 Fed Reg 71732, 71734.

<sup>39</sup> 78 Fed Reg 71732, 71752.

draw-down in the collective bank of carryover RINs), render the final standards achievable and reasonable.

These same industry commenters suggested that because of the retroactive nature of the 2014 rulemaking and purported lack of notice, some obligated parties might have difficulty meeting their 2014 BBD volume obligations if we were to finalize a BBD volume requirement greater than 1.28 billion gallons. Although they did not identify any parties in this situation, there was one obligated party who asserted in separate comment that they had in fact relied on the November 2013 NPRM in planning 2014 compliance for all four of the renewable fuel standards, and requesting that in fairness EPA not now impose higher obligations for that year. In reply we reiterate that parties were on notice through the November 2013 NPRM that EPA could finalize higher volume requirements than proposed. Indeed, it is the nature of proposed rules that EPA review comments and consider changes, so our doing so should not come as a surprise to anyone. In addition, the tables of applicable volumes in the statute have long provided notice with respect to advanced biofuel, total renewable fuel and cellulosic biofuel that volume requirements could be as high for those fuels as are specified there. We believe that once this commenter complies with the 2014 advanced biofuel and total renewable fuel volume requirements regarding which such extensive notice was available, that compliance with the 2014 BBD volume requirement will likely either be satisfied, or easily satisfied. Even if the party needs to adjust the types of advanced biofuel RINs they own to acquire sufficient BBD RINs to comply with the BBD standard, they will be able to sell the non-BBD advanced RINs for a nearly identical price to the BBD RINs they will need to purchase.<sup>40</sup> EPA is also extending the compliance demonstration deadline for 2014 beyond what we proposed, allowing this party and any other similarly situated party sufficient time to engage in the needed RIN transactions.

Even if an obligated party faced compliance challenges for 2014, CAA 211(o)(2)(5)(A)-(D) provides two additional compliance flexibility options that an obligated party may utilize if they are unable to meet their 2014 BBD volume obligation with RINs generated in 2014. First, to the extent that any shortfall of BBD RINs might exist, an obligated party, could utilize carryover BBD RINs (D4) to meet their compliance obligation. As we discussed in Section II.H, carryover RINs were intended to provide flexibility for obligated parties in complying with the RFS standards in a variety of circumstances. Certainly, if an obligated party experiences a shortfall in complying with the BBD 2014 volume standard using 2014 RINs it would be appropriate for them to use carryover RINs to meet compliance obligations. Based on available data in the EMTS system<sup>41</sup>, we estimate that there are about 400 million carryover BBD RINs available for use in 2014. This number of BBD carryover RINs should be available for purchase on the RIN market (since if they are not used in 2014 they will expire), and together with available RINs generated in 2014 make up a substantial RIN pool from which obligated parties may acquire needed RINs. However, if an obligated party was either unable to purchase the necessary carryover RINs or current year RINs to meet its compliance obligation, they could alternatively use the carry-forward deficit provision of CAA 211(o)(2)(5)(D) to carry forward the deficit for

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<sup>40</sup> "RIN Prices in 2015 (January – October)" memorandum from Dallas Burkholder to docket EPA-HQ-OAR-2015-0111.

<sup>41</sup> "Estimating Carryover RINs Available for Use in 2014," memorandum from Dallas Burkholder to docket EPA-HQ-OAR-2015-0111.

one year on the condition that it be met the following year (assuming they did not carry forward a deficit into 2014).

We recognize that the same number of BBD RINs will likely be retired for compliance with the 2014 RFS standards whether we set the BBD volume requirement at 1.28 versus 1.63 billion RINs, because complying with the 2014 advanced and total renewable fuel standards will require retirement of 1.63 billion BBD RINs. However, in light of this fact, the ease with which RINs may be traded, as well as the availability of carryover RINs and the deficit carry-forward option, we believe it is unlikely that any obligated party would have more difficulty complying with a 1.63 billion gallon 2014 BBD volume requirement as compared to a 1.28 billion gallon BBD volume requirement. Therefore, we do not believe that sufficient justification has been presented by commenters for EPA to deviate from the proposed approach of setting the 2014 BBD volume requirement as equal to the actual 2014 BBD supply. In addition, we believe that lowering the proposed 2014 BBD volume requirement for what we believe to be a highly theoretical, and undocumented concern would send a potentially chilling message to investors in the BBD industry that would be contrary to the objectives of the CAA to incentivize the growth of renewable fuel volumes.

For all of these reasons, we believe that it is reasonable and appropriate to establish the 2014 BBD applicable volume requirement as equal to 1.63 billion gallons, the volume actually produced and imported in 2014 and which is available for compliance. This is consistent with the approach we are taking to establishing the total renewable fuel, advanced biofuel, and cellulosic biofuel standards in 2014. Our approach to setting the 2015 BBD volume requirement is justifiable for the same reasons.

A commenter responded to this argument, which was initially presented at the public hearing on June 26, 2015, making many of the same arguments as EPA has presented above. These commenters also noted that because the BBD volumes are nested within the advanced biofuel volumes, obligated parties had notice that BBD volumes would be within that volume. They noted that a compliance demonstration is not yet required, and that the 2013 RFS standards were upheld even when issued after the statutory deadline. They noted that obligated parties had notice of the potential 2014 volumes and could not demonstrate harm caused by a higher standard. EPA agrees with these comments.

**Comment:**

**Colorado Corn Growers Association**

Among other issues with its recent rulemaking, the authority to adjust the cellulosic, advanced and total schedules based on cellulosic shortfalls requires the EPA to adjust, by November 30 of the preceding year, the volume requirements for cellulosic biofuels if production is likely to be less than called for in the Act. The EPA has failed to meet this deadline two years after the statutory obligation. [EPA-HQ-OAR-2015-0111-2334-A1 p.2]

For these reasons and others, the EPA's proposal is in direct violation of the law and puts the agency in an actionable position. [EPA-HQ-OAR-2015-0111-2334-A1 p.2]

**Response:**

EPA acknowledges that we have failed to meet the statutory deadlines for the 2014 and 2015 cellulosic, advanced, and total renewable fuel standards, but as discussed in the previous response, we have authority, and a responsibility, to issue RFS standards even though late, as noted in the D.C. Circuit's opinion in *Monroe Energy v. EPA*.

**10.3 Public Participation****Comment:****National Corn Growers Association (NCGA)**

The Agency received in excess of 340,000 comments on the proposal; many of those came from growers and farmers around the country. The Agency is obligated by law to address all substantive comments on a proposed rule. Ignoring those comments and withdrawing the NPRM shows a level of disrespect for the process and individuals who participated in the comment period. [EPA-HQ-OAR-2015-0111-1939-A1 p.4-5]

**Office of the Lt. Governor, Indianapolis, Indiana**

As you make final determinations on the renewable volume requirements, I urge you to make the process as open and transparent as possible. Stakeholders must have an opportunity for substantive contribution to the process, particularly those stakeholders who bear the responsibility of meeting the requirements. [EPA-HQ-OAR-2015-0111-2482-A1 p.2]

**Response:**

A commenter stated EPA is obligated to respond to the substantive comments submitted with the excess of 340,000 comments on the now rescinded notice of proposed rulemaking (NPRM) for the 2014 RFS standards [November 29, 2013, at 78 FR 71732]. The commenter also stated that withdrawing the NPRM is disrespectful to those who submitted comments and participated in the process. Another commenter stated that the rulemaking process should be open and transparent as possible to allow opportunity for substantive contribution to the process.

EPA believes that the process should be as open as possible and we have done so through multiple avenues to provide opportunities for comment. We opened a 45 day comment period and created a public docket (Docket ID No: EPA-HQ-OAR-2015-0111) to house all comments received on the proposed rule for the renewable fuel standards for 2014-2016, and biomass-based diesel volumes for 2017, which was published in the Federal Register in June 2015 (and posted a few weeks earlier on EPA's website). By the end of the comment period, we received over 670,000 comments from stakeholders in the oil, renewable fuel and agricultural industries, as well as from small businesses, state and local governments, congressional members, non-governmental organizations (NGOs), universities and private citizens. On June 25, 2015, we also

held a public hearing in Kansas City, Kansas in which we had a very high public turnout and provided stakeholders, government offices, and the public the opportunity to provide their comment verbally (transcripts to the public hearing can be located in the Docket ID No: EPA-HQ-OAR-2015-0111). As evidenced by the high volume of comments received, it is clear that stakeholders and the public did not lack the ability to comment as there was ample opportunities to do so through the public docket, the public hearing, and other avenues such as direct submissions to EPA.

EPA acknowledges and values the effort put forth by all those who submitted comments and participated in the overall process, including the public hearing on the now rescinded proposal for the 2014 standards. Although EPA disagrees with the commenter that we are obligated to respond to all comments received on the rescinded November 2013 proposal, we acknowledge that many of the substantive issues raised by commenters on the November 2013 proposal were among the key reasons EPA decided to delay issuing the 2014 standards. As we stated in the December 9, 2014 federal register notice, the November 2013 proposal generated significant comment and controversy, particularly about how volumes should be set in light of lower gasoline consumption than had been forecast at the time that the Energy Independence and Security Act was enacted, and whether and on what basis the statutory volumes should be waived. Most notably, commenters expressed concerns regarding the proposal's ability to ensure continued progress towards achieving the volumes of renewable fuel targeted by the statute. EPA has been evaluating these issues in light of the purposes of the statute and the Administration's commitment to the goals of the statute to increase the use of renewable fuels, particularly cellulosic biofuels, which will reduce the greenhouse gases emitted from the consumption of transportation fuels and diversify the nation's fuel supply. Given ongoing consideration of the issues presented by the commenters, EPA was not in a position to finalize the 2014 RFS standards rule before the end of the calendar year 2014 and subsequently rescinded the proposed standards. In May 2015, EPA issued a new proposal for the 2014 standards along with a proposal for 2015 and 2016 standards and biomass-based diesel volumes for 2017. In developing the final rule, we took into consideration all written comments received during the comment period and verbal or written comments provided at the public hearing on the proposed rule. Not only did the comments on the original November 2013 proposal lead to a re-proposal, but many of the same issues were raised again in comment on the May 2015 proposal to the extent they were still applicable and have been responded to in the final rule and this RTC document.

#### **10.4 Statutory and Executive Order Reviews**

##### **Comment:**

##### **National Biodiesel Board**

EPA provides no assessment on how the reduced volumes will impact small renewable fuel producers that have invested in the RFS2 program and are subject to their own compliance costs. [EPA-HQ-OAR-2015-0111-1953-A2 p.140]

Thus, EPA must analyze the potential impacts of the proposal on small producers as required by the Regulatory Flexibility Act. [EPA-HQ-OAR-2015-0111-1953-A2 p.140]

**Response:**

The impacts of the RFS2 program as a whole were already addressed in the RFS2 final rule promulgated on March 26, 2010 (75 FR 14670). This final rule will not impose any additional requirements beyond those already analyzed. The commenter is raising concerns that the proposed volumes may create insufficient demand for small biodiesel producers. As discussed in section II.E.3 of the final rule, we are setting an advanced biofuel standard for 2016 that is expected to result in dramatic growth in demand for biodiesel and renewable diesel. Consequently, there is no reason to believe that the final standards will do anything other than have a positive economic impact on all biodiesel producers, including small producers. As discussed in section IX.C of the final rule, after considering the economic impacts of this final rule on small entities, we have concluded that this action will not have a significant economic impact on a substantial number of small entities.

**Comment:**

**The George Washington University**

**Executive Order 12866**

President Clinton's Executive Order 12866, which was reinforced by President Obama's Executive Order 13563, instructs each agency to base its decisions on the best reasonably obtainable scientific, technical, economic, and other information concerning the need for, and consequences of, the intended regulation.<sup>29</sup>

Despite the emergence of new scientific, technical, and economic information, EPA continues to rely on old analysis to justify economically significant RFS rules. While many aspects of EPA's past analyses are likely still as valid as when they were written, many key assumptions may be challenged by new information. EPA should take this opportunity to revisit the analytical assumptions that underpin its RFS regulations.

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<sup>29</sup> Exec. Order No. 12866, "Regulatory Planning and Review." 58 FR 51735 (1993).

**Response:**

EPA complied fully with EO 12866. EPA based its decisions in this rule on the best available data. EPA does not view EO 12866 as directing EPA to reopen the entire RFS2 program in the context of an annual rulemaking. The impacts of the RFS2 program were already addressed in the RFS2 final rule promulgated on March 26, 2010 (75 FR 14670). This final rule will not impose any additional requirements beyond those already analyzed. Moreover, this rule reduces the 2014, 2015, and 2016 volume requirements for cellulosic biofuel, advanced biofuel, and total renewable fuel from the statutory volumes. Additional discussion regarding the economic

impacts is provided in sections II.F and IX.C of the final rule, and Section 7 of this RTC document.

## **10.5 Statutory Authority**

### **Comment:**

#### **National Biodiesel Board**

For the reasons outlined in its comments on the November 2013 proposal, NBB believes that the November 2013 proposal was in violation of, and did not fulfill the purposes of, the statute and, therefore, withdrawal is appropriate. While the new proposal is an improvement, EPA still fails to respond to the comments raised regarding its misconstruction of the statute. As such, NBB incorporates by reference its comments herein, although NBB does, per EPA's request, try to restate them here. [EPA-HQ-OAR-2015-0111-1953-A2 p.7]

### **Response:**

As the commenter notes, EPA has withdrawn the November 2013 proposal. As stated in our proposed rule, the comments on the November 2013 NPRM have informed our development of this proposal, and we have not responded to comments on the prior proposal. To the extent NBB and other commenters have restated comments that are relevant under this proposal, we have addressed those comments in this document and in the final rule.

## **10.6 Beyond the Scope**

### **10.6.1 Legislative Changes**

### **Comment:**

#### **Florida Chamber of Commerce**

While the Environmental Protection Agency must continue to implement Congress's Renewable Fuel Standard Program, the truth is, this program is broken and needs to be repealed or changed. States like Florida had once pushed to increase the amount of ethanol in gasoline in the state, but after further studies, have repealed this law while still supporting other renewable energies.

While oil is a finite resource and we must continue to search for alternative or renewable energies, the use of corn ethanol is not a responsible answer.

#### **Pennsylvania Off-Highway Vehicle Association**

PaOHV prefers a market driven solution to our energy needs, not one forced on us by government. American taxpayers have already paid hundreds of billions of dollars in the past decade to spur biofuel technologies that have failed to materialize. For example, ethanol

producers received twenty-billion dollars in taxpayer subsidies between 2005 and 2011 according to the New England Complex Systems Institute. And, the USDA just announced one-hundred-million dollars in loan guarantees for new blending pumps for higher ethanol blends, after Congress rejected supporting this effort through additional subsidies. [EPA-HQ-OAR-2015-0111-1941-A1 p.1]

Technology and business driven by a free market will produce the products necessary to power our society today and into the future, and they will do it far better and far more efficiently than any government entity. [EPA-HQ-OAR-2015-0111-1941-A1 p.1]

### **Senate of Pennsylvania**

In the longer term, I believe the best solution for such a complex issue is to have a broad public discussion on the benefits and risks associated with higher ethanol mandates. Our elected officials in Congress are the ones that need to begin this debate and address the RFS through legislation, not regulation. [EPA-HQ-OAR-2015-0111-3447-A1 p. 1]

### **Smithfield Foods, Inc.**

#### **Congress Must Act**

Reducing the RVOs by EPA's proposed range will not effectively solve the problems facing food producers and consumers. The current proposal continues the status quo by pegging the conventional biofuel mandate at 10 percent of the gasoline fuel pool (E10), which continues to mandate excessive demand of the national corn crop to be diverted into fuel. For consumers to avoid a \$3 billion increase in the cost of food, Congress should repeal the corn ethanol mandate. Current legislation such as H.R. 704, the 'RFS Reform Act of 2015', introduced by Rep. Bob Goodlatte (R-VA), and S. 577, the 'Corn Ethanol Mandate Elimination Act of 2015', introduced by Senators Dianne Feinstein (D-CA) and Pat Toomey (R-PA), would accomplish the much-needed goal of eliminating the government requirement to blend corn ethanol into the motor fuel pool in perpetuity, at the expense of farmers and food consumers. Only when these steps are taken will the market-distorting food price increases of the RFS be eliminated. [EPA-HQ-OAR-2015-0111-2041-A1 p.4-5]

The Renewable Fuel Standard is devastating to both food producers and American consumers alike. The corn ethanol mandate diverts nearly half of the supply of corn to ethanol, increasing the cost of food. A reduction in the RVOs, while justified by the circumstances described by EPA, will not resolve the problems created by the RFS for animal agriculture and for food consumers. Congress must act. Congress should repeal the corn ethanol mandate to allow consumers to decide the price of corn on an even playing field and help all Americans have access to healthy and affordable food. [EPA-HQ-OAR-2015-0111-2041-A1 p.5]

#### **Response:**

Commenters stated that while EPA is required to implement the RFS program according to the statutory provisions, they had serious concerns with the statutory provisions themselves and called upon Congress to change the program. They called upon Congress to begin this debate and address the issues through legislation and not through rulemaking. These comments

requesting various congressional actions are beyond the scope of this rulemaking and beyond EPA's legal authority. It will be up to Congress whether and when they might revise the RFS provisions in the Clean Air Act again as they did in 2007. In the meantime EPA is continuing to implement the RFS program in a manner consistent with the existing statutory provisions.

### **10.6.2 RFS Program Designs**

#### **Comment:**

#### **Advanced Biofuels Association (ABFA)**

We would also like to suggest a mid-year adjustment or an alternative system utilizing a rolling average that would help to keep pace on behalf of the advanced and cellulosic developments coming on line (e.g., the 2017 mid-year adjustment would occur on approximately July 15, 2017). This would remove some of the sting of having to wait a year before receiving the benefit of increased production finding its way into the RVO calculation. This approach would also ease the process of setting the RVO on a yearly basis and would essentially reduce the process to an administrative one of collecting and posting the data results in lieu of trying to predict a number of variables such as demand and production across multiple pools. [EPA-HQ-OAR-2015-0111-2498-A1 p.4]

We believe this will remove the threats of lawsuits in the front of the process for missing the deadlines as well as more at the end of the process for overshooting the cellulosic RVO and having to vacate/reduce volumes as was done in 2012 and 2013. [EPA-HQ-OAR-2015-0111-2498-A1 p.4]

Additionally, this would remove the need for having a cellulosic waiver credit system as the RINs and targets would essentially be the same by utilizing the actual data. This could also allow you to move the compliance deadlines and would reduce the need to build up a volume of carry over RINs in order to meet the next year's targets. [EPA-HQ-OAR-2015-0111-2498-A1 p.4]

#### **Brazilian Sugarcane Industry Association (UNICA)**

Today, the United States is in a very different situation than it was in 2007 or 2010; accordingly, EPA should reevaluate the EVs established in RFS1 and reaffirmed in RFS2. [EPA-HQ-OAR-2015-0111-2495-A1 p.27]

Today, however, according to EPA, due to the claimed 'E10 blendwall,' the supply of renewable fuels exceeds the demand for those fuels.<sup>79</sup> In the present circumstances, refiners are likely to favor renewable fuels with higher EVs (such as biodiesel) over fuels with lower EVs (such as sugarcane ethanol), because those refiners can satisfy their statutory renewable volume obligations with fewer gallons of such high EV fuels. [EPA-HQ-OAR-2015-0111-2495-A1 p.28]

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<sup>79</sup> See *supra* Section IV.1.

## **Illinois Corn Growers Association (ICGA) and Illinois Renewable Fuels Association (IRFA)**

6. Force the obligated parties to use RINS and penalties to invest in infrastructure

The oil industry, corn growers, the ethanol industry, Congress, the autos, USEPA, and the petroleum marketers understood that higher blends of ethanol would have to be sold in the fuels market for the RFS II requirements established by law to be met. In the original RFS II rules it was assumed that these volumes would be met through the sale of more E-85 fuel through flexible fuel vehicles. To assure that the oil industry could use higher blends of ethanol in the fuel market, USEPA approved the use of E15 for 2001 and newer vehicles. This allowed 70% of the current fleet to use E15 which would have met the RFS II requirements for the next several years.

The RINS were established to help provide flexibility to the oil industry as they meet the RFS II requirements, provide certainty regarding compliance, trading to balance market differences and to provide incentives for investment in infrastructure. Instead of using these incentives, the oil industry chose to force the Administration to reduce the volumes through false arguments related to gasoline prices.

USEPA could have worked with the oil industry and the ethanol industry to develop a credit program around the RINS or the “required volumes” to create a more direct incentive for infrastructure investment. [EPA-HQ-OAR-2015-0111-1925-A1 p. 9]

## **National Biodiesel Board**

In the RFS2 regulations, EPA adjusts the standard to set it “biodiesel-equivalent” gallons by using the 1.5 equivalence value. However, EPA has approved equivalence values of 1.6 and 1.7 to renewable diesel approved under the program. EPA should reassess the equation in the regulations to move the multiplier used closer to 1.7. [EPA-HQ-OAR-2015-0111-1953-A2 p.133]

## **Petroleum Marketers Association of America (PMAA)**

Additionally, when marketers load diesel at the rack, PMAA believes any biodiesel content should be disclosed on product transfer documents (PTDs). Under current rules, biodiesel content less than five percent does not have to be disclosed. However, in EPA’s proposed voluntary verification program for RINs, a provision is included that would require disclosure of biodiesel blends less than five percent on PTDs. PMAA supports the agency’s proposal for downstream transparency in biodiesel being purchased at the rack. Without this transparency, downstream parties are at risk of non-compliance with other state and federal laws and regulations. New PTD requirements should apply to transactions above retail and end-user sales. [EPA-HQ-OAR-2015-0111-1197-A1 p.4]

## Union of Concerned Scientists

Another specific change EPA should consider is to specify obligations in terms of percentages. This may provide more clarity to key participants in the supply chain (especially gas stations), and this clarity will allow for rational investment and ultimately reduce compliance costs. In past comments we argued that a straight line increase in the mandate until the general waiver is no longer needed would be the best way to provide clarity to supply chain participants that the demand for high blends would be growing steadily. But recent analysis from Irwin and Good have demonstrated that fluctuations in gasoline use overall can lead to shifts in ethanol consumption as E10 that are large compared to volumes of ethanol consumed as E85 (Irwin and Good, 2015).<sup>1</sup> In light of this, specifying the obligation based on fractional standards may be a more effective means of helping supply chain participants anticipate and pursue compliance strategies that are most efficient. [EPA-HQ-OAR-2015-0111-2260-A1 p.6-7]

### Response:

Commenters suggested changes to the design of the RFS program in a number of ways. Some commenters suggested EPA re-evaluate the equivalence value assigned to qualifying renewable fuels. These commenters believe refiners are likely to favor renewable fuels with higher equivalence values (EVs) (such as biodiesel) over fuels with lower EVs (such as sugarcane ethanol), because those refiners can satisfy their statutory renewable volume obligations with fewer gallons of such high EV fuels. Another commenter suggested modifying the EV for biodiesel and/or renewable diesel. Other commenters suggested EPA force obligated parties to use RINs and use penalties to incentivize infrastructure investments. These commenters believe the program was designed to use RINs as not only a means of compliance but also to incentivize investments, but the oil industry did not use these incentives as intended, and instead is forcing the EPA to lower volumes on false premises such as high gasoline prices.

