

Renewable Fuel Standard Program - Standards for 2017 and Biomass-Based Diesel Volume for 2018:

Response to Comments

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

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List of Organizations Submitting Comments

Organization	Organization Type	Commenter Names(s)	Docket File(s)
25x'25 Alliance	Environmental Non-governmental Organizations	Brent Bailey	EPA-HQ-OAR-2016-0004-0473-A1.pdf EPA-HQ-OAR-2016-0004-0473.html
A & T Blacow Gas	Fuels Industry	Vu, Duc	EPA-HQ-OAR-2016-0004-3583-A1.pdf EPA-HQ-OAR-2016-0004-3583.html
ABATE of Illinois, Inc.	Non-governmental Institutes and Foundations (other than Environmental)	Bob Myers	EPA-HQ-OAR-2016-0004-2717.html
ABATE of Michigan	Non-governmental Institutes and Foundations (other than Environmental)	Eric Eads	EPA-HQ-OAR-2016-0004-1753-A1.pdf EPA-HQ-OAR-2016-0004-1753.html
ABATE of Pennsylvania	Non-governmental Institutes and Foundations (other than Environmental)	Charles C. Umbenhauer	EPA-HQ-OAR-2016-0004-2200-A1.pdf EPA-HQ-OAR-2016-0004-2200.html
Action Aid et al.	Environmental Non-governmental Organizations	Stone, Kelly	EPA-HQ-OAR-2016-0004-1801-A1.pdf EPA-HQ-OAR-2016-0004-1801.html
Action Aid USA & The Hunger Project	Non-governmental Institutes and Foundations (other than Environmental)	Stone, Kelly	EPA-HQ-OAR-2016-0004-1817-A1.pdf EPA-HQ-OAR-2016-0004-1817.html
Adler's Antique Autos	Other Companies/Industries	Adler, Robert	EPA-HQ-OAR-2016-0004-2523.html
Advanced Biofuels Association (ABFA)	Renewable Fuels Industry	Mike McAdams	EPA-HQ-OAR-2016-0004-1831-A1.pdf EPA-HQ-OAR-2016-0004-1831.html
Advanced Biofuels Business Council (ABBC)	Renewable Fuels Industry	Mike McAdams	EPA-HQ-OAR-2016-0004-1733-A1.pdf EPA-HQ-OAR-2016-0004-1733.html
Al-Corn Clean Fuel	Renewable Fuels Industry	Randall J Doyal	EPA-HQ-OAR-2016-0004-1736-A1.pdf EPA-HQ-OAR-2016-0004-1736.html
Alle, Peter	Private Citizens	Alle, Peter	EPA-HQ-OAR-2016-0004-3518-A1.pdf EPA-HQ-OAR-2016-0004-3518-A2.pdf EPA-HQ-OAR-2016-0004-3518-A3.pdf EPA-HQ-OAR-2016-0004-3518-A4.pdf EPA-HQ-OAR-2016-0004-3518-A5.pdf EPA-HQ-OAR-2016-0004-3518-A6.pdf EPA-HQ-OAR-2016-0004-3518.html
American Biogas Council (ABC)	Renewable Fuels Industry	Patrick Serfass	EPA-HQ-OAR-2016-0004-1692-A1.pdf EPA-HQ-OAR-2016-0004-1692.html
American Cleaning Institute (ACI)	Other Companies/Industries	Jacob Cassidy	EPA-HQ-OAR-2016-0004-1735-A1.pdf EPA-HQ-OAR-2016-0004-1735.html
American Coalition for Ethanol (ACE)	Renewable Fuels Industry	Brian Jennings	EPA-HQ-OAR-2016-0004-1679-A1.pdf EPA-HQ-OAR-2016-0004-1679-A2.pdf EPA-HQ-OAR-2016-0004-1679.html
American Council for Capital Formation (ACCF)	Other Organizations, Institutes, and Foundations	Matt Dempsey	EPA-HQ-OAR-2016-0004-1713-A1.pdf EPA-HQ-OAR-2016-0004-1713.html
American Farm Bureau Federation	Farms	Dale Moore	EPA-HQ-OAR-2016-0004-1660-A1.pdf EPA-HQ-OAR-2016-0004-1660.html
American Fuel and Petrochemical Manufacturers (AFPM)	Fuels Industry	Hogan, Tim	EPA-HQ-OAR-2016-0004-1814-A1.pdf EPA-HQ-OAR-2016-0004-1814.html
American Highway Users Alliance	Non-governmental Institutes and Foundations (other than Environmental)	Gregory Cohen	EPA-HQ-OAR-2016-0004-1810-A1.pdf EPA-HQ-OAR-2016-0004-1810.html
American Motorcyclist Association (AMA)	Non-governmental Institutes and Foundations (other than Environmental)	Rick Podliska	EPA-HQ-OAR-2016-0004-1811-A1.pdf EPA-HQ-OAR-2016-0004-1811-A2.pdf EPA-HQ-OAR-2016-0004-1811.html

American Petroleum Institute (API)	Petroleum Fuels Industry	Kenneth T. Bogen	EPA-HQ-OAR-2016-0004-3512-A1.pdf EPA-HQ-OAR-2016-0004-3512-A2.pdf EPA-HQ-OAR-2016-0004-3512-A3.pdf EPA-HQ-OAR-2016-0004-3512-A4.pdf EPA-HQ-OAR-2016-0004-3512-A5.xlsx EPA-HQ-OAR-2016-0004-3512-A6.pdf EPA-HQ-OAR-2016-0004-3512-A7.pdf EPA-HQ-OAR-2016-0004-3512.html EPA-HQ-OAR-2016-0004-3579-A1.pdf EPA-HQ-OAR-2016-0004-3579.html
American Soybean Association (ASA)	Agribusiness	Richard Wilkins	EPA-HQ-OAR-2016-0004-1722-A1.pdf EPA-HQ-OAR-2016-0004-1722.html
American Sportfishing Association (ASA)	Non-governmental Institutes and Foundations (other than Environmental)	Scott Gudes	EPA-HQ-OAR-2016-0004-1675-A1.pdf EPA-HQ-OAR-2016-0004-1675.html
Anonymous 1	Private Citizens	Anonymous 1	EPA-HQ-OAR-2016-0004-0531.html
Anonymous 10	Private Citizens	Anonymous 10	EPA-HQ-OAR-2016-0004-2151.html
Anonymous 11	Private Citizens	Anonymous 11	EPA-HQ-OAR-2016-0004-0697.html
Anonymous 2	Private Citizens	Anonymous 2	EPA-HQ-OAR-2016-0004-1468.html
Anonymous 3	Private Citizens	Anonymous 3	EPA-HQ-OAR-2016-0004-1925.html
Anonymous 4	Private Citizens	Anonymous 4	EPA-HQ-OAR-2016-0004-1894.html
Anonymous 6	Private Citizens	Anonymous 6	EPA-HQ-OAR-2016-0004-2281.html
Anonymous 7	Private Citizens	Anonymous 7	EPA-HQ-OAR-2016-0004-2457.html
Anonymous 8	Private Citizens	Anonymous 8	EPA-HQ-OAR-2016-0004-2405-A1.pdf EPA-HQ-OAR-2016-0004-2405.html
Anonymous 9	Private Citizens	Anonymous 9	EPA-HQ-OAR-2016-0004-2895.html
APCO Petroleum Corp.	Petroleum Fuels Industry	Gill, Amar	EPA-HQ-OAR-2016-0004-3511-A1.pdf EPA-HQ-OAR-2016-0004-3511.html EPA-HQ-OAR-2016-0004-3552-A1.pdf EPA-HQ-OAR-2016-0004-3552.html
Archer Daniels Midland Company (ADM)	Renewable Fuels Industry	Mark Bemis	EPA-HQ-OAR-2016-0004-1727-A1.pdf EPA-HQ-OAR-2016-0004-1727.html
Arkadelphia Regional Economic Development Alliance	Chambers of Commerce	Stephen Bell	EPA-HQ-OAR-2016-0004-1666-A1.pdf EPA-HQ-OAR-2016-0004-1666.html
Associated General Contractors of North Dakota	Other Companies/Industries	Hanson, Russ	EPA-HQ-OAR-2016-0004-1754-A1.pdf EPA-HQ-OAR-2016-0004-1754.html
Association of American Railroads	Other Organizations, Institutes, and Foundations	Strafford, Timothy	EPA-HQ-OAR-2016-0004-3580-A1.pdf EPA-HQ-OAR-2016-0004-3580.html
Association of Equipment Manufacturers (AEM)	Equipment Manufacturers & Suppliers	Nick Yaksich	EPA-HQ-OAR-2016-0004-0723-A1.pdf EPA-HQ-OAR-2016-0004-0723.html
Aycock Oil, Inc.	Petroleum Fuels Industry	Aycock, Diane	EPA-HQ-OAR-2016-0004-3545-A1.pdf EPA-HQ-OAR-2016-0004-3545.html
Baker Commodities, Inc.	Renewable Fuels Industry	Gurschick, Jr., Walter and James M. Andreoli,	EPA-HQ-OAR-2016-0004-1656-A1.pdf EPA-HQ-OAR-2016-0004-1656.html EPA-HQ-OAR-2016-0004-1687-A1.pdf EPA-HQ-OAR-2016-0004-1687.html
Barney Bishop Consulting LLC	Other Companies/Industries	Barney Bishop	EPA-HQ-OAR-2016-0004-0476-A1.pdf EPA-HQ-OAR-2016-0004-0476.html
Bassboaters	Other Companies/Industries	Casto, David	EPA-HQ-OAR-2016-0004-2030.html

Bay Oil Company	Petroleum Fuels Industry	Smith, Brooks	EPA-HQ-OAR-2016-0004-3548-A1.pdf EPA-HQ-OAR-2016-0004-3548.html EPA-HQ-OAR-2016-0004-3615-A1.pdf EPA-HQ-OAR-2016-0004-3615.html
Bellomo Fuel & Service, Inc	Petroleum Fuels Industry	Bellomo, William	EPA-HQ-OAR-2016-0004-3505-A1.pdf EPA-HQ-OAR-2016-0004-3505.html
Belluardo, John	Private Citizens	Belluardo, John	EPA-HQ-OAR-2016-0004-2571-A1.pdf EPA-HQ-OAR-2016-0004-2571.html
BHT Resources	Other Companies/Industries	Micah Salsman	EPA-HQ-OAR-2016-0004-1630-A1.pdf EPA-HQ-OAR-2016-0004-1630.html
Biogas Researchers, Inc.	Renewable Fuels Industry	Lemon, Jim	EPA-HQ-OAR-2016-0004-1650-A1.pdf EPA-HQ-OAR-2016-0004-1650-A2.pdf EPA-HQ-OAR-2016-0004-1650.html
Biomass Power Association	Renewable Fuels Industry	Cleaves, Robert	EPA-HQ-OAR-2016-0004-1803-A1.pdf EPA-HQ-OAR-2016-0004-1803.html
Biotechnology Innovation Organization (BIO)	Other Companies/Industries	Brent Erickson	EPA-HQ-OAR-2016-0004-2721-A1.pdf EPA-HQ-OAR-2016-0004-2721-A2.pdf EPA-HQ-OAR-2016-0004-2721.html EPA-HQ-OAR-2016-0004-3601-A1.pdf EPA-HQ-OAR-2016-0004-3601.html
Birr, Adam	Private Citizens	Birr, Adam	EPA-HQ-OAR-2016-0004-3146-A1.pdf EPA-HQ-OAR-2016-0004-3146.html
Blue Ridge Golf Course	Other Companies/Industries	Cowan, Pat and Myrna	EPA-HQ-OAR-2016-0004-2699.html
Boat U.S.	Other Companies/Industries	David Kennedy	EPA-HQ-OAR-2016-0004-1866-A1.pdf EPA-HQ-OAR-2016-0004-1866.html
Bravo Fuel	Petroleum Fuels Industry	Case, David	EPA-HQ-OAR-2016-0004-3503-A1.pdf EPA-HQ-OAR-2016-0004-3503.html
Brazilian Sugarcane Industry Association (UNICA)	Agribusiness	Elizabeth Farina	EPA-HQ-OAR-2016-0004-1698-A1.pdf EPA-HQ-OAR-2016-0004-1698-A2.pdf EPA-HQ-OAR-2016-0004-1698.html EPA-HQ-OAR-2016-0004-1737-A1.pdf EPA-HQ-OAR-2016-0004-1737.html EPA-HQ-OAR-2016-0004-1741-A1.pdf EPA-HQ-OAR-2016-0004-1741.html
Bricks, Wayne	Private Citizens	Bricks, Wayne	EPA-HQ-OAR-2016-0004-1613-A1.pdf EPA-HQ-OAR-2016-0004-1613.html
Brown Oil Distributors, LLC	Petroleum Fuels Industry	Sisk, Wesley Brown	EPA-HQ-OAR-2016-0004-3551-A1.pdf EPA-HQ-OAR-2016-0004-3551.html
Bunker Hill Farms, Inc.	Farms	Vincent, Thomas	EPA-HQ-OAR-2016-0004-2766-A1.pdf EPA-HQ-OAR-2016-0004-2766.html
California Biodiesel Alliance (CBA)	Renewable Fuels Industry	DuBose, Celia	EPA-HQ-OAR-2016-0004-1678-A1.pdf EPA-HQ-OAR-2016-0004-1678.html
California Fuel Supply, Inc. (CAFS)	Fuels Industry	Hoover, David	EPA-HQ-OAR-2016-0004-3502-A1.pdf EPA-HQ-OAR-2016-0004-3502.html
Canon, William G.	Private Citizens	Canon, William G.	EPA-HQ-OAR-2016-0004-0477-A1.docx EPA-HQ-OAR-2016-0004-0477.html
Capital Oil, Inc.	Petroleum Fuels Industry	Roberts, Stanley	EPA-HQ-OAR-2016-0004-3543-A1.pdf EPA-HQ-OAR-2016-0004-3543.html
Capital Yacht Club	Other Companies/Industries	Lipstein, Freddi	EPA-HQ-OAR-2016-0004-3575-A1.pdf EPA-HQ-OAR-2016-0004-3575.html
Cargill Meat Solutions	Other Companies/Industries	Harrison, James	EPA-HQ-OAR-2016-0004-3564.html
Carlson, Terry	Private Citizens	Carlson, Terry	EPA-HQ-OAR-2016-0004-2163-A1.pdf EPA-HQ-OAR-2016-0004-2163.html

Carpenter, Judith	Private Citizens	Carpenter, Judith	EPA-HQ-OAR-2016-0004-3283-A1.pdf EPA-HQ-OAR-2016-0004-3283.html
Cascadia Academy	Other Organizations, Institutes, and Foundations	Bruce Agnew	EPA-HQ-OAR-2016-0004-0714-A1.pdf EPA-HQ-OAR-2016-0004-0714.html
Casey's General Stores, Inc.	Petroleum Fuels Industry	Beech, Douglas M.	EPA-HQ-OAR-2016-0004-3609-A1.pdf EPA-HQ-OAR-2016-0004-3609.html
Chesapeake Bay Yacht Clubs Association (CBYCA)	Other Companies/Industries	Terry, Kent	EPA-HQ-OAR-2016-0004-3510-A1.pdf EPA-HQ-OAR-2016-0004-3510.html
Chevron	Petroleum Fuels Industry	Maria Pica Karp	EPA-HQ-OAR-2016-0004-1684-A1.pdf EPA-HQ-OAR-2016-0004-1684.html
CHS, Inc.	Other Organizations, Institutes, and Foundations	Steve Markham	EPA-HQ-OAR-2016-0004-1612-A1.pdf EPA-HQ-OAR-2016-0004-1612.html
City of Bellevue	Private Citizens	Conrad Lee	EPA-HQ-OAR-2016-0004-1659-A1.pdf EPA-HQ-OAR-2016-0004-1659.html
City of Osceola, Arkansas	State and Local Governments and Organizations	Dickie Kennemore	EPA-HQ-OAR-2016-0004-1665-A1.pdf EPA-HQ-OAR-2016-0004-1665.html
Clean Air Task Force (CATF)	Environmental Non-governmental Organizations	Lewis, Jonathan	EPA-HQ-OAR-2016-0004-1804-A1.pdf EPA-HQ-OAR-2016-0004-1804.html
CMB Performance Horses	Other Companies/Industries	Christi Brown	EPA-HQ-OAR-2016-0004-1631-A1.pdf EPA-HQ-OAR-2016-0004-1631.html
Coalition for Renewable Natural Gas et al.	Renewable Fuels Industry	Cox, David	EPA-HQ-OAR-2016-0004-1732-A1.pdf EPA-HQ-OAR-2016-0004-1732.html
Coburn & Associates, LLC	Other Companies/Industries	Coburn, James	EPA-HQ-OAR-2016-0004-1655-A1.pdf EPA-HQ-OAR-2016-0004-1655.html EPA-HQ-OAR-2016-0004-1749-A1.pdf EPA-HQ-OAR-2016-0004-1749.html
Colorado County Oil Co.	Petroleum Fuels Industry	Leach, LL.	EPA-HQ-OAR-2016-0004-3571-A1.pdf EPA-HQ-OAR-2016-0004-3571.html
Corn Producers Association of Texas (CPAT)	Agribusiness	David Gibson	EPA-HQ-OAR-2016-0004-1731-A1.pdf EPA-HQ-OAR-2016-0004-1731.html
Corn, LP	Agribusiness	N/A	EPA-HQ-OAR-2016-0004-2414-A1.pdf EPA-HQ-OAR-2016-0004-2414.html
CountryMark	Petroleum Fuels Industry	Thompson, Brian	EPA-HQ-OAR-2016-0004-1826-A1.pdf EPA-HQ-OAR-2016-0004-1826.html
County Line Co-op., Inc.	Agribusiness	Schaller, Marc	EPA-HQ-OAR-2016-0004-2754-A1.pdf EPA-HQ-OAR-2016-0004-2754.html
Cumberland Farms	Agribusiness	Durand, Matthew	EPA-HQ-OAR-2016-0004-3611-A1.pdf EPA-HQ-OAR-2016-0004-3611.html
CVR Energy, Inc.	Petroleum Fuels Industry	John Lipinski	EPA-HQ-OAR-2016-0004-0213-A1.pdf EPA-HQ-OAR-2016-0004-0213.html EPA-HQ-OAR-2016-0004-1873-A1.pdf EPA-HQ-OAR-2016-0004-1873.html
Dabbs Oil Co.	Petroleum Fuels Industry	Dabbs, Don	EPA-HQ-OAR-2016-0004-3542-A1.pdf EPA-HQ-OAR-2016-0004-3542.html EPA-HQ-OAR-2016-0004-3549-A1.pdf EPA-HQ-OAR-2016-0004-3549.html
Darling Ingredients, Inc.	Renewable Fuels Industry	John Bullock	EPA-HQ-OAR-2016-0004-1721-A1.docx EPA-HQ-OAR-2016-0004-1721-A2.pdf EPA-HQ-OAR-2016-0004-1721.html
Davis, James	Private Citizens	Davis, James	EPA-HQ-OAR-2016-0004-2166-A1.pdf EPA-HQ-OAR-2016-0004-2166.html