The comments on these issues are beyond the scope of this rulemaking, even assuming they are within EPA's statutory authority. The issue of different equivalence values (EVs) for different fuels was addressed through notice and comment in the RFS1 final rulemaking. While Congress eliminated the different EVs for different fuels from RFS1, we were nevertheless able to finalize different EVs in RFS2 based on the relative energy content of the fuel compared to ethanol. While we gave consideration to establishing EVs based on other factors (such as lifecycle GHG emission performance as the commenter suggests), this was not finalized for a variety of reasons. Additional discussion on EV can be found in the RFS1 final rule (72 Fed Reg 23919) and RFS 1 S&A document, section 3.5.3.2 (<http://www.epa.gov/otaq/renewablefuels/420r07006.pdf>).

One stakeholder suggested that we specify obligations in terms of percentages. This is similar to an alternative approach we discussed briefly in the NPRM:

"... an alternative approach to characterizing expected growth in renewable fuels would be to project the share of the fuel pool that can reasonably be expected to be comprised of renewable fuel over time. In this way, increases or decreases in gasoline demand would be reflected in corresponding increases or decreases in mandated renewable fuel volumes." (80 FR 33109)

While this approach has some advantages, few stakeholders commented on it. Thus we do not believe it would be appropriate to implement at this time.

One stakeholder requested that we adjust the factor of 1.5 used in the calculation of the percentage standards for BBD to account for the fact that some BBD is renewable diesel rather than biodiesel.<sup>42</sup> We acknowledge that some BBD is in fact renewable diesel which has a higher Equivalence Value (typically 1.7 as opposed to 1.5 for biodiesel). However, a change to the 1.5 factor would require that we estimate the relative proportions of biodiesel and renewable diesel, and this value will vary from year to year. It would also require a change to the regulations which we did not propose. Therefore, we are not making this change at this time.

PMAA requested that we require product transfer documents (PTDs) to include the concentration of the biodiesel content of any diesel fuel, even if it is 5% or less. In fact we made this change on July 18, 2014.<sup>43</sup> See §80.1453(a)(12)(ii).

One stakeholder suggested that we make a mid-year adjustment to the cellulosic and advanced biofuel standards, or alternatively use a rolling average. In the case of a mid-year adjustment, it would effectively mean that standards released by the November 30 statutory deadline would not be the final standards. Instead, the final applicable standards that would apply for the full calendar year would not be available until approximately midway through that calendar year. Similarly, a rolling average standard would mean that the applicable standards would change every month. We do not believe that either approach is consistent with the statute's intent that the final applicable standards (represented by a single percentage per standard), be set by November 30 of the previous year (absent a subsequent waiver of the standards).

### **10.6.3 RIN-Generating Pathway Approvals**

#### **Comment:**

#### **Abengoa Bioenergy**

Further, EPA's ongoing delays in approving advanced and cellulosic biofuel pathways hinder the advanced biofuel industry's ability to generate sufficient RINs to meet the statutory targets. EPA fails to justify excluding from the RVOs potential volumes from both foreign advanced biofuel producers and others for which it has delayed pathway approval. EPA's delays and exclusions risk creating a self-fulfilling prophecy of long-term advanced biofuel supply shortages, keeping these fuels out of the marketplace and subverting the goals of the RFS. EPA must address the backlog of advanced and cellulosic pathway petitions and work with the advanced biofuel industry to encourage all potentially available volumes be brought to the market to meet the goals of the RFS.

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<sup>42</sup> §See 80.1405(c).

<sup>43</sup> 79 FR 42078

### **Advanced Biofuels Association (ABFA)**

Nevertheless, our members continue to have concerns over a myriad of issues remaining unresolved in the regulatory framework for the RFS2 program. Particularly problematic is the intermediate feedstock/co-location issue and the continual delay in approval of pathways for new technologies and feedstocks. Many of these have become significant barriers to entry for individual companies or entire sectors of the advanced and cellulosic sectors. We will discuss some of these individually in the body of our comments. This is a serious problem as ABFA has had a number of our members abandon the U.S. as a place to build their plants due to the inability to resolve issues such as “What is a residue of a cellulosic feedstock?” or “What is the appropriate definition of a waste?” Our Association has seen five of our members either completely leave the U.S. or simply chose to build their demonstration or first commercial facilities overseas.

ABFA applauds EPA’s efforts to improve the review process and timing of new pathway approvals.

We are disappointed that several advanced feedstock pathways such as PFAD and PSO remain in the queue and have not been resolved in over two years.

### **Biotechnology Industry Organization**

EPA’s ongoing delays in approving advanced and cellulosic biofuel pathways hinder the advanced biofuel industry’s ability to generate sufficient RINs to meet the statutory volume requirements. EPA fails to justify excluding from the RVOs potential volumes from both foreign advanced biofuel producers and others for which it has delayed pathway approval. EPA’s delays and exclusions risk creating a self-fulfilling prophecy of long-term advanced biofuel shortages, keeping these fuels out of the marketplace and subverting the goals of the RFS. EPA must address the backlog of advanced and cellulosic pathway petitions and work with the advanced biofuel industry to encourage all potentially available volumes be brought to the market to meet the ambitious goals of the RFS. EPA Continues to Delay Approval of New Advanced and Cellulosic Pathways

### **Environmental and Energy Study Institute (EESI)**

While EPA has taken steps to streamline the pathways process for new fuel pathways currently, 22 applications are still pending, and 8 of these are for advanced and cellulosic fuels.

### **Fuel Cell and Hydrogen Energy Association (FCHEA)**

As the agency considers a multi-year RFS approach, we ask that hydrogen produced from renewable sources qualify as a compliance option, eligible for cellulosic RINs under the program. Approving this additional pathway will improve cellulosic RIN supply in a market that is already significantly short of the targets envisioned in the original RFS mandates.

Furthermore, doing so would not only help the EPA achieve its ambitious goals for 2015 and 2016, it would build upon precedent established by the agency’s July 2014 revisions which

approved a new pathway for electricity generated from renewables and subsequently used in battery electric vehicles.

After EPA was directed to utilize a “neutral methodology” when setting the annual volume obligations to more accurately reflect renewable fuel production, EPA approved several new RFS pathways in 2014, including electricity produced from biogas from landfills, municipal waste water treatment facility digesters, agricultural digesters, and separated municipal solid waste (MSW) digesters for use in battery electric vehicles.

FCEVs are in fact electric vehicles. They are powered using electricity, which is created onboard the vehicle from hydrogen inputs. There are also a number of “green” production methods for hydrogen that would produce lifecycle GHG savings over 50% or even 60%, including extracting hydrogen from landfill gas and anaerobic digesters and using renewable-powered electrolysis to split hydrogen out of fluids. Therefore, these forms of “green” hydrogen should qualify for RINS.

Finally, in the short run, if the agency allows hydrogen produced from renewables to qualify for cellulosic RINs, it will provide companies that have renewable volume obligations (RVOs) with a new avenue to satisfy their statutory obligations. In the long run, it will incentivize the next generation of renewable fuels that show tremendous future demand.

To help meet these goals, FCHEA encourages EPA to allow renewable hydrogen to qualify for cellulosic RINs. Doing so will complement industrial efforts to fully commercialize these advanced infrastructure technologies, and bring new ZEVs to the marketplace. [EPA-HQ-OAR-2015-0111-2483-A1 p.3]

### **General Motors**

(GM) encourages EPA to significantly increase its requirements for D-3 cellulosic RIN’s, beyond the levels in the proposed regulation for 2014, 2015 and 2016, for the reasons described in detail in the BR comments.

Based on the rising number of applicable General Motors-produced vehicles in operation, and the substantial and growing amount of electricity from the grid used to propel these vehicles, there would be a significant increase in the industry-wide capacity to produce D-3 cellulosic RIN’s if EPA approves the creation of D-3 cellulosic RIN’s from this pathway. Additional capacity could also arise from vehicles produced by other automobile manufacturers. This pathway for producing D-3 cellulosic RIN’s does not appear to have been comprehended in the D-3 RIN supply estimates which form the basis for the proposed Renewable Fuel Standards for 2014, 2015 and 2016. Therefore, the proposed standards for D-3 RIN’s in the current rulemaking may be significantly too low, which could result in low future RIN prices. This would undermine the goals of the Renewable Fuel Standards program for the next several years by lessening the incentives for investment in renewable fuel capacity and usage

## **LanzaTech, Inc.**

When it comes to approving pathways necessary for the commercialization of many of the most “advanced” renewable fuels in the United States, EPA inhibits the renewable fuels industry from meeting the true potential that Congress envisioned by interpreting EISA in the narrowest of terms.

EPA should interpret the definition of renewable biomass broadly

LanzaTech commends EPA for recognizing the potential of nonphotosynthetic microorganisms as renewable biomass for the production of renewable fuels, but cautions EPA to not regress from its commitment in the 2010 RFS final rulemaking “to interpret the term ‘algae’ in EISA broadly.”

In practice, significant opportunity remains for EPA to improve its coordination with other key agencies and departments to ensure effective implementation of a comprehensive U.S. biofuels strategy, in which the RFS plays a central role. The U.S. Government has invested significant time and money in the renewable fuel and chemical technologies that LanzaTech is developing. Unfortunately, a narrow interpretation of renewable biomass stands could impede LanzaTech’s contribution to the U.S. ability to achieve its goals of accelerating the commercialization of truly transformational renewable fuel technologies and products and ensuring a positive return on the government’s investment.

The RFS was intended to promote the utilization of a variety of feedstocks to accommodate future technologies. EPA has sought to adopt a technology neutral approach with respect to how the market would innovate and absorb renewable fuels. However, when it comes to biological pathways, which use certain bacteria to produce renewable fuels from waste emissions, EPA has not yet applied a technology-neutral interpretation in treating similar processes equally.

This approach is driving LanzaTech to advance the commercialization of its technology.

## **National Biodiesel Board**

As far as renewable diesel from cover crops, we are unclear if any feedstock can be approved as a cover crop under EPA’s definition, nor does EPA identify any particular such feedstock. In 2012, EPA amended the definition of annual cover crop to include only those crops that have “no existing market to which it can be sold except for its use as feedstock for the production of renewable fuel.” 77 Fed. Reg. at 1354. Farmers will look to see the most marketable cover crop, and, even for crops developed specifically for biofuel production, EPA has not relied on the annual cover crop approval.<sup>43</sup> Thus, while EPA has approved such a pathway, it has also defined the terms in such a way to make it virtually impossible for these fuels to ever come to light. If EPA is aware of such feedstocks, then it should make the public aware. Otherwise, it is EPA’s own regulations and implementation of the program, not some artificial competition with biomass-based diesel, that are limiting these fuels. [EPA-HQ-OAR-2015-0111-1953-A2 p.40]

## W2Fuel LLC

The US EPA has also failed in many other aspects in the administration of the Renewable Fuel Standard. It is increasingly difficult to respond to changing market conditions when the administrative process for plant registration changes is taking 60, 90 and 120 days to complete in some circumstances. Minor address and personnel changes in the Central Data Exchange (CDX) are taking months to complete and holding up other important changes such as feedstock registrations and engineering review updates. Being able to change feedstocks quickly is important to enable the industry to remain profitable in all circumstances, however the US EPA has a 2-4 year process of approving new pathways, even for feedstocks which for all intents and purposes are identical to others already approved. [EPA-HQ-OAR-2015-0111-2053 p.1-2]

### **Response:**

Almost all the comments on this topic focused on the need for EPA to approve additional pathways as eligible to generate RINs under the RFS program, especially for advanced and cellulosic pathways. Some comments highlighted specific pathways EPA has not yet evaluated while LanzaTech criticizes an EPA decision not to approve its pathway. NBB states that the EPA has not relied on the cover crop pathway to approve new biofuel feedstocks and is concerned the 2012 amendments to the cover crop pathway make it difficult for new feedstocks to be approved under this pathway.

EPA appreciates that the addition of pathways adds to the diversity of feedstocks and fuel production technologies that can contribute to the volumes of fuel produced under the RFS program. EPA continues to qualify new cellulosic and advanced biofuel pathways and publish analysis of feedstocks used in making advanced and cellulosic biofuels. A 2014 EPA rulemaking added a new compressed natural gas/liquefied natural gas cellulosic biofuel pathway, added a new cellulosic biofuel pathway for renewable electricity (used in electric vehicles) produced from biogas, and expanded cellulosic pathways to include biogas from landfills, municipal wastewater treatment facility digesters, agricultural digesters, and separated municipal solid waste digesters. EPA continues to publish analysis of greenhouse gas emissions attributable to the production and transport of feedstocks used to produce cellulosic and advanced biofuel, including recent analysis of biomass sorghum, pennycress oil, carinata oil, cottonseed oil, and jatropha oil. EPA also recently approved additional cellulosic and advanced biofuel pathway petitions and continues to make significant progress on reducing the backlog of petitions under review. Regarding the comment on approvals under the cover crop pathway, the amendments to the pathway definition were adopted to clarify that the lifecycle assessment for cover crops anticipated no land use change impacts and did not assess instances where the cover crop had other marketable value. We believe this prior change to the regulations was technically appropriate and was not revisited in this rule.

EPA notes, however, that approval of a pathway does not mean that fuel will be produced using that particular pathway as there are currently a number of approved pathways that no producers are using. Further, the approval of additional pathways was not proposed as part of this rulemaking and is considered beyond the scope of this action

With regard to apparent delays in processing new registrations and registration updates, these are oftentimes due to submissions to the EPA that are incomplete, inadequate, and/or inaccurate.

This leads to an iterative review and resubmission process that can significantly increase the amount of time it takes for parties to have new registrations or registration updates accepted in the Central Data Exchange (CDX) system. The EPA has actively engaged responsible parties to help improve submissions and subsequently speed up the processing times. For example, during the summer of 2015, EPA hosted a series of webinars and a moderated question and answer session for renewable fuel producers and third-party engineers.<sup>44</sup> The RFS registration webinar series highlighted problem areas that EPA identified as common across a large number of submissions, and provided specific guidance on how renewable fuel producers and professional engineers could improve registration submissions.

The EPA also developed and made available an electronic engineering review form to help ensure that complete engineering reviews are submitted. EPA encourages renewable fuel producers to use the electronic engineering review form as a way to help avoid omitting information and facilitate a more timely review of new registrations or three-year updates.

The EPA will continue to work with renewable fuel producers to improve the completeness and accuracy of registration submissions by providing more thorough guidance, planning future enhancements to the CDX system, and proposing regulatory amendments to improve the registration and review process

#### **10.6.4 Ethanol Impacts on Engines**

##### **Comment:**

##### **American Sportfishing Association (ASA)**

On behalf of the American Sportfishing Association (ASA), I am writing to express our continued concerns with implementation of the Renewable Fuel Standard (RFS), specifically in regards to the recently proposed ethanol targets for 2015 and 2016. Mounting research has demonstrated the risk of ethanol to marine engines, and the ever-increasing renewable volume requirements have put consumers at risk. [EPA-HQ-OAR-2015-0111-0424-A1 p.1]

Half of all anglers use a boat as a means to fish, hence it is imperative to ensure safe fuels for our industry members and the 46 million anglers that go fishing annually. Our main point of contention with the RFS is not with the policy as a whole, but rather the ethanol provision and inertia in fixing the policy. Safety and consumer costs are our top concerns. It bears reminding that ethanol above 10 percent is corrosive to marine engines. At or below that concentration is manageable but greater levels create problems in many different types of engines that would deem it unacceptable for a regulatory agency to disregard.

Several published studies have demonstrated the negative effects of ethanol on engine durability and performance. [EPA-HQ-OAR-2015-0111-0424-A1 p.1]

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<sup>44</sup> The webinars and other helpful registration guidance is available at: <http://www2.epa.gov/fuels-registration-reporting-and-compliance-help/three-year-engineering-review-updates-renewable>.

## **Anonymous Citizen 6**

This would also affect the equipment employed by agriculture as well. Many operations run with a tractor as its primary source of labor. By changing the type of fuel to be used, many farms would have to buy all new equipment that may be out of their price range. Machinery like this is not meant to be purchased every few years like a car is intended. Often, an investment on this type of equipment is made to help the operation for over a decade in order for the proprietor to receive its return investment. They cannot simply just use ethanol-based fuel as if it were gasoline or diesel engines, as adding ethanol fuel increases wear and tear on the engine itself. This type of deterioration is not realized in automobiles the same way because most car owners do not own an automobile as long as a farmer will own a tractor. [EPA-HQ-OAR-2015-0111-0113 p.2]

## **Atlantic Drywall**

The proposed standards ask for an increasing amount of ethanol to be blended into gasoline and this will damage engines, big and small, across the country. [EPA-HQ-OAR-2015-0111-1658-A1 p. 1]

Equipment which uses small engines power American lives from motorcycles for law enforcement and transportation; utility vehicles for rescue, recreation and work; lawnmowers and other landscaping equipment. According to the American Motorcycle Association, there are 22 million motorcycles and all-terrain vehicles (ATVs) currently in use. None of these 22 million vehicles are on the EPA E15-approved list, nor are boats, snowmobiles, lawnmowers, chainsaws or other small-engine equipment. Inadvertently, fueling small engine equipment could damage the engine. [EPA-HQ-OAR-2015-0111-1658-A1 p. 1]

## **Board of Commissioners, Mercer County**

There are significant reasons that mandated ethanol blend rates should be lowered. They include:

### **I. Higher ethanol blends could cause engine damage.'**

- Testing by the auto and oil industries shows that 15% ethanol blends can damage engines and fuel systems in newer vehicles that EPA has approved to use the fuel.
- Ethanol blends greater than E10 could damage small engines, such as motorcycles, boats, off road vehicles and small equipment (e.g., lawnmowers, snow blowers, leaf blowers).
- Automakers have told members of Congress they will not cover damage caused by E15 under new car warranties. [EPA-HQ-OAR-2015-0111-1223-A1 p.1]

## **Conference of Professional Operators for Response Towing**

Being in the business of coming to the aid of disabled and stranded boaters, many times due to mechanical failures, we understand the dangers of ethanol to the boating public as well as to our own vessels. Studies have proven that high level blends of ethanol can pose serious problems and damage to marine engines. To date, there is no valid implemented plan or substantial precautionary measures in place to prevent misfueling (a sticker on a pump will not prevent

someone from inadvertently using the wrong nozzle) or to guarantee the availability of E10 or lower fuels. Increasing the ethanol volumes will jeopardize millions of marine engines. [EPA-HQ-OAR-2015-0111-1718-A1 p. 1]

### **Crawford County**

There are significant reasons that mandated ethanol blend rates should be lowered:

#### **1. Higher ethanol blends could cause engine damage.**

- Testing by the auto and oil industries shows that 15% ethanol blends can damage engines and fuel systems in newer vehicles that EPA has approved to use the fuel.
- Ethanol blends greater than E10 could damage small engines, such as motorcycles, boats, off-road vehicles and small equipment (e.g., lawnmowers, snow blowers, leaf blowers).
- Automakers have told members of Congress they will not cover damage caused by E15 under new car warranties. [EPA-HQ-OAR-2015-0111-1666-A1 p. 2]

### **Freedom of Road Riders and Motorcycle Riders Foundation (MRF)**

As the motorcyclists, who are consumers of gasoline and gasoline/ethanol blends for our motorcycles, our vehicles, and all our other power equipment, we are very concerned about the amount of ethanol that is already in the gasoline that we are buying and worried about the expansion of ethanol use in fuel. Manufacturers of motorcycles and ATVs recommend the use of ethanol-free fuel in these vehicles. Increasing the amount of ethanol in fuel or expansion of the types of ethanol fuel blends likely will create increased mechanical issues for motorcycles and recreational power equipment. Fuel pumps that vend several types of fuel through the same nozzle, or blender pumps, pose a definite hazard for motorcyclists. These types of pumps are becoming more prevalent throughout the industry with this type of pump. When we fill up with fuel, we are at the mercy of whoever filled up before us. If the person before us filled up with an E15 blend, then about the first gallon we get will have ethanol in it. Keep in mind that some motorcycles will only take about 2 gallons of gas. The gallon of blended fuel already in the pump combined with the gallon of 100 percent gasoline ends with the equivalent ratio near that of an E10 blender fuel in these small tanks, when the rider did not want any. We'll also willingly pay the higher pump price for ethanol-free fuel. Yet we are still getting an unknown amount of ethanol in the fuel we purchase through a blender pump. Even the manufacturers of our lawn mowers, weed eaters, and chainsaws do not recommend any ethanol in our products.

Increasing the amount of ethanol allowed in fuel or adding higher ethanol options to pumps will just make matters worse. Those of us who own or, more importantly, have to pay the price for maintenance of engines, large and small, that are not designed to consume ethanol should continue to be allowed the choice of 100 percent gasoline, unadulterated by the previous consumer.

### **Greenville-Reynolds Development Corporation**

There are significant reasons that mandated ethanol blend rates should be lowered. They include:

## 1. Higher ethanol blends could cause engine damage.

- Testing by the auto and oil industries shows that 15% ethanol blends can damage engines and fuel systems in newer vehicles that EPA has approved to use the fuel.
- Ethanol blends greater than E10 could damage small engines, such as motorcycles, boats, off-road vehicles and small equipment (e.g., lawnmowers, snow blowers, leaf blowers).
- Automakers have told members of Congress they will not cover damage caused by E15 under new car warranties. [EPA-HQ-OAR-2015-0111-3453-A1 p. 1]

### **Harrods Creek Boat Owners Association**

100 percent of boats in service today are not designed or warrantied to use fuel that contain ethanol. All vessel owners know about ethanol's adsorption of water. [EPA-HQ-OAR-2015-0111-1841]

### **Mass Comment Campaign sponsored by American Motorcyclist Association (AMA) (web) - (29,379)**

This is troubling, because the EPA has publicly acknowledged that ethanol in gasoline can damage internal combustion engines by increasing exhaust temperatures and indirectly causing component failures. The statements are found in a 2014 Federal Trade Commission rule proposal regarding a new label for pumps that supply fuel blends high in ethanol. [EPA-HQ-OAR-2015-0111-2049-A1 p.3]

### **Mass Comment Campaign sponsored by anonymous 2 (web) - (2781)**

As a member of the boating industry, I know the damage ethanol fuel can have on marine engines-endangering the 88 million Americans who enjoy recreational boating each year. [EPA-HQ-OAR-2015-0111-0079 p.1]

Studies have proven that high level blends of ethanol, like E15, can pose serious problems to marine engines, including performance issues like stalling, corrosion leading to oil or fuel leaks, increased emissions and damaged valves, rubber fuel lines and gaskets. [EPA-HQ-OAR-2015-0111-0079 p.1]

### **Mass Comment Campaign sponsored by KeepAmericaFishing (web) - (5403)**

Blends of ethanol over 10 percent cause serious damage to marine engines, and these damages are not covered under warranty. The increase in ethanol is corrosive and forces engines to run at a much higher temperature. Uncertainty about the quality of fuel available is unsafe to me and my friends and family that I take out on the water. [EPA-HQ-OAR-2015-0111-2050-A1 p.1]

### **Michigan Boating Industries Association**

The U.S. Coast Guard has raised concerns about ethanol use in marine engines after testing completed by the Department of Energy's National Renewable Energy Laboratory confirmed that fuel blends containing more than 10 percent ethanol irreparably damages critical engine components due to raised temperatures. E15 has the potential to cause significant problems for

the engines in virtually every power boat in the country, impacting the 80 million Americans who enjoy our nation's waterways each year, including more than 935,168 power boats in Michigan alone. [EPA-HQ-OAR-2015-0111-3448-A1 p.1]

### **Miller, Denis**

This is a stark contrast to the allegations made by big oil that E15 would be dangerous to the engines, when the fact I have been using E30 with no negative repercussions to my vehicles. The performance especially on the oldest model, the 2001, when I started using E30, improved dramatically. No significant change in gas mileage was noted.