DeCicco, John M.	Private Citizens	DeCicco, John M.	EPA-HQ-OAR-2016-0004-1828-A1.pdf EPA-HQ-OAR-2016-0004-1828.html
Deere & Company	Vehicle Manufacturers and Organizations	Charles Studer	EPA-HQ-OAR-2016-0004-1654-A1.pdf EPA-HQ-OAR-2016-0004-1654.html
Delta Township	State and Local Governments and Organizations	Jeffrey Hicks	EPA-HQ-OAR-2016-0004-1685-A1.pdf EPA-HQ-OAR-2016-0004-1685.html
DENCO II, LLC	Renewable Fuels Industry	Miller, Mike	EPA-HQ-OAR-2016-0004-1693-A1.pdf EPA-HQ-OAR-2016-0004-1693-A2.pdf EPA-HQ-OAR-2016-0004-1693.html
Department of Economics Iowa State University	Academic Institutions	Dave Swenson	EPA-HQ-OAR-2016-0004-2237.html
Dickman, Ben	Private Citizens	Dickman, Ben	EPA-HQ-OAR-2016-0004-0533.html
DuPont Industrial Biosciences	Fuels Industry	Jan Koninckx	EPA-HQ-OAR-2016-0004-1827-A1.pdf EPA-HQ-OAR-2016-0004-1827.html
DuPont Industrial Biosciences et al.	Fuels Industry	Koninckx, Jan	EPA-HQ-OAR-2016-0004-1824-A1.pdf EPA-HQ-OAR-2016-0004-1824.html
Dutchess Terminals, Inc.	Petroleum Fuels Industry	Vosoughi, Russo	EPA-HQ-OAR-2016-0004-3550-A1.pdf EPA-HQ-OAR-2016-0004-3550.html
Eastman, John	Private Citizens	Eastman, John	EPA-HQ-OAR-2016-0004-0557.html
Elgin Service Center-Gilboa LLC	Other Companies/Industries	Ellerbrock, Dan	EPA-HQ-OAR-2016-0004-2760-A1.pdf EPA-HQ-OAR-2016-0004-2760.html
Energy Future Coalition et al.	Renewable Fuels Industry	Boyden Gray & Associates	EPA-HQ-OAR-2016-0004-2772-A1.pdf EPA-HQ-OAR-2016-0004-2772.html
Energy Vision, et al.	Fuels Industry	Krista Barber et al.	EPA-HQ-OAR-2016-0004-2870-A1.pdf EPA-HQ-OAR-2016-0004-2870.html EPA-HQ-OAR-2016-0004-2873-A1.pdf EPA-HQ-OAR-2016-0004-2873.html EPA-HQ-OAR-2016-0004-2875-A1.pdf EPA-HQ-OAR-2016-0004-2875.html EPA-HQ-OAR-2016-0004-2877-A1.pdf EPA-HQ-OAR-2016-0004-2877.html EPA-HQ-OAR-2016-0004-2878-A1.pdf EPA-HQ-OAR-2016-0004-2878.html
Enerkem	Renewable Fuels Industry	Chornet, Vincent	EPA-HQ-OAR-2016-0004-1820-A1.pdf EPA-HQ-OAR-2016-0004-1820.html
Express Fuel Products	Private Citizens	Dhukani, Karim	EPA-HQ-OAR-2016-0004-3630-A1.pdf EPA-HQ-OAR-2016-0004-3630.html
ExxonMobil	Petroleum Fuels Industry	Ian Carr	EPA-HQ-OAR-2016-0004-1870-A1.pdf EPA-HQ-OAR-2016-0004-1870.html
Fitzgibbons, John	Private Citizens	Fitzgibbons, John	EPA-HQ-OAR-2016-0004-2081.html
Florida Petroleum Marketers and Convenience Store Association (FPMA)	Petroleum Fuels Industry	Ned Bowman	EPA-HQ-OAR-2016-0004-0472-A1.docx EPA-HQ-OAR-2016-0004-0472.html
Florida Retail Federation (FRF)	Other Companies/Industries	Randy Miller	EPA-HQ-OAR-2016-0004-0478-A1.pdf EPA-HQ-OAR-2016-0004-0478.html
Florida State Hispanic Chamber of Commerce	Chambers of Commerce	Julio Fuentes	EPA-HQ-OAR-2016-0004-0247-A1.pdf EPA-HQ-OAR-2016-0004-0247.html
Florida Transportation Builders' Association, Inc. (FTBA)	Other Companies/Industries	Bob Burleson	EPA-HQ-OAR-2016-0004-1640-A1.pdf EPA-HQ-OAR-2016-0004-1640.html

Florida Trucking Association (FTA)	Other Companies/Industries	Ken Armstrong	EPA-HQ-OAR-2016-0004-0479-A1.pdf EPA-HQ-OAR-2016-0004-0479.html EPA-HQ-OAR-2016-0004-1324-A1.pdf EPA-HQ-OAR-2016-0004-1324.html EPA-HQ-OAR-2016-0004-1699-A1.pdf EPA-HQ-OAR-2016-0004-1699.html
Food Bank Council of Michigan	Non-governmental Institutes and Foundations (other than Environmental)	Phil Knight	EPA-HQ-OAR-2016-0004-1663-A1.pdf EPA-HQ-OAR-2016-0004-1663.html
Fort Washington Boating Association	Other Companies/Industries	Bagby, Nathan	EPA-HQ-OAR-2016-0004-3364-A1.pdf EPA-HQ-OAR-2016-0004-3364.html
Fuel Distributors Inc.	Fuels Industry	Charolia, Salim	EPA-HQ-OAR-2016-0004-3610-A1.pdf EPA-HQ-OAR-2016-0004-3610.html EPA-HQ-OAR-2016-0004-3612-A1.pdf EPA-HQ-OAR-2016-0004-3612.html
George Washington University, Regulatory Study Center	Academic Institutions	Sofie E. Miller	EPA-HQ-OAR-2016-0004-2687-A1.pdf EPA-HQ-OAR-2016-0004-2687.html
Glenn Davis, Virginia House of Delegates	Private Citizens	Davis, Glenn	EPA-HQ-OAR-2016-0004-2543.html
Gordon Petroleum Inc.	Petroleum Fuels Industry	Kelly, Michael	EPA-HQ-OAR-2016-0004-3557-A1.pdf EPA-HQ-OAR-2016-0004-3557.html
Governors' Biofuels Coalition	State and Local Governments and Organizations	Pearce, Larry	EPA-HQ-OAR-2016-0004-1729-A1.pdf EPA-HQ-OAR-2016-0004-1729.html
Greenwood Christian Church	Other Organizations, Institutes, and Foundations	Rodney Benker	EPA-HQ-OAR-2016-0004-1719-A1.pdf EPA-HQ-OAR-2016-0004-1719.html
Growth Energy	Renewable Fuels Industry	Emily Skor	EPA-HQ-OAR-2016-0004-3499-A1.pdf EPA-HQ-OAR-2016-0004-3499-A2.pdf EPA-HQ-OAR-2016-0004-3499-A3.pdf EPA-HQ-OAR-2016-0004-3499-A4.pdf EPA-HQ-OAR-2016-0004-3499-A5.pdf EPA-HQ-OAR-2016-0004-3499-A6.pdf EPA-HQ-OAR-2016-0004-3499.html
HabitatMap	Environmental Non-governmental Organizations	Michael Heimbinder	EPA-HQ-OAR-2016-0004-2683-A1.pdf EPA-HQ-OAR-2016-0004-2683.html
Hay, Steve	Private Citizens	Hay, Steve	EPA-HQ-OAR-2016-0004-1618-A1.pdf EPA-HQ-OAR-2016-0004-1618.html
Heath, Mark	Private Citizens	Heath, Mark	EPA-HQ-OAR-2016-0004-2671-A1.pdf EPA-HQ-OAR-2016-0004-2671.html
Hehmeyer, Owen	Private Citizens	Hehmeyer, Owen	EPA-HQ-OAR-2016-0004-2670-A1.pdf EPA-HQ-OAR-2016-0004-2670.html
Herbers Farms	Farms	Herbers, Lou	EPA-HQ-OAR-2016-0004-2731-A1.pdf EPA-HQ-OAR-2016-0004-2731.html
Highwater Ethanol	Renewable Fuels Industry	Brian Kletscher	EPA-HQ-OAR-2016-0004-1662-A1.docx EPA-HQ-OAR-2016-0004-1662.html
HollyFrontier Corporation	Petroleum Fuels Industry	George Damiris	EPA-HQ-OAR-2016-0004-0216-A1.pdf EPA-HQ-OAR-2016-0004-0216.html EPA-HQ-OAR-2016-0004-2691-A1.pdf EPA-HQ-OAR-2016-0004-2691.html EPA-HQ-OAR-2016-0004-2867-A1.pdf EPA-HQ-OAR-2016-0004-2867.html EPA-HQ-OAR-2016-0004-3602-A1.pdf EPA-HQ-OAR-2016-0004-3602.html EPA-HQ-OAR-2016-0004-3622-A1.pdf EPA-HQ-OAR-2016-0004-3622.html

Holmes, Steve	Private Citizens	Holmes, Steve	EPA-HQ-OAR-2016-0004-3600-A1.pdf EPA-HQ-OAR-2016-0004-3600.html
Hoxie Implement Co. Inc.	Vehicle Manufacturers and Organizations	Heim, Gerard	EPA-HQ-OAR-2016-0004-3509-A1.pdf EPA-HQ-OAR-2016-0004-3509.html
Illinois Corn Growers Association and Illinois Renewable Fuels Association (ILRFA)	Renewable Fuels Industry	Mitchell, Lindsay	EPA-HQ-OAR-2016-0004-1745-A1.png EPA-HQ-OAR-2016-0004-1745-A2.doc EPA-HQ-OAR-2016-0004-1745-A3.pdf EPA-HQ-OAR-2016-0004-1745.html
Illinois Farm Bureau	Farms	Nielsen, Adam	EPA-HQ-OAR-2016-0004-2770-A1.doc EPA-HQ-OAR-2016-0004-2770.html
Illinois Soybean Growers (ISG)	Agribusiness	Levin, Mike	EPA-HQ-OAR-2016-0004-1744-A1.docx EPA-HQ-OAR-2016-0004-1744.html
Independent Fuel Terminal Operators Association (IFTOA)	Fuels Industry	Grant, Andrea	EPA-HQ-OAR-2016-0004-1823-A1.pdf EPA-HQ-OAR-2016-0004-1823.html
Indiana Corn Growers Association	Agribusiness	Michael Nichols	EPA-HQ-OAR-2016-0004-1786-A1.pdf EPA-HQ-OAR-2016-0004-1786.html
Indiana Grocery and Convenience Store Association (IGSCA)	Other Organizations, Institutes, and Foundations	Lackey, Joseph	EPA-HQ-OAR-2016-0004-1661-A1.pdf EPA-HQ-OAR-2016-0004-1661.html
Indiana Manufactured Housing Association (IMHA) and Recreation Vehicle Indiana Council, Inc. (RVIC)	Other Companies/Industries	Rose, Matt	EPA-HQ-OAR-2016-0004-1673-A1.pdf EPA-HQ-OAR-2016-0004-1673.html
Indiana Retail Council	Other Companies/Industries	Monahan, Grant	EPA-HQ-OAR-2016-0004-2066.html
Indiana Soybean Alliance (ISA)	Agribusiness	Steinkamp, Joseph	EPA-HQ-OAR-2016-0004-1834-A1.pdf EPA-HQ-OAR-2016-0004-1834.html
International Council on Clean Transportation (ICCT)	International Governments or Organizations (e.g., ICEE, Env. Canada, etc)	Kamakate, Fanta	EPA-HQ-OAR-2016-0004-1800-A1.pdf EPA-HQ-OAR-2016-0004-1800.html
Iowa Corn Growers Association (ICGA)	Agribusiness	Hemesath, Bob	EPA-HQ-OAR-2016-0004-1726-A1.pdf EPA-HQ-OAR-2016-0004-1726.html EPA-HQ-OAR-2016-0004-3556-A1.pdf EPA-HQ-OAR-2016-0004-3556.html
Iowa Farm Bureau Federation (IFBF)	Farms	Kuhle, Kevin	EPA-HQ-OAR-2016-0004-1653-A1.pdf EPA-HQ-OAR-2016-0004-1653.html
Iowa Office of the Governor	State and Local Governments and Organizations	Terry Branstad	EPA-HQ-OAR-2016-0004-1747-A1.pdf EPA-HQ-OAR-2016-0004-1747.html
Iowa Renewable Fuels Association (IRFA)	Renewable Fuels Industry	Shaw, Monte	EPA-HQ-OAR-2016-0004-1667-A1.pdf EPA-HQ-OAR-2016-0004-1667.html EPA-HQ-OAR-2016-0004-1867-A1.pdf EPA-HQ-OAR-2016-0004-1867.html
Jakes Landing, LLC	Other Organizations, Institutes, and Foundations	Trawick, Archie	EPA-HQ-OAR-2016-0004-1670-A1.pdf EPA-HQ-OAR-2016-0004-1670.html
Jasper Oil Company	Petroleum Fuels Industry	Womack, John Wade	EPA-HQ-OAR-2016-0004-3606-A1.pdf EPA-HQ-OAR-2016-0004-3606.html
JJ Gouge & Son Oil Company, Inc.	Petroleum Fuels Industry	Gouge, Jeff	EPA-HQ-OAR-2016-0004-3617-A1.pdf EPA-HQ-OAR-2016-0004-3617.html
Jones, R.	Private Citizens	Jones, R.	EPA-HQ-OAR-2016-0004-2013.html
Jung, Jerry	Private Citizens	Jung, Jerry	EPA-HQ-OAR-2016-0004-1833-A1.pdf EPA-HQ-OAR-2016-0004-1833.html

Kane Ranch	Other Companies/Industries	Fielder, Garth	EPA-HQ-OAR-2016-0004-1636-A1.pdf EPA-HQ-OAR-2016-0004-1636.html
Kansas Corn Growers Association	Agribusiness	Timmons, Bob	EPA-HQ-OAR-2016-0004-2689-A1.pdf EPA-HQ-OAR-2016-0004-2689.html
Kansas Farm Bureau	Farms	Felts, Richard	EPA-HQ-OAR-2016-0004-1718-A1.pdf EPA-HQ-OAR-2016-0004-1718.html
Kendall Cabinets Inc.	Other Companies/Industries	Kendall, Maureen	EPA-HQ-OAR-2016-0004-1755-A1.pdf EPA-HQ-OAR-2016-0004-1755.html
Kendrick Oil Company	Fuels Industry	Kendrick, Daniel M.	EPA-HQ-OAR-2016-0004-3618-A1.pdf EPA-HQ-OAR-2016-0004-3618.html
Kentucky Corn Growers Association	Agribusiness	Strode, Richard	EPA-HQ-OAR-2016-0004-1805-A1.docx EPA-HQ-OAR-2016-0004-1805.html
Kimberley, Grant	Private Citizens	Kimberley, Grant	EPA-HQ-OAR-2016-0004-3018-A1.pdf EPA-HQ-OAR-2016-0004-3018.html
Kisiel, John	Private Citizens	Kisiel, John	EPA-HQ-OAR-2016-0004-1495-A1.pdf EPA-HQ-OAR-2016-0004-1495.html
L.S & J.M. Gravelle, Inc.	Petroleum Fuels Industry	Gravelle, Joe S.	EPA-HQ-OAR-2016-0004-3631-A1.pdf EPA-HQ-OAR-2016-0004-3631.html
Liebrecht Manufacturing	Vehicle Manufacturers and Organizations	Kristen Liebrecht	EPA-HQ-OAR-2016-0004-2756-A1.pdf EPA-HQ-OAR-2016-0004-2756.html
Lightner Farms, Inc.	Farms	Lightner, Kriss	EPA-HQ-OAR-2016-0004-2759-A1.pdf EPA-HQ-OAR-2016-0004-2759.html
Lippold Strategies, LLC	Other Companies/Industries	Lippold, Kirk	EPA-HQ-OAR-2016-0004-1739-A1.pdf EPA-HQ-OAR-2016-0004-1739.html
Little Sioux Corn Processors	Agribusiness	Roe, Stephen	EPA-HQ-OAR-2016-0004-0225-A1.docx EPA-HQ-OAR-2016-0004-0225.html
LS Commercial Real Estate	Other Companies/Industries	Rhoads, Mark	EPA-HQ-OAR-2016-0004-0202-A1.pdf EPA-HQ-OAR-2016-0004-0202.html
M. Spiegel & Sons Oil Corp.	Petroleum Fuels Industry	Spiegel, Robert	EPA-HQ-OAR-2016-0004-3547-A1.pdf EPA-HQ-OAR-2016-0004-3547.html
Magellan Midstream Partners	Petroleum Fuels Industry	Bruce Heine	EPA-HQ-OAR-2016-0004-2695-A1.pdf EPA-HQ-OAR-2016-0004-2695.html
Marathon Petroleum Corporation (MPC)	Petroleum Fuels Industry	C Michael Palmer	EPA-HQ-OAR-2016-0004-1806-A1.pdf EPA-HQ-OAR-2016-0004-1806.html EPA-HQ-OAR-2016-0004-3607-A1.pdf EPA-HQ-OAR-2016-0004-3607.html
MARC-IV Consulting, Inc.	Other Companies/Industries	Weber, Alan	EPA-HQ-OAR-2016-0004-1681-A1.pdf EPA-HQ-OAR-2016-0004-1681.html
Marine Trade Association of New Jersey (MTA/NJ)	Other Companies/Industries	N/A	EPA-HQ-OAR-2016-0004-0421.html
Marquis Energy LLC	Fuels Industry	Gustafson, Dana	EPA-HQ-OAR-2016-0004-3498-A1.pdf EPA-HQ-OAR-2016-0004-3498.html
Maryland Grain Producers Association	Agribusiness	N/A	EPA-HQ-OAR-2016-0004-0845-A1.pdf EPA-HQ-OAR-2016-0004-0845.html
Mass Comment Campaign in sponsored by Anonymous 30 (Paper) - (9)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-3604-A1.pdf EPA-HQ-OAR-2016-0004-3604.html
Mass Comment Campaign sponsored by Absolute Energy (Paper) - (60)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1359-A1.pdf EPA-HQ-OAR-2016-0004-1359.html EPA-HQ-OAR-2016-0004-1203-A1.pdf EPA-HQ-OAR-2016-0004-1203.html

Mass Comment Campaign sponsored by Absolute Energy LLC (Paper) - (196)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1361-A1.pdf EPA-HQ-OAR-2016-0004-1361.html
Mass Comment Campaign sponsored by American Ethanol (Paper) - (22)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-3348-A1.pdf EPA-HQ-OAR-2016-0004-3348.html
Mass Comment Campaign sponsored by Anonymous 18 (email) - (45)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1364-A1.pdf EPA-HQ-OAR-2016-0004-1364.html
Mass Comment Campaign sponsored by Anonymous 19 (email) - (13)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1497-A1.pdf EPA-HQ-OAR-2016-0004-1497.html
Mass Comment Campaign sponsored by Anonymous 21 (USB) - (500,292)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1635-A1.pdf EPA-HQ-OAR-2016-0004-1635-A2.pdf EPA-HQ-OAR-2016-0004-1635-A3.pdf EPA-HQ-OAR-2016-0004-1635-A4.pdf EPA-HQ-OAR-2016-0004-1635-A5.pdf EPA-HQ-OAR-2016-0004-1635-A6.pdf EPA-HQ-OAR-2016-0004-1635-A7.pdf EPA-HQ-OAR-2016-0004-1635-A8.pdf EPA-HQ-OAR-2016-0004-1635-A9.pdf EPA-HQ-OAR-2016-0004-1635.html EPA-HQ-OAR-2016-0004-1635-A10.pdf EPA-HQ-OAR-2016-0004-1635-A11.pdf EPA-HQ-OAR-2016-0004-1635-A12.pdf EPA-HQ-OAR-2016-0004-1635-A13.pdf EPA-HQ-OAR-2016-0004-1635-A14.pdf EPA-HQ-OAR-2016-0004-1635-A15.pdf EPA-HQ-OAR-2016-0004-1635-A16.pdf EPA-HQ-OAR-2016-0004-1635-A17.pdf EPA-HQ-OAR-2016-0004-1635-A18.pdf EPA-HQ-OAR-2016-0004-1635-A19.pdf EPA-HQ-OAR-2016-0004-1635-A20.pdf EPA-HQ-OAR-2016-0004-1635-A21.pdf EPA-HQ-OAR-2016-0004-1635-A22.pdf EPA-HQ-OAR-2016-0004-1635-A23.pdf EPA-HQ-OAR-2016-0004-1635-A24.pdf EPA-HQ-OAR-2016-0004-1635-A25.pdf EPA-HQ-OAR-2016-0004-1635-A26.pdf
Mass Comment Campaign sponsored by Anonymous 1 (Web) - (5,185)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-0069.html EPA-HQ-OAR-2016-0004-0073.html
Mass Comment Campaign sponsored by Anonymous 10 (email) - (771)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1166-A1.pdf EPA-HQ-OAR-2016-0004-1166.html
Mass Comment Campaign sponsored by Anonymous 11 (238)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1167-A1.pdf EPA-HQ-OAR-2016-0004-1167.html

Mass Comment Campaign sponsored by Anonymous 12 (email) - (106)	Private Citizens		EPA-HQ-OAR-2016-0004-1168-A1.pdf EPA-HQ-OAR-2016-0004-1168.html
Mass Comment Campaign sponsored by Anonymous 13 (email) - (3333)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1169-A1.pdf EPA-HQ-OAR-2016-0004-1169.html
Mass Comment Campaign sponsored by Anonymous 14 (email) - (406)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1171-A1.pdf EPA-HQ-OAR-2016-0004-1171.html
Mass Comment Campaign sponsored by Anonymous 15 (email) - (22)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1357-A1.pdf EPA-HQ-OAR-2016-0004-1357.html
Mass Comment Campaign sponsored by Anonymous 16 (paper) - (35)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1360-A1.pdf EPA-HQ-OAR-2016-0004-1360.html
Mass Comment Campaign sponsored by Anonymous 17 (email) - (86)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1363-A1.pdf EPA-HQ-OAR-2016-0004-1363.html
Mass Comment Campaign sponsored by Anonymous 20 (email) - (13)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1498-A1.pdf EPA-HQ-OAR-2016-0004-1498.html
Mass Comment Campaign sponsored by Anonymous 22 (Web) - (572)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1788.html
Mass Comment Campaign sponsored by Anonymous 23 (Paper) - (13)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1970-A1.pdf EPA-HQ-OAR-2016-0004-1970.html
Mass Comment Campaign sponsored by Anonymous 24 (Paper) - (3,299)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1972-A1.pdf EPA-HQ-OAR-2016-0004-1972.html
Mass Comment Campaign sponsored by Anonymous 25 (USB) - (500,291)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-3347-A1.pdf EPA-HQ-OAR-2016-0004-3347.html
Mass Comment Campaign sponsored by Anonymous 26 (Paper) - (26)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-3553-A1.pdf EPA-HQ-OAR-2016-0004-3553.html
Mass Comment Campaign sponsored by Anonymous 27 (web) - (6)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-0420.html

Mass Comment Campaign sponsored by Anonymous 28 (paper) - (5)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-2408-A1.pdf EPA-HQ-OAR-2016-0004-2408.html
Mass Comment Campaign sponsored by Anonymous 29 (paper) - (67)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-2604-A1.pdf EPA-HQ-OAR-2016-0004-2604.html
Mass Comment Campaign sponsored by Anonymous 3 (Web) - (718)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-0112.html
Mass Comment Campaign sponsored by Anonymous 4 (Web) - (625)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-0113.html
Mass Comment Campaign sponsored by Anonymous 5 (Web) - (355)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-0114.html
Mass Comment Campaign sponsored by Anonymous 6 (Web) - (345)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-0115.html
Mass Comment Campaign sponsored by Anonymous 7 (Web) - (47)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-0399.html
Mass Comment Campaign sponsored by Anonymous 8 (email) - (629)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-0556-A1.pdf EPA-HQ-OAR-2016-0004-0556.html
Mass Comment Campaign sponsored by Anonymous 9 (email) - (931)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1165-A1.pdf EPA-HQ-OAR-2016-0004-1165.html
Mass Comment Campaign sponsored by Biodiesel.org (email) - (397)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-0554-A1.pdf EPA-HQ-OAR-2016-0004-0554.html
Mass Comment Campaign sponsored by Boat Owners Association of the United States (Paper) - (200)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1706-A1.pdf EPA-HQ-OAR-2016-0004-1706.html
Mass Comment Campaign sponsored by Central Indiana Ethanol (CIE) (email) - (60)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1701-A1.pdf EPA-HQ-OAR-2016-0004-1701-A2.pdf EPA-HQ-OAR-2016-0004-1701.html
Mass Comment Campaign sponsored by DENCO II, employees (Paper) - (17)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1362-A1.pdf EPA-HQ-OAR-2016-0004-1362.html

Mass Comment Campaign sponsored by DENCO II, investors (Paper) - (12)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1967-A1.pdf EPA-HQ-OAR-2016-0004-1967.html
Mass Comment Campaign sponsored by Energy Citizens (Paper) - (37,706)	Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1966-A1.pdf EPA-HQ-OAR-2016-0004-1966.html
Mass Comment Campaign sponsored by ethanol producers 1 (email) - (444)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-0555-A1.pdf EPA-HQ-OAR-2016-0004-0555.html
Mass Comment Campaign sponsored by ethanol producers 2 (email) - (87)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1170-A1.pdf EPA-HQ-OAR-2016-0004-1170.html
Mass Comment Campaign sponsored by Golden Grain Energy, LLC - (32)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-3560-A1.pdf EPA-HQ-OAR-2016-0004-3560.html
Mass Comment Campaign sponsored by Growth Energy (Paper) - (110)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1501-A1.pdf EPA-HQ-OAR-2016-0004-1501.html
Mass Comment Campaign sponsored by investors in ethanol plants (email) - (67)	Private Citizens		EPA-HQ-OAR-2016-0004-1164-A1.pdf EPA-HQ-OAR-2016-0004-1164.html
Mass Comment Campaign sponsored by Iowa Renewable Fuels Association 1 (Paper) - (3,330)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1500-A1.pdf EPA-HQ-OAR-2016-0004-1500.html EPA-HQ-OAR-2016-0004-3594-A1.pdf EPA-HQ-OAR-2016-0004-3594.html
Mass Comment Campaign sponsored by Iowa Renewable Fuels Association 2 (Paper) - (404)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1499-A1.pdf EPA-HQ-OAR-2016-0004-1499.html EPA-HQ-OAR-2016-0004-3595-A1.pdf EPA-HQ-OAR-2016-0004-3595.html
Mass Comment Campaign sponsored by Lincolnway Energy LLC (Paper) - (37)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1790-A1.pdf EPA-HQ-OAR-2016-0004-1790.html
Mass Comment Campaign sponsored by Little Sioux Corn Processors - (34)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-3562-A1.pdf EPA-HQ-OAR-2016-0004-3562.html
Mass Comment Campaign sponsored by Michigan Corn Growers Association (Web) - (43)	Agribusiness	N/A	EPA-HQ-OAR-2016-0004-2021-A1.pdf EPA-HQ-OAR-2016-0004-2021.html

Mass Comment Campaign sponsored by Missouri Corn Growers Association (paper) - (233)	Agribusiness	N/A	EPA-HQ-OAR-2016-0004-1705-A1.pdf EPA-HQ-OAR-2016-0004-1705.html
Mass Comment Campaign sponsored by National Corn Growers Association 1 (Paper) - (459)	Agribusiness	N/A	EPA-HQ-OAR-2016-0004-1973-A1.pdf EPA-HQ-OAR-2016-0004-1973.html
Mass Comment Campaign sponsored by National Corn Growers Association 2 (paper) - (387)	Agribusiness	N/A	EPA-HQ-OAR-2016-0004-3596-A1.pdf EPA-HQ-OAR-2016-0004-3596.html
Mass Comment Campaign sponsored by National Corn Growers Association 3 (Paper) - (5,020)	Agribusiness	N/A	EPA-HQ-OAR-2016-0004-2887-A1.pdf EPA-HQ-OAR-2016-0004-2887-A2.pdf EPA-HQ-OAR-2016-0004-2887.html
Mass Comment Campaign sponsored by National Corn Growers Association 4 (Paper) - (5,719)	Agribusiness	N/A	EPA-HQ-OAR-2016-0004-2886-A1.pdf EPA-HQ-OAR-2016-0004-2886-A2.pdf EPA-HQ-OAR-2016-0004-2886.html EPA-HQ-OAR-2016-0004-2883-A1.pdf EPA-HQ-OAR-2016-0004-2883.html
Mass Comment Campaign sponsored by National Corn Growers Association 5 (Web) - (11,047)	Agribusiness	N/A	EPA-HQ-OAR-2016-0004-1356-A1.xlsx EPA-HQ-OAR-2016-0004-1356-A2.xlsx EPA-HQ-OAR-2016-0004-1356-A3.xlsx EPA-HQ-OAR-2016-0004-1356-A4.xlsx EPA-HQ-OAR-2016-0004-1356.html EPA-HQ-OAR-2016-0004-2888-A1.pdf EPA-HQ-OAR-2016-0004-2888-A2.pdf EPA-HQ-OAR-2016-0004-2888.html
Mass Comment Campaign sponsored by National Corn Growers Association 6 (Web) - (41,744)	Agribusiness	N/A	EPA-HQ-OAR-2016-0004-2000.html EPA-HQ-OAR-2016-0004-0400-A1.xlsx EPA-HQ-OAR-2016-0004-0400-A2.xlsx EPA-HQ-OAR-2016-0004-0400-A3.xlsx EPA-HQ-OAR-2016-0004-0400.html EPA-HQ-OAR-2016-0004-0401-A1.xlsx EPA-HQ-OAR-2016-0004-0401.html EPA-HQ-OAR-2016-0004-0402-A1.xlsx EPA-HQ-OAR-2016-0004-0402.html EPA-HQ-OAR-2016-0004-2884-A1.pdf EPA-HQ-OAR-2016-0004-2884.html EPA-HQ-OAR-2016-0004-2885-A1.pdf EPA-HQ-OAR-2016-0004-2885-A2.pdf EPA-HQ-OAR-2016-0004-2885.html
Mass Comment Campaign sponsored by National Wildlife Federation Action Fund (Web) - (22,367)	Environmental Non-governmental Organizations	Kirchner, Jane	EPA-HQ-OAR-2016-0004-1504-A1.xlsx EPA-HQ-OAR-2016-0004-1504.html