### **National Association of Charterboat Operators**

As a National Association we are actively involved with our members working to enhance the recreational charter boat industry and to ease the regulatory and financial burdens from regulatory agencies. A substantial number of our members own and operate gasoline powered inboard and outboard vessels. These professional charter boat owners and operators will suffer considerable economic hardship because of the proposed mandate to use a more expensive and engine damaging higher ethanol content fuel in these marine engines. [EPA-HQ-OAR-2015-0111-1812-A1 p.1]

Despite repeated industry requests, the EPA has not adequately addressed the danger of using ethanol fuel in marine engines. Placing warning stickers on fuel pumps will not stop accidental or inadvertent “mis-fueling” with E-15 which has been proven to cause engine damage and failure. The use of E-15 in marine engines voids manufacture’s warranties and causes engine failure. Marine engine manufacturers have not designed engines to be able to safely run on E-15 gas. [EPA-HQ-OAR-2015-0111-1812-A1 p.1]

### **National Marine Manufacturers Association (NMMA)**

The 2014, 2015 and 2016 RVOs proposal is additionally objectionable by the EPA’s continued failure to properly educate and warn the public on the effects of E15 and higher blends of fuel. Consumers remain woefully unaware of the existence of higher ethanol-blended fuels, let alone the effects these fuels can have on their marine engines. Despite the industry’s best efforts to educate consumers, more needs to be done by the EPA to ensure that misfueling is never a possibility. [EPA-HQ-OAR-2015-0111-1928-A1 p.4]

### **National Taxpayers Union (NTU)**

According to AAA, 85 percent of vehicles on the road are not designed to use gasoline with more than 10 percent ethanol, and 94 percent cannot use E85. Misfueling can cause major damage and/or violate a vehicle’s warranty. Boats, motorcycles, and other small engines are also not equipped to use blends over E10. [EPA-HQ-OAR-2015-0111-3279-A1 p.1]

### **NH Energy Forum**

Equipment which uses small engines power American lives - from motorcycles for law enforcement and transportation; utility vehicles for rescue and recreation; lawnmowers and other landscaping equipment. According to the American Motorcycle Association, there are 22 million

motorcycles and all-terrain vehicles (ATV's) currently in use. None of these 22 million vehicles are on the EPA E15-approved list, nor are boats, snowmobiles, lawnmowers, chainsaws or other small-engine equipment. Inadvertently, fueling small engine equipment could damage the engine. [EPA-HQ-OAR-2015-0111-0280-A1 p.1]

### **Office of Commissioners, Lawrence County, Pennsylvania**

There are significant reasons that mandated ethanol blend rates should be lowered. They include:

1. Higher ethanol blends could cause engine damage.

- Testing by the auto and oil industries shows that 15% ethanol blends can damage engines and fuel systems in newer vehicles that EPA has approved to use the fuel.
- Ethanol blends greater than E15 could damage small engines, such as motorcycles, boats, off-road vehicles and small equipment (e.g., lawnmowers, snow blowers, leaf blowers).
- Automakers have told members of Congress they will not cover damage caused by E15 under new car warranties. [EPA-HQ-OAR-2015-0111-3458-A1 p. 1]

### **Outdoor Power Equipment Institute (OPEI)**

As expressed by OPEI in comments to the earlier 2014 RVO proposal<sup>1</sup>, the primary concern of our industry is the continued lack of a robust Misfueling Mitigation Plan (MMP) regulation to protect non-approved small engine products from harmful misfueling with mid-level ethanol blends. In light of this shortcoming, the OPEI is concerned with the proposal to increase the total renewable fuel volumes in both 2015 and 2016, which combined with the likely continued decrease in domestic gasoline consumption, will necessitate growth in the availability of mid-level blends starting with E15, and E85, at U.S. filling stations. In the absence of a strong Federal MMP regulation, all non-approved engine products will be at risk. [EPA-HQ-OAR-2015-0111-2492-A1 p.1]

In 2013, the OPEI supported the EPA proposed reduction of the RFS mandates for 2014, as it recognized the realities of the U.S. market place where fuel consumption is declining and a supply of diverse biofuels has yet to materialize. Moving forward two years, we fail to see where any of these variables have changed, and yet the subject proposal requires significant annual growth in total renewable fuel volumes. In the proposal, this change in direction is largely substantiated by the EPA's statutory obligation to be forward leaning, challenging the market to increase production and use of renewable fuels. The OPEI urges the EPA to fully consider the specific impacts to our industry and the hundreds of millions of consumers we serve, as the RFS continues to be implemented. [EPA-HQ-OAR-2015-0111-2492-A1 p.1]

Compounding the problems of Federal RFS implementation are the layers of Federal, state and local policies which further incentivize the introduction of E15 and higher ethanol blends into the general fuel supply, without the proper focus on protecting small engine products from harmful misfueling. A recent example is the U.S. Department of Agriculture's announced program to provide \$100 million towards pump and infrastructure improvements necessary for expanded mid-level ethanol blend market expansion. While the USDA program is most significant due to

its scale, it is one of many when considering the various actions on-going by states and localities to incentivize introduction of renewable fuels. All of these policies put the consumer at risk since none are accompanied by adequate misfueling mitigation policies. [EPA-HQ-OAR-2015-0111-2492-A1 p.1-2]

As recognized by EPA in the 2010 and 2011 E15 partial waiver decisions, all small engine powered products are only EPA approved for use with gasoline blended with 10% ethanol or less (E10). This recognition is based on mutually accepted Department of Energy (DOE) data which validates that the introduction of alcohol in excess of 10% is inappropriate for small carbureted engines, as it introduces excess oxygen resulting in increased heat, engine damage, and failure. The testing further confirms that the increased amount of alcohol has a corrosive effect on engine components, leading to damage and/or failure. The above-mentioned DoE data is further supported by testing conducted by engine OEMs in our industry, as well as other affected small engine manufacturers. [EPA-HQ-OAR-2015-0111-2492-A1 p.2]

Furthermore, increased levels of ethanol can also introduce unintended increases or surges in engine RPMs, which may result in inadvertent clutch engagement and blade/cutting attachment movement or increased blade/cutting attachment speeds. This phenomenon can both compromise the performance of a machine and pose safety hazards. [EPA-HQ-OAR-2015-0111-2492-A1 p.2]

OPEI members are committed to alternative power sources, including renewable fuels, but current small engine powered products, and the hundreds of millions of legacy products currently in use are limited to blends of E10 or less. Product innovation to eradicate this limitation requires a significantly extended timeframe under a highly predictable regulatory framework and fuel market place evolution. Increasing the use of mid-level ethanol blended fuels in retail fuel distribution as well as for future certification test fuel presents enormous risks, burdens, and challenges to our member manufacturers and users. Small spark-ignited engines may ultimately be designed to run on mid-level ethanol fuel blends, given adequate lead time for design changes and assurance that the retail fuel ethanol content is within a limited and acceptable range of the certification test fuel specified by EPA for emissions compliance. However, any consideration of certification test fuel changes should recognize the significant investments and lead time required of manufacturers. An extended time period would be required to complete design and recalibration work as well as necessary consumer education programs for each new certification test fuel. Therefore, small spark-ignited engine certification test fuel changes would need to be nationally harmonized based on a limited number of re-design iterations, representative of established and consumer accepted (“real world”) fuels, not based on incremental changes as potentially required by the Renewable Fuel Standard (RFS). This is acutely critical when considering that according to EPA data our industry certified 1690 engine families in 2015. The subject proposal for 2015 and 2016 serves as a good example of the incrementalism inherent in RFS implementation, which runs counter to the needs of engine manufacturers. [EPA-HQ-OAR-2015-0111-2492-A1 p.2]

Most significant of the problems associated with the RFS and the resulting impacts on our industry is the potential volatility and non-harmonization of certification test fuels and conventional retail fuel. This uncertainty will burden manufacturing and any potential for product innovation, while also placing burdens on the consumer of small engine products. Similar products each designed to operate on unique certification test fuels will add consumer confusion and increase the potential of detrimental misfueling. OPEI has been supportive of the

California Air Resources Board (CARB) decision to establish E10 certification test fuel requirements for 2020 and later for small spark-ignited engines, and EPA's agreement to accept CARB RFG III if manufacturers align with CARB CO standards. The OPEI has appreciated its working relationship with the EPA, and applauds the actions taken to harmonize and provide near-term certainty on certification fuels which is critical to assure that our member manufacturers can plan, design and produce the products that the American consumer needs and desires. Despite these accommodations, the long-term implementation of the RFS will continue to pose challenges as consistency in certification fuels may be at odds with the unpredictable variability of the general fuel supply. OPEI's members are committed to manufacturing compliant products which meet all the quality and safety expectations of their customers. To accomplish this goal, manufacturers require that the Renewable Fuel Standard is implemented in a way to align the regulatory certainty of certification fuels with market certainty over the fuel choices available to American consumers. Only under these circumstances, can manufacturers of small engine products plan, design, and build their products. [EPA-HQ-OAR-2015-0111-2492-A1 p.2]

While the frontline concern of our industry with the RFS is to assure we manufacture compliant, quality and safe products, the OPEI and its members are also equally committed to the education of the consumer when they fill their small engine product at the pump. The subject proposal gives only short mention to the EPA's 2011 Misfueling Mitigation Plan regulations, which the OPEI believes are wholly inadequate to protect consumers from harmful misfueling of their small engine products. The market presence of E15 and other mid-level ethanol blends, without adequate labels and misfueling mitigation controls, unfairly puts manufacturers and their customers at risk. These include substantial warranty claims for illegal acts of misfueling (beyond the manufacturer's control), particularly as E15 and other mid-level blends become more prevalent in the marketplace. When consumer products are damaged, it harms the long-established relationships between our member manufacturers and their customers as well as their well-deserved brand recognition. The risks to manufacturers also include potential exposure to alleged claims for personal injury and CPSC or EPA product recalls and product damage. [EPA-HQ-OAR-2015-0111-2492-A1 p.2-3]

OPEI does not believe that the current EPA E15 label serves as an effective tool in mitigating the misfueling of outdoor power equipment and small engines with E15. We urge EPA to require increased clarity and uniformity in misfueling mitigation plans (MMP), beyond the approved label. In developing its misfueling mitigation regulations, EPA recognized that "the E15 label design should generally be uniform for easy identification and utility. Significant variations in label design could thwart the goal of associating the label with E15 and making the label readily recognized and understood." (76 Fed. Reg. 44406, 44416 – July 25, 2011) OPEI is concerned that multiple MMP approaches with non-descriptive and inconsistent labeling and notification requirements will further confuse consumers. For example, "Configuration 2A" of the Renewable Fuels Association's (RFA) EPA-approved MMP requires new "signage" that advises of the availability of non-E15 fuels at the retail station, but outlines no requirements for the placement, language, size, color or font of the notification. OPEI urges EPA to require that the same considerations established for EPA's own E15 label apply to all MMP labels and notifications. This is of heightened importance with regard to the use of blender pumps, used to dispense E10, E15, and other mid-level blends from a shared nozzle and hose. EPA's misfueling control regulation has been insufficient, as it has approved MMPs for such blender pump use,

without mandating signage/labelling to protect against the heightened risk of misfueling under this retail scenario. [EPA-HQ-OAR-2015-0111-2492-A1 p.3]

The subject proposal also dedicates a significant amount of attention to price impediments limiting the growth of E85 and E15 entry into the market. The issue of price is an important factor when considering the need for effective and consistent misfueling mitigation, since consumers largely make choices based on price. In June of last year, OPEI provided comments (attached) to a rulemaking by the Federal Trade Commission to improve the effectiveness and consistency of fuel pump labelling.<sup>2</sup> Important to the FTC proposal and central to the OPEI's comments is the need for clear and consistent labelling with a focus on the quality and safety aspects of fuel choices, instead of appealing to consumer instinct to focus on price. These improvements are especially important in light of future infrastructure changes, especially with the use of blender pumps where fuel choices may exceed five selections at a single pump, subject to different approved uses. The OPEI urges intra-agency cooperation where possible which could further strengthen the existing MMP regulations for E15 through the clear and uniform labelling of pumps, focused on the safety and performance limitations of engine powered products. [EPA-HQ-OAR-2015-0111-2492-A1 p.3]

To supplement the MMP efforts of EPA and others, the OPEI in 2013 at the request of its members established an educational program and product labelling materials for use with their respective dealers and retailers. The "Look Before You Pump" program, which is hosted at [www.opei.org](http://www.opei.org), is intended to educate consumers about the fuel needs of their small engine and outdoor power equipment products, and navigating the choices at the pump. The messaging specifically reminds consumers to use E10 fuel or less in these products. This program is now in use by OPEI manufacturers, dealers, and national retail outlets as an authoritative resource on choosing the right fuel at the pump, and the overall importance of fuel choice and quality for the small engine product. We encourage the agency and the public to review and use these materials as appropriate. [EPA-HQ-OAR-2015-0111-2492-A1 p.3]

OPEI is concerned that the proposed increases to the RVOs for both 2015 and 2016 do not reflect current (or near-term) market realities, and therefore run the risk of exposing non-approved small engine products to a heightened risk of misfueling. Publicly available data suggests that annual domestic gasoline consumption will continue to decrease, flex-fuel vehicle demand will remain low, and advanced and "drop-in" biofuel production will remain modest. In the absence of these market factors materializing, OPEI is concerned that longer-term RFS targets will require EPA to approve the introduction of incremental increases of ethanol into the general fuel supply, complicating further both the compliance requirements of manufacturers and misfueling risks to consumers of outdoor power equipment and small engines. The certain misfueling will result in economic harm to consumers and manufacturers, voided product warranties, and potential injury to consumers. [EPA-HQ-OAR-2015-0111-2492-A1 p.3]

In closing, we urge EPA to subject this and all future RFS implementation policy to robust rulemaking, taking into consideration the following:

- a) a renewed focus on strengthening the Misfueling Mitigation Plan regulations to address blender pump use, including Federal intra-agency efforts where possible;

- b) a commitment to the development and market entry of drop-in biofuels, suitable for safe use in all legacy and new small engines and products; the indefinite availability of E10 fuel as part of the general fuel supply, dispensed from dedicated pumps. [EPA-HQ-OAR-2015-0111-2492-A1 p.4]

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<sup>1</sup> EPA-HQ-OAR-2013-0479; FRL-9903-10-OAR, FRL-9900-90-OAR

<sup>2</sup> Federal Trade Commission, Fuel Rating Rule Review, 16 CFR Part 306, Project No. R811005

### **Pennsylvania Off-Highway Vehicle Association**

None of the millions of all-terrain vehicles and dirt-bikes currently in use in the United States are certified by the EPA to use fuels containing more than ten percent ethanol, and the inadvertent use of fuels other than E 10 may cause engine or fuel system damage and void the manufacturers warranty. [EPA-HQ-OAR-2015-0111-1941-A1 p.1]

All for a product that is known to cause component failures in small engines, does not produce power comparable to gasoline, and is rife with other problems. [EPA-HQ-OAR-2015-0111-1941-A1 p.1]

### **Senate of Pennsylvania**

Additionally, ethanol products are known to significantly deteriorate plastic, thus creating a threat to automobiles, other vehicles, farm equipment, mowers, weed eaters and other machinery that use gasoline. Furthermore, many manufacturer warranties are voided when ethanol is used in their product. Why should the consumer be held responsible for this cost, when it is government regulations that have mandated the use of more ethanol? [EPA-HQ-OAR-2015-0111-3447-A1 p. 1]

### **Sonoma Cycle**

The proposed standards ask for an increasing amount of ethanol to be blended into gasoline which is already damaging to small engines. [EPA-HQ-OAR-2015-0111-1930-A1 p.1]

Equipment which uses small engines powers American lives — from motorcycles for law enforcement and transportation; utility vehicles for rescue and recreation; lawnmowers and other landscaping equipment. According to the American Motorcycle Association, there are 22 million motorcycles and all-terrain vehicles (ATV's) currently in use. None of these 22 million vehicles are on the EPA E15-approved list, nor are boats, snowmobiles, lawnmowers, chainsaws or other small-engine equipment. Inadvertently fueling small engine equipment could damage the engine. [EPA-HQ-OAR-2015-0111-1930-A1 p.1]

Should this not be fixed it could have a detrimental impact on our business. We sell and service motorcycles, ATVs and snowmobiles and this would make it more difficult for both sales and servicing of our customers. [EPA-HQ-OAR-2015-0111-1930-A1 p.1]

## **The Boat Owners Association of The United States (BOATU.S.)**

It is important to recognize that recreational boats and marine engines operate under a very different set of circumstances than automobiles. They are not used every day, are often stored for long periods of time and, by their very nature, are in a wet environment. Additionally, marine engines are generally kept in service far longer than automobile engines. As more ethanol has been blended into the nation's fuel supply as a result of the RFS, these distinct characteristics have led to significant problems for many boat owners. [EPA-HQ-OAR-2015-0111-2265-A1 p. 1]

Most boats do not get used every day. According to the U.S. Coast Guard's 2011 survey of recreational boating, powerboats were used an average of 19.3 days per year<sup>1</sup>. This low usage leads to fuel being stored for extended periods of time, increasing the opportunity for it to absorb moisture. Given boats are in a wet environment to begin with, gasoline stored in boats' fuel tanks are at much greater risk of absorbing moisture and having the ethanol/water phase separate, which makes the fuel unusable and can severely damage an engine. [EPA-HQ-OAR-2015-0111-2265-A1 p. 1]

We are also concerned with the likely increase in the number of blender pumps at gas stations. We understand that a certain amount of residual E15 remains in blender pump fuel hoses if a previous customer selected it. This again raises the chance that amounts of ethanol higher than 10% will be put into a boat's engine and the boat owner will suffer its costly negative consequences. Additional consideration should be giving to mis-fueling mitigation plans so as to not unduly burden boat owners and protect marine engines. [EPA-HQ-OAR-2015-0111-2265-A1 p. 2]

One of the major benefits of BoatU.S. membership is access to our 24/7 on-the-water non-emergency towing service. With over 600 boats in some 300 ports, our towers witness the consequences of problems with fuel blended with ethanol every day. As Dave Hoblin with TowBoatU.S. Old Saybrook, Connecticut put it "I would venture to say that perhaps 20% of my tows are a result of ethanol fuel problems. Of that 20% of the ethanol tows probably 25% are urgent because the vessel is drifting out to sea or in peril with drifting hard aground." [EPA-HQ-OAR-2015-0111-2265-A1 p. 2]

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1. NATIONAL RECREATIONAL BOATING SURVEY, United State Coast Guard Office of Boating Safety 2012

## **Volvo Lexington Operation**

As a member of the boating industry, I know the damage ethanol fuel can have on marine engines endangering the lives and property of the 88 million Americans who enjoy recreational boating each year.

Studies have proven that high level blends of ethanol, like E15, can pose serious problems to marine engines, including performance issues like stalling, corrosion leading to oil or fuel leaks, increased emissions and damaged valves, rubber fuel lines and gaskets. [EPA-HQ-OAR-2015-0111-0538-A1 p.1]

As you know, this is illegal, as marine engines are prohibited from using E15 and higher blends. Yet to date, the government has failed to implement any legitimate plan or precautionary measures to prevent such misfueling or guarantee the availability of E10 and lower fuels. In absence of a proven misfueling plan and the guarantee for safe fuels, the EPA simply cannot increase the ethanol volumes without jeopardizing millions of marine engines.

Thus, I urge the agency to ensure that the blendwall isn't breached and that the boating industry isn't threatened by dangerous fuels. [EPA-HQ-OAR-2015-0111-0538-A1 p.1]

In my opinion the entire ethanol mandate is nothing more than a pork barrel project aimed at sending money to the corn lobby. It cost American voters millions each year in damages to small engines and lower mpg. [EPA-HQ-OAR-2015-0111-0538-A1 p.1]

**Response:**

While some commenters suggested there were no concerns with the use of higher level ethanol blends in existing vehicles, others raised concerns about using gasoline with higher ethanol blends such as E15 (gasoline with up to 15% by volume of ethanol blended) due to the possible harm it could cause to their vehicles, boats, motorcycles, and equipment/engine parts. Some commenters provided specific examples of compatibility issues with engine and fuel system components that they have observed due to ethanol. Some commenters wanted EPA to ensure that the market will make available gasoline with no ethanol added (E0). Other commenters noted that because ethanol has less energy per gallon than gasoline, use of gasoline with higher ethanol blends could result in inconvenience for consumers to have to go fill up at gas stations more often. Some commenters did not oppose use of renewable fuel in general, but expressed concerns surrounding the potential for vehicle damage and consumer harm due to misfueling with E15 (e.g. nonroad engines, or vehicles manufactured before 2001) before appropriate education has been conducted and proper protections are in place. These commenters suggested that the current misfueling mitigation provisions and pump labeling provisions were inadequate. One commenter suggested that EPA require retailers selling E15 to also continue to sell E10 to mitigate concern over the spread of E15 and the potential for misfueling.

In both the final rule and this RTC document, we discuss our estimates of anticipated gasoline usage (including estimates for E0, E10, and E15 supply) as part of our exercise of the general waiver authority and our determination of the volume requirement for total renewable fuel, recognizing that there are some uses for which E0 is preferred. For instance, see Section II.E.2 of the final rule and Section 2.6.2 of this RTC document. To the extent commenters are alleging problems caused by ethanol in gasoline, the adequacy of the misfueling mitigation program for E15, or related issues in order to request changes in misfueling mitigation, the E15 waiver decision, or to seek new regulations guaranteeing the availability of E0 or E10, such issues are beyond the scope of this rulemaking (leaving aside the question of whether such actions would be within EPA's statutory authority). Nevertheless, we understand the commenter's concerns regarding compatibility issues of using high ethanol blends in some applications. We will continue to take these comments under consideration as we work with industry, other private stakeholders, and our government partners to help address and overcome challenges in the production of renewable fuels and their supply to the vehicles that use them.