Mass Comment Campaign sponsored by Nebraska Corn Board (Paper) - (105)	Agribusiness	N/A	EPA-HQ-OAR-2016-0004-1503-A1.pdf EPA-HQ-OAR-2016-0004-1503.html
Mass Comment Campaign sponsored by North Dakota Energy Forum (Paper) - (41)	Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1789-A1.pdf EPA-HQ-OAR-2016-0004-1789.html
Mass Comment Campaign Sponsored by Novozymes (web) - (8)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-0717-A1.pdf EPA-HQ-OAR-2016-0004-0717.html
Mass Comment Campaign sponsored by Plymouth Energy (paper) - (83)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1704-A1.pdf EPA-HQ-OAR-2016-0004-1704.html
Mass Comment Campaign sponsored by POET Biorefining 1 (email) - (401)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1702-A1.pdf EPA-HQ-OAR-2016-0004-1702-A2.pdf EPA-HQ-OAR-2016-0004-1702.html
Mass Comment Campaign sponsored by POET Biorefining 2 (Paper) - (214)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-2882-A1.pdf EPA-HQ-OAR-2016-0004-2882.html
Mass Comment Campaign sponsored by POET Biorefining 3 (Paper) - (4,304)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-2879-A1.pdf EPA-HQ-OAR-2016-0004-2879.html
Mass Comment Campaign sponsored by POET Biorefining 4 (Paper) - (400)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-2880-A1.pdf EPA-HQ-OAR-2016-0004-2880.html
Mass Comment Campaign sponsored by POET Biorefining 5 (Paper) - (80)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-2881-A1.pdf EPA-HQ-OAR-2016-0004-2881.html
Mass Comment Campaign sponsored by POET Biorefining 6 (Paper) - (60)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-2428-A1.pdf EPA-HQ-OAR-2016-0004-2428.html
Mass Comment Campaign sponsored by Prairie Horizon (Paper) - (74)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1969-A1.pdf EPA-HQ-OAR-2016-0004-1969.html
Mass Comment Campaign sponsored by Putnam County YMCA (Paper) - (5)	Other Organizations, Institutes, and Foundations	N/A	EPA-HQ-OAR-2016-0004-2763-A1.pdf EPA-HQ-OAR-2016-0004-2763.html EPA-HQ-OAR-2016-0004-2765-A1.pdf EPA-HQ-OAR-2016-0004-2765.html EPA-HQ-OAR-2016-0004-2767-A1.pdf EPA-HQ-OAR-2016-0004-2767.html EPA-HQ-OAR-2016-0004-2768-A1.pdf EPA-HQ-OAR-2016-0004-2768.html EPA-HQ-OAR-2016-0004-2401-A1.pdf EPA-HQ-OAR-2016-0004-2401.html

Mass Comment Campaign sponsored by Recreational Boat Owners (email) - (23,476)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-0553-A1.pdf EPA-HQ-OAR-2016-0004-0553.html EPA-HQ-OAR-2016-0004-1502-A1.pdf EPA-HQ-OAR-2016-0004-1502.html
Mass Comment Campaign sponsored by residents of Central Ohio (Paper) - (37)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1971-A1.pdf EPA-HQ-OAR-2016-0004-1971.html
Mass Comment Campaign sponsored by Siouxland Energy Cooperative - (24)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-3561-A1.pdf EPA-HQ-OAR-2016-0004-3561.html
Mass Comment Campaign sponsored by Southwest Iowa Renewable Energy LLC (SIRE) (paper) - (27)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1703-A1.pdf EPA-HQ-OAR-2016-0004-1703.html
Mass Comment Campaign sponsored by Three Rivers Energy (Paper) - (28)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-1968-A1.pdf EPA-HQ-OAR-2016-0004-1968.html
Mass Comment Campaign sponsored by U.S. Veterans (email) - (51)	Private Citizens	N/A	EPA-HQ-OAR-2016-0004-1358-A1.pdf EPA-HQ-OAR-2016-0004-1358.html
Mass Comment Campaign sponsored by Vets4Energy (Web) - (3)	Non-governmental Institutes and Foundations (other than Environmental)	N/A	EPA-HQ-OAR-2016-0004-1707-A1.pdf EPA-HQ-OAR-2016-0004-1707.html
Mass Comment Campaign sponsored by Western Iowa Energy, LLC - (24)	Renewable Fuels Industry	N/A	EPA-HQ-OAR-2016-0004-3563-A1.pdf EPA-HQ-OAR-2016-0004-3563.html
Michelle Toohey Enterprises	Other Companies/Industries	Hyde, R. and Navarre, M.	EPA-HQ-OAR-2016-0004-2355.html EPA-HQ-OAR-2016-0004-2358.html
Michigan Boating Industries Association	Other Companies/Industries	Polan, Nicki	EPA-HQ-OAR-2016-0004-2201-A1.pdf EPA-HQ-OAR-2016-0004-2201.html
Michigan Farm Bureau (MFB)	Farms	Krepps, Kate	EPA-HQ-OAR-2016-0004-1822-A1.pdf EPA-HQ-OAR-2016-0004-1822.html
Mid-Missouri Energy	Renewable Fuels Industry	Chris Wilson	EPA-HQ-OAR-2016-0004-0074-A1.pdf EPA-HQ-OAR-2016-0004-0074.html
Midwest AgEnergy Group LLC	Renewable Fuels Industry	Adam Dunlop	EPA-HQ-OAR-2016-0004-1738-A1.pdf EPA-HQ-OAR-2016-0004-1738.html
Minnesota Bio-Fuels Association, Inc. (MBA)	Renewable Fuels Industry	Rudnicki, Timothy	EPA-HQ-OAR-2016-0004-1871-A1.pdf EPA-HQ-OAR-2016-0004-1871.html
Minnesota Corn Growers Association (MCGA)	Agribusiness	Hultgren, Noah	EPA-HQ-OAR-2016-0004-1818-A1.pdf EPA-HQ-OAR-2016-0004-1818.html
Minnesota Farm Bureau	Farms	Paap, Kevin	EPA-HQ-OAR-2016-0004-2521-A1.pdf EPA-HQ-OAR-2016-0004-2521.html
Minnesota Farmers Union	Farms	Peterson, Doug	EPA-HQ-OAR-2016-0004-1784-A1.pdf EPA-HQ-OAR-2016-0004-1784.html

Minnesota Soybean Processors (MnSP)	Agribusiness	Marr, Ronald	EPA-HQ-OAR-2016-0004-1829-A1.pdf EPA-HQ-OAR-2016-0004-1829.html
Minnesota Trout Association	Other Companies/Industries	Broberg, Jeffrey	EPA-HQ-OAR-2016-0004-3513-A1.pdf EPA-HQ-OAR-2016-0004-3513-A2.pdf EPA-HQ-OAR-2016-0004-3513-A3.docx EPA-HQ-OAR-2016-0004-3513.html
Missouri Chamber of Commerce and Industry	Chambers of Commerce	Dan Mehan	EPA-HQ-OAR-2016-0004-2688-A1.pdf EPA-HQ-OAR-2016-0004-2688.html
Missouri Corn Growers Association (MCGA)	Agribusiness	Heitman, Morris	EPA-HQ-OAR-2016-0004-1782-A1.pdf EPA-HQ-OAR-2016-0004-1782.html
Missouri Marine Dealers Association and the Lake of the Ozarks Marine Dealers Association	Other Companies/Industries	Kenagy, Mike	EPA-HQ-OAR-2016-0004-2684-A1.pdf EPA-HQ-OAR-2016-0004-2684.html
Mobley, Kevin	Private Citizens	Mobley, Kevin	EPA-HQ-OAR-2016-0004-0186.html
Monroe Energy, LLC	Fuels Industry	Perrelli, Thomas and Price, Matthew	EPA-HQ-OAR-2016-0004-1869-A1.pdf EPA-HQ-OAR-2016-0004-1869-A2.pdf EPA-HQ-OAR-2016-0004-1869.html
Murphy USA, Inc.	Petroleum Fuels Industry	Clyde, Andrew	EPA-HQ-OAR-2016-0004-1875-A1.pdf EPA-HQ-OAR-2016-0004-1875.html
NAFA Fleet Management Association	Vehicle Dealers and Organizations	Russo, Phillip	EPA-HQ-OAR-2016-0004-1787-A1.pdf EPA-HQ-OAR-2016-0004-1787.html
National Association of Truck Stop Operators (NATSO)	Fuels Industry	Fialklov, David	EPA-HQ-OAR-2016-0004-1830-A1.pdf EPA-HQ-OAR-2016-0004-1830.html
National Association of Wheat Growers	Agribusiness	Stoner, Gordon	EPA-HQ-OAR-2016-0004-2697-A1.pdf EPA-HQ-OAR-2016-0004-2697.html
National Biodiesel Board	Renewable Fuels Industry	Steckel, Anne & Wooton, Ben	EPA-HQ-OAR-2016-0004-1680-A1.pdf EPA-HQ-OAR-2016-0004-1680.html EPA-HQ-OAR-2016-0004-2904-A1.pdf EPA-HQ-OAR-2016-0004-2904-A10.pdf EPA-HQ-OAR-2016-0004-2904-A11.pdf EPA-HQ-OAR-2016-0004-2904-A2.pdf EPA-HQ-OAR-2016-0004-2904-A3.pdf EPA-HQ-OAR-2016-0004-2904-A4.pdf EPA-HQ-OAR-2016-0004-2904-A5.pdf EPA-HQ-OAR-2016-0004-2904-A6.pdf EPA-HQ-OAR-2016-0004-2904-A7.pdf EPA-HQ-OAR-2016-0004-2904-A8.pdf EPA-HQ-OAR-2016-0004-2904-A9.pdf EPA-HQ-OAR-2016-0004-2904.html
National Chicken Council (NCC)	Agribusiness	Brian Eyink	EPA-HQ-OAR-2016-0004-1676-A1.pdf EPA-HQ-OAR-2016-0004-1676.html
National Corn Growers Association	Agribusiness	Bowling, Chip	EPA-HQ-OAR-2016-0004-1809-A1.pdf EPA-HQ-OAR-2016-0004-1809.html
National Corn-to-Ethanol Research Center at SIUE	Renewable Fuels Industry	Caupert, John	EPA-HQ-OAR-2016-0004-1714-A1.pdf EPA-HQ-OAR-2016-0004-1714.html EPA-HQ-OAR-2016-0004-1715-A1.pdf EPA-HQ-OAR-2016-0004-1715.html EPA-HQ-OAR-2016-0004-1716-A1.pdf EPA-HQ-OAR-2016-0004-1716.html

National Council of Chain Restaurants (NCCR)	Other Companies/Industries	Green, Rob	EPA-HQ-OAR-2016-0004-2891-A1.pdf EPA-HQ-OAR-2016-0004-2891-A2.pdf EPA-HQ-OAR-2016-0004-2891-A3.pdf EPA-HQ-OAR-2016-0004-2891-A4.pdf EPA-HQ-OAR-2016-0004-2891-A5.pdf EPA-HQ-OAR-2016-0004-2891-A6.pdf EPA-HQ-OAR-2016-0004-2891.html
National Farmers Union (NFU)	Farms	Johnson, Roger	EPA-HQ-OAR-2016-0004-1651-A1.pdf EPA-HQ-OAR-2016-0004-1651.html
National Latino Farmers & Ranchers Trade Association (NLFRTA)	Agribusiness	Anonymous	EPA-HQ-OAR-2016-0004-2102.html
National Marine Manufacturers Association (NMMA)	Other Companies/Industries	Lewan, Michael	EPA-HQ-OAR-2016-0004-1949-A1.pdf EPA-HQ-OAR-2016-0004-1949.html
National Renderers Association (NRA)	Other Companies/Industries	Foster, Nancy	EPA-HQ-OAR-2016-0004-2694-A1.pdf EPA-HQ-OAR-2016-0004-2694.html
National Restaurant Association	Other Companies/Industries	Abshire, Laura	EPA-HQ-OAR-2016-0004-2696-A1.pdf EPA-HQ-OAR-2016-0004-2696.html
National Sorghum Producers (NSP)	Agribusiness	Born, James	EPA-HQ-OAR-2016-0004-0221-A1.docx EPA-HQ-OAR-2016-0004-0221.html EPA-HQ-OAR-2016-0004-1785-A1.pdf EPA-HQ-OAR-2016-0004-1785.html EPA-HQ-OAR-2016-0004-2520.html
National Taxpayers Union (NTU)	Other Organizations, Institutes, and Foundations	Pete Sepp	EPA-HQ-OAR-2016-0004-1874-A1.pdf EPA-HQ-OAR-2016-0004-1874.html
National Wildlife Federation (NWF)	Environmental Non-governmental Organizations	David DeGennaro	EPA-HQ-OAR-2016-0004-1700-A1.pdf EPA-HQ-OAR-2016-0004-1700-A2.pdf EPA-HQ-OAR-2016-0004-1700.html EPA-HQ-OAR-2016-0004-1825-A1.pdf EPA-HQ-OAR-2016-0004-1825.html
National Women involved in Farm Economics (WIFE)	Non-governmental Institutes and Foundations (other than Environmental)	Kouba, Marlene & Newman, Linda	EPA-HQ-OAR-2016-0004-2540.html
Nebraska Corn Board (NCB)	Agribusiness	David Merrell	EPA-HQ-OAR-2016-0004-1694-A1.pdf EPA-HQ-OAR-2016-0004-1694-A2.pdf EPA-HQ-OAR-2016-0004-1694.html
Nebraska Corn Growers Association	Agribusiness	David Merrell & Larry Mussack	EPA-HQ-OAR-2016-0004-1730-A1.pdf EPA-HQ-OAR-2016-0004-1730.html
Nebraska Farm Bureau Federation	Farms	Nelson, Stephen	EPA-HQ-OAR-2016-0004-2693-A1.docx EPA-HQ-OAR-2016-0004-2693.html
Nebraska Farmers Union	Farms	Hansen, John	EPA-HQ-OAR-2016-0004-1688-A1.pdf EPA-HQ-OAR-2016-0004-1688.html
Neste Oil	Petroleum Fuels Industry	Delahoussaye, Dayne	EPA-HQ-OAR-2016-0004-1821-A1.pdf EPA-HQ-OAR-2016-0004-1821.html
Nestle Corporate Affairs	Other Companies/Industries	Paul Bakus	EPA-HQ-OAR-2016-0004-1868-A1.pdf EPA-HQ-OAR-2016-0004-1868.html
Nevada Franchised Auto Dealers Association	Vehicle Dealers and Organizations	MacKay, Andrew	EPA-HQ-OAR-2016-0004-1652-A1.docx EPA-HQ-OAR-2016-0004-1652.html
Nevada Trucking Association	Vehicle Manufacturers and Organizations	Paul Enos	EPA-HQ-OAR-2016-0004-1639-A1.pdf EPA-HQ-OAR-2016-0004-1639.html

New Distributing Company, Inc.	Fuels Industry	New, Jon	EPA-HQ-OAR-2016-0004-3544-A1.pdf EPA-HQ-OAR-2016-0004-3544.html
New Mexico Cattle Growers' Association	Agribusiness	Boone, Pat	EPA-HQ-OAR-2016-0004-1677-A1.pdf EPA-HQ-OAR-2016-0004-1677.html
New Mexico Federal Lands Council	Non-governmental Institutes and Foundations (other than Environmental)	Don Lee	EPA-HQ-OAR-2016-0004-1682-A1.pdf EPA-HQ-OAR-2016-0004-1682.html EPA-HQ-OAR-2016-0004-3497-A1.pdf EPA-HQ-OAR-2016-0004-3497.html
New Mexico Wool Growers, Inc. (NMWGI)	Agribusiness	Cooper, Punk	EPA-HQ-OAR-2016-0004-1683-A1.pdf EPA-HQ-OAR-2016-0004-1683.html
New York State Assembly, 122nd District	State and Local Governments and Organizations	Crouch, Clifford W.	EPA-HQ-OAR-2016-0004-3592-A1.pdf EPA-HQ-OAR-2016-0004-3592.html
Newton, Wendy	Private Citizens	Newtown, Wendy	EPA-HQ-OAR-2016-0004-1872-A1.jpg EPA-HQ-OAR-2016-0004-1872.html
North Dakota Ethanol Council (NDEC)	Renewable Fuels Industry	Jeff Zueger et al.	EPA-HQ-OAR-2016-0004-1671-A1.pdf EPA-HQ-OAR-2016-0004-1671.html
North Dakota Farmers Union	Farms	Watne, Mark	EPA-HQ-OAR-2016-0004-1819-A1.pdf EPA-HQ-OAR-2016-0004-1819.html
North Dakota Petroleum Marketers Association	Petroleum Fuels Industry	Mike Rud	EPA-HQ-OAR-2016-0004-1756-A1.pdf EPA-HQ-OAR-2016-0004-1756.html
Novozymes	Renewable Fuels Industry	Donnelly, Paige	EPA-HQ-OAR-2016-0004-1628-A1.docx EPA-HQ-OAR-2016-0004-1628.html EPA-HQ-OAR-2016-0004-1734-A1.pdf EPA-HQ-OAR-2016-0004-1734.html
Ohio Coin Machine Association	Other Companies/Industries	Corey, David	EPA-HQ-OAR-2016-0004-2719.html
Ohio Council of Retail Merchants	State and Local Governments and Organizations	Gough, Gordon	EPA-HQ-OAR-2016-0004-2893.html
Ohio Grocers Association	Other Companies/Industries	Mullins, Kristin	EPA-HQ-OAR-2016-0004-2079.html
Ohio Licensed Beverage Association	Other Companies/Industries	Bean, Kathleen	EPA-HQ-OAR-2016-0004-2206.html
Ohio Spirits Association	Other Companies/Industries	Jordan, Megan	EPA-HQ-OAR-2016-0004-2252.html
Ohio Veterans United	Non-governmental Institutes and Foundations (other than Environmental)	Prestanksi, Harry	EPA-HQ-OAR-2016-0004-1941.html
Outdoor Power Equipment Institute (OPEI)	Equipment Manufacturers & Suppliers	Mustico, Daniel	EPA-HQ-OAR-2016-0004-1664-A1.pdf EPA-HQ-OAR-2016-0004-1664-A2.pdf EPA-HQ-OAR-2016-0004-1664.html
Owner-Operator Independent Drivers Association (OOIDA)	Other Organizations, Institutes, and Foundations	Mark Rhoads	EPA-HQ-OAR-2016-0004-0220-A1.docx EPA-HQ-OAR-2016-0004-0220.html
Parrent, Kenneth	Private Citizens	Parrent, Kenneth	EPA-HQ-OAR-2016-0004-0243-A1.docx EPA-HQ-OAR-2016-0004-0243.html
Pasco Chamber of Commerce	Chambers of Commerce	Colin Hastings	EPA-HQ-OAR-2016-0004-0245-A1.pdf EPA-HQ-OAR-2016-0004-0245.html
PBF Energy LLC	Petroleum Fuels Industry	H Randolph Roehl	EPA-HQ-OAR-2016-0004-2692-A1.docx EPA-HQ-OAR-2016-0004-2692.html
Pennington-Peine, Nicholas	Private Citizens	Pennington-Peine, Nicholas	EPA-HQ-OAR-2016-0004-3303-A1.pdf EPA-HQ-OAR-2016-0004-3303.html

Pennsylvania House of Representatives	State and Local Governments and Organizations	Turzai, Mike	EPA-HQ-OAR-2016-0004-1329-A1.pdf EPA-HQ-OAR-2016-0004-1329.html EPA-HQ-OAR-2016-0004-1751-A1.pdf EPA-HQ-OAR-2016-0004-1751.html
Pennsylvania Motorcycle Dealers Association	Vehicle Dealers and Organizations	Dave Moore	EPA-HQ-OAR-2016-0004-2868-A1.pdf EPA-HQ-OAR-2016-0004-2868.html
Pennsylvania Off Highway Vehicle Association	Vehicle Dealers and Organizations	Brown, Frederick	EPA-HQ-OAR-2016-0004-1757-A1.pdf EPA-HQ-OAR-2016-0004-1757.html
Pennsylvania State Senate, 50th District	State and Local Governments and Organizations	Michele Brooks	EPA-HQ-OAR-2016-0004-2202-A1.pdf EPA-HQ-OAR-2016-0004-2202.html
Pennsylvania State Snowmobile Association (PSSA)	Vehicle Dealers and Organizations	Elizabeth Krug	EPA-HQ-OAR-2016-0004-2869-A1.pdf EPA-HQ-OAR-2016-0004-2869.html
Pep-Up Inc.	Fuels Industry	Pepper, Bryan	EPA-HQ-OAR-2016-0004-3572-A1.pdf EPA-HQ-OAR-2016-0004-3572.html
Petroleum Marketers Association of America	Petroleum Fuels Industry	Morgan, Mark	EPA-HQ-OAR-2016-0004-2771-A1.doc EPA-HQ-OAR-2016-0004-2771.html
PetroTex Fuels, Inc.	Petroleum Fuels Industry	Steinhagan, E Harvey	EPA-HQ-OAR-2016-0004-3546-A1.pdf EPA-HQ-OAR-2016-0004-3546.html
Phillips 66 Company	Petroleum Fuels Industry	Benyshek, Marla	EPA-HQ-OAR-2016-0004-1807-A1.pdf EPA-HQ-OAR-2016-0004-1807.html
Platt, Paul	Private Citizens	Platt, Paul	EPA-HQ-OAR-2016-0004-3003-A1.pdf EPA-HQ-OAR-2016-0004-3003.html
Plymouth Energy	Renewable Fuels Industry	Gillespie, Joe & Diediker, Bryan	EPA-HQ-OAR-2016-0004-3555-A1.pdf EPA-HQ-OAR-2016-0004-3555.html
POET Biorefining	Renewable Fuels Industry	Mark Borer	EPA-HQ-OAR-2016-0004-2755-A1.pdf EPA-HQ-OAR-2016-0004-2755.html
Potomac River Yacht Clubs Association (PRYCA)	Other Companies/Industries	Rogers, Phillip	EPA-HQ-OAR-2016-0004-2711-A1.pdf EPA-HQ-OAR-2016-0004-2711.html EPA-HQ-OAR-2016-0004-3363-A1.pdf EPA-HQ-OAR-2016-0004-3363.html
Prairie Feed & Trucking, LLC	Agribusiness	Giese, Al	EPA-HQ-OAR-2016-0004-1643-A1.pdf EPA-HQ-OAR-2016-0004-1643.html
Principia, LLC	Private Citizens	Cooley, Kieth	EPA-HQ-OAR-2016-0004-1724-A1.pdf EPA-HQ-OAR-2016-0004-1724.html
Publisher Render Magazine Placerville	Other Companies/Industries	Caparella, Tina	EPA-HQ-OAR-2016-0004-2052.html
Quad County Corn Processors (QCCP), Delayne Johnson, CEO	Agribusiness	Johnson, Delayne	EPA-HQ-OAR-2016-0004-1325-A1.pdf EPA-HQ-OAR-2016-0004-1325-A2.pdf EPA-HQ-OAR-2016-0004-1325.html EPA-HQ-OAR-2016-0004-1743-A1.pdf EPA-HQ-OAR-2016-0004-1743.html
Quad County Corn Processors (QCCP), employees	Agribusiness	Johnson, Delyane	EPA-HQ-OAR-2016-0004-1323-A1.pdf EPA-HQ-OAR-2016-0004-1323-A2.pdf EPA-HQ-OAR-2016-0004-1323.html
RaceTrac Petroleum, Inc.	Petroleum Fuels Industry	McBrayer, Max	EPA-HQ-OAR-2016-0004-3608-A1.pdf EPA-HQ-OAR-2016-0004-3608.html
Remlinger Manufacturing Company	Vehicle Manufacturers and Organizations	John Remlinger	EPA-HQ-OAR-2016-0004-2758-A1.pdf EPA-HQ-OAR-2016-0004-2758.html

Renew Kansas	Renewable Fuels Industry	Stookey, Randy	EPA-HQ-OAR-2016-0004-1668-A1.pdf EPA-HQ-OAR-2016-0004-1668.html
Renewable Biofuels LLC (RBF)	Renewable Fuels Industry	Jonthan Phillips	EPA-HQ-OAR-2016-0004-1689-A1.pdf EPA-HQ-OAR-2016-0004-1689.html
Renewable Energy Group (REG)	Renewable Fuels Industry	Fitzgerald, Lindsay	EPA-HQ-OAR-2016-0004-3477-A1.pdf EPA-HQ-OAR-2016-0004-3477-A2.pdf EPA-HQ-OAR-2016-0004-3477.html
Renewable Fuels Association (RFA)	Renewable Fuels Industry	Dinneen, Bob	EPA-HQ-OAR-2016-0004-1695-A1.pdf EPA-HQ-OAR-2016-0004-1695-A2.pdf EPA-HQ-OAR-2016-0004-1695.html EPA-HQ-OAR-2016-0004-1720-A1.pdf EPA-HQ-OAR-2016-0004-1720.html
Rock House Advisors LLC	Renewable Fuels Industry	Joe Jobe	EPA-HQ-OAR-2016-0004-1717-A1.pdf EPA-HQ-OAR-2016-0004-1717.html
Rockport Group, LLP	Petroleum Fuels Industry	Jefferys, Willis	EPA-HQ-OAR-2016-0004-3626-A1.pdf EPA-HQ-OAR-2016-0004-3626.html
Rocky Mountain College	Academic Institutions	Ann Adair	EPA-HQ-OAR-2016-0004-1629-A1.pdf EPA-HQ-OAR-2016-0004-1629.html
Rocky Mountain Farmers Union	Farms	McCall, Dale	EPA-HQ-OAR-2016-0004-1836-A1.pdf EPA-HQ-OAR-2016-0004-1836-A2.pdf EPA-HQ-OAR-2016-0004-1836.html
S2 Yachts, Inc.	Other Companies/Industries	Slikkers, David	EPA-HQ-OAR-2016-0004-1748-A1.pdf EPA-HQ-OAR-2016-0004-1748.html
Sageland Petroleum, Inc.	Petroleum Fuels Industry	Thulin, Roger	EPA-HQ-OAR-2016-0004-3582-A1.pdf EPA-HQ-OAR-2016-0004-3582.html
Scanlon Excavating & Trucking	Vehicle Suppliers and Organizations	Dennis Scanlon	EPA-HQ-OAR-2016-0004-2413-A1.pdf EPA-HQ-OAR-2016-0004-2413.html
Schlueter, Paul	Private Citizens	Schlueter, Paul	EPA-HQ-OAR-2016-0004-0183-A1.pdf EPA-HQ-OAR-2016-0004-0183-A3.pdf EPA-HQ-OAR-2016-0004-0183-A4.pdf EPA-HQ-OAR-2016-0004-0183.html EPA-HQ-OAR-2016-0004-0183-A2.pdf
Schnell, Rolland	Private Citizens	Schnell, Rolland	EPA-HQ-OAR-2016-0004-2214-A1.pdf EPA-HQ-OAR-2016-0004-2214.html
Schnitker Law office, P. A.	Other Companies/Industries	Schnitker, Kirk	EPA-HQ-OAR-2016-0004-1802-A1.pdf EPA-HQ-OAR-2016-0004-1802.html
Scott, Dean	Private Citizens	Scott, Dean	EPA-HQ-OAR-2016-0004-3460-A1.pdf EPA-HQ-OAR-2016-0004-3460.html
SEI Fuel Services, Inc. & Gasoline, 7-Eleven, Inc.	Fuels Industry	Tison, Bentley	EPA-HQ-OAR-2016-0004-3577-A1.pdf EPA-HQ-OAR-2016-0004-3577.html
Shasta Siskiyou Transport	Petroleum Fuels Industry	Casparino, William	EPA-HQ-OAR-2016-0004-3541-A1.pdf EPA-HQ-OAR-2016-0004-3541.html
Sheetz, Inc.	Petroleum Fuels Industry	Lorenz, Michael	EPA-HQ-OAR-2016-0004-3581-A1.pdf EPA-HQ-OAR-2016-0004-3581.html
Shell Oil Products US	Petroleum Fuels Industry	Reese, John	EPA-HQ-OAR-2016-0004-1725-A1.pdf EPA-HQ-OAR-2016-0004-1725.html
Small Refinery Owners Ad Hoc Coalition	Fuels Industry	Koch, LeAnn Johnson	EPA-HQ-OAR-2016-0004-0215-A1.pdf EPA-HQ-OAR-2016-0004-0215.html EPA-HQ-OAR-2016-0004-2364-A1.pdf EPA-HQ-OAR-2016-0004-2364-A2.pdf EPA-HQ-OAR-2016-0004-2364-A3.pdf EPA-HQ-OAR-2016-0004-2364.html

Small Retailers Coalition	Petroleum Fuels Industry	Douglass, Bill	EPA-HQ-OAR-2016-0004-3574-A1.pdf EPA-HQ-OAR-2016-0004-3574-A2.pdf EPA-HQ-OAR-2016-0004-3574.html
Society of Independent Gasoline Marketers of America (SIGMA) & National Association of Convenience Stores (NACS)	Other Companies/Industries	R Timothy Columbus	EPA-HQ-OAR-2016-0004-1808-A1.pdf EPA-HQ-OAR-2016-0004-1808.html EPA-HQ-OAR-2016-0004-3621-A1.pdf EPA-HQ-OAR-2016-0004-3621.html
South Carolina African American Chamber of Commerce	Chambers of Commerce	Stephen Gilchrist	EPA-HQ-OAR-2016-0004-1711-A1.pdf EPA-HQ-OAR-2016-0004-1711.html
South Carolina Association of Taxpayers (SCAT)	Other Organizations, Institutes, and Foundations	Don Weaver	EPA-HQ-OAR-2016-0004-1691-A1.pdf EPA-HQ-OAR-2016-0004-1691.html
South Carolina Poultry Federation	Agribusiness	Charleston Laffin	EPA-HQ-OAR-2016-0004-1728-A1.pdf EPA-HQ-OAR-2016-0004-1728.html
South Dakota Corn Growers Association	Agribusiness	Alverson, Keith & Richardson, Lisa & Knecht, Troy	EPA-HQ-OAR-2016-0004-2132.html
South Dakota House of Representatives	State and Local Governments and Organizations	Susan Wismer	EPA-HQ-OAR-2016-0004-1251.html
South Dakota Office of the Governor	State and Local Governments and Organizations	Dennis Daugard	EPA-HQ-OAR-2016-0004-0244-A1.pdf EPA-HQ-OAR-2016-0004-0244.html
South Dakota Soybean Association (SDSA)	Agribusiness	Schmitz, Jerry	EPA-HQ-OAR-2016-0004-1686-A1.docx EPA-HQ-OAR-2016-0004-1686.html
Southeastern Meat Association	Other Companies/Industries	Anna Ondick	EPA-HQ-OAR-2016-0004-0475-A1.pdf EPA-HQ-OAR-2016-0004-0475.html
Spears, James J.	Private Citizens	Spears, James J.	EPA-HQ-OAR-2016-0004-2675-A1.pdf EPA-HQ-OAR-2016-0004-2675.html
Speed Bird Gasoline	Petroleum Fuels Industry	Niaz, Safdar	EPA-HQ-OAR-2016-0004-3605-A1.pdf EPA-HQ-OAR-2016-0004-3605.html
Sportsmen Yacht Club	Other Companies/Industries	Horton, Doug	EPA-HQ-OAR-2016-0004-1838-A1.pdf EPA-HQ-OAR-2016-0004-1838.html
State of West Virginia, Office of State Treasurer	State and Local Governments and Organizations	Perdue, John	EPA-HQ-OAR-2016-0004-1752-A1.pdf EPA-HQ-OAR-2016-0004-1752.html
Steitz, Jim	Private Citizens	Steitz, Jim	EPA-HQ-OAR-2016-0004-2058.html EPA-HQ-OAR-2016-0004-2713-A1.pdf EPA-HQ-OAR-2016-0004-2713.html
Stolar, Tim	Private Citizens	Stolar, Tim	EPA-HQ-OAR-2016-0004-1524-A1.pdf EPA-HQ-OAR-2016-0004-1524.html
Swati Enterprises, Inc.	Fuels Industry	Swati, Shujat	EPA-HQ-OAR-2016-0004-3573-A1.pdf EPA-HQ-OAR-2016-0004-3573.html
Syngenta	Agribusiness	Jack Bernens	EPA-HQ-OAR-2016-0004-1832-A1.pdf EPA-HQ-OAR-2016-0004-1832.html
Tesoro Companies Inc., et al.	Fuels Industry	Warner, Cynthia et al.	EPA-HQ-OAR-2016-0004-3620-A1.pdf EPA-HQ-OAR-2016-0004-3620.html
Thumb BioEnergy	Renewable Fuels Industry	Leon Jackson	EPA-HQ-OAR-2016-0004-1550-A1.pdf EPA-HQ-OAR-2016-0004-1550.html
Tonlino's Fuel Service, Inc	Fuels Industry	Tolino, Carl	EPA-HQ-OAR-2016-0004-3504-A1.pdf EPA-HQ-OAR-2016-0004-3504.html