## 10.6.5 Other Information and Ideas to Overcome Current Challenges

### Comment:

#### **American Coalition for Ethanol (ACE)**

Markets cannot be “flexible” or “competitive” if EPA allows the RIN market to decompress and nonsensical restrictions against E15 continue to exist. EPA could remove a major restriction by simply treating E15 the same way it treats E10 with respect to summer Reid Vapor Pressure (RVP). Well over 90 percent of the gasoline sold during the low RVP season is E10, and although E15 has a lower RVP, EPA prevents marketers in most of the country from selling it during the busiest time of the year. More than 30 years ago, a one-pound RVP waiver was granted to E10. E10 was specified by lawmakers so the incentive only applied to the maximum allowable amount of ethanol in gasoline. That maximum amount of ethanol allowable in gasoline is now 15 percent for most vehicles, and as a bonus, the evaporative emissions of E15 are lower than those of E10. As long as the Agency continues to deny the one pound RVP waiver to E15, when marketers ask to sell a cleaner fuel during the busiest time of the year, EPA is telling them “No. You must pollute more.” [EPA-HQ-OAR-2015-0111-2543-A2 p. 7]

#### **American Council on Renewable Energy (ACORE)**

USEPA can and should take concrete steps to fulfill its statutory mandates under 202(I) and 211(c) of the CAA that will expand the market for biofuel. These steps include: (1) certifying a high-octane ethanol blend of 20-45% on a volumetric basis; (2) determining that aromatics, which comprise 20-30% of typical U.S. gasoline, are the primary source of the most dangerous urban pollutants; (3) determining that FFVs, which run on any blend of ethanol up to E85, are an available, cost-effective technology to reduce the aromatics content in all gasoline as required under the CAA, Section 202(I); (4) requiring all new gasoline vehicles to be certified on this new, cleaner fuel blend while restoring incentives for FFV and removing disincentives for their production; and (5) as FFVs become more readily available in the market, using its statutory authority under sections 202(I) and 211(c) to require a phase down of the VOCs in all gasoline blends. [EPA-HQ-OAR-2015-0111-1926-A1 p.11]

In addition, USEPA should grant the E15 and other mid-level ethanol blends the same one-pound waiver for Reid vapor pressure (RVP) presently available for E10. [EPA-HQ-OAR-2015-0111-1926-A1 p.12]

#### **Archer Daniels Midland Company (ADM)**

Beyond issuing a final rule with revised and more robust RVO levels for 2014 through 2016 for ethanol, and 2014 through 2017 for biodiesel, there are additional steps EPA can take to help support the goals of the RFS and assist in bringing additional volumes of renewable fuels to market.

Under the current regulatory system, enhanced blends of ethanol up to 15 percent continue to be limited to seasonal use due to the constraints of Reid Vapor Pressure rules. EPA could make adoption of E15 much easier by extending the 1 psi RVP waiver to blends up to 15 percent. The current system limits the amount of qualifying gasoline in the marketplace and results in blends up to E15 only being available on a seasonal basis.

In regard to the 1 psi RVP waiver for E10, we believe EPA should be consistent in its treatment of RVP requirements for all ethanol blends up to E15. EPA's initial decision to grant the 1 psi RVP waiver to E10 blends was based on two fundamental findings: first, that supplies of low-RVP gasoline blendstock for E10 blending were insufficient; and second, that the increased volatility associated with the 1 psi RVP waiver was more than offset by reduced carbon monoxide and exhaust hydrocarbon emissions from E10. Recent analyses have shown that the vapor pressure of E15 is lower than that of E10. Further, there is evidence that E15 provides even greater reductions in carbon monoxide and exhaust hydrocarbon emissions than E10. It is also likely that there is currently insufficient low-RVP gasoline blendstock to accommodate broad [E15] blending without a 1 psi RVP waiver.

Thus, the same two findings that led EPA to issue the 1 psi RVP waiver for E10 also apply to E15. As such, if the 1 psi RVP waiver continues to apply to E10, there is no reason that it should not also be applied to blends up to E15. E10 and E15 should be treated equally in the marketplace with regard to RVP. This is a critical issue in the near term, as discrepancies in the treatment of E10 and E15 have impeded the introduction of E15. [EPA-HQ-OAR-2015-0111-2262-A1 p. 6-7]

### **Butamax Advanced Biofuels, LLC**

Drop-in biofuels represent an exciting future for non-petroleum fuel and should be embraced by the EPA as a key way to address the requirements of the RFS2. [EPA-HQ-OAR-2015-0111-1938-A2 p. 9-10]

### **Clean Fuels Development Coalition and the Nebraska Ethanol Board**

The auto industry has consistently stated they will need higher octane fuels as they produce small bore, high compression engines to meet fuel economy and greenhouse gas requirements. Octane is derived from the aromatic compounds of petroleum refining. These compounds include known and suspected carcinogens. The emissions of Ultra fine particulates represent an unregulated health threat that can be avoided by utilizing ethanol and taking advantage of its high octane. There is nothing in the refining toolbox of alkylates or reformates that can provide octane as cost effectively as simply adding ethanol to finished E10 gasoline to make an E25 or and E30 fuel blend. These fuels can be used in FFVs initially and then in newer cars that are likely to be certified for blends up to 30% volume. EPA's failure to reduce aromatics as required by the Clean Air Act is at best a lost opportunity to harmonize policy objectives whereby the RFS can be the tool for multiple policy objectives. [EPA-HQ-OAR-2015-0111-2259-A1 p.3]

### **Environmental and Energy Study Institute (EESI)**

If the agency approves the use of a mid-level blend as a test fuel, the fuel will reach commercial availability, as there is great interest from the automotive industry to move to a higher octane-rated fuel, as much of the rest of the developed world already enjoys. In the United States, the lowest cost octane available is ethanol, and by resolving the test fuel issue, volumes of ethanol consumed will increase. [EPA-HQ-OAR-2015-0111-1944-A1 p.6]

In EPA's new CAFE standards, the credit for FFVs are significantly reduced, to the point where auto manufacturers will no longer produce significant numbers of FFVs. [EPA-HQ-OAR-2015-0111-1944-A1 p.6]

EPA requires state regulators to use the MOVES model to craft state implementation plans (SIPs) for ozone. However, there is significant evidence that the underlying studies used to build the recently updated model seriously mischaracterize the emissions from using ethanol-blended fuels. According to auto engineers from Ford and GM, when ethanol is “splash-blended” with gasoline, as it is at the refinery, it lowers the overall toxicity of emissions.<sup>18</sup> Yet, EPA's studies were conducted using a method called “match blending,” which artificially controls certain fuel parameters, and is not reflective of what happens at refineries. The net result is that ethanol is labeled as worse for ozone and other emissions than gasoline. The perverse effect of widespread use of this model would be to instead increase the most toxic portion of gasoline, gasoline aromatics, instead of relying on clean forms of octane. [EPA-HQ-OAR-2015-0111-1944-A1 p.7]

Senator Daschle, along with Senators Dole and Harkin introduced the “Clean Octane” amendment S. 1630, to the 1990 CAAA, which passed along with the other 1990 CAA amendments. The Clean Octane amendment calls for the use of “benign additives to replace the toxic aromatics that are now used to boost octane in gasoline.” Over 20 years later, this intent has not been fulfilled. While we have succeeded in removing some of the benzene added to gasoline, it still contains at least 20 percent by volume of other aromatics, such as toluene, ethylbenzene and xylene, which are converted to benzene, an aromatic compound, upon combustion. [EPA-HQ-OAR-2015-0111-1944-A1 p.8]

### **Governors' Biofuels Coalition**

Therefore, in order to expand the market for ethanol, the EPA should amend its rules and extend the One-Pound Waiver to E15 (and remove the RVP condition from the E15 Waivers) and all higher ethanol blends. This would eliminate the need for a separate low-RVP blend stock for E15. A reasonable interpretation of the statutory One Pound Waiver—which applies to blends containing “gasoline and 10 percent denatured anhydrous ethanol”—can be interpreted to mean *at least* 10 percent ethanol. Accordingly, EPA should amend its One Pound Waiver regulation to apply to E15 and higher blends. Another option is for the industry to ask Congress to amend the *Clean Air Act* to make the One Pound Waiver expressly applicable to E15 and higher ethanol blends.

The easiest administrative approach to the broad expansion of the nation's ethanol market is for EPA to amend its rules to allow for the splash blending of higher ethanol blends, including E15. This will not occur in the market today because ethanol is an octane enhancer that diminishes the need for petroleum-based aromatics. In fact, if EPA were to amend its rules and allow the splash blending of more ethanol into gasoline, fewer emissions producing oil-derived aromatic compounds would be required, and the resulting fuel would actually produce lower emissions at a lower cost to consumers — exactly what Congress intended when it adopted the *Clean Air Act*. [EPA-HQ-OAR-2015-0111-1722-A1 p.8]

EPA effectively eliminated FFV credits after model year 2016 when it adopted the GHG-CAFE rule...Unfortunately, EPA only counts vehicle *tailpipe emissions* toward compliance with GHG standards. EPA does not include complete life cycle emissions excluding emissions generated in

the production and delivery of the fuel whether electricity, gasoline, natural gas or a renewable fuel such as ethanol. As a result, all types of electric vehicles have “zero” emissions during electric operation— this is clearly not the case when electricity production emissions are included. A uniform approach for vehicle emissions standards will level the playing field. [EPA-HQ-OAR-2015-0111-1722-A1 p.8-9]

EPA should enforce Sec. 202(l) of the *Clean Air Act Amendments of 1990* by reducing gasoline aromatics, similar to EPA’s successful implementation of the ban on lead, and the transition from leaded to unleaded gasoline. Congressional action is not needed. EPA has the authority to reduce carcinogenic aromatics in gasoline, which can be cost-effectively replaced by high-octane ethanol, without the need for tax incentives, import duties, or other mandates. [EPA-HQ-OAR-2015-0111-1722-A1 p.10]

### **Growth Energy**

EPA should grant a one-pound RVP waiver for E15. The nine-pound RVP limit applies from May to September. Unless made using low-RVP gasoline blendstock, E15’s volatility will exceed 9.0 psi. Because low-RVP blendstock is scarce, EPA’s denial of a one-pound waiver effectively prevents the sale of E15 during the summer months. Section 7545(h)(4) permits EPA to waive the 9.0 psi limit by one pound, setting a maximum RVP limit of 10 psi for “fuel blends containing gasoline and 10 percent denatured anhydrous ethanol.” EPA has flexibly interpreted that phrase to cover “blends of 9-10% ethanol.”<sup>295</sup> Although there is no scientific basis for having a different RVP limits for E15, as E15 has a similar volatility to E10 and would behave similarly in terms of evaporative emissions and effects on emissions-control devices,<sup>296</sup> EPA has interpreted section 7545(h)(4) not to permit a one-pound RVP waiver for E15.<sup>297</sup> [EPA-HQ-OAR-2015-0111-2604-A2 p.50]

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<sup>295</sup> 76 Fed. Reg. at 44,435.

<sup>296</sup> See Growth Energy Comments on E15 Misfueling Regulation, EPA-HQ-OAR-2010-0448-83, at 15 (posted Jan. 4, 2011).

<sup>297</sup> See 76 Fed. Reg. at 44,433-44,435.

### **Illinois Corn Growers Association (ICGA) and Illinois Renewable Fuels Association (IRFA)**

1. Grant an RVP waiver for E15 use in summertime conventional gasoline markets.

If the Administration was serious about the success of the RFS II and moving biofuels past the blend wall, then a 1 psi Reid Vapor Pressure (RVP) for E15 blended in summertime months in conventional gasoline should have been approved. If this RVP waiver had been approved for E15, we would not be writing comments today on a controversial proposal to reduce ethanol volumes under the RFS II. Instead, these reduced volumes were proposed by USEPA to satisfy the oil industry which decided not to buy the required ethanol gallons. This waiver would allow petroleum marketers to use the same blend stock for E15 as they currently use in blending E10 which would further reduce the cost of fuel for consumers. An RVP waiver would also take a huge millstone off the back of petroleum marketers who now have to decide if they can even

blend E15 as a conventional fuel in the summer months. By not granting this vapor pressure waiver, USEPA has once again given the oil companies more monopolistic control over the gasoline market at the expense of the consumers, petroleum marketers, and the biofuels industry. The arguments for this waiver submitted by the ethanol industry (Renewable Fuels Association) include the following points:

- a. “When the EPA initially provided the waiver to 10% ethanol blends, it did so only after exhaustive ozone air quality modeling that concluded the significant reductions in carbon monoxide (CO) and exhaust hydrocarbons more than compensated for increased evaporative emissions resulting from the increased volatility.”
- b. “With the increased recognition of the importance of CO reductions in preventing ozone formation, the conclusion that the increased volatility from the ethanol blends will not result in ozone formation is even more compelling and the waiver is even more justified today than it was in 1989. Indeed, CO is a major ozone precursor (National Academy, 1999) and studies have shown that CO can be equivalent to 25 to 50 per cent of the mobile-related contribution from VOC.”
- c. “Finally, it is important to note that while evaporative emissions are not impacted by increased ethanol content, the reductions in exhaust emissions are indeed greater with E15 than with E10, further demonstrating the air quality efficacy of extending the volatility waiver to higher blends. The gasoline blend stock must be compatible for both E10 and E15 if USEPA intends for E15 to be a viable option in the marketplace.” [EPA-HQ-OAR-2015-0111-1925-A1 p. 6-7]

## 2. Establish an adequate credit for the production of FFV vehicles under the CAFE rules of 2013

Unfortunately USEPA’s CAFE/GHG rule is inconsistent with the RFS II regulations and the EISA requirements to use 36 billion gallons of biofuels in 2022 and up to 15 billion gallons of ethanol from corn starch by 2015. It would make sense for the RFS II and the CAFE rules to be aligned to better accomplish their mutual goals of reducing petroleum usage and greenhouse gas emissions in the transportation sector. As it stands now we recommend modifications to the proposed rule in the following three areas to achieve a more balanced, technology neutral approach to the control of fuel economy and greenhouse gas emissions.

- Allow vehicle and fuel technologies to compete on a level playing field to meet fuel economy and GHG standards, rather than constructing credits to favor electric vehicle technology over renewable fuels.
- Provide flexibility within the rule and integrate RFS2 requirements such that renewable fuels can contribute to the greenhouse gas emissions reduction requirements in the rule.
- Provide incentives for the production of FFVs that are needed to consume RFS2 renewable fuel volumes. [EPA-HQ-OAR-2015-0111-1925-A1 p. 7]

## 3. Approve a new Exx certification fuel through the new Tier III standards

USEPA is currently reviewing comments concerning the proposed rules for TIER III standards and will probably issue the rule shortly. There is a great opportunity to develop rules under Tier III that would help the successful implementation of the RFS II,

reduce emissions and allow the automobile companies to design engines around higher octane fuels with higher blends of ethanol to increase efficiency, reduce emissions and increase performance. EPA should approve an Exx certification fuel which allows the autos to design around a higher octane fuel from higher blends of ethanol. It is important that the autos are encouraged to design around this Exx with higher octane with higher efficiency allowances and not penalized in efficiency ratings if the wrong fuel is used by the customer.

USEPA should also publish the rules for a new certification fuel that would replace the outdated indolene as a certification fuel. This would help all manufacturers to warrant their vehicles on E15 and would help small engine manufacturers in designing their engines on higher blends of ethanol in the future. [EPA-HQ-OAR-2015-0111-1925-A1 7-8]

4. Approve liability protection to petroleum marketers regarding mis-fueling concerns and equipment compatibility

USEPA could have also limited the liability for the petroleum marketers selling E15 within the USEPA guidelines for the waiver. This would have protected the petroleum marketers from misfueling with E15 and compatibility issues. This protection would have increased significantly the number of stations offering E15 helping to break the blend wall. Now the petroleum marketers are taking a wait and see attitude to lower their risk of uncertainty and exposure. [EPA-HQ-OAR-2015-0111-1925-A1 p. 8]

#### **Minnesota Bio-Fuels Association (MBA)**

EPA should also consider factors within the fuel supply chain. For instance, the EPA could address the Reid Vapor Pressure (RVP) factor so as to enable the legal sale of E15 throughout the entire year rather than for merely a nine-month period from September 16 through June 15. The EPA already has the administrative authority to immediately resolve the RVP barrier to E15.

Other barriers which need to be further addressed is having greater access to an adequate supply of competitively priced blend stock and eliminating the summer Reid Vapor Pressure blockage for E15. [EPA-HQ-OAR-2015-0111-1936-A1 p.8]

#### **National Corn Growers Association (NCGA)**

The Agency must use its regulatory authority to grant a 1.0 p.s.i. Reid Vapor Pressure (RVP) waiver to E15 blends. E15 has a lower RVP than E10 making it a superior fuel for consumers. In addition, granting the RVP waiver will allow year-round sales in Attainment areas. [EPA-HQ-OAR-2015-0111-1939-A1 p.9]

#### **Urban Air Initiative**

The Blend Wall may look insurmountable on the surface, but the Clean Air Act gives the Agency a relatively painless way out, as explained below. EPA can and should certify a mid-level ethanol blend (e.g., E30), as originally proposed in the Agency's Tier 3 rulemaking<sup>2</sup>, and take further steps to make such a fuel available in the marketplace. Specifically, the agency should restore a meaningful CAFE credit for flex-fuel vehicles (FFVs); correct the R-factor for ethanol blends to no less than 1.0; extend the one-pound Reid Vapor Pressure (RVP) waiver to E10+ blends; set a future model year by which all new vehicles must certify on the mid-level

ethanol blend; and exercise its mandatory authority to regulate air toxics by controlling the aromatic hydrocarbon content of fuel (Sec. 202(l) of the Clean Air Act), thereby driving a shift to clean octane. Such a shift would, over time, absorb the statutory RFS volumes and then some (as the marketplace made an orderly transition to low carbon, high octane gasoline to power more efficient, higher compression engines). By taking this action, the Agency would not only comply with mandatory statutory requirements, it would prevent thousands of needless deaths and other costly health disorders every year, reduce our dependence on foreign oil, and save consumers billions of dollars at the pump. [EPA-HQ-OAR-2015-0111-1821-A1 p.2]

At one point, EPA appeared to have opened the door to a win-win-win solution to the RFS impasse in its Tier 3 rulemaking. EPA's Tier 3 notice of proposed rulemaking acknowledged ethanol's excellent octane boosting properties, and asked for comment on whether it should approve an E30 (30% ethanol – 70% gasoline) blend certification fuel<sup>3</sup>. A recently published study by Department of Energy scientists at Oak Ridge National Laboratory (ORNL) confirms E30's many advantages as a high-octane fuel for high performance spark ignition engines. What is especially striking about the ORNL study is that it ties together Tier 3, the RFS, and CAFE (Corporate Average Fuel Economy) regulations in a scientifically sound and logical sequence. The study finds that 'midlevel ethanol blends—such as E30' are 'the enabling technology' for 'near-term increases in vehicle efficiency and reductions in CO<sub>2</sub>,' such that they 'could enable simultaneous compliance with RFS II and CAFE' and even 'set the sustainable transportation trajectory to extend beyond the requirements set by RFS II and CAFE legislation.'<sup>4</sup> The study explicitly notes that the certification fuel that determines CAFE and greenhouse gas emissions compliance 'is currently up for debate,' and cites EPA's Tier 3 rulemaking.<sup>5</sup> Unfortunately, however, EPA's Tier 3 Final Rule failed to take advantage of this ripe opportunity to kill several birds with one stone. [EPA-HQ-OAR-2015-0111-1821-A1 p.3]

The nation now stands at a critically important juncture in transportation fuels and vehicles regulatory policy. EPA has before it an unprecedented opportunity to encourage technologically available, cost-effective demand-side policies (e.g., creating a level playing field for ethanol to achieve octane value parity, and enabling a nationwide system of flex fuel cars and pumps). The right policies could have already set in motion an orderly transition to a transportation fuels system capable of absorbing the steadily increasing volumes of renewable fuels that Congress has decreed. This would have obviated the need for this highly controversial proposed rule. Encouraging the commercialization of high-octane, clean-burning E30 blends will enable a nationwide flex-fuel transportation fuels system in the U.S. (like that in Brazil), offer consumers freedom of choice at the pump, and save the nation billions of dollars per year in lower health and gasoline costs. [EPA-HQ-OAR-2015-0111-1821-A1 p.3]

**Clean Octane Solutions Offer the Way Out of the Blend Wall Trap.** In the 100 years since the advent of the automobile, carmakers have pleaded with the oil industry and regulators to provide it with cost-effective, environmentally safe octane boosters. In its July 1, 2013, Tier 3 comments, Mercedes Benz told EPA that '[o]ctane is the single most important property of gasoline when determining engine design.' In a May 5, 2013, *New York Times* article, a Mercedes engineer said that E30 blends would provide car owners with 'ridiculous power and good fuel economy.'<sup>10</sup> Ninety years previously, in a 1923 paper, Ford and GM engineers lauded ethanol's superior octane characteristics, and confirmed that 30% ethyl alcohol blends (e.g., E30) had the same octane punch as 3 grams of tetra-ethyl lead, or 40% 'benzene' (one of the aromatic

group compounds, also known as BTX). Since both lead and BTX were known to be harmful to health, Ford and GM proposed using ethanol as the octane booster of choice. However, Standard Oil had other ideas, and the U.S. and world ended up putting poisonous lead in its gasoline for decades until the tragic health consequences could no longer be ignored. [EPA-HQ-OAR-2015-0111-1821-A1 p.5]

The comments UAI and the Energy Future Coalition submitted with regard to the proposed Tier 3 rule<sup>15</sup> reinforced these points with extensive citations of the health literature and automaker studies that conclusively show that mid-level ethanol blends, such as E30, are the most cost-effective way for EPA's rule to 'reflect the greatest degree of emissions reduction achievable through the application of technology which will be available' as required by the Clean Air Act Amendments of 1990. [EPA-HQ-OAR-2015-0111-1821-A1 p.7]

**Recent Developments Show Potential for Progress.** On May 5, 2015, EPA's Mobile Source Toxics Review Subcommittee considered the benefits and challenges of higher octane gasoline.<sup>16</sup> In his presentation, Paul Machiele, EPA's Director of Fuels in Ann Arbor, laid out his view of how EPA could open the door to higher octane gasoline under Sec. 211(c) of the Clean Air Act. He described a laborious process that would take ten years or more to initiate and implement. Unfortunately, for automakers to get the higher octane fuels they need to better comply with the fuel economy and carbon reduction standards in 2025 and beyond, EPA cannot afford any further delay. Since a multi-year transition will be needed to introduce a new, higher octane fuel, it must start very soon to be of value and will require a purposeful and coherent regulatory strategy. [EPA-HQ-OAR-2015-0111-1821-A1 p.7]

For that reason, UAI respectfully urges EPA to look to other provisions in current law that empower it to regulate gasoline octane levels. For example, UAI believes that section 202(l) is far superior to 211(c) as a statutory basis for such regulation. Section 211(c) is discretionary ('may'), whereas 202(l) is mandatory ('shall'). Section 211(c) requires an endangerment finding ('in the judgment of the Administrator . . . may reasonably be anticipated to endanger the public health or welfare'), whereas 202(l) requires only the presence of 'hazardous air pollutants.' Section 211(c) requires 'cost benefit analysis,' including comparison with other control technologies 'which are or will be in general use,' whereas Section 202(l) is technology-forcing and introduces cost only in determining which technology will be available ('which the Administrator determines reflect the greatest degree of emission reduction achievable through the application of technology which will be available, taking into consideration . . . costs'). [EPA-HQ-OAR-2015-0111-1821-A1 p.7-8]

EPA has indicated that another MSTRS workshop on higher octane gasoline may be held in December of this year. UAI respectfully urges EPA to seriously consider how Section 202(l) could be used to promote an orderly transition to a new, higher octane fuel. [EPA-HQ-OAR-2015-0111-1821-A1 p.8]

Another recent development that further validates these comments was the July 14, 2015 release of the previously mentioned Argonne National Labs study on WTW GHG reductions of high octane fuels (see footnote 7). Its conclusion states that 'ethanol can be a major enabler in producing HOF [high octane fuel] and result in additional reductions in WTW GHG emissions when compared to regular E10 gasoline'. The study identifies the two most critical fuel blending specifications as RVP and octane. On p. 5, the study notes that refinery reformers, when operated

at high severity to maximize octane levels, produce a smaller volume of product with a higher octane and a higher RVP. [EPA-HQ-OAR-2015-0111-1821-A1 p.8]

From a refinery economic perspective, the tradeoff is problematic: producing more aromatics to increase gasoline octane reduces product yields and thus reduces profit margins. However, using higher levels of ethanol to displace aromatics alleviates this problem, because adding more ethanol substantially increases octane while at the same time it reduces the blend's RVP. From a human health and environmental perspective, EPA should be eager to implement policies that reduce levels of gasoline aromatic hydrocarbons. In fact, it is legally bound to do so. [EPA-HQ-OAR-2015-0111-1821-A1 p.8]

Within the refinery, key high-octane and low-RVP blendstocks are reformat and alkylate. However, there are limitations to both, and both show approximately 20 vol. % shrinkage. The Argonne experts identify ethanol—a blending component that is external to the petroleum refining process—as another excellent high-octane, low-RVP blendstock when it is used in the correct concentrations, e.g., E30 and higher. They note that other studies have reported that 100 RON gasoline can be produced by blending 91 RON BOB (blendstock for oxygenate blending) with E30. Argonne found that the blending octane value (BOV) for ethanol increases to 121 with higher levels of ethanol, e.g., E25 and E40. This is far superior to other commercially available octane enhancers. [EPA-HQ-OAR-2015-0111-1821-A1 p.8]

In addition, Argonne found that adding more ethanol to the blend enables a rapid reduction in the gasoline's RVP. Thus, E30's RVP is lower than that of E10, and is only half a pound higher than that of E0. E40's RVP is very close to parity with that of E0. Argonne noted that the 2014 Hirshfeld study concluded that the 'impact of the 1-psi waiver was proven to be miniscule at a higher ethanol blending level'. Consequently, Argonne assumed no one pound waiver for E25 and E40 gasoline. [EPA-HQ-OAR-2015-0111-1821-A1 p.8]

Argonne frequently references the 2014 MathPro – auto LP study, which found that using E30 to produce 100 RON high-octane gasoline results in a 60% reduction in aromatic hydrocarbons. From a GHG perspective alone this is significant. EPA says that aromatic hydrocarbons are 25% more carbon intensive than gasoline itself. Consequently, it would seem that the ethanol in E30 should be given credit for a 15% reduction in GHG emissions for its aromatics displacement alone (automobile exhaust system/three way catalysts do not effectively capture the aromatics' combustion by-products, see 2014 Robinson – Maricq study on SOA emissions, Appendix A). [EPA-HQ-OAR-2015-0111-1821-A1 p.8][Appendix A can be found in Docket # EPA-HQ-OAR-2015-0111-1821-A2]

Thus, EPA can cost-effectively and simultaneously achieve several important goals by reversing course and enforcing the law as Congress intended: 1) provide automakers with the higher-octane fuels they have requested; 2) facilitate compliance with the new fuel efficiency and carbon reduction rules; 3) substantially reduce harmful urban emissions of PM2.5, UFP-borne and SOA-bound PAHs, BETX, and black carbon; and 4) cost-effectively comply with mandated renewable fuels consumption targets as set forth in RFS2. To make all of these desirable things happen, EPA should use its considerable powers under Sec. 202(l) to require 'clean octane' E30 blends, flex fuel cars, and flex fuel pumps and infrastructure, just as it did so successfully in the even more difficult transition from leaded to unleaded gasoline 30 years ago. [EPA-HQ-OAR-2015-0111-1821-A1 p.8-9]

Recommended Near-, Mid-, and Long-Term Actions by EPA. Congress has spoken clearly, and the best available science is irrefutable: Gasoline aromatic hydrocarbons and the potent MSAT emissions they cause impose enormous damage on the public health and welfare. Numerous benefits will result if they are reduced and replaced by high-octane, clean-burning ethanol, commensurate with the levels required by the RFS. EPA has all of the authority it needs—indeed EPA has the legal obligation—to take the actions set out below. Once it does, the E10 Blend Wall will be a thing of the past, and the nation will have achieved a rare win-win-win: cleaner air and better health; higher quality gasoline at a lower cost; and a market-driven, robust renewable fuels industry consistent with the RFS targets set by Congress. [EPA-HQ-OAR-2015-0111-1821-A1 p.9]

-Extend RVP waivers to E10+ blends.

-Encourage a nationwide flex fuel transportation system—clean octane fuels, cars, and pumps—just as Brazil has successfully done.

-Establish an E30 certification and commercial gasoline system.

-Correct EPA’s flawed models, especially the MOVES2014 model, so that gasoline aromatic hydrocarbons’ true contributions to BTEX, PM2.5 SOAs- UFP-borne PAHs, and NOx emissions are fully accounted for and reported.

-Ensure market-driven access and maximize consumer choice by leveling the playing field for ethanol’s ‘Clean Octane’ vs. toxic aromatics’ ‘Dirty Octane’. [EPA-HQ-OAR-2015-0111-1821-A1 p.9]

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<sup>2</sup>Control of Air Pollution from Motor Vehicles: Tier 3 Motor Vehicle Emission and Fuel Standards, 78 Fed. Reg. 29816, 29825 (May 21, 2013) [hereinafter “Proposed Tier 3 Rule”], available at <http://www.gpo.gov/fdsys/pkg/FR-2013-05-21/pdf/2013-08500.pdf>.

<sup>3</sup>78 Fed. Reg. at 29825.

<sup>4</sup>“Experimental Investigation of Spark-ignited Combustion with High-Octane Biofuels and EGR”, Splitter and Szybist, Oak Ridge National Laboratory, Energy & Fuels, American Chemical Society, Revised: December 21, 2013.

<sup>5</sup>*Id.*

<sup>10</sup>William H. Woebkenberg, Mercedes-Benz senior engineer for fuels policy in the United States, *quoted in* Matthew L. Wald, *Squeezing More From Ethanol*, N.Y. Times, May 3, 2013, at AU4, available at [http://www.nytimes.com/2013/05/05/automobiles/squeezing-more-from-ethanol.html?\\_r=0](http://www.nytimes.com/2013/05/05/automobiles/squeezing-more-from-ethanol.html?_r=0).

<sup>15</sup>Comments of the Energy Future Coalition and Urban Air Initiative on the U.S. Environmental Protection Agency’s Proposed Rule: Control of Air Pollution from Motor Vehicles: Tier 3 Motor Vehicle Emissions and Fuel Standards. Docket ID No. EPA-HQ-OAR-2011-0135 78 Fed. Reg. 29816 (May 21, 2013).

<sup>16</sup><http://www2.epa.gov/caaac/mobile-sources-technical-review-subcommittee-meeting-may-5-2015>

**Response:**

We recognize that the marketplace must overcome a number of challenges to fully realize the potential that exists from the increased volumes of renewable fuels. We also recognize that the RFS program plays a central role in creating the incentives for realizing that potential. Accordingly, the standards being set today require that significant progress is made in overcoming those challenges. At the same time, other tools, programs, and actions also have the potential to play an important complementary role. Commenters provided ideas and suggestions on an array of such complimentary actions that they believed should be taken by EPA, Congress, or others, such as addressing the differing gasoline volatility (Reid Vapor Pressure) requirements for E10 and E15 so they can be produced using the same gasoline blendstock, establishing standards, incentives, and/or requirements for mid-level ethanol blends, requiring the certification of all vehicles on higher level ethanol blends (to be FFVs), approve liability protection to petroleum marketers regarding mis-fueling concerns and equipment compatibility, putting in place higher gasoline octane requirements or controlling the aromatic content of gasoline to encourage greater ethanol use, putting in place greater incentives for FFVs under the greenhouse gas and fuel economy (CAFE) rules through various means, approving new certification fuels, and revising the emission inventory models. While these comments are beyond the scope of this rulemaking and in several cases beyond the authority of EPA, we will take these comments into consideration as we work with industry, other private stakeholders, and our government partners to help address and overcome challenges in the production of renewable fuels and their supply to the vehicles that use them.

Many of the suggested actions are directed at expanding the market opportunity for ethanol to be used in concentrations higher than 10% to allow volumes to increase beyond the E10 blendwall. There is already a tremendous amount of effort being expended in the marketplace to support this, driven in large part by the RFS standards. The standards in the final rule go beyond the E10 blendwall, providing not just an incentive, but an obligation to make changes in the marketplace to accommodate higher level ethanol blends, and/or introduce greater volumes of non-ethanol biofuels. Many companies are continuing to invest in efforts ranging from research and development to the construction of commercial scale facilities to increase the production potential of next generation biofuels. Many of these projects have received financial support from government programs, including the recently implemented USDA BIP program providing states up to \$100M to encourage the use of gasoline pumps that blend high amounts of ethanol into the fuel.

**10.6.6 Changing the Point of Obligation****Comment:****American Fuel & Petrochemical Manufacturers and American Petroleum Institute**

If EPA wants maximum renewable fuels blended, it should move the point of obligation to align with the point where compliance is more likely achieved (*i.e.*, the point of blending), so every blender has increased incentives to blend. [EPA-HQ-OAR-2015-0111-1948-A1 p.21]

## **Crimson Renewable Energy LP**

Both the proposed rule and its supporting documentation analyzed market economics associated with RIN pricing. However, these analyses fail to recognize that under the current RFS program current structure, pricing alone has not created the consistent market for renewable fuels that EPA envisions. In order to achieve RFS program objectives and volume obligations, renewable transportation fuels need to be blended with petroleum based fuels at bulk fuel terminals, most of which are not at the refineries, on a pervasive basis. While refiners and importers of petroleum based transportation fuels that are the current RFS obligated parties are often position holders at non-proprietary bulk fuel terminals and in some cases operate a bulk distribution rack at the refinery, in many cases the majority of fuel volumes at bulk fuel terminals are controlled by market participants who are not RFS obligated parties. Such non-obligated parties don't have a requirement to blend renewable fuels and may not have sufficient financial incentive to blend renewable fuels beyond what they are required to do at the state level. However, it is those parties who control whether and how much renewable fuel is blended and also have the necessary leverage with the terminal owner/operator regarding whether investments are made in fuel blending infrastructure.

Furthermore, these non-obligated parties are directly incentivized to blend less than the mandated levels to maximize their RIN revenues and total return on existing blending necessary for state-level requirements and, contrarily, have a direct disincentive to expand infrastructure and blending (B5+, E85) because meeting the mandate level decreases RIN profits generated from being a non-obligated party. This is especially clear when the industry confronts a potential ethanol "blend wall" and when ample biodiesel production capacity and supply exists to support significantly higher blend levels but additional capital or marketing is required to utilize greater volumes of renewable fuels and generate the RINs necessary to successfully meet RFS program objectives. In order to break through the ethanol blend wall and blend more of biomass-based diesel and other types of advanced renewable fuels, blenders need to be incentivized to maximize the blending of renewables into the market.

As a producer of renewable fuels, we have seen the impacts of limited availability of blending infrastructure and the direct disincentive or lack of need to expand biodiesel blending infrastructure. We have simply been locked out of making biodiesel sales in these locations. However, if the blending infrastructure at the bulk terminals was indeed pervasive and/or if the requirement to blend renewable fuels existed at the terminal and applied to all bulk fuel position holders, the economy of scale for terminal infrastructure projects would be hugely improved nationwide, which would in turn provide stronger blending economics and increasing market competition by leveling the playing field, and thus ultimately increase the renewable fuels customer base.

Based on our 8 years of experience in the biomass-based diesel market, our opinion is that blending infrastructure must be pervasive in every fuel market in the United States in order to achieve higher blend levels and greater utilization of currently available renewable fuels. This is clearly not happening in the case of biodiesel. We strongly believe that some type of mechanism is needed to ensure that blending infrastructure is pervasive nationwide. This could mean a change in RFS to shift from a volume based approach applied to obligated parties to a requirement that every gallon of transportation fuel have a certain renewable fuel content or achieve a certain performance standard in terms of carbon reduction. Another type of forcing

mechanism worth very serious consideration is a shift in application of RFS obligations to encompass position holders at bulk fuel terminals as opposed to only the producer and importer of petroleum based fuels.

We strongly believe that the evolution of renewable transportation fuel market in California is an excellent example how the market has behaved before and after a forcing mechanism have been implemented, and is worthy of serious consideration by the EPA. The ethanol market in California really took off only when MTBE was banned as a oxygenate for gasoline. As a result, the entire gasoline wholesale value chain worked very quickly to make ethanol blending pervasive statewide. In 2010, California Air Resources Board (CARB) began implementation its program to regulate greenhouse gases<sup>2</sup> in transportation fuels and among industrial emitters. Part of this was the Low Carbon Fuel Standard, a performance-based standard requires producer of importers and petroleum based fuels to reduce the GHG/carbon content by a certain percentage each year and allows of the transference of this obligation to a downstream bulk, above the rack customer. In practice, compliance at the rack, rather than the refinery, has become the rule, as it has become the ubiquitous practice for purchasers of blendstocks to assume the LCFS obligation corresponding to the product they purchase.

CARB subsequently implemented its Cap-and-Trade program,<sup>3</sup> whereby the entity that owns title to the product at the bulk distribution terminal/rack, i.e. the blender, must obtain and surrender allowances or offsets for CO<sub>2</sub> emissions attributable to the regulated fuels<sup>4</sup> they sell into the California market. Specifically, CARB imposes this obligation on the entity that owns title to the product at the distribution rack—i.e., the blender.<sup>5</sup> In explaining its rationale for establishing the reporting and compliance obligation based on ownership of the product at the rack rather than with refiners and importers, CARB staff noted that “the refinery is not a workable point of regulation for purpose of fuel supplier reporting for cap-and-trade for most of the fuel delivered, since refineries are often not aware of the final destination of fuels they produce.”<sup>6</sup> CARB made this policy determination even though the administrative burden associated with regulating the relatively small number of refiners operating in California might have been easier.

It has been our observation that the LCFS and Cap and Trade regulations has created a powerful incentive at the terminals (regardless of whether they were affiliated with a refinery or independent) to invest in and expand the infrastructure for blending renewable fuels. Further, the incentive for the owner of petroleum based fuels at each of these terminals that needs to blend low-carbon-intensity fuels in order to generate the required LCFS credits is evidenced by the fact that reporting parties generated a net total of 3.5 million metric tons of excess LCFS credits through the end of the second quarter of 2014.<sup>7</sup> We believe the requirement for blending at the bulk fuel terminals has created an environment that has allowed our biodiesel to gain wide access to these terminals. In fact, Crimson has had an easier time marketing our renewable fuels and optimizing our fuel price and usage in California than would be possible in other states due to how LCFS is implemented at the bulk fuel terminals. We would contrast that to the RFS program, where we, and the industry, still find difficulty penetrating several markets.

To summarize, EPA has repeatedly stated on the record that one of the primary goals of the RFS program is to increase the production and consumption of renewable fuels. Yet the current structure of the RFS has not led to maximization infrastructure investment and renewable fuel penetration, and indeed in some ways (i.e. how the RFS obligation is structured) may actually be an obstacle to achieving the stated goals. As EPA is well aware, there is more biofuel production

capacity than the market is currently utilizing to supply domestic renewable fuel blending. This is a function of both 1) the current situation with the renewable fuel obligations being set at levels well below production capacity, and 2) the current structure of RFS that does not ensure pervasive blending at the bulk fuel terminals and may in fact be incentivizing certain refiners to continue to hold a surplus of RINs, which in turn will mean there is little incentive for those parties to undertake projects to increase biodiesel blending, just like they will not have an incentive to try to penetrate the blend wall for ethanol. Modifying the RFS to ensure across the board blending at all bulk fuel terminals would not require a fundamental change to the regulations. Rather, EPA would merely be changing the way the RFS is implemented to a structure where blending is taking place at each terminal, and thus all owners of petroleum based fuels at the terminals are positioned equally at the rack. We believe strongly that this creates the greatest potential for maximizing renewable fuel use while avoiding excessive RIN price spikes, and moves all of us closer to the market scenarios EPA envisioned. [EPA-HQ-OAR-2015-0111-1823-A1 p.3-6]

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<sup>2</sup> See California Global Warming Solutions Act of 2006 (Assembly Bill 32); Governor's Executive Order S-01-07 (Jan. 18, 2007).

<sup>3</sup> 17 CCR §§ 95800-95490.

<sup>4</sup> Fuels subject to cap-and-trade obligations include liquefied petroleum gas and natural gas, as well as gasoline and diesel.

<sup>5</sup> The "covered entity" subject to cap-and-trade obligations for gasoline and distillate fuels is the "Position Holder," defined as "an entity that holds an inventory position in motor vehicle fuel, ethanol, distillate fuel, biodiesel, or renewable diesel as reflected in the records of the terminal operator or a terminal operator that owns motor vehicle fuel or diesel fuel in its terminal." 17 CCR §§ 95802(a)(203), 95811(d).

<sup>6</sup> California Air Resources Board, "Initial Statement of Reasons for Rulemaking: Revisions to the Regulation for Mandatory Reporting of Greenhouse Gas Emissions Pursuant to the California Global Warming Solutions Act of 2006" (Oct. 28, 2010) at 69.

<sup>7</sup> California Air Resources Board, "Initial Statement of Reasons for Rulemaking: Proposed Re-Adoption of the Low Carbon Fuel Standard," Dec. 30, 2014, at ES-3.

### **CVR Refining, LP (CVRR)**

CVRR believes that by changing the obligated party under RFS from refiners to blenders, EPA can (i) place the obligation on the parties best suited to maximize the increased use of renewable fuels, (ii) create a more transparent and predictable RINs market, and (iii) virtually eliminate the secondary market and price volatility inherent in the current system today. This is supported by the following points. [EPA-HQ-OAR-2015-0111-2500-A1 p. 1]

- The price of renewable fuels is market driven (not mandate driven). In the case of ethanol, its price currently incents maximum blending as determined by the market's demand. With these economics, if there were a customer-driven market demand for E85, at current ethanol prices, the free market would fill that demand.

- Refiners, and more specifically, merchant refiners, have little impact or control over RINs even though they hold all of the current obligations. The blending of renewable fuels (and the generation of RINs) occurs further downstream, closer to the retail marketplace. In addition, refiners ship a majority of their transportation fuels by CVR Refining, LP · 2277 Plaza Drive, Suite 500 · Sugar Land, TX 77479 The Hon. Gina McCarthy July 27, 2015 Page 2 of 2 pipeline. Pipeline operators do not allow shipment of transportation fuels blended with renewable fuels. Therefore, merchant refiners, without control of these pipelines and receipt facilities, are at a significant disadvantage. [EPA-HQ-OAR-2015-0111-2500-A1 p. 1-2]

### **Holly Frontier Corporation**

The cost of a RIN is generally shouldered by merchant refiners, thus the RIN provides a poor mechanism for incenting consumers to alter their behavior at the gas pump. A better structure would be to move the point of compliance to the blender of record. Redefining obligated parties at this point would align the intent of the Renewable Fuel Standard with those entities that actually can dictate what volumes of renewable fuel are introduced to petroleum based motor fuels. Additionally, the blender is better suited to reflect the cost of a RIN in the price at the pump, which may affect consumer behavior. [EPA-HQ-OAR-2015-0111-2257-A1 p.3]

### **Mass Comment Campaign sponsored by anonymous 1 (web) - (23)**

In the final rule, EPA should require obligated parties to comply with the law by blending increasing volumes of renewable fuels. [EPA-HQ-OAR-2015-0111-0118 p.2]

### **Minsk, Ronald**

The current point of obligation is a significant factor inhibiting greater amounts of E85, and perhaps biodiesel, from reaching the market due primarily to the lack of properly aligned incentives and the resulting shortfall in blending infrastructure expansion. Reaching this conclusion only requires extending the reasoning acknowledged above by EPA in 2009, namely: a portion of obligated parties, refiners with large marketing operations, are almost immediately long on RINs at the beginning of every compliance period, a position that occurs because when they market more fuel than they refine, they generate more RINs through blending than they need for their own compliance obligations. Blending ethanol at wholesale distribution facilities at scale often requires modifications to the infrastructure.<sup>14</sup> At many distribution facilities, however, obligated parties long on RINs are the largest customers, and in a position to effectively block installation of infrastructure to promote large scale E85 blending. Once the RIN-long party has met its own RVO, it has little incentive to participate financially in the expansion of blending infrastructure to allow for higher level blends (E85 and E15) or additional advanced renewable fuels (B5-B20) because they are already have the RINs they need and do not want additional blending to lower the value of their excess RINs. [EPA-HQ-OAR-2015-0111-1307-A1 p.6-7]

Ironically, the current structure, which puts the point of obligation on refiners instead of where the actual compliance is achieved at the point of blending, provides the least incentive to those who are best situated to undertake the blending that the RFS seeks to motivate and imposes the

greatest obligation on the parties who are most poorly situated to increasing the volumes of renewable fuel that is blended into the fuel supply. [EPA-HQ-OAR-2015-0111-1307-A1 p.7]

EPA's current view is that the parties facing ever increasing costs for RINs will be incentivized to build new infrastructure or to invest in blending operations. To me, it is inappropriate to presume this as a path to compliance. This is akin to telling a product's manufacturer that it also must become its distributor. Stated differently, EPA expects that RIN pricing will become so severe, that it will reverse the last 20 years of de-integration in the refinery industry. [EPA-HQ-OAR-2015-0111-1307-A1 p.7]

Moreover, without pump-on-pump pricing competition for E85 at the retail level, the value of the RIN is, on average, not being passed through to the retail consumer, undermining the operation of the program by failing to use the value of RINs to lower the retail price of E85 making it more attractive to consumers and build demand for the fuel. [EPA-HQ-OAR-2015-0111-1307-A1 p.8]

If EPA moves the point of obligation to the owner of the hydrocarbon fuel just before blending, it will assure that every person controlling the blending will be fully incentivized to maximize the blending of renewable fuels into the fuel supply because they will need RINs in proportion to the fuel they blend and not in proportion to the fuel that they produce. [EPA-HQ-OAR-2015-0111-1307-A1 p.8]

Under the current program structure, there is a misalignment between the parties obligated to ensure that blending occurs and the parties that are situated in the supply chain to blend. As EPA recognized in 2009, moving the point of obligation to blenders can better align the obligation and the ability to blend. Moreover, moving the point of obligation to the blender more evenly distributes the cost of obligation across the obligated parties and likely reduces cost of the program to consumers. Rather than incentivizing major obligated parties to hoard RINs and withhold from infrastructure investments, obligated parties would now be able to compete on an even playing field as the RFS drafters envisioned. With all of the major parties competing for E85 market share, consumer prices have the best opportunity to be competitive with E10 and gain penetration into the market. Ultimately, this represents the best chance for policymakers to get past the difficult problems presented by the blend wall and to achieve the fundamental goal of the program—getting more renewable fuel into the market. [EPA-HQ-OAR-2015-0111-1307-A1 p.8-9]

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<sup>14</sup> See, e.g., Michael Leister, *Biofuels Blending Infrastructure*, SAE Government and Industry Conference, May 13, 2008; *Daniel Measurement and Control Application Guide, An Introduction to Blending Ethanol*, available at [http://www2.emersonprocess.com/siteadmincenter/PM%20Daniel%20Documents/Ethanol Blending.pdf](http://www2.emersonprocess.com/siteadmincenter/PM%20Daniel%20Documents/Ethanol%20Blending.pdf); Robert Jagunich, *Biofuels Mid-Stream Infrastructure Requirements*, California Energy Commission, Apr. 14, 2009.