Toot 'n Totum	Other Companies/Industries	Mitchell, Greg	EPA-HQ-OAR-2016-0004-3598-A1.pdf EPA-HQ-OAR-2016-0004-3598.html
Treeby Farm Partnership	Farms	N/A	EPA-HQ-OAR-2016-0004-2712-A1.pdf EPA-HQ-OAR-2016-0004-2712.html
Unified Boaters of Canyon Ferry	Other Companies/Industries	Riley, Jean	EPA-HQ-OAR-2016-0004-2774-A1.pdf EPA-HQ-OAR-2016-0004-2774.html
Union Bank Co.	Other Companies/Industries	Young, Brian	EPA-HQ-OAR-2016-0004-2757-A1.pdf EPA-HQ-OAR-2016-0004-2757.html
Union of Concerned Scientists (UCS)	Non-governmental Institutes and Foundations (other than Environmental)	Martin, Jeremy	EPA-HQ-OAR-2016-0004-1672-A1.pdf EPA-HQ-OAR-2016-0004-1672.html
United States Canola Association	Agribusiness	Jeff Scott	EPA-HQ-OAR-2016-0004-1723-A1.pdf EPA-HQ-OAR-2016-0004-1723.html
United States Postal Service	Other Companies/Industries	Kiely, Michael	EPA-HQ-OAR-2016-0004-3603-A1.pdf EPA-HQ-OAR-2016-0004-3603.html
Unverferth Manufacturing Company	Vehicle Manufacturers and Organizations	R Steven Unverferth	EPA-HQ-OAR-2016-0004-2762-A1.pdf EPA-HQ-OAR-2016-0004-2762.html
Valero	Petroleum Fuels Industry	Walsh, Richard	EPA-HQ-OAR-2016-0004-1746-A1.pdf EPA-HQ-OAR-2016-0004-1746-A2.pdf EPA-HQ-OAR-2016-0004-1746-A3.pdf EPA-HQ-OAR-2016-0004-1746-A4.pdf EPA-HQ-OAR-2016-0004-1746-A5.pdf EPA-HQ-OAR-2016-0004-1746.html
Valley Proteins	Renewable Fuels Industry	Gerald Smith	EPA-HQ-OAR-2016-0004-1632-A1.pdf EPA-HQ-OAR-2016-0004-1632.html
Vets4Energy	Non-governmental Institutes and Foundations (other than Environmental)	Charles G. Baranyai	EPA-HQ-OAR-2016-0004-1837-A1.pdf EPA-HQ-OAR-2016-0004-1837.html EPA-HQ-OAR-2016-0004-2203-A1.pdf EPA-HQ-OAR-2016-0004-2203.html
Village Hardware, Inc.	Other Companies/Industries	Evers, Kevin	EPA-HQ-OAR-2016-0004-2761-A1.pdf EPA-HQ-OAR-2016-0004-2761.html
Virginia State Senate, 11th District	State and Local Governments and Organizations	Amanda Chase	EPA-HQ-OAR-2016-0004-2259.html
VoteVets	Non-governmental Institutes and Foundations (other than Environmental)	Jon Soltz	EPA-HQ-OAR-2016-0004-2685.html
Washington Policy Center	Other Organizations, Institutes, and Foundations	Todd Myers	EPA-HQ-OAR-2016-0004-1669-A1.pdf EPA-HQ-OAR-2016-0004-1669.html
Washington State House of Representatives, 13th Legislative District	State and Local Governments and Organizations	Matt Manweller	EPA-HQ-OAR-2016-0004-0474-A1.pdf EPA-HQ-OAR-2016-0004-0474.html
Washington State House of Representatives, 28th Legislative District	State and Local Governments and Organizations	Dick Muri	EPA-HQ-OAR-2016-0004-0246.html EPA-HQ-OAR-2016-0004-1326-A1.pdf EPA-HQ-OAR-2016-0004-1326.html EPA-HQ-OAR-2016-0004-1750-A1.pdf EPA-HQ-OAR-2016-0004-1750.html
Washington State Senate, 35th Legislative District	State and Local Governments and Organizations	Tim Sheldon	EPA-HQ-OAR-2016-0004-0712-A1.pdf EPA-HQ-OAR-2016-0004-0712.html
Wawa, Inc	Fuels Industry	Schaller, Brian	EPA-HQ-OAR-2016-0004-3590-A1.pdf EPA-HQ-OAR-2016-0004-3590.html
Wesley K Clark & Associates, LLC	Other Companies/Industries	Clark, Wesley	EPA-HQ-OAR-2016-0004-3508-A1.pdf EPA-HQ-OAR-2016-0004-3508.html

Western Iowa Energy LLC	Fuels Industry	Vonnie Wareham	EPA-HQ-OAR-2016-0004-1696-A1.pdf EPA-HQ-OAR-2016-0004-1696.html
Western Plains Energy LLC	Fuels Industry	Derek Peine	EPA-HQ-OAR-2016-0004-1697-A1.pdf EPA-HQ-OAR-2016-0004-1697.html
Wildcat Fuels	Fuels Industry	Smith, Trey	EPA-HQ-OAR-2016-0004-3616-A1.pdf EPA-HQ-OAR-2016-0004-3616.html
Wisconsin Biofuels Association (WBA)	Renewable Fuels Industry	Erik Huschitt	EPA-HQ-OAR-2016-0004-1638-A1.pdf EPA-HQ-OAR-2016-0004-1638.html
Wisconsin Corn Growers Association	Agribusiness	Casey Kelleher	EPA-HQ-OAR-2016-0004-1637-A1.pdf EPA-HQ-OAR-2016-0004-1637.html
Woodall Oil Company	Petroleum Fuels Industry	Woodall, Brooks	EPA-HQ-OAR-2016-0004-3627-A1.pdf EPA-HQ-OAR-2016-0004-3627.html
Yinger, Alexander	Private Citizens	Yinger, Alexander	EPA-HQ-OAR-2016-0004-3340-A1.pdf EPA-HQ-OAR-2016-0004-3340.html
ZEBA LLC	Petroleum Fuels Industry	Motaghi, Mohammad	EPA-HQ-OAR-2016-0004-3628-A1.pdf EPA-HQ-OAR-2016-0004-3628.html

1. Broad policy issues including Congressional intent and program goals

Comment:

25x'25 Alliance

EPA's proposed Renewable Volume Obligations (RVOs) for 2017 again represent a significant deviation from the volumes Congress set by statute (except for biomass-based diesel) through the use of waiver mechanisms. [EPA-HQ-OAR-2016-0004-0473-A1 p.3]

ABATE of Michigan

In the longer term, I believe the best solution is for Congress to fix RFS through legislation. At this time, I request that the EPA lower the renewable fuel blending requirements and to set the final ethanol mandate sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-1753-A1 p.1]

Advanced Biofuels Business Council (ABBC)

The Administration continues to overstate the problem when it comes to implementing the RFS as designed by Congress. There is nothing new or unexpected in the motor fuel marketplace that requires overhauling the program with waiver reinterpretation [EPA-HQ-OAR-2016-0004-1733-A1 p.11]

American Council for Capital Formation (ACCF)

ACCF believes the current RFS program has failed over the past 10 years to deliver on its stated objectives. [EPA-HQ-OAR-2016-0004-1713 p.1]

This research adds to a growing body of scholarship suggesting that the RFS's unparalleled promotion of corn ethanol has been and continues to be a mistake. [EPA-HQ-OAR-2016-0004-1713 p.2]

American Fuel and Petrochemical Manufacturers (AFPM)

RINs were merely intended to serve as a compliance mechanism; there is no evidence in the legislative and regulatory history of the RFS that RINs were to function as a tool to spur investment or to compel refining companies to subsidize gasoline marketers and retailers for mid-level ethanol blends or E85 sales. [EPA-HQ-OAR-2016-0004-1814-A1 p.7]

the Agency must recognize the U.S. Court of Appeals for the District of Columbia Circuit's decision in January 2013 that EPA must be realistic, not aspirational in setting the annual renewable fuel standards. [EPA-HQ-OAR-2016-0004-1814-A1 p.8]

EPA should not play the role of a renewable fuels promoter or cheerleader. The Agency has the responsibility to reasonably implement a complex program in a manner that ensures the existing

industry can comply and consumers are not disadvantaged. [EPA-HQ-OAR-2016-0004-1814-A1 p.11]

Anonymous 1

Congress designed the RFS to encourage investment in renewable fuel and break through the so-called "blend wall." The RFS was intended to create an economic incentive for oil companies to make higher blends of ethanol available to consumers [EPA-HQ-OAR-2016-0004-0531 p.1]

Anonymous 6

As an ethanol industry employee I am in favor of the RFS standard that was approved by Congress in 2007. [EPA-HQ-OAR-2016-0004-2281 p.1]

Arkadelphia Regional Economic Development Alliance

I believe the best solution is for Congress to fix RFS through legislation. [EPA-HQ-OAR-2016-0004-1666-A1 p.1]

Associated General Contractors of North Dakota

The best solution is for Congress to fix RFS through legislation. [EPA-HQ-OAR-2016-0004-1754-A1 p.2]

Association of Equipment Manufacturers (AEM)

AEM strongly encourages EPA to not move forward with its proposal to depart from the statutory levels set by Congress and the continued use of the "distribution waiver." [EPA-HQ-OAR-2016-0004-0723-A1 p.1]

Bell, Megan

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.131]

ask that you reverse your decision and maintain obligations as Congress intended.

Bertz, Kim

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.36]

Please support a fully compliant RFS for American jobs, a cleaner environment, greater national security, and plain and simply, the RFS works for America.

Biotechnology Innovation Organization (BIO)

EPA has ignored the impact of its rulemakings on investment. [EPA-HQ-OAR-2016-0004-2721-A1 p.32]

investors reacted almost immediately and very strongly to EPA's delays and changes to its interpretation of and approach to the RFS statute and program since 2013. [EPA-HQ-OAR-2016-0004-2721-A1 p.35]

Among the changes necessary in the final rule for 2017 will be to abandon the unwarranted use of the general and cellulosic waiver authorities to create competition between advanced and conventional biofuel producers. EPA should create market space for all renewable fuels that can be produced, up to the volumes established in the statute. [EPA-HQ-OAR-2016-0004-2721-A1 p.40-41]

EPA has acknowledged that RINs can incentivize infrastructure for and consumer marketing of higher renewable fuel blends. The agency should allow the RIN system to work, and should not unduly impose infrastructure and marketing costs on renewable fuel producers. [EPA-HQ-OAR-2016-0004-2721-A1 p.41]

Buckman North America

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.121]

EPA should not go back from the RFS commitment made by a bipartisan Congress and should continue to move the program forward, as Congress and the President intended in 2007. While the EPA's RVO proposal is a step forward from last year's rule, it sends the wrong message and signals that the EPA is not committed to supporting biofuels to the fullest extent.

Canon, William G.

I believe the best long-term solution is for Congress to fix the RFS through legislation [EPA-HQ-OAR-2016-0004-0477-A1 p.1]

Cascadia Academy

The RFS has not met its goals and has become a burden on consumers. Congress needs to take another look at RFS and try to adjust it to our current reality or eliminate it completely. [EPA-HQ-OAR-2016-0004-0714-A1 p.1]

City of Bellevue

The Renewable Fuel Standard is a failed experiment and the American consumer has paid the price. The best course of action is for Congress to reevaluate the entire program and either repair or eliminate it all together. [EPA-HQ-OAR-2016-0004-1659-A1 p.1]

City of Osceola, Arkansas

While the goals of the RFS are worthy, the technology supporting the standards has not developed as envisioned and our country's energy mix has become more diverse and robust. [EPA-HQ-OAR-2016-0004-1665-A1 p.1]

the best solution is for Congress to fix RFS through legislation. [EPA-HQ-OAR-2016-0004-1665-A1 p.1]

County Line Co-op., Inc.

The RPS needs to be reduced in a slow systematic way. [EPA-HQ-OAR-2016-0004-2754-A1 p.1]

Cresco Fast Stop

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.66]

I ask the EPA not to waiver, but rather to enforce the RFS fully as Congress intended when they passed this legislation.

Darling Ingredients, Inc.

One of the primary purposes, if not the primary purpose, of RFS2 is to incent the increased use of environmentally friendly fuels to reduce greenhouse gas emissions and reduce our dependence on foreign produced fuels. Therefore, the EPA should always set proposed volume requirements at a level, which challenges industry to produce adequate supplies to meet forecasted demand. Darling believes that is particularly true with the Advanced Biofuel volume requirement as this category of fuels provides significantly greater reductions in carbon emissions than does conventional biofuel (although both clearly benefit the U.S. economy, the American farmer, and our environment). [EPA-HQ-OAR-2016-0004-1721-A1 p.5]

Deere & Company

While your proposed RVO volumes move the nation to higher levels of renewable fuels utilization, our concern is that the proposal fails to utilize the full mechanisms that Congress provided. [EPA-HQ-OAR-2016-0004-1654-A1 p.1]

Establishing higher volume requirements today will help guarantee the proper economic incentives – providing support for those who make investments supportive of these future needs and providing consequences for those who do not. [EPA-HQ-OAR-2016-0004-1654-A1 p.2]

DuPont Industrial Biosciences

Both EPA's delays in RFS rulemakings and EPA's methodology and approach to the statutory program have undercut the high-value asset finance or partnering investments necessary to continue progress in building large-scale production facilities. [EPA-HQ-OAR-2016-0004-1827-A1 p.8]

Elgin Service Center-Gilboa LLC

concerns over the proposal that sets Renewable Volume Obligations for the Renewable Fuel Standard (RFS) below the statutory targets and below what the biofuels Industry can produce. This reduction moves away from the commitment made by a bipartisan Congress and also away from energy independence and clean air. [EPA-HQ-OAR-2016-0004-2760-A1 p.1]

Energy Vision, et al.

I am writing in support of ethanol companies and increasing the proposed 2017 Renewable Volume Obligation (RVO) rule under the Renewable Fuel Standard (RFS) to Congress' original intent. [EPA-HQ-OAR-2016-0004-2870-A1 p.1]

Faller, Jeff

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.89-90]

While it is positive that the obligated volumes of renewable fuels continue an upward trajectory in EPA's 2017 RFS renewable volume obligation proposal, these volumes continue to fall short of what is needed to fully realize the potential that Congress envisioned when it expanded the RFS in 2007.

the EPA should require obligated parties to comply with the law by blending increasing volumes of renewable fuels.

Governors' Biofuels Coalition

It was governors' expectation that the Congressional statutory requirements would stimulate new development and investment in non-grain feedstock production. There have been no new investments and new cellulosic plants opened since before EPA released its proposed 2014-2016 rule. The proposed 2017 rule sets blending requirements far too low to stimulate new plant investment. [EPA-HQ-OAR-2016-0004-1729-A1 p.4]

Herbers Farms

support ethanol in your final Renewable Fuel Standard rule for 2016. [EPA-HQ-OAR-2016-0004-2731-A1 p.1]

Highwater Ethanol

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-2016-0004-1662-A1 p.3]

Holmes, Steve

The report issued by the EPA's Office of the Inspector General on August 18, "EPA Has Not Met Certain Statutory Requirements to Identify Environmental Impacts of Renewable Fuel Standard," brings concerning revelations to light regarding the integrity, viability and effectiveness of U.S. biofuel mandates that must be considered as 2017 renewable fuel volume requirements are finalized. [EPA-HQ-OAR-2016-0004-3600-A1 p.1]

In failing to comply with the "requirement to provide a report every 3 years to Congress on the impacts of biofuels," the EPA has deprived stakeholders of information "needed to fully inform the EPA, Congress and other stakeholders of the environmental impacts of U.S. biofuel policy." [EPA-HQ-OAR-2016-0004-3600-A1 p.1]

Independent Fuel Terminal Operators Association (IFTOA)

With the proposal to establish higher standards for 2017, EPA is attempting to compel significant changes in the market and push substantially greater volumes of renewable fuel into the transportation pool. This approach is not consistent with the statutory structure created for the RFS Program. [EPA-HQ-OAR-2016-0004-1823-A1 p.2]

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 Agency should, therefore, adopt a more balanced approach taking into account its desire for more renewable fuel to be sold and used as well as current market constrain [EPA-HQ-OAR-2016-0004-1823-A1 p.3]

Indiana Grocery and Convenience Store Association (IGSCA)

I believe the best solution is for Congress to fix RFS through legislation. [EPA-HQ-OAR-2016-0004-1661-A1 p.1]

Indiana Retail Council

I believe the best solution is for Congress to fix RFS through legislation. [EPA-HQ-OAR-2016-0004-2066 p.2]

Iowa Farm Bureau Federation (IFBF)

IFBF urges EPA to reverse its decision and maintain the volume standards in order to meet the targets indicated in the Energy Independence and Security Act (EISA) of 2007. [EPA-HQ-OAR-2016-0004-1653-A1 p.1]

A reduction in volume requirements would slow or halt investments in the infrastructure needed to distribute and dispense larger volumes of biofuels. This proposal would halt new investments in cellulosic biofuels and introduce detrimental ambiguity in a market that is still developing. [EPA-HQ-OAR-2016-0004-1653-A1 p.2] [These comments can also be found in Document number EPA-HQ-OAR-2016-0004-3559 p.220.]

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 statutorily 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 expressed intent of Congress. [EPA-HQ-OAR-2016-0004-1718-A1 p.1]

Kendall Cabinets Inc.

the best solution is for Congress to fix RFS through legislation [EPA-HQ-OAR-2016-0004-1755-A1 p.1]

Kentucky Corn Growers Association

We raise strong concern in EPA's proposed decision to scale back the RVO volumes because it violates the law, and breaks the integrity of this very successful policy. We support the RFS and its intended purpose; we do not want to see this historic legislation compromised. [EPA-HQ-OAR-2016-0004-1805-A1 p.1]

Kisiel, John

I believe the best solution is for Congress to fix RFS through legislation. [EPA-HQ-OAR-2016-0004-1495-A1 p.1]

Liebrecht Manufacturing

The Environmental Protection Agency's proposal falls well short of the volume requirements written into the RFS and, even more troubling, well below the capabilities of the American Farmer and Ethanol industry. [EPA-HQ-OAR-2016-0004-2756-A1 p.1]

Lightner Farms, Inc.