### **Monroe Energy, LLC and Philadelphia Energy Solutions Refining and Marketing, LLC**

Most importantly, the Merchant Refiners Group urges EPA to shift the RFS compliance obligation to blenders. As noted above, the key mechanism on which EPA relies to induce increased consumption of high-ethanol blends—a subsidy to renewable fuels provided by RINs—is not functioning properly. The value of RINs is not being passed through to consumers. It would be irrational for EPA to continue imposing larger mandates without diagnosing the

problem and addressing the mechanism through which it expects the economy to meet those mandates. If EPA is serious about using the RFS to subsidize high renewable-content fuels, it must shift obligations closer to the cause of the bottleneck that prevents RIN values from being passed through to retail consumers. [EPA-HQ-OAR-2015-0111-2603-A1, p.2]

Finally, EPA must consider shifting the compliance obligation to blenders and away from refiners and importers. As noted above, the key mechanism on which EPA relies to induce increased consumption of high-ethanol blends—a subsidy to renewable fuels provided by RINs—is not functioning properly. The value of RINs is not being passed on to consumers in the form of relatively lower E85 prices. It would be irrational for EPA to continue to impose increasing mandates without addressing the failure of the mechanism on which it expects the economy to rely in meeting those mandates. The current obligated parties—refiners and importers—are poorly situated to address the problem. Complex structural constraints on the retail E85 market prevent the value of RINs from being passed through to retail E85 prices, and refiners—especially merchant refiners—are in no position to remove those constraints or otherwise change the behavior of blenders or retailers. But placing the obligation on blenders would help. As obligated parties, blenders would have a stronger, more direct incentive to blend and sell as much E85 as possible, and, because they are closer in the supply chain to retailers, they could exert pressure over retailers to ensure that the RIN subsidies needed to promote the use of higher-ethanol blends are passed on to the ultimate consumer. Because of their closer relationships with retailers, blenders are also better situated than refiners or importers to assist in overcoming the infrastructure constraints that have inhibited growth in E85 usage and the passthrough of RIN value to consumers. [EPA-HQ-OAR-2015-0111-2603-A2, pp.4-5]

Accordingly, EPA should shift the compliance obligation to blenders. [EPA-HQ-OAR-2015-0111-2603-A2, p.5]

### III. EPA MUST MOVE THE COMPLIANCE OBLIGATION TO BLENDERS IF RINS ARE TO INCENT CONSUMPTION OF HIGH-ETHANOL BLENDS.

As discussed above, EPA has theorized that the RFS program will result in lower retail prices for E85, subsidizing the cost of E85 relative to fuels that do not contain a large percentage of renewable fuel, and thereby incenting great E85 consumption. EPA posited in the NPRM that RIN prices paid by obligated parties will “decrease the effective cost of renewable fuel used to create transportation fuel.” This, in turn, is theorized to result in lower retail prices for high-ethanol blends relative to E10. As EPA explained: “[C]ompetition among renewable fuel blenders and distributors should result in a greater portion of the reduced effective cost of renewable fuel blends enabled by the sale of the RIN to be passed on to fuel consumers.” [EPA-HQ-OAR-2015-0111-2603-A2, p.40]

Unfortunately, as discussed above, reality does not reflect EPA’s theory. Empirical evidence during a two-year period of high RIN prices reveals that the value of RINs are not being passed through to retail customers in the form of lower relative E85 prices nationwide. Likewise, even after adjusting projections for 2015 and 2016 to account for the NPRM, EIA still “does not expect measurable increases in E15 or E85 consumption over the forecast period.”<sup>116</sup> That is a major problem for EPA’s plan to use RIN prices to stimulate E85 consumption. To the extent EPA wishes to achieve steadier, more robust growth in E85 consumption, EPA must find a way to break through the bottleneck identified by Knittel, Meiselman, and Stock that prevents RIN

values from being passed through to consumers in the form of lower E85 prices. [EPA-HQ-OAR-2015-0111-2603-A2, pp.40-41]

As an initial step toward a solution, EPA should move the compliance obligation away from refiners and importers and should place that obligation on blenders.<sup>117</sup> The parties on whom EPA continues to impose the compliance obligation—refiners and importers—are the worst situated to encourage blenders or retailers to pass along the value of RINs to the ultimate consumer. Refiners—particularly merchant refiners—have little to no control over the retail markets for biofuels. They own about 4 percent or less of the retail stations,<sup>118</sup> do not contract directly with them, and do not otherwise exercise much influence over the decision-making of these downstream market players. The NPRM ignored this reality. It suggested obligated parties might meet the 2016 mandates by “[d]eveloping contractual mechanisms to ensure favorable pricing of E15 and E85 at retail compared to E10 to boost sales volumes.” That makes little sense for obligated parties who generally have no relationships whatsoever with retailers. EPA is directing its advice to the wrong link in the supply chain. “Refiners are in no position to ensure, or even contribute to, growth” in the supply of renewable fuels to consumers.<sup>120</sup> [EPA-HQ-OAR-2015-0111-2603-A2, pp.41-42]

It is important to recall again that EPA’s decision to regulate the very first link in the chain was driven by little more than administrative convenience. The RFS1 Rulemaking placed the obligation “on the relatively small number of refiners and importers rather than on the relatively large number of downstream blenders and terminals in order to minimize the number of regulated parties and keep the program simple.”<sup>121</sup> EPA acknowledged in 2010 that the rationale that originally justified imposing the compliance obligation on refiners and importers was “no longer valid.”<sup>122</sup> Yet when the agency last examined the issue in 2010, it found no pressing reason to alter course and decided to leave its rule unchanged. But the Agency pledged to revisit the issue if the RIN market did not operate as intended, which the empirical evidence shows is now the case. It is therefore time for EPA to make good on its promise to revisit its 2007 decision to place the obligation on refiners. [EPA-HQ-OAR-2015-0111-2603-A2, p.42]

Administrative convenience is no longer a justification for inaction. There is no benefit to continuing to impose the compliance obligation on the parties the worst situated to encourage greater consumption of high-ethanol blends. By contrast, switching the obligation to blenders has the potential to significantly impact the price of high-ethanol blends to retail consumers. [EPA-HQ-OAR-2015-0111-2603-A2, p.42]

James Stock, one of the authors of the recent study finding no meaningful pass through of RIN values to retailers nationwide, published a paper this past April explaining that shifting the obligation from refiners to blenders could improve the RFS program’s ability to subsidize high renewable-content fuels, such as E85. According to Professor Stock, placing the RFS obligation on blenders rather than refiners could help the economy overcome the E10 blendwall. As he explains, “because blenders either are retailers or sell to retailers, blenders are better situated to pass the RIN subsidy for high-renewable content fuels along to the consumer than are the current obligated parties, who are further upstream.”<sup>123</sup> [EPA-HQ-OAR-2015-0111-2603-A2, p.43] To the extent blenders are the bottleneck, EPA could eliminate profit-taking behavior by eliminating the profit source—i.e., the ethanol subsidy they receive from selling RINs to refiners. By replacing an indirect ethanol subsidy with a direct RFS obligation, EPA would increase blenders’ incentives to competitively price E85 and to place pressure on affiliated or

nonaffiliated retailers to do so as well. While blenders appear to have that incentive now, blenders with greater capacity to absorb RIN costs in blendstock prices may not feel the cost impact nearly as significantly as they would if they had to report it on their balance sheet. [EPA-HQ-OAR-2015-0111-2603-A2, p.43]

To the extent retailers are the bottleneck, declining to pass along the RIN subsidy to retail customers, blenders again are in a better position than refiners to exert financial pressure, or else to work in cooperation with retailers (and perhaps EPA) to expand retail competition for E85. [EPA-HQ-OAR-2015-0111-2603-A2, p.43]

What is more, there is no apparent downside to EPA shifting the obligation closer to the current bottleneck preventing greater E85 consumption. Indeed, doing so would also remove a major inefficiency in the current regulatory scheme. RFS places on refiners an unnecessary degree of price risk in the highly illiquid secondary markets for RINs. As Knittel, Meiselman, and Stock explain, “[e]ven with full pass-through, however, an obligated party could face RIN price risk because of timing differences between when the RIN obligation is incurred and when RINs are acquired.”<sup>124</sup> As Professor Stock further notes: “The purpose of the RIN system is to ensure compliance with the RFS, not to add price risk to the balance sheets of obligated parties that happen to have a . . . mismatch” between the number of RINs they generate and the number that they must retire.<sup>125</sup> Given that refiners are less able than blenders to control how much E85 is consumed and at what price, it is a mystery why EPA believes refiners should bear that market risk, especially as it appears to be accomplishing nothing of value to the environment. [EPA-HQ-OAR-2015-0111-2603-A2, pp.43-44]

Continuing the policy of placing the compliance obligation on refiners is even more misguided to the extent that refiners are unable to pass through the cost of RINs to blenders in higher blendstock prices. In such circumstances, the RFS program merely imposes a tax on refiners, and that tax does not promote any increase in renewable fuel usage by consumers. In fact, the empirical evidence demonstrates a weak correlation between BOB spreads and RIN prices within and among certain regional markets, indicating that refiners are not able to pass on the full cost of the RINs they must procure for compliance.<sup>126</sup> And empirical research to date on whether refiners are able to pass through RIN costs in blendstock prices is limited in important respects. For instance, the Merchant Refiners Group is aware of no study evaluating the correlation between BOB spreads and RIN prices in the Gulf Coast or Midcontinent. These regions differ from others, such as New York Harbor, a market which is short on BOB and relies on imports to balance supply and demand, creating opportunities for foreign and national suppliers alike to recoup RIN costs. The Gulf Coast or Midcontinent regions, by contrast, are relatively long on BOB and export significant quantities. As others argue in comments, that market dynamic—where BOB suppliers compete in a buyer’s market (indeed, an export market) and thus are price-takers—makes it much more difficult for merchant refiners to competitively price BOB to recoup their high RIN costs. EPA must carefully study this possibility, not only because commenters offer preliminary data supporting it, but also because the Merchant Refiners Group understands these regions account for 50 percent or more of the nation’s refining capacity. [EPA-HQ-OAR-2015-0111-2603-A2, pp.44-45]

If merchant refiners cannot recover RIN costs (or only partially recover those costs), as the Merchant Refiners Group has argued previously, the principal effect of higher RIN prices is simply a massive transfer of wealth from refiners who need RINs to any parties holding such

RINs, as well as a distortion of the refining market to the detriment of merchant refiners. The RIN system was never intended to artificially tilt the competitive market in favor of one group of obligated parties and against another. To the contrary, it was specifically intended to facilitate compliance by obligated parties in a competitively neutral and environmental beneficial way.<sup>127</sup> [EPA-HQ-OAR-2015-0111-2603-A2, p.45]

In the end, if EPA is serious about using the RFS to subsidize high renewable-content fuels such as E85, it must shift the obligation closer to the bottleneck.<sup>128</sup> Even if EPA thinks it is too late to do so for 2016, there are still six long years left in the program after that. EPA should not continue to “appl[y] the pressure to one industry (the refiners), . . . [when] it is another . . . that enjoys the requisite expertise, plant, capital and ultimate opportunity for profit.”<sup>129</sup> [EPA-HQ-OAR-2015-0111-2603-A2, pp.54-46]

Indeed, shifting the compliance obligation from refiners to blenders will remain important even if EPA chooses, for 2017 and beyond, to impose standards based on a projection of “the share of the fuel pool that can reasonably be expected to be comprised of renewable fuel over time.” EPA has suggested that adopting standards based on the share of renewable fuel in the fuel pool would provide clearer market signals and greater certainty, helping to foster greater investment in the infrastructure needed to increase consumer demand for higher-ethanol blends. However, refiners and importers, which sit at the top of the supply chain and typically have no direct relationship to fuel retailers, are simply not well-situated to make such investments. Unless EPA shifts the compliance obligation to parties closer to the consumer, it will achieve little growth in renewable fuel usage, regardless of whether standards are set based on a share of the fuel pool or total volumes. [EPA-HQ-OAR-2015-0111-2603-A2, p.46]

Accordingly, EPA should shift the compliance obligation to the parties best situated to encourage increased usage of renewable fuel. [EPA-HQ-OAR-2015-0111-2603-A2, p.46]

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<sup>116</sup>U.S. Energy Info. Admin., Short-Term Energy Outlook, July 2015, [http://www.eia.gov/forecasts/steo/report/renew\\_co2.cfm](http://www.eia.gov/forecasts/steo/report/renew_co2.cfm).

<sup>117</sup> Monroe notes that, for over a year and a half, it has had a petition for rulemaking pending on this issue. EPA has not acted on that petition. Monroe has also filed a petition for review in the D.C. Circuit on this issue, which has been held in abeyance pending EPA’s action on the petition for rulemaking. See Respondent EPA’s Status Report, at 3, *Monroe Energy, LLC v. EPA.*, Case No. 14-1014 (D.C. Cir. Apr. 30, 2015), Doc. No. 1550049 (“At this time, EPA continues to evaluate the issues raised in Monroe’s administrative petition, but has not yet taken final action on that petition. EPA’s next status report to the Court is due on Wednesday, July 29, 2015.”).

<sup>118</sup> See PMAA letter to Chairman Upton and Ranking Member Pallone, [http://www.pmaa.org/weeklyreview/attachments/PMAA\\_Rebuttal\\_RFA\\_April\\_2015\\_FINAL%20.pdf](http://www.pmaa.org/weeklyreview/attachments/PMAA_Rebuttal_RFA_April_2015_FINAL%20.pdf).

<sup>120</sup> *Am. Petroleum Inst.*, 706 F.3d at 480.

<sup>121</sup> 2010 Rule, 75 Fed. Reg. at 14,722.

<sup>123</sup> James H. Stock, *The Renewable Fuel Standard: A Path Forward*, Columbia/SIPA Center on Global Energy Policy, April 2015, at 29, available at [http://energypolicy.columbia.edu/sites/default/files/energy/Renewable%20Fuel%20Standard\\_A%20Path%20Forward\\_April%202015.pdf](http://energypolicy.columbia.edu/sites/default/files/energy/Renewable%20Fuel%20Standard_A%20Path%20Forward_April%202015.pdf) (attached as Exhibit B). [[See Docket Number EPA-HQ-OAR-2015-0111-2603-A3 for Exhibit B.]]

<sup>124</sup> Knittel, et al., *The Pass-Through of RIN Prices to Wholesale and Retail Fuels under the Renewable Fuel Standard*, at 20, [http://scholar.harvard.edu/files/stock/files/pass-through\\_of\\_rin\\_prices\\_1.pdf](http://scholar.harvard.edu/files/stock/files/pass-through_of_rin_prices_1.pdf).

<sup>125</sup> Stock, *The Renewable Fuel Standard: A Path Forward*, at 29, [http://energypolicy.columbia.edu/sites/default/files/energy/Renewable%20Fuel%20Standard\\_A%20Path%20Forward\\_April%202015.pdf](http://energypolicy.columbia.edu/sites/default/files/energy/Renewable%20Fuel%20Standard_A%20Path%20Forward_April%202015.pdf).

<sup>126</sup> For example, Knittel, Meiselman’s regression coefficient for NY RBOB-Brent is 0.684 with a standard error of 0.332, revealing a relatively weak correlation. See Knittel et al., *The PassThrough of RIN Prices to Wholesale and*

Retail Fuels under the Renewable Fuel Standard, Table 2, at 31, [http://scholar.harvard.edu/files/stock/files/pass-through\\_of\\_rin\\_prices\\_1.pdf](http://scholar.harvard.edu/files/stock/files/pass-through_of_rin_prices_1.pdf). The coefficient for Los Angeles RBOB-Brent is only 0.720 with a 0.704 standard error. Id.

<sup>127</sup> As EPA explained when implementing the RIN program, Congress mandated implementation of the RFS through a tradable credit system in order to “preserve[] the natural market forces and blending practices that will keep renewable fuel costs to a minimum.” 72 Fed. Reg. at 23,929.

<sup>128</sup> Indeed, Mr. Minsk observes that switching the obligation to blenders may more costeffectively incent consumption of higher blends of biodiesel. Specifically, he observes that the cost of investing in biodiesel infrastructure is significant and that, “[b]ecause not all customers are in need of RIN generation, critical consensus for investing may never mature. This can delay or foreclose the necessary investments in biodiesel infrastructure. This would not happen if all of the users of the terminal were equally obligated.” Comments of Ronald E. Minsk, EPA-HQOAR-2015-0111-1307, at 7.

<sup>129</sup> Am. Petroleum Inst., 706 F.3d at 480. See also EPA-HQ-OAR-2015-0111-1307, at 3 (“EPA’s current view is that the parties facing ever increasing costs for RINs will be incentivized to build new infrastructure or to invest in blending operations. . . . This is akin to telling a product’s manufacturer that it also must become its distributor. Stated differently, EPA expects that RIN pricing will become so severe, that it will reverse the last 20 years of de-integration in the refinery industry.”).

### **National Association of Convenience Stores (NACS), National Association of Truck Stop Operators (NATSO), Society of Independent Gasoline Marketers of America (SIGMA) and Petroleum Marketers Association of America (PMAA)**

In so doing, there are several ways that obligated parties can satisfy their RFS obligations:

- Blend gasoline and/or diesel fuel with ethanol prior to selling the fuel. Such blending will enable the obligated party to separate renewable identification numbers (“RINs”) from the renewable fuel, and use the RINs to satisfy their renewable volume obligations (“RVOs”) under the Program.
- Sell neat (straight) gasoline and/or diesel fuel to a blender, and contractually obligate the blender to separate RINs after blending such gasoline and/or diesel fuel and remit them back to the obligated party. The RINs can then be used to satisfy the obligated party’s RVOs.
- Sell neat gasoline and/or diesel fuel to a purchaser, and simply acquire RINs through the secondary market in order to satisfy their RVOs. [EPA-HQ-OAR-2015-0111-2480-A1 p5-6]

Blenders on the other hand are fundamentally buyers. They can only buy – and blend – what refiners and importers are willing to sell to them. Thus, if blenders were obligated parties, they would not have the same ability to satisfy their RVOs that refiners and importers currently have because blenders do not control how refined product is introduced into commerce. More specifically, blenders would be unable to acquire RINs directly if the market encouraged refiners and importers to blend product prior to sale and sell any superfluous RINs in the open market. In this scenario, blenders would not be capable of satisfying their obligations other than through the purchase of RINs on the open market. [EPA-HQ-OAR-2015-0111-2480-A1 p.6]

In other words, whereas obligated parties today can determine for themselves how to meet their obligations, blenders’ ability to satisfy their obligations would be dictated by their upstream counterparts. [EPA-HQ-OAR-2015-0111-2480-A1 p.6]

Making refiners and importers obligated parties facilitates easier administration of the RFS because there are so few of them relative to downstream blenders. The fewer parties that are obligated to demonstrate compliance with the RFS, the less burdensome it is for the Agency to administer and enforce the Program. There are many more downstream blenders operating today than there are obligated parties. What's more, to the extent Program regulations would continue the exemption for smaller obligated parties,[1] administering this exemption would be particularly straining for EPA since so many blenders today are small businesses. [EPA-HQ-OAR-2015-0111-2480-A1 p.7]

EPA could simply redefine the term "obligated party" to cover solely "ethanol blenders." This would generally cover those actors who today are considered "blenders." As a practical matter, however, those who blend today would simply cease their blending operations because there would be no incentive to continue. In fact, there would be a strong *disincentive* to continue, since blending would require the entity to assume the burdens of being an obligated party. Rather than *encouraging* the introduction of renewable fuels into the market, this revised RFS would *discourage* introduction of renewable fuels into the market. This approach would effectively amount to a repeal of the RFS. [EPA-HQ-OAR-2015-0111-2480-A1 p.8]

In evaluating the petition, it is important to remember that the RIN system to which petitioner objects was established at the request of obligated parties – including refiners – as a method of demonstrating compliance with the Program without imposing excessive logistical burdens. The system affords obligated parties the flexibility to demonstrate compliance by *either* acquiring the required volumes of renewable fuels (together with their associated RINs), *or* by acquiring the RINs without the associated fuel. [EPA-HQ-OAR-2015-0111-2480-A1 p.9]

The overarching rationale underlying the statement that the petitioner quotes remains valid today: Having "the relatively small number of refiners and importers" be obligated parties "rather than the relatively large number of downstream blenders and terminals" serves to "minimize the number of regulated parties and keep the program simple." [2] Although the downstream parties are regulated today, their burdens would be larger if they were obligated parties. Indeed, "the designation of ethanol blenders as obligated parties would . . . greatly expand[] the number of regulated parties and increase[] the complexity of the RFS program beyond that which [is] necessary to carry out the renewable fuels mandate under CAA section 211(o)." [3] This is not arbitrary decision-making; it is a rational approach that furthers the Agency's longtime goals of implementing a Program that is "simple, flexible, and enforceable." [4] [EPA-HQ-OAR-2015-0111-2480-A1 p.11-12]

When the RFS2 rules were finalized, market actors responded by evolving their business models in accordance with their new regulatory burdens. Some obligated parties invested in blending capabilities to ease their compliance burden; others did not but instead contractually required blender-purchasers to remit RINs that were detached through blending back to the obligated parties. [EPA-HQ-OAR-2015-0111-2480-A1 p.13]

The petitioner is apparently not requiring parties to which it is selling product to remit RINs back to the petitioner once the product is blended. Indeed, as noted above, the experienced refining company Phillips 66 has reported that it is profiting from the sale of RINs it is acquiring through product purchased from the petitioner's refinery. This is the result of a contract into which the

petitioner voluntarily entered. It was a business decision. [EPA-HQ-OAR-2015-0111-2480-A1 p.13]

By choosing to conduct its business in this manner, the petitioner is avoiding various cash costs that its competitors incur. Indeed, as with lunch, there's no such thing as a free ethanol blending plant. Such facilities cost money that the petitioner has not had to pay. [EPA-HQ-OAR-2015-0111-2480-A1 p.13]

While the petitioner's predicament is unfortunate, it is not the result of a flawed Program. The Program affords the petitioner – and all obligated parties – ample opportunity to meet its RVOs because the petitioner controls how its product is introduced into the stream of commerce. [EPA-HQ-OAR-2015-0111-2480-A1 p.14]

Ironically, the dire scenario that the petitioner fallaciously claims it is confronting *would befall* downstream blenders if they were to become obligated parties since, because they do not introduce product into commerce, they would not control their own ability to meet their RVOs. [EPA-HQ-OAR-2015-0111-2480-A1 p.14]

For the reasons discussed above, were EPA to designate blenders as “obligated parties” under the RFS, it would substantially disrupt the motor fuels market, impose unfair and inefficient obligations upon blenders, increase the Program's complexity and the Agency's administrative and enforcement burdens, and generally hinder the achievement of the Program's objectives. Such a dramatic policy shift is not “appropriate.”[5] [EPA-HQ-OAR-2015-0111-2480-A1 p.15]

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[1] See generally 40 C.F.R. 80.1126(b); see also 40 C.F.R. 80.1426(c)(3).

[2] 75 Fed. Reg. 14722 (March 26, 2010).

[3] 74 Fed. Reg. 24963 (May 26, 2009).

[4] 71 Fed. Reg. 55573 (Sept. 22, 2006).

[5] See 42 U.S.C. 7545(o)(3)(B)(ii)(I) (directing EPA to designate as obligated parties “refineries, blenders, and importers, as appropriate.”)

## **National Association of Truck Stop Operators (NATSO)**

EPA should not revise the definition of “obligated party” under the RFS. Refiners and importers are obligated parties because that is the only way to ensure that renewable fuels are integrated into the nation's fuel supply. If blenders rather than refiners and importers were obligated parties, the RFS's objectives would not be achieved. [EPA-HQ-OAR-2015-0111-2478-A1 p.3]

### **V. Definition of Obligation Party**

It has come to NATSO's attention that certain stakeholders are advocating that EPA revise the RFS regulations in a manner that would make blenders “obligated parties” rather than refiners and importers. EPA should reject this effort. NATSO has joined with other trade associations representing motor fuel retailers to file a supplemental comment letter detailing the flaws with this approach. That comment letter has been submitted to the docket for this rulemaking. The discussion below is intended to supplement that letter.

The RFS is designed to displace traditional petroleum fuels derived from foreign sources with domestically produced renewable substitutes. These objectives can be achieved only if renewable fuels are, in fact, integrated into the nation's fuel supply. Renewable fuels can only be integrated into the nation's fuel supply if the petroleum supply can be blended with renewable fuels to produce a product that can be sold lawfully.

The only entities that can control the characteristics of the nation's petroleum supply (and thus whether it can be blended with renewable fuels to produce a product that can be sold lawfully) are those that import it or manufacture it. Other entities, such as downstream blenders, do not control such characteristics and can only obtain product that importers and manufacturers sell to them. Absent their status as obligated parties, there is no incentive for manufacturers or importers to introduce into commerce petroleum supply that can be blended with renewable fuels to produce a product that can be sold lawfully. They are under no legal obligation to do so. That is why it is logical to make these entities obligated parties under the RFS.

What's more, many fuel retailers that blend today would cease doing so if such activities rendered them obligated parties under the RFS. There is no legal requirement that they continue their blending operations. Indeed, many downstream blenders would be unable to obtain product that is suitable for blending with renewable fuels. That is why it is illogical to make "blenders" obligated parties under the RFS.

As a practical matter, making blenders obligated parties rather than refiners and importers would render the RFS optional: Importers and manufacturers would have no obligation (or incentive) to generate petroleum supply that can be blended with renewable fuel to produce a product that can be sold lawfully; and blenders would be under no obligation to continue their blending operations (many would be incapable of doing so).

The RFS is not designed to be an *optional* program, but rather a *mandatory* program to increase the presence of renewable fuels in the nation's fuel supply. Refiners and importers are obligated parties because that is the only way to ensure that renewable fuels are integrated into the nation's fuel supply. If "blenders" rather than refiners and importers were obligated parties, renewable fuels' presence in the nation's fuel supply would diminish substantially, and the RFS's objectives would not be achieved. [EPA-HQ-OAR-2015-0111-2478-A1 p.6-7]

### **New England Fuel Institute (NEFI)**

NEFI is submitting these comments on the RFS because we are deeply concerned by comments submitted to the public docket that support making blenders obligated parties under the RFS. NEFI strongly opposes any provision that would make downstream blenders obligated parties. NEFI members are increasingly blending biodiesel into heating oil to make a cleaner burning, low carbon footprint product. NEFI members working closely with state regulators have set an aggressive timetable to reduce the sulfur content of heating fuel to 15ppm across New England by 2020. At the same time the industry is steadily increasing the renewable biodiesel content of heating oil. Heating oil with 15-ppm sulfur content and a 20% biodiesel blend produces a renewable fuel product with a significantly lower carbon footprint than natural gas. [EPA-HQ-OAR-2015-0111-2501-A1 p.1]

In order to successfully introduce this 21st century home heating oil to customers throughout New England it is essential that small business fuel dealers have the ability to blend product below the terminal rack. Making blenders obligated parties under the RFS would make it far too costly and burdensome for small business heating oil dealers. [EPA-HQ-OAR-2015-0111-2501-A1 p.1]

NEFI urges the EPA to not adopt any provision that would make blenders obligated parties. NEFI agrees with the following comments submitted by like' minded motor fuel trade groups. NEFI agrees fully with the position these commentators have taken on this issue. [EPA-HQ-OAR-2015-0111-2501-A1 p.2]

### **PBF Holding Company LLC**

PBF objects to EPA's inequitable decision to continue imposing the RFS compliance obligations on refiners and importers rather than on blenders. The Clean Air Act explicitly authorizes EPA to impose the RFS compliance obligation on refineries, blenders, and importers, 'as appropriate.'<sup>1</sup> Beginning in 2007, however, EPA decided to impose the RFS compliance obligation only on refiners and importers, and not on blenders, for two asserted 'policy' reasons: (1) designating blenders as obligated parties would greatly expand the number of regulated parties; and (2) EPA expected there would be an excess of RINs available at low cost, that the RINs would be traded freely between parties, and that parties who were in need of RINs could easily acquire them from parties who held excess RINs.<sup>2</sup> As described below, implementation of the RINs program over multiple years has proven that these policy rationales are not supported by the actual facts. [EPA-HQ-OAR-2015-0111-1724-A1 p.4]

First, as EPA pointed out in 2010, it is 'no longer valid' to assert that designating blenders as obligated parties would greatly expand the number of regulated parties as it may have done when the RFS program regulations were first adopted in 2007.<sup>3</sup> Because most gasoline today is blended with ethanol, nearly all blenders (even the small business blenders) are regulated parties subject to the RFS program's registration, recordkeeping, and reporting requirements. Therefore, the incremental regulatory burden on blenders of demonstrating compliance with a renewable volume obligation would not be significant. [EPA-HQ-OAR-2015-0111-1724-A1 p.4-5]

### **Small Refinery Owners Coalition**

This structural flaw in the rule caused by the OPD has created market winners and losers in the refining industry and rewarded exempt blenders with windfall revenues from selling scarce RINs to small refineries.<sup>4</sup> [EPA-HQ-OAR-2015-0111-2339-A1 p. 2]

Exempting non-refining blenders from any obligation to comply with the RFS mandates violates this requirement. As more fully described in the attached Burkholder Rebuttal,<sup>11</sup> leaving 15-20% of the nation's blending capacity free to blend at any level it chooses (or not blend at all) does not ensure that transportation fuels sold in the United States contain "applicable volumes of renewable fuel."<sup>12</sup> Rather, it creates a financial incentive (windfall RIN revenues) for exempt blenders to blend at lower levels (E10 in the face of an E15 mandate), thwarting the purposes of the RFS. [EPA-HQ-OAR-2015-0111-2339-A1 p. 3]

For Casey's, RIN revenues more than offset margin decreases in other areas of its business. In 2013 and 2014, Murphy reported that revenues from the sale of RINs more than covered

negative margins in its product supply and wholesale operations: [EPA-HQ-OAR-2015-0111-2339-A1 p. 5]

Most small refineries are “merchant” refineries like Monroe, PES, and PBF, but considerably more vulnerable financially because they do not have the economies of scale of their larger market competitors. Most are also not public companies, which means that their financial losses from purchasing RINs are not publicly reported. These financial losses are, however, known to EPA because they are included in small refinery hardship petitions and have been the subject of numerous communications between Coalition members, EPA, and other federal agencies.<sup>32</sup> [EPA-HQ-OAR-2015-0111-2339-A1 p. 7]

This disparity between exempt blenders’ reported RIN gains and small and merchant refineries’ RIN losses would not exist if gains were, in fact, passed through the supply chain as the Burkholder Report concludes.<sup>35</sup> If RIN revenues merit public disclosure for RIN sellers, so would offsetting pass throughs. Pass throughs are not publicly disclosed by either RIN sellers or RIN buyers because they do not exist. [EPA-HQ-OAR-2015-0111-2339-A1 p. 8]

## 2. Even Those Small Refineries That Blend Lack Market Power to Retain RIN Value.

The structural flaw in the rules, which creates market winners and losers in the petroleum fuels market, also makes it impossible for small blending refineries to avoid the harm caused by high RIN prices. Competing exempt blenders and refiners that blend more than they produce have RIN revenues with no offsetting obligation and can finance product discounts, i.e., RIN sharing, at the loading rack. In turn, rack customers demand that small, merchant refineries “share” the value of the RIN, reflected in the form of a discount on the price paid for their product. Lacking RIN revenues and having an obligation, small blending refineries cannot match those discounts without taking a hit to their bottom lines. Therefore, blending and investing in blending infrastructure before the structural flaw in the rule is corrected is not a solution for small refineries. It is a lose-lose proposition. [EPA-HQ-OAR-2015-0111-2339-A1 p. 14]

Although there may be other options for replacing the obligated party definition, the Coalition suggests there is a logical point for the regulatory obligation that aligns the ability to comply (blend) with the obligation to comply and avoids harm to any party, which is to place the obligation at the terminal rack.<sup>72</sup> [EPA-HQ-OAR-2015-0111-2339-A1 p. 19]

To avoid doing irreparable damage to small refineries and competition in the refining industry, the agency must relocate the compliance obligation and the terminal rack is the logical location—since it is where the blending occurs. The obligation should be placed on the party that owns the gasoline or diesel when it is loaded across the rack for sale to the final end user. This is the same party that is responsible for collecting and paying the federal and state fuels excise tax. [EPA-HQ-OAR-2015-0111-2339-A1 p. 106]

[The following comments were submitted as testimony at the Kansas City, Kansas public hearing on June 25, 2015, See Docket Number EPA-HQ-OAR-2015-0111-1043, pp. 237-239.]

First, EPA should promulgate an objective standard for determining when a small refinery meets the viability impairment test for an RFS2 exemption. Second, the coalition asks EPA to move the point of obligation to the collection point for Federal and State motor fuel excise taxes. RINs are free or nearly so for blenders. They cost renewable fuel producers nothing to create, and ethanol

industry competition prevents producers from charging blenders for a fictitious production cost. Furthermore, the RFS2 rules prohibit renewable fuel producers from selling unattached RINs. If the producer does not attach RINs to shipped renewable fuel, the RINs stay put. The EPA prosecutes people who try to do otherwise. That which cannot be marketed has little or no value. The point of obligation and free RINs explain why the merchant refiner cannot recover its compliance costs at the bulk sales level upstream of the rack. They explain why the merchant refiner cannot recover its compliance costs at the terminal sales rack. Furthermore, they explain how marketers can afford to share RIN value with their rack customers using windfall profits gained by selling RINs to us. Coalition members that do blend never see any such profits and, thus, cannot share them. In addition, exempting marketers from the compliance obligation means their RIN windfall need not be used to upgrade retail stations to E15 and E85 service. Should EPA ever raise national volumes to statutory levels or beyond, exempt blenders may continue to sell E10 and harvest an even larger windfall as RIN prices again skyrocket. As long as exempt parties may sell E10, higher national standards may be ignored. The best path is to change the point of obligation so that the ability to comply and obligation to comply are aligned within the current petroleum refining and marketing business structure. The failure to address this fundamental flaw in the program when EPA has previously committed to do so and the failure to make hardship evaluations a product of objectivity instead of the subjectivity that now reigns make the current proposal invalid.

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<sup>4</sup> Letter from LeAnn Johnson Koch, Perkins Coie LLP, to James Laity, Branch Chief at the Office of Management and Budget, and Chad Whiteman, DOE Desk Officer at the Office of Management and Budget (Mar. 26, 2015) (on file with submitter).

<sup>11</sup> Memorandum of Warren R. Neufeld, A Small Refinery Owner's Reaction to EPA's Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects, Wyoming Refining Company (July 2015) [hereinafter "Burkholder Rebuttal"]. The Burkholder Rebuttal is attached as Exhibit 1 to this comment.

<sup>12</sup> *Id.* at 2.

<sup>35</sup> See Burkholder Report, *supra* note 5, at 31 ("While higher RIN prices increase the cost of RFS compliance for obligated parties purchasing separated RINs, these obligated parties generally recover these costs in the price of their petroleum blendstocks.").

<sup>72</sup> An extensive discussion on the benefits of moving the obligation to blenders at the terminal rack can be found in the comment submitted by Ronald E. Minsk. Comment ID Number: EPA-HQ-OAR-2015-0111-1307

## **The Valero Companies**

The current problems with the RFS, as outlined below, can largely be resolved by shifting the RFS compliance obligation to the owner of the fuel immediately prior to blending at the rack, ensuring that all parties would have an equal incentive to maximize the generation of additional RINs. The infrastructure that is needed to increase market penetration of renewable fuels is downstream of refiners. As long as those downstream of refiners do not have compliance obligations, there will be few market opportunities for investments in downstream infrastructure. By moving the obligation closest to the place where blending occurs and where renewable fuel is purchased and delivered, EPA would incent blenders to maximize blending and marketing of renewable fuel. No party would have a surplus of RINs by virtue of their downstream position

alone, while all parties would be equally obligated and, most importantly, fully incented to push renewable fuels into the market. [EPA-HQ-OAR-2015-0111-2765-A1 p.2]

In short, EPA must change the point obligation in the final action in order to create the infrastructure necessary for refiners, blenders, and distributors to produce the required volumes of renewable fuel in the consumer market place. [EPA-HQ-OAR-2015-0111-2765-A1 p.5]

As described further below, the structure of the RFS threatens the future viability of merchant refiners, threatens competition in the transportation fuel sector, has the perverse effect of discouraging high blends of renewable fuel and will ultimately harm the consumer. We ask EPA to consult with the Federal Trade Commission to better understand these impacts. [EPA-HQ-OAR-2015-0111-2765-A1 p.14]

As a result of the point of obligation in the current RFS regulation, not only are there obligated parties who are RINs-long and RINs-short but there are non-obligated parties who hold, buy and sell RINs. Because of the lack of regulation and oversight of the RINs trading system, and the inequitable distribution of RINs, the RINs market promoted a substantial degree of speculation and has been vulnerable to fraud. Both fraud and speculation contributed to additional costs to obligated parties and no benefit to renewable fuel producers or consumers. [EPA-HQ-OAR-2015-0111-2765-A1 p.25-26]

Integrated refiners will still obtain the RINs they need to meet their obligations, as their obligation will be directly proportional to the volumes they sell over the rack. Integrated refiners would no longer have an automatic supply of extra RINs nor will they be disadvantaged. RIN long refiners or blenders would no longer have potentially conflicting incentives. Instead blenders as obligated parties would increase the volume and types of renewable fuels they blend in order to ensure compliance with the RFS and to have carry-over credit for future compliance. They will be naturally neither long nor short and they will want the most RINs they can get and want them to be affordable. Refiners would not be driven to export or cut production to avoid the RIN obligation. The RFS program would no longer adversely impact competition in the refining or fuel market. Competition along the fuel chain will improve, from the refiner and the renewable fuel producer to the consumer. Blenders will necessarily be pushing renewables, not playing the RIN market. Retail stations will start seeing incentives to provide fuels with higher content of renewable fuel and will pass these price incentives on to consumers. The consumer will benefit. [EPA-HQ-OAR-2015-0111-2765-A1 p.32]

As a follow-up to the comments submitted in July, Valero completed analysis of the potential additional administrative burden that might be imposed on regulated parties by the recommended change in the point of obligation. Valero offers the results of this analysis for EPA consideration in the development of the final rule. Valero recognizes that this information is being submitted after the close of the comment period for the proposed rule. However, in light of the enormous benefits associated with a rule change, it is important for EPA to recognize the change will not create additional administrative burden for the agency nor industry. The information provided herein is information that EPA can obtain on its own and the analysis is well within EPA's ability to undertake for evaluating options to resolve the RFS structural flaws. Nonetheless, Valero offers the information to provide EPA support for making the appropriate changes to ensure the success of the RFS program. [EPA-HQ-OAR-2015-0111-3530-A1, 2][[Please see Docket Number EPA-HQ-OAR-2015-0111-3530-A1 pp.2-4 for a detailed discussion on the analysis.]]

**Response:**

In the proposed rule, EPA did not propose any changes to the definition of an obligated party, nor did we specifically seek comment on this issue. EPA received comments requesting that we change the point of obligation in the RFS program primarily from parties that are obligated under the current regulations. In response we also received comments primarily from those who did not wish to see the obligation placed on them. These comments are beyond the scope of this rulemaking. EPA's current regulations, published in March 2010, define an obligated party as any refiner that produces gasoline or diesel fuel within the 48 contiguous states or Hawaii, or any importer that imports gasoline or diesel fuel into the 48 contiguous states or Hawaii during a compliance period (See 40 CFR 80.1406(a)(1)). Discussion about our approach to evaluating exemptions for small refineries can be found in Section 10.7.

**10.6.7 Cellulosic Waiver Credits and Rollover Cap****Comment:****Advanced Biofuels Association (ABFA)**

However the ability of the obligated parties not to have an explicit requirement to buy those gallons produced in the cellulosic pool or their associated RINs is a major handicap for those seeking to sell and capture value of their cellulosic fuels. This simply must be addressed if we are going to see more investment in this sector of the industry. [EPA-HQ-OAR-2015-0111-2498-A1 p.10]

Given that this category by statute has the greatest GHG reduction impact, it would make sense to develop a set of rules that facilitates the purchase of these gallons and RINs and not the path of last resort. [EPA-HQ-OAR-2015-0111-2498-A1 p.10]

The statute reads:

*“These regulations shall include such provisions, including limiting the credits uses and useful life, as the Administrator deems appropriate to assist market liquidity and transparency, to provide appropriate certainty for regulated entities and renewable fuel producers and to limit any potential misuse of cellulosic biofuels credits to reduce the use of other renewable fuels, and for such other purposes as the Administrator determines will help achieve the goals of this subsection. The regulation shall limit the number of cellulosic biofuel credits for any calendar year to the minimum applicable volume (as reduced under this subparagraph) of cellulosic biofuel that year.”*

As we understand the EPA's current interpretation of granting waiver credits, EPA intends to always make available to obligated parties the full amount of credits up to the cellulosic biofuel RVO. We would suggest that the statute was intended to grant the number of credits, which are NOT available in the market between the RVO target and those actual wet gallons produced. At a minimum, this would force the obligated parties to consider the purchase of wet gallons and drive the market as the statute suggests than the current application, which relies almost entirely on the purchase of a waiver credit. [EPA-HQ-OAR-2015-0111-2498-A1 p.10]

### **American Biogas Council**

However the ability of the obligated parties not to have explicit requirement to buy those gallons produced in the cellulosic pool is a major handicap for those seeking to sell and capture value of their cellulosic fuels. This simply must be addressed if we are going to see more investment in this sector of the industry. [EPA-HQ-OAR-2015-0111-2504-A1 p. 3-4]

Given that this category by statute is the greatest GHG reduction pool it would make sense to develop a set of rules that facilitates these gallons actually being sought after not the path of last resort. [EPA-HQ-OAR-2015-0111-2504-A1 p. 4]

**We suggest that the statute was intended to grant the number of credits which are NOT available in the market between the RVO target and those actual gallons produced. At a minimum this would force the obligated parties to consider the purchase of fuel and better drive the market as the statute suggests than the current application which relies almost entirely on the purchase of a waiver credit.** [EPA-HQ-OAR-2015-0111-2504-A1 p. 4]

### **American Coalition for Ethanol (ACE)**

An emerging concern that has been brought to our attention by companies like QCCP is just as physical gallons of cellulosic biofuel are being produced (nearly 1 million D3 RINs have been generated for ethanol so far in 2015), obligated parties are opting to secure waiver credits issued by EPA instead of purchasing the cellulosic biofuel. Waiver credits are only intended for use when physical gallons of cellulosic biofuel are not available. EPA needs to address this problem because the status-quo could destabilize D3 RIN prices and harm the development of cellulosic biofuel projects. [EPA-HQ-OAR-2015-0111-2543-A2 p. 13]

### **American Council on Renewable Energy (ACORE)**

ACORE commends USEPA for recognizing the risk that waiver credits could supplant gallons in the D3 pool, but it is still too easy for obligated parties to wait out the market year-to-year by securing waiver credits. The risk of underestimation (or overestimation) of cellulosic production could result in stranded gallons. This issue needs to be addressed to drive investment. We need a mechanism to ensure that all liquid cellulosic gallons produced are required for compliance. There are a number of proposals that would ensure such an outcome, while also ensuring that USEPA is precise, as called for by the courts. [EPA-HQ-OAR-2015-0111-1926-A1 p.18]

### **Biotechnology Industry Organization**

EPA must require that available cellulosic RINs be retired before allowing refiners access to cellulosic biofuel waiver credits. These credits were included in the RFS to balance prices and to protect refiners against potential monopolies on D3 or D7 RINs among competing refiners. However, producers are now reporting that obligated parties are indicating that they will pursue a compliance strategy to secure alternate advanced biofuel RINs and cellulosic biofuel waiver credits as opposed to D3 RINs – even if D3 RINs are available at lower cost. EPA's current approach to issuing cellulosic waiver credits needs to be augmented to prevent obligated parties from taking advantage of the availability of waiver credits and leveraging more overarching uncertainty in the D3/D7 marketplace. [EPA-HQ-OAR-2015-0111-1958-A2 p. 61]