We marvel at what ethanol production has done for our family farm business, our rural economy and the global environment. More jobs, reduced emissions, an incentive for auto manufacturers to produce environmentally friendlier vehicles, and a pathway to cellulosic ethanol. I believe that these outcomes would not have happened without the boost provided by the RVO and other RFS components. [EPA-HQ-OAR-2016-0004-2759-A1 p.1]

Lippold Strategies, LLC

the Proposed Rule's mandated growth in renewable volumes is untenable and is a destabilizing the marketplace. [EPA-HQ-OAR-2016-0004-1739-A1 p.5]

Mass Comment Campaign sponsored by Absolute Energy (Paper) - (60)

We must not retreat from the goals of the RFS and embrace the status quo of foreign oil and fossil fuels for our growing energy needs. It is time we start thinking of tomorrow and invest in 21st century fuels for 21st century vehicles. [EPA-HQ-OAR-2016-0004-1359-A1 p.1]

Mass Comment Campaign sponsored by Absolute Energy LLC (Paper) - (196)

This proposed rule signals that the government no longer places priority on the production of biofuels. This uncertainty puts the future of investment, growth and innovation in renewable fuels at risk. [EPA-HQ-OAR-2016-0004-1361-A1 p.1]

Mass Comment Campaign sponsored by American Ethanol (Paper) - (22)

We must move forward, not backward, when it comes to supporting and developing alternatives to fossil fuels and foreign oil. [EPA-HQ-OAR-2016-0004-3348-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 18 (email) - (45)

I am writing in support of the Renewable Fuel Standard (RFS), and I hope you will consider my comments when finalizing the 2017 proposed RFS RVO rule. [EPA-HQ-OAR-2016-0004-1364-A1 p.1]

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. It is time we start thinking of tomorrow and invest in 21st century fuels for 21st century vehicles. [EPA-HQ-OAR-2016-0004-1364-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 21 (USB) - (500,292)

The Renewable Fuel Standard has contributed to higher food and grocery costs, puts our economy at risk, and could lead to damage in vehicles and small engines. [EPA-HQ-OAR-2016-0004-1635-A1 p.1]

It is unpopular with the public. It is a failed policy and it should be repealed by Congress. [EPA-HQ-OAR-2016-0004-1635-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-2016-0004-1635-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-2016-0004-1635-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 10 (email) - (771)

This policy is making America stronger. After years of success from the RFS, we must not turn back the clock of progress. We must capitalize on our current success and continue to invest in the future development and commercial scale production of next-generation biofuels and put an end to shipping billions of dollars overseas to build up nations such as Saudi Arabia and Venezuela. [EPA-HQ-OAR-2016-0004-1166-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 11 (238)

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. It is time we start thinking of tomorrow and invest in 21st century fuels for 21st century vehicles. [EPA-HQ-OAR-2016-0004-1167-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 12 (email) - (106)

While the EPA's proposal is a step forward from last year's rule, it sends the wrong message and signals that EPA is not committed to supporting biofuels to the fullest extent. As you move forward in putting together a final rule, I hope you will consider the message that your rulemaking sends to the producers and consumers of biofuels. Industries across the country and around the world are increasingly committed to the well-being of the environment and to innovation that serves to remedy environmental issues. I urge you to finalize a rule that enforces the RFS at statutory levels and allows higher ethanol blends access to the marketplace. [EPA-HQ-OAR-2016-0004-1168-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 14 (email) - (406)

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 trajectory based on the supply of renewable fuel and ambitious goals to reduce our dangerous dependence on foreign oil and not let the program be held captive by obligated parties and their unwillingness to allow higher ethanol blends into the marketplace. [EPA-HQ-OAR-2016-0004-1171-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 15 (email) - (22)

The RFS has been a tremendous success. It has stimulated dramatic growth in the domestic production of renewable fuels, revitalized rural communities, reduced the emissions of greenhouse gases and harmful tailpipe pollutants, and lowered consumer fuel prices. The RFS has introduced healthy competition into the fuel market and has worked effectively to reduce petroleum consumption. In fact, net petroleum import dependence has been cut in half since the original RFS was adopted in 2005. [EPA-HQ-OAR-2016-0004-1357-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 16 (paper) - (34)

I am writing in support of the Renewable Fuel Standard (RFS). I hope you will consider my comments when making your decision on the 2017 proposed RFS RVO rule. [EPA-HQ-OAR-2016-0004-1360-A1 p.1]

This policy is making America stronger. After years of success from the RFS, we must not turn back the clock of progress. We must capitalize on our current success and continue to invest in the future development and commercial scale production of next-generation biofuels and put an end to shipping billions of dollars overseas to build up nations such as Saudi Arabia and Venezuela. [EPA-HQ-OAR-2016-0004-1360-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 trajectory based on the supply of renewable fuel and our ability to provide it to consumers across the country, such as myself, who are asking for higher blends. [EPA-HQ-OAR-2016-0004-1360-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 17 (email) - (86)

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. [EPA-HQ-OAR-2016-0004-1363-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-2016-0004-1363-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 20 (email) - (13)

As the final rule takes shape, I genuinely hope that you will consider the implications on consumer choice and the investments made by retailers and choose to take RVO levels to statutory levels to meet the reality of what producers, retailers, and consumers are demanding. [EPA-HQ-OAR-2016-0004-1498-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 22 (Web) - (572)

I am writing to oppose the EPA proposed rule (EPAHQ-OAR-2016-0004) which will further increase ethanol volumes beyond acceptable and risk-free levels. [EPA-HQ-OAR-2016-0004-1788 p.1]

The EPA has failed to propose a rule that reflects true market conditions. [EPA-HQ-OAR-2016-0004-1788 p.2]

Mass Comment Campaign sponsored by Anonymous 25 (USB) - (500,291)

It is a failed policy and it should be repealed by Congress. [EPA-HQ-OAR-2016-0004-3347-A1 p.2]

EPA should minimize the damage done by the RFS by reducing the fuel blend standards by as much as the law allows [EPA-HQ-OAR-2016-0004-3347-A1 p.2]

Mass Comment Campaign sponsored by Anonymous 26 (Paper) - (26)

This proposed rule signals that the government no longer places priority on the production of biofuels. This uncertainty puts the future of investment, growth and innovation in renewable fuels at risk. [EPA-HQ-OAR-2016-0004-3553-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 5 (Web) - (355)

First through subsidies and now through fuel mandates and government infrastructure grants, American taxpayers have been made to finance a biofuel program that has not delivered on its key promises. The Renewable Fuel Standard (RFS) has not proven to be a gateway to greener advanced fuels. It is not credited for advancing energy independence and has not reduced emissions or saved taxpayers money. [EPA-HQ-OAR-2016-0004-0114 p.1]

Mass Comment Campaign sponsored by Anonymous 8 (email) - (629)

Please raise the RVOs to statutory levels. [EPA-HQ-OAR-2016-0004-0556-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 9 (email) - (931)

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-2016-0004-1165-A1 p.1]

Mass Comment Campaign sponsored by Biodiesel.org (email) - (397)

This is exactly what Congress intended when it created the RFS, and we can do far more with additional growth in the volumes set by EPA. [EPA-HQ-OAR-2016-0004-0554-A1 p.1]

Mass Comment Campaign sponsored by Central Indiana Ethanol (CIE) (email) - (60)

The RFS has been a tremendous success. It has stimulated dramatic growth in the domestic production of renewable fuels, revitalized rural communities, reduced the emissions of greenhouse gases and harmful tailpipe pollutants, and lowered consumer fuel prices. The RFS has introduced healthy competition into the fuel market and has worked effectively to reduce petroleum consumption. In fact, net petroleum independence has been cut in half since the original RFS was adopted in 2005. [EPA-HQ-OAR-2016-0004-1701-A2 p.1]

The RFS is intended to change the way oil companies do business and spur investment in cleaner, lower carbon, domestic fuels like ethanol and the infrastructure necessary to accommodate higher biofuel blends. The RFS was designed to give American consumers more choices at the pump and lower gas prices, and to utilize ethanol as more than just a gasoline additive with octane boosting value. But EPA's 2017 proposal fails to break the so-called "blend wall" or spur greater infrastructure investment and meaningful marketplace change. [EPA-HQ-OAR-2016-0004-1701-A2 p.2]

Mass Comment Campaign sponsored by DENCO II, employees (Paper) - (17)

As an employee of DENCO II, LLC in Morris, MN I am writing you with concern regarding the recent proposed rule for the 2017 Renewable Volume Obligations (RVOs) as required under the Renewable Fuel Standard (RFS). [EPA-HQ-OAR-2016-0004-1362-A1 p.1]

stay the course on the RVO's for 2017 and beyond. [EPA-HQ-OAR-2016-0004-1362-A1 p.2]

Mass Comment Campaign sponsored by DENCO II, investors (Paper) - (12)

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-2016-0004-1967-A1 p.1]

Mass Comment Campaign sponsored by Energy Citizens (Paper) - (37,706)

I am strongly opposed to unreasonable Renewable Fuel Standard ethanol and biofuel mandates that put too much alternative fuel in our gasoline and diesel. I encourage you to set biofuels limits at levels that make sense and to rethink your proposal for 2017 volume levels. [EPA-HQ-OAR-2016-0004-1966-A1 p.1]

Mass Comment Campaign sponsored by ethanol producers 1 (email) - (444)

We must not retreat from the goals of the RFS and embrace the status quo of foreign oil and fossil fuels for our growing energy needs. It is time we start thinking of tomorrow and invest in 21st century fuels for 21st century vehicles. [EPA-HQ-OAR-2016-0004-0555-A1 p.1]

Mass Comment Campaign sponsored by Growth Energy (Paper) - (110)

We must move forward not backward, when it comes to supporting and developing alternatives to fossil fuels and foreign oil. [EPA-HQ-OAR-2016-0004-1501-A1 p.1]

This policy is making America stronger. After years of success from the RFS, we must not turn back the clock of progress. We must capitalize on our current success and continue to invest in the future development and production of a 21st century fuel for 21st century vehicles. [EPA-HQ-OAR-2016-0004-1501-A1 p.1]

I would ask that you return the RFS to a program based on the supply of a renewable fuel. [EPA-HQ-OAR-2016-0004-1501-A1 p.1]

Mass Comment Campaign sponsored by Iowa Renewable Fuels Association 1 (Paper) - (3,330)

I am strongly opposed to EPA's latest proposal to slash the RFS levels. [EPA-HQ-OAR-2016-0004-1500-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-2016-0004-1500-A1 p.1]

Mass Comment Campaign sponsored by Iowa Renewable Fuels Association 2 (Paper) - (404)

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-2016-0004-1499-A1 p.1]

Mass Comment Campaign sponsored by Michigan Corn Growers Association (Web) - (43)

I strongly oppose the proposed RVO rule. The proposal thwarts the law and reduces the amount of homegrown ethanol in the Renewable Fuels Standard (RFS). [EPA-HQ-OAR-2016-0004-2021-A1 p.1]

Mass Comment Campaign sponsored by Missouri Corn Growers Association (paper) - (233)

Tell EPA: DON'T MESS WITH THE RFS [EPA-HQ-OAR-2016-0004-1705-A1 p.1]

As a corn farmer, I strongly oppose the proposed RVO rule. The proposal thwarts the law and reduces the amount of homegrown ethanol in the Renewable Fuels Standard (RFS). [EPA-HQ-OAR-2016-0004-1705-A1 p.1]

The RFS works. Our air is cleaner and our country is more energy independent. Raise the RVOs to statutory levels. [EPA-HQ-OAR-2016-0004-1705-A1 p.1]

Mass Comment Campaign sponsored by National Corn Growers Association 1 (Paper) - (459)

your refusal to follow the statute of the RFS is limiting access to renewable fuels for consumers. [EPA-HQ-OAR-2016-0004-1973-A1 p.1]

Mass Comment Campaign sponsored by National Corn Growers Association 3 (Paper) - (5,020)

The RFS reduces the total quantity of gasoline consumed in the U.S., thereby helping to stabilize the energy marketplace and better insulate consumers from price manipulation by foreign oil cartels. [EPA-HQ-OAR-2016-0004-2887-A2 p.1]

I strongly urge you to fully implement the Renewable Fuel Standard as passed by Congress. [EPA-HQ-OAR-2016-0004-2887-A2 p.1]

Mass Comment Campaign sponsored by National Corn Growers Association 4 (Paper) - (5,719)

I strongly oppose the proposed Renewable Volume Obligation (RVO) rule. The proposal thwarts the Renewable Fuel Standard (RFS) and reduces the amount of homegrown ethanol available for consumers across the country. [EPA-HQ-OAR-2016-0004-2883-A1 p.2]

Please follow the law and raise the RVO to statutory levels. [EPA-HQ-OAR-2016-0004-2883-A1 p.3]

Mass Comment Campaign sponsored by National Corn Growers Association 5 (Web) - (11,047)

a fully realized RFS that a bipartisan congress passed will put money back in the pockets of hard-working Americans. [EPA-HQ-OAR-2016-0004-2888-A2 p.1]

I strongly urge you to fully implement the Renewable Fuel Standard as passed by Congress. [EPA-HQ-OAR-2016-0004-2888-A2 p.1]

Mass Comment Campaign sponsored by National Corn Growers Association 6 (Web) - (41,744)

I strongly urge you to fully implement the Renewable Fuel Standard as passed by Congress. [EPA-HQ-OAR-2016-0004-0400 p.1]

Mass Comment Campaign sponsored by Nebraska Corn Board (Paper) - (105)

The RFS works and we ask that you maintain the renewable volume obligation (RVO) levels as Congress intended for 2017. Now is NOT the time to move our commitment to consumers and the biofuels industry backwards. [EPA-HQ-OAR-2016-0004-1503-A1 p.1]

Mass Comment Campaign sponsored by North Dakota Energy Forum (Paper) - (41)

Therefore, we believe the best solution, in the long-run, is for Congress to fix RFS through legislation. [EPA-HQ-OAR-2016-0004-1789-A1 p.1]

Mass Comment Campaign sponsored by North Dakota Energy Forum (Paper) - (41)

We support sound policies that reduce our oil imports and reduce our greenhouse gas emissions, as the RFS was originally designed to do. [EPA-HQ-OAR-2016-0004-1789-A1 p.1]

Mass Comment Campaign sponsored by Plymouth Energy (paper) - (83)

We must not retreat from the goals of the RFS and embrace the status quo of foreign oil and fossil fuels for our growing energy needs. It is time we start thinking of tomorrow and invest in 21' century fuels for 21" century vehicles. [EPA-HQ-OAR-2016-0004-1704-A1 p.1]

Mass Comment Campaign sponsored by POET Biorefining 3 (Paper) - (4,304)

Please support renewable fuel standard [EPA-HQ-OAR-2016-0004-2879-A1 p.1]

Follow the RFS set in 2007[EPA-HQ-OAR-2016-0004-2879-A1 p.2]

Mass Comment Campaign sponsored by POET Biorefining 4 (Paper) - (400)

increasing the amount of biofuels produced will create a better life for my daughter in the long run whether that be from cleaner air to lower prices at the pump. [EPA-HQ-OAR-2016-0004-2880-A1 p.1]

Mass Comment Campaign sponsored by POET Biorefining 6 (Paper) - (60)

We are writing with the hope that the EPA will look favorably on Renewable Volume Obligation in the Renewable Fuel Standards [EPA-HQ-OAR-2016-0004-2428-A1 p.1]

Mass Comment Campaign sponsored by U.S. Veterans (email) - (51)

By not sticking to the renewable fuel levels written into law by Congress, EPA's proposal turns away from the progress that has been made under the RFS [EPA-HQ-OAR-2016-0004-1358-A1 p.1]

I would ask that you return the RFS to a trajectory based on the 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-2016-0004-1358-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. [EPA-HQ-OAR-2016-0004-1358-A1 p.1]

Michigan Farm Bureau (MFB)

Michigan Farm Bureau opposes EPA's 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-2016-0004-1822-A1 p.1]

Mid-Missouri Energy

After reviewing relevant data (production capacity, inventory, gas demand, RIN balance, etc.), I am convinced that the United States can adhere to the statutory volumes for conventional ethanol. [EPA-HQ-OAR-2016-0004-0074-A1 p.1]

the facts show that the original conventional blending targets can be achieved as was intended by Congress when the RFS was implemented. [EPA-HQ-OAR-2016-0004-0074-A1 p.2]

I request that EPA not lower the conventional ethanol blending targets below statutory levels. [EPA-HQ-OAR-2016-0004-0074-A1 p.2]

Midwest AgEnergy Group LLC

We believe the proposed RVO is inconsistent with the intent of the RFS [EPA-HQ-OAR-2016-0004-1738-A1 p.1]

Minnesota Bio-Fuels Association, Inc. (MBA)

Follow the actual Congressional intent with respect to implementation of the RFS. Anything less than the Renewable Volume Obligations (RVOs), including for conventional renewable ethanol, fails to give meaning to Congressional intent. Keeping the RFS and RVOs on track as set forth in the law will fulfill the intent of Congress and thereby move the Nation to greater use of renewable biofuels. [EPA-HQ-OAR-2016-0004-1871-A1 p.2]

Comply with the RVOs to fulfill the objectives stated by EPA and clearly expressed by Congress. [EPA-HQ-OAR-2016-0004-1871-A1 p.10]

Minnesota Corn Research and Promotion Council

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.128]

I ask the EPA -- I ask that the EPA does not -- does the same and follows the RFS, including conventional corn ethanol, as Congress originally intended.