## **Clean Energy Renewables**

We recommend EPA issue CWCs to match the delta between actual production and the RVO. [EPA-HQ-OAR-2015-0111-1908-A1 p.8]

Additionally, to the extent it is within EPA's authority or influence, we recommend that all revenue generated from the sale of CWCs be dedicated to the promotion of further cellulosic biofuel development, including payments to purchase unsold RINs. [EPA-HQ-OAR-2015-0111-1908-A1 p.9]

Finally, we urge EPA to take steps to penalize OPs who opt for a CWC-only option and do not make a good faith effort to buy available RINs on the market. [EPA-HQ-OAR-2015-0111-1908-A1 p.9]

## **Cool Planet Energy Systems**

You have used EMTS numbers of actual production in 2014 and likely 2015. We see this as a critical aspect of ensuring that liquid gallons produced are utilized, and the EPA waiver is not used to substitute for the use of actual physical gallons. We believe that the approach of using actual volumes placed on the EMTS system, and adjusting the RVO each January from the previous year could be something that works for both producers and obligated parties. It ensures that the 'right number' is picked each year. [EPA-HQ-OAR-2015-0111-2572 p. 1]

## **DriveGreen LLC**

If EPA is depending on the market then it must insure that the market in RINs is not distorted by its own actions. In the case of Cellulosic RINs, EPA must insure that its sale of CWCs does not prevent the market in cellulosic RINs from functioning as Congress intended. CWCs should not be willy nilly sold to Obligated Parties but rather should only be sold when the Obligated Parties can justify their use. This interpretation squares with the express language of the EISA itself, which calls for the EPA in its implementing regulations to limit the availability of cellulosic waiver credits in order 'to assist market liquidity and transparency, to provide appropriate certainty for regulated entities and renewable fuel producers, and to limit any potential misuse of cellulosic biofuel credits to reduce the use of other renewable fuels . . .<sup>13</sup> [EPA-HQ-OAR-2015-0111-1822-A1 p. 4]

Without a clear statement from the EPA, a misunderstanding of the availability of CWCs may continue. EPA must adopt a clear position which gives Obligated Parties the understanding that they are required to purchase as many RINs as are available at a reasonable price before they are able to utilize CWCs. To do so is not only consistent with Congressional intent, but will aid both the proper function of the RFS2 program, and the growing success of cellulosic biofuel producers. EPA has the existing authority to implement this position since §80.1456(e) provides that 'Cellulosic biofuel waiver credits under this section will only be able to be purchased on forms *and following procedures prescribed by EPA.*' (Emphasis added). EPA should immediately prescribe such procedures to make clear, as its previous comments have, that a showing must be made on the unavailability of actual Cellulosic Biofuel or RINs at reasonable prices before CWCs can be bought. Such a statement will correct the current market distortion and encourage Obligated Parties to participate in the purchase of actual Cellulosic RINs. This

action is needed since 2014 and 2015, unlike previous years when no Cellulosic fuel existed, are the first years under RF S2 when a market exists to allow purchase of actual Cellulosic fuels instead of CWCs. [EPA-HQ-OAR-2015-0111-1822-A1 p. 9]

CWC waiver credit revenues should be distributed to the D-3 producers who can demonstrate to EPA that they offered their RINs at reasonable prices but were unable to sell them to capture any of the CWC waiver credit price value. If EPA keeps the revenues produced by sale of CWCs, then the subsidy Congress intended to go to Cellulosic Biofuel producers will not materialize. However, by permitting producers to come in and demonstrate the failure of the marketplace to provide the intended subsidy and then allocating to them pro-rata the revenues which were generated by sale of CWCs, EPA will be aiding in correcting the market distortions which its own ambivalence and delays created. [EPA-HQ-OAR-2015-0111-1822-A1 p. 9-10]

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<sup>3</sup>. 42 U.S.C. § 7545(2)(D)(iii) (2014) (emphasis added).

### **DuPont**

The intended use of CWCs is to demonstrate compliance only in cases where obligated parties are able to establish with EPA that insufficient cellulosic biofuel RINs were available in the marketplace to meet their respective RVO. Waiver credits were not intended to provide an *alternative means* of compliance with the cellulosic biofuel RVO. Hence, per this text, EPA has a responsibility to ensure use of the credits is limited to the intended purpose. [EPA-HQ-OAR-2015-0111-1826-A1 p.26]

### **Enerkem**

Furthermore, Enerkem would like to emphasize the need for the EPA to take immediate action to remedy the market distortions and investment chill caused by the over-supply of cellulosic waiver credits. Cellulosic biofuels producers have observed that obligated parties are choosing to purchase cellulosic waiver credits instead of purchasing actual gallons of cellulosic ethanol with D3 RINs. They can do this because EPA has chosen to provide one cellulosic waiver credit for every liquid gallon of cellulosic biofuel required for blending. Given that one of the principal goals of the RFS was to incentivize the development and commercialization of the next generation of ultra-low carbon biofuels (ie. cellulosic ethanol), the fact that obligated parties are in no way required to purchase actual gallons of cellulosic ethanol to meet their obligations has emerged as a major flaw which must be addressed rapidly in order not to sabotage the commercialization of the cellulosic ethanol plants currently coming on-line and the development of new projects. Project financing is extremely difficult to secure in an environment where investors are unsure whether there will be a market for their new products.

We recommend that the EPA fix this administrative problem by requiring that available cellulosic RINs be retired before allowing refiners access to cellulosic biofuel waiver credits. [EPA-HQ-OAR-2015-0111-1940-A1 p.2]

## **Quad County Corn Processors Cooperative (QCCP)**

*We again urge EPA to make available only an amount of waiver credits that is necessary to offset the 'gap' between the total volume of cellulosic biofuel production plus surplus D3 RINs and the cellulosic RVO.* [EPA-HQ-OAR-2015-0111-1817-A1 p.3-4]

**'Limiting the credits' uses':** The intended use of CWCs is to demonstrate compliance only in cases where obligated parties are able to establish with EPA that insufficient cellulosic biofuel RINs were available in the marketplace to meet their respective RVO. Waiver credits were not intended to provide an *alternative means* of compliance with the cellulosic biofuel RVO. Hence, per this text, EPA has a responsibility to ensure use of the credits is limited to the intended purpose. [EPA-HQ-OAR-2015-0111-1817-A1 p.5]

In summary, we believe that the Agency has the authority to make available a quantity of CWCs that is less than the final cellulosic biofuel RVO, and any decision to do so would be consistent with the Agency's own interpretation of its legal authorities under the statute — even while it is a different position than the one set forth by U.S. EPA in the final rule. We urge EPA to use its administrative authority to only issue annually the amount of CWCs that are necessary to offset the 'gap' between physical production plus D3 RINs and the level of the cellulosic biofuel RVO. [EPA-HQ-OAR-2015-0111-1817-A1 p.6-7]

## **Syngeta**

The agency allows refiners and obligated parties to acquire waiver credits to meet 100% of their blending obligation which, in turn, forces QCCP to sell the cellulosic biofuels at a discount. This agency practice of issuing 'blanket' waivers instead of fully considering production capacity for all facilities reflects poorly on the entire cellulosic biofuel industry because it is not an accurate representation of how much product is actually available for the market. This hinders further investment in the industry and limits producers' ability to plan effectively due to the lack of certainty on how much value they will be able to extract for producing a more advanced biofuel. [EPA-HQ-OAR-2015-0111-2493-A1 p.3]

## **Union of Concerned Scientists**

Our specific recommendations include:

- Consider changes to the process of setting cellulosic volume targets and issuing cellulosic waiver credits to ensure a well-functioning market for cellulosic fuel. [EPA-HQ-OAR-2015-0111-2260-A1 p.2]

Increased production of cellulosic biofuels is critical to the RFS realizing its oil saving and climate objectives, and increased production will require substantial investment. This investment depends upon prospective producers having clarity about the compliance value of fuels they may produce. The policy design of the RFS provides a cap on the compliance value of cellulosic fuels in the form of the cellulosic waiver credit (CWC), and in the circumstance that cellulosic production is falling short of the statutory targets, this should suggest that cellulosic fuels would be valued at or near this cap value. [EPA-HQ-OAR-2015-0111-2260-A1 p.7]

However, complexities in accurately projecting the supply of cellulosic fuel, legal restrictions based on court rulings, policy uncertainty and developing pathways all combine to create a risk that cellulosic producers may not be able to claim the full theoretical compliance value of their fuel. Two related issues emerge, related to how EPA projects cellulosic biofuel availability and the procedures related to the CWC. [EPA-HQ-OAR-2015-0111-2260-A1 p.7]

We have heard directly from industry sources that obligated parties are in some cases choosing to purchase cellulosic waiver credits (CWCs) rather than actual gallons of cellulosic biofuels. This is creating liquidity problems in the market for cellulosic biofuels with the result that cellulosic producers must sell their fuel at a significant discount to the waiver credit price plus an advanced gallon. [EPA-HQ-OAR-2015-0111-2260-A1 p.7]

While the cellulosic waiver credit mechanism was designed to cap the cost of cellulosic credits, it should not be administered in a manner depresses prices significantly below the cap price. While the market for cellulosic gallons is obviously a developing market, we urge EPA to consider mechanisms to ensure that there is no uncertainty about the ability of cellulosic fuel producers to sell their fuel at a reasonable price, and that cost containment mechanisms do not inadvertently depress these prices. [EPA-HQ-OAR-2015-0111-2260-A1 p.7]

Some experts in academia and industry have proposed processes to true up the developing market for RINs year to year as a way of providing greater certainty to both cellulosic fuel producers and obligated parties. One approach was described by James Stock (Stock 2015B).<sup>1</sup> Such a true up process would improve the functioning of this market in a manner that honors the statutory requirement for cost containment and court order for a neutral approach to the cellulosic mandates without undermining the support for investments in cellulosic biofuels that are clearly critical to the success of key RFS goals. EPA should seriously consider these or other modifications to the administration of the cellulosic volumes and waiver credits aimed at increasing stability and predictability for all market participants. [EPA-HQ-OAR-2015-0111-2260-A1 p.7]

In the absence of a true up mechanism for cellulosic mandates, it is especially important to ensure that EPA does not underestimate the potential RIN generation from new and existing pathways. In particular, the emergence of significant cellulosic credits from renewable natural gas should be fully accounted for, including consideration of the relatively low technology risk associated with these pathways, and the potential for additional RIN generation from the use of biogas based electricity for transportation in the future, which could lead to a relatively quick increase in credit generation once the paperwork is complete. [EPA-HQ-OAR-2015-0111-2260-A1 p.7-8]

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<sup>1</sup> Stock, James H. “Administering the Cellulosic Requirements under the Renewable Fuel Standard with Increasing and Uncertain Supply.” 2015.  
<http://scholar.harvard.edu/stock/publications/administering-cellulosic-requirements-under-renewable-fuel-standard-increasing-and>

## **ZeaChem Inc.**

Furthermore, we acknowledge that EPA providing cellulosic waiver credits when shortfalls in actual production occurs in a given year serves the purpose of balancing the D3 RIN market for that year and creates a pricing metric for D3 RINs that reflects the D5 RIN plus the D3 waiver credit. We ask that EPA not offer waiver credits while actual production volume based D3 RINs are still available for purchase in the market at comparable prices or banked/carried over so as not to offer a competing financial product that is preferable to actual production volume based D3 RINs. [EPA-HQ-OAR-2015-0111-1906-A1 p.2]

### **Response:**

EPA received comments requesting that we make changes to the way cellulosic waiver credits (CWCs) are made available to obligated parties. These comments are beyond the scope of this rulemaking. EPA's current regulations, published in March 2010, outline the provisions for CWCs (See 40 CFR 80.1456). In the NPRM, EPA did not propose any changes to these provisions, nor did we specifically seek comment on this issue.

## **10.6.8 Biointermediates**

### **Comment:**

#### **Advanced Biofuels Association (ABFA)**

As we suggested in our Executive Summary, a key area of concern for ABFA members is the delay and complications arising out of EPA's interpretation of how the RFS regulations are supposed to function. [EPA-HQ-OAR-2015-0111-2498-A1 p.6]

This issue, referred to as the 'intermediate feedstock issue,' is casting a large cloud over a number of innovative technologies and limiting the ability of many in the industry to bring production to the market as originally contemplated both by Congress and EPA in its initial RFS rulemaking. [EPA-HQ-OAR-2015-0111-2498-A1 p.6]

This one area is currently impeding the progress of several companies from being able to create an intermediate feedstock that can be used to generate a drop-in fuel and associated RINs under the program. [EPA-HQ-OAR-2015-0111-2498-A1 p.7]

Timing is of utmost importance and we urge you to expedite a solution set as quickly as possible to resolve the current uncertainty surrounding intermediate feedstocks and co-location. We recommend that EPA simply address this issue in the final RVO in response or, at the very least, issue a rulemaking at your earliest opportunity in the form of a Direct Final Rule. [EPA-HQ-OAR-2015-0111-2498-A1 p.8]

An option EPA might consider is simply require the facility that is co-processing the intermediate feedstock be required to enter into the Quality Assurance Plan program that would oversee the feedstock production and feedstock utilization at a renewable fuel production facility or petroleum refinery to provide the assurance that there would not be double counting of

potential RINs or the creation of RINs from non-renewable feedstocks. [EPA-HQ-OAR-2015-0111-2498-A1 p.8]

### **Algae Biomass Organization (ABO)**

ABO also urges EPA to further accelerate approval of new fuel pathways to eliminate the backlog of pending pathway approvals, and to initiate immediately a rule making process for co-location and intermediate feedstocks that maximizes the opportunity for advanced biofuel developers to deploy the broadest possible set of feedstocks and conversion technologies. [EPA-HQ-OAR-2015-0111-1951-A1, p.2]

### **Cool Planet Energy Systems**

In addition, we would like to see some critical issues addressed by EPA to support the growth of the cellulosic biofuels industry:

- 1) We need to be able to generate RINS from bio-intermediates and finishing the production of fuel in separate locations, which can be handled under a Quality Assurance Program (QAP)
- 2) Feedstock pathway approval expedited [EPA-HQ-OAR-2015-0111-2572 p. 2]

### **Union of Concerned Scientists**

On behalf of our members and supporters we urge EPA to quickly establish an equitable approach for qualifying and attributing Renewable Identification Numbers (RINs) to renewable biofuel pathways that proceed through a biointermediate generated at one facility and then subsequently co-processed or refined into a finished fuel at a second location that may be operated by a different entity. EPA has established pathways for certain biointermediates such as biogas and algae oil, but other biointermediates are in limbo, lacking guidance on how EPA plans to consider additional applicable biofuel pathways. We are concerned that without resolution, regulatory uncertainty could hinder investment in important and emerging low carbon renewable biofuel pathways. The need for these biointermediate pathways is especially urgent because biointermediates can expand production of drop-in cellulosic biofuels that are not affected by the blending challenges facing ethanol. [EPA-HQ-OAR-2015-0111-3523-A1 p. 1]

Low carbon renewable fuels are an important part of a comprehensive approach to cut oil use and reduce carbon emissions from the transportation sector. Upgrading crude biointermediate products on a small scale is expensive and inefficient; allowing existing refiners to convert these products into finished renewable fuels would maximize present production capabilities while allowing biointermediate producers to focus on improving and optimizing their conversion processes. Optimization strategies may be best implemented by biointermediate producers and downstream refiners independently. [EPA-HQ-OAR-2015-0111-3523-A1 p. 1]

The purposes of the Energy Independence and Security Act of 2007 (EISA) to promote renewable fuels and to reduce greenhouse gas emissions are quite clear, and EISA does not require feedstock supply and fuel production facilities to be co-located. We urge EPA to clarify how the RFS program can accommodate biofuel pathways that proceed through a biointermediate requiring additional processing elsewhere in the supply chain. Allowing for such arrangements will increase the volume of available renewable fuel and expedite the development

of advanced biofuel production — particularly cellulosic biofuel production. [EPA-HQ-OAR-2015-0111-3523-A1 p. 1]

Furthermore, qualifying such pathways would not only increase overall renewable fuel production, but could also offer additional avenues for obligated parties to meet compliance obligations. [EPA-HQ-OAR-2015-0111-3523-A1 p. 1-2]

We support efforts by EPA to develop and impose reasonable registration, tracking, and accounting requirements on all entities involved in the renewable fuel production process. Existing registration, quality assurance, and FUN tracking requirements can and should be applied equally to biofuel processes that proceed through a biointermediate. [EPA-HQ-OAR-2015-0111-3523-A1 p. 2]

EPA should act without delay to ensure that all applicable biointermediates pathways can contribute to the RFS program. We encourage EPA to issue guidance to clarify how co-processing arrangements should be structured under the RFS. Issuing such guidance is consistent with the goals of the RFS and will help ensure that additional volumes of renewable fuel, especially cellulosic fuels, become available as quickly as possible. We do not believe that a rulemaking process is required as there are clear precedents for how to view and track biointermediates along the biofuel supply chain. However, If EPA does pursue the rulemaking option to clarify biointermediates arrangements within the RFS program we encourage the Agency to address individual biointermediate pathways during the intervening years on a case-by-case basis using its company specific petition process authority. [EPA-HQ-OAR-2015-0111-3523-A1 p. 2]

**Response:**

A number of commenters urged EPA to establish an approach for qualifying and attributing Renewable Identification Numbers (RINs) to renewable biofuel pathways that proceed through an intermediate generated at one facility and then subsequently processed into a finished renewable fuel at a second location. Commenters requested EPA allow this intermediate feedstock (referred to as a biointermediate) to be used as a qualifying feedstock to produce renewable fuels and generate associated RINs under the RFS program. These commenters and numerous other industry members state that this is an important option to reduce the costs and enhance the availability of cellulosic and other advanced biofuels. Commenters stressed the urgency needed to resolve this issue so that there would be regulatory certainty regarding the use of biointermediates as a renewable fuel feedstock and investments could be made in developing technologies to use these feedstocks to produce new cellulosic and other advanced biofuels. While commenters varied in the approach they believed EPA should take (e.g., through issuing guidance, undertaking a rulemaking, or approving facility-specific petitions on a case-by-case basis), all believed that the production of renewable fuel using biointermediates should be eligible to generate RINs. Many suggested the use of EPA's RFS Quality Assurance Plan (QAP) provisions as a way to provide assurance that RINs generated for renewable fuel produced from biointermediates were valid (e.g., they were not double-counted, they were not created from non-renewable feedstocks, etc.).

These comments are beyond the scope of this rulemaking. However, we note that the existing RFS regulations did not envision nor address situations wherein multiple facilities are involved

in the conversion of renewable feedstocks into a so-called “biointermediate” product and then transported to another facility that completes the conversion of the biointermediate feedstock into an approved renewable fuel. We believe that the most straightforward approach to address this situation is through a rulemaking process. We believe a rulemaking, as opposed to guidance, is necessary to provide clarity for stakeholders and for proper compliance and enforcement oversight. We are currently working on a rulemaking that would amend the RFS program to allow for RIN generation for renewable fuel produced from such biointermediates and expect to propose these changes sometime in 2016, at which time we will seek public comment on our proposed approach. It is important to note that under the existing RFS regulations, however, renewable fuels must continue to be produced from renewable feedstocks at a single facility in order to be eligible to generate RINs.

Some of the topics raised in comments in this section are addressed in more detail elsewhere. See the following:

Section 2.3.1: Congressional Intent to Increase Volumes  
Section 10.6.3: RIN-Generating Pathway Approvals

## **10.7 Small Refineries and Small Refiners**

### **Comment:**

#### **Small Refinery Owners Coalition**

Yet in the year in which small refinery hardship was most acute – 2013 – EPA chose to adopt a more stringent standard for hardship relief, denying relief to any refinery that, notwithstanding the disproportionate cost of compliance with the rule, remained profitable. EPA made this change to the hardship standard without seeking feedback from small refineries, without public notice and comment, and without revising the regulation that articulates the hardship standard. [EPA-HQ-OAR-2015-0111-2339-A1 p. 17-18]

Instead, EPA has begun to phase-out hardship relief, making it more difficult to secure, and denying hardship relief to any small refinery that, notwithstanding the disproportionate economic hardship that the rule imposes, remains profitable. The financial condition of small refineries that cannot meet substantially all of their obligation through blending will grow worse over time as national renewable fuel volumes approach levels specified by EISA and the ability to blend remains constrained by the blend wall. [EPA-HQ-OAR-2015-0111-2339-A1 p. 104-105]

The Coalition proposes that hardship relief should be available to any small refinery that can demonstrate that the cost of complying with the rule (including RIN sharing discounts) has increased the refinery’s total operating expense by 3% or equals 5% of net income before RIN expenses and after adjustments for actual or pro forma taxes. Adopting this formulation will provide an objective standard that is not only fair, but will be easier to apply and give a level of certainty to small refiners who now must try to guess if EPA will decide that an applicant for relief is “profitable enough.”

Higher RIN prices mean higher compliance costs for small refineries (those that cannot blend and those that blend but lack market power to retain the RIN value although they need it for compliance). Small refineries will bear all of the risk of EPA's efforts to drive investment in higher renewable fuel blends through higher priced RINs. [EPA-HQ-OAR-2015-0111-2339-A1 p. 21]

**Response:**

The commenter suggests that EPA has changed its methods for determining whether a small refinery experiences disproportionate economic hardship from its RFS obligations to grant or deny exemption requests under CAA section 211(o)(9)(B), making it more difficult to obtain an exemption. The commenter proposes an alternative test for granting exemptions. The comments on this issue are beyond the scope of this rulemaking. EPA did not solicit comments, nor did it propose changes, on this topic. EPA notes that we disagree that we have changed our approach and, further note that recent court decisions have upheld EPA's approach.<sup>45</sup>

**The commenter expresses concern that** small refineries will bear all of the risk of EPA's efforts to drive investment in higher renewable fuel blends through higher priced RINs. EPA has addressed the cost of the RFS program generally in its memo, "*A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects.*"<sup>46</sup> As that memo explains, market analysis suggests that obligated parties are generally recovering their RIN costs in the price of the petroleum fuels they produce.<sup>47</sup> In other words, EPA does not believe that small refineries are inherently adversely affected by Congressional efforts to increase the amount of renewable fuel that is contained in transportation fuel sold or introduced into commerce in the United States. Responses to comments about the impact of RIN prices on the fuel industry can be found in Section 7.3.

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<sup>45</sup> See *Hermes Consolidated, LLC v. EPA*, 787 F.3d 568 (D.C. Cir. 2015). See also *Lion Oil Co. v. EPA*, 792 F.3d 978 (8th Cir. 2015).

<sup>46</sup> Available in the docket for this rulemaking at EPA-HQ-OAR-2015-0111-0062.

<sup>47</sup> See also, Knittel, C.R., Meiselman, B.S., Stock, J.H., *The Pass-Through of RIN Prices to Wholesale and Retail Fuels under the Renewable Fuel Standard*. National Bureau of Economic Research, Cambridge, MA. 2015.