Minnesota Farm Bureau

MFBF urges EPA to reconsider its proposed rule and meet the targets set by Congress in the Energy Independence and Security Act (EISA) of 2007. [EPA-HQ-OAR-2016-0004-2521-A1 p.1]

Minnesota Farmers Union

support of increasing the proposed 2017 Renewable Volume Obligations (RVOs) under the Renewable Fuel Standard (RFS) to Congress' original intent. [EPA-HQ-OAR-2016-0004-1784-A1 p.1]

Minnesota Soybean Processors (MnSP)

This proposal falls far short of the goals and requirements Congress and the President established in enacting the 2007 Energy Independence and Security Act. [EPA-HQ-OAR-2016-0004-1829-A1 p.2]

Missouri Chamber of Commerce and Industry

We believe that Congress should fix the RFS through legislation. [EPA-HQ-OAR-2016-0004-2688-A1 p.1]

Missouri Corn Growers Association (MCGA)

If the proposed 2017 Renewable Volume Obligation's (RVO) were to be implemented, it would be in direct violation of the statute and intent of this critical energy policy. [EPA-HQ-OAR-2016-0004-1782-A1 p.1]

MCGA continues to believe EPA misinterpreted the statute (for reasons outlined in legal briefs), however, it is important to note that EPA's 2017 proposed rule also fails to explain how decreasing RFS levels based on constraints in the marketplace will meet acknowledged Congressional intent to overcome constraints in the marketplace. [EPA-HQ-OAR-2016-0004-1782-A1 p.4]

Missouri Marine Dealers Association and the Lake of the Ozarks Marine Dealers Association

we wish to go on record in opposition to the EPA's proposed changes to the RFS. [EPA-HQ-OAR-2016-0004-2684-A1 p.1]

We believe that Congress should fix the RFS through legislation. [EPA-HQ-OAR-2016-0004-2684-A1 p.1]

Missouri Office of the Attorney General

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.91]

we're concerned that EPA's proposal to set volume requirements below the applicable level specified in statute, based in part on a reason not expressly contemplated by the statute itself, limits the program from reaching its full potential.

Mobley, Kevin

1. 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. [EPA-HQ-OAR-2016-0004-0186 p.1]

National Biodiesel Board

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.214-217]

First, Congress wrote the law rather clearly as to what it expected EPA to do on an annual basis with the RVO volumes. In our view, EPA is required to ensure the statutory volumes.

Congress wanted the country to move toward the volume it set, and EPA's approach is too limiting.

National Chicken Council (NCC)

However, NCC requests that EPA use its waiver authority to make further reductions in the overall biofuel use volumes in order for the implied conventional biofuels volume obligation to be lowered to reflect the role of the conventional biofuel implied mandate that was envisioned by Congress under the projected scenario presented at the time EISA was crafted. [EPA-HQ-OAR-2016-0004-1676-A1 p.1]

In short, EPA's proposal to set the 2017 implied conventional ethanol mandate above the blendwall reignites the food versus fuel inequity inherent in the structure of the RFS. [EPA-HQ-OAR-2016-0004-1676-A1 p.5]

15 Billion Gallon Cap and Exports

It is now all the more critical that EPA adopt appropriate standards in the 2017 proposed rulemaking and consider the impact of ethanol exports on U.S. food and feed security by setting a volume obligation that will not leverage ethanol production beyond the 15 billion gallon cap envisioned by Congress in the EISA statute. [EPA-HQ-OAR-2016-0004-1676-A1 p.8]

National Farmers Union (NFU)

Unfortunately, since 2014, EPA has not acted as proper stewards of the program, foregoing environmental benefits in the short term and hindering economic development and even greater environmental benefits in the long term. This proposed rule continues this regrettable trend. [EPA-HQ-OAR-2016-0004-1651-A1 p.2]

EPA attempts to use waiver authority that it does not have to reward the obligated parties for resisting the changes they are required to make, an outcome that is even more offensive since these interests have been awarded an undeserved “grace period” since 2014...the preamble to the proposed rule...lists the low number of retail stations selling these blends as a major contributor to the saturation problem, but it is a problem which the obligated parties maintain the authority to address. [EPA-HQ-OAR-2016-0004-1651-A1 p.2]

Rather than hold the obligated parties accountable for their failure to take steps necessary to comply with the EPCA and EISA, EPA chooses to stymie strong renewable fuel investments made by the U.S. Department of Agriculture (USDA) and punish farmers and renewable fuel producers for expecting EPA to rightfully enact the volume standards set by Congress in 2005 and 2007. [EPA-HQ-OAR-2016-0004-1651-A1 p.2]

National Sorghum Producers (NSP)

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. [EPA-HQ-OAR-2016-0004-1785-A1 p.2]

Nebraska Farm Bureau Federation

NFBF 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-2016-0004-2693-A1 p.1]

NFBF is also concerned about the proposed rule and its impact on our country’s commitment to advanced biofuels. [EPA-HQ-OAR-2016-0004-2693-A1 p.2]

Nebraska Farmers Union

“NeFU supports expanding the Renewable Fuels Standard (RFS) to set an ambitious mandate for production of biofuels to make up one-third of the nation’s fuel supply as soon as possible. This should include separate mandates of production for each form of biofuel, including cellulosic ethanol and biodiesel. [EPA-HQ-OAR-2016-0004-1688-A1 p.1]

Nebraska Farmers Union supports keeping the original RFS production targets in place, and encourages EPA to keep the original RFS production targets in place.” [EPA-HQ-OAR-2016-0004-1688-A1 p.2]

NeFU implores EPA to adjust their proposed Renewable Fuels Standard volume obligations for 2017 to be consistent with the mandated levels established by Congress in 2007. [EPA-HQ-OAR-2016-0004-1688-A1 p.3]

Newport Biodiesel

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.82]

EPA should recognize and emphasize that the primary objective of the RFS is to reduce greenhouse gas emissions through the use of advanced biofuels.

North Dakota Farmers Union

Recent wavering on the RFS has caused enormous setbacks in renewable development. But the final rule offers EPA another chance to regain some lost ground, and NDFU would be supportive of such efforts. [EPA-HQ-OAR-2016-0004-1819-A1 p.3]

Novozymes

EPA must get the policy back on track in 2017 with a strong RVO that drops the use of the distribution waiver because the reasons that Congress adopted the RFS have not changed: [EPA-HQ-OAR-2016-0004-1628-A1 p.1]

“Reduce U.S. consumption of imported, expensive, polluting, non-renewable fuel

“Strengthen the U.S. agricultural economy and increase productivity

“Increase transportation fuel efficiency

“Reduce GHG emissions

“Invest in renewable energy in the U.S. [EPA-HQ-OAR-2016-0004-1628-A1 p.1]

In the 2017 RVO final rule, the Administration should return to its historical and statutory administration of the RFS: [EPA-HQ-OAR-2016-0004-1734-A1 p.1]

EPA must allow the program to work as intended

The RFS is rooted in the idea that companies like ours would develop cutting-edge technology for renewable fuels to solve energy security, climate change and health challenges; obligated parties would then blend those renewables into our fuel supply and offer them to consumers. We did our part but the oil companies have not done their part. They are now getting rewarded by being released from their obligations. What incentivizes companies to invest in clean energy technologies if the rules change in the middle of the game? This Administration should hold obligated parties responsible for clean air regulations and as a result, companies will once again

be incentivized to invest in renewable fuel technologies in the U.S. [EPA-HQ-OAR-2016-0004-1734-A1 p.5]

In its final rule for the 2017 RVO, I urge the Administration to act boldly and return the RFS to its original intent. [EPA-HQ-OAR-2016-0004-1734-A1 p.5]

Ohio Spirits Association

the best solution is for Congress to fix RFS through legislation. [EPA-HQ-OAR-2016-0004-2252 p.2]

Pacific Ethanol

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.148]

encourage the EPA to stick to the statutory levels

Pasco Chamber of Commerce

The Renewable Fuel Standard has been based on a number of flawed assumptions. [EPA-HQ-OAR-2016-0004-0245-A1 p.1]

the best course of action is for Congress to fix RFS legislatively. [EPA-HQ-OAR-2016-0004-0245-A1 p.1]

Pennington-Peine, Nicholas

I believe that one of the primary purposes that Congress intended with the RFS was to provide a mandate that allows other fuels, such as ethanol, an opportunity to compete against the monopolistic control provided for gasoline. [EPA-HQ-OAR-2016-0004-3303-A1 p.1]

Once a true free-market is established, then the RFS won't be needed any longer. [EPA-HQ-OAR-2016-0004-3303-A1 p.1]

Pennsylvania State Senate, 50th District

elected officials in Congress are the ones that need to begin this debate and address the RFS through legislation, not regulation. [EPA-HQ-OAR-2016-0004-2202-A1 p.2]

Plymouth Energy

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.38]

I ask you today as a producer to keep the RFS vital and healthy and strong at mandated levels.

Porter, Gary

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.210]

By not enforcing the statutory levels set by Congress, big oil will continue its stranglehold on the marketplace.

Ray-Carroll Fuels, LLC

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.117]

I would encourage the EPA to uphold the RFS and maintain the blend levels Congress called for in the law.

Renew Kansas

The EPA's proposed rule is inconsistent with Congress' intent to provide consumers with greater access to renewable fuel. [EPA-HQ-OAR-2016-0004-1668-A1 p.3]

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. [EPA-HQ-OAR-2016-0004-1668-A1 p.3]

[Similar comments can also be found in Docket Number EPA-HQ-OAR-2016-0004-3558 p.42.]

Renewable Fuels Association (RFA)

purpose of this program is to gradually expand the availability and use of renewable fuels by "replac[ing] or reduc[ing] the quantity of fossil fuel present in transportation fuel."⁷⁰ [EPA-HQ-OAR-2016-0004-1695-A2 p.29]

⁷⁰ Clean Air Act § 211(o)(1)(J) (defining renewable fuel to mean "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)) (codified at 42 U.S.C. § 7545(o)(1)(J)).

Rocky Mountain Farmers Union

Our policy, which is proposed, debated, and adopted by farmers and ranchers, is in strong support of the Renewable Fuel Standard (RFS) as created by the Energy Policy Act of 2005 and enhanced by the Energy Independence and Security Act of 2007 (EISA). [EPA-HQ-OAR-2016-0004-1836-A2 p.1]

We ask the EPA step up and fully support the intent of the RFS in 2005 EPAct and 2007 EISA. [EPA-HQ-OAR-2016-0004-1836-A2 p.2]

Schnitker Law office, P. A.

Overall I oppose any ethanol RFS mandates and certainly any increases that are bad for consumers and the environment. [EPA-HQ-OAR-2016-0004-1802-A1 p.1]

Small Refinery Owners Ad Hoc Coalition

The Proposed Rule has replaced dependence on foreign oil with dependence on foreign biofuels, contrary to Congress' intent and promoting foreign businesses at the expense of U.S. companies. [EPA-HQ-OAR-2016-0004-2364-A1 p.32]

The EIA projected 159 billion gallons of gasoline consumption in 2016 when the Energy Independence and Security Act ("EISA") was passed. The law de facto capped the conventional biofuel requirement at 15 billion gallons, which is evidence that Congress intended for the entire conventional biofuel requirement would be met through E10 consumption. There was no indication that Congress intended to breach the E10 blendwall to compensate for the lack of growth in other biofuel categories. [EPA-HQ-OAR-2016-0004-2364-A1 p.33]

these reasons include concerns that RFS negatively impacts global food security and the fact that more corn ethanol will increase lifecycle greenhouse gas emissions. [EPA-HQ-OAR-2016-0004-2364-A1 p.33]

South Carolina Association of Taxpayers (SCAT)

the best option is for Congress is to repeal Renewable Fuel Standard through legislation. [EPA-HQ-OAR-2016-0004-1691-A1 p.1]

South Carolina Poultry Federation

we urge the EPA to act within its' authority now to roll back the ethanol mandates for 2017. [EPA-HQ-OAR-2016-0004-1728-A1 p.1]

South Dakota House of Representatives

the proposed rule fails to utilize the RFS' authority to open up the monopolistic stranglehold on transportation fuels enjoyed by Big Oil. [EPA-HQ-OAR-2016-0004-1251 p.1-2]

South Dakota Office of the Governor

the agency's proposed standards fall short of the volume levels Congress felt were appropriate when the law was enacted. Establishing low volume levels, particularly for conventional biofuel, hurts both the renewable fuels industry [EPA-HQ-OAR-2016-0004-0244-A1 p.1]

State of West Virginia, Office of State Treasurer

the best solution is for Congress to fix RFS through legislation. [EPA-HQ-OAR-2016-0004-1752-A1 p.1]

Sweeney, Annette

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.61]

if the EPA gets the RFS back on track, it will undoubtedly have a positive ripple effect not only on the renewable fuels industry, but on the entire ag economy and livestock producers

Union of Concerned Scientists (UCS)

This Renewable Volume Obligation (RVO) proposal adheres closely to the direction laid out in the last years combined RVO for 2014, 2015 and 2016, which is appropriate and provides much needed stability and predictability for the program, both of which are crucial to the long term success of the Renewable Fuel Standard (RFS). We are broadly supportive of the approach EPA has taken, and will not repeat the comments we submitted last year. [EPA-HQ-OAR-2016-0004-1672-A1 p.1]

Unverferth Manufacturing Company

we strongly encourage the EPA to continue with the Renewable Fuel Standards as they were set by a bipartisan mandate in 2007. [EPA-HQ-OAR-2016-0004-2762-A1 p.1]

Van Roekel, Chris

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.125]

I'd like to encourage you to increase the RFS requirements for 2017 and fulfill the congressional target for conventional renewable fuels. And further, I'd suggest that this target be expanded in 2018.

Village Hardware, Inc.

I encourage the EPA to review your ethanol policy. [EPA-HQ-OAR-2016-0004-2761-A1 p.1]

Washington Policy Center

In the long term Congress needs to make dramatic changes to the Renewable Fuel Standard or eliminate it completely. [EPA-HQ-OAR-2016-0004-1669-A1 p.1]

Washington State Senate, 35th Legislative District

Congress reevaluates and legislatively overhauls this misguided policy. [EPA-HQ-OAR-2016-0004-0712-A1 p.1]

White Energy

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.213-214]

We ask that EPA take a progressive approach to truly finding a solution to increase the utilization of renewable fuels in the U.S. They shouldn't pick winners and losers in the renewable fuels industry, but should make meeting the mandated volumes of the RFS a primary initiative.

Wisconsin Biofuels Association (WBA)

EPA should continue to move the program forward per the commitment made by a bipartisan Congress and the President in 2007. While EPA's proposal is a step forward from last year's rule, it sends the wrong message and signals that EPA is not committed to supporting biofuels to the fullest extent. [EPA-HQ-OAR-2016-0004-1638-A1 p.1]

Response:

While Congress did set renewable fuel targets in the statute for each year, it also created flexibility for EPA to modify those targets in specific circumstances through waiver provisions. EPA believes the reductions of cellulosic biofuel in this final rule are required, in light of EPA's projection of cellulosic biofuel production, and that it is also appropriate for EPA to use the cellulosic waiver authority to lower the statutory target volumes for advanced biofuel and total renewable fuel.

EPA believes that the RFS program has and continues to achieve many of the program's goals, including furthering energy independence and providing GHG emissions reduction benefits.

EPA believes there are limits on the production, distribution, and consumption of renewable fuel, and these limits are among the reasons EPA is waiving statutory volumes using the cellulosic waiver authority.

EPA finds that the use of the cellulosic waiver authority only in this rule is appropriate. The resulting volume of advanced biofuel is reasonably attainable and appropriate, not aspirational, and growing from the 2016 volumes. In addition, we have determined that there is adequate

supply to satisfy a total renewable fuel volume requirement derived through use of the cellulosic waiver authority alone. We believe the final volumes in this rule are within what the market can produce and consume as transportation fuel in 2017. EPA is, therefore, not using the general waiver authority to further reduce total renewable fuel volumes, as we had proposed.

EPA believes that the finalized volumes, promulgated in accordance with the statutory deadline, will provide incentives for continued and expanded investments in renewable fuel production and distribution.

EPA also believes that the advanced and total renewable fuel volumes in this final rule will continue to push renewable fuel use, and our use of the cellulosic waiver authority is only to the amount necessary to allow appropriate volumes of advanced biofuels to make up for the shortage in cellulosic. Some commenters urged a “balanced approach” while using the waiver authorities. EPA believes that its approach properly balances renewable fuel growth with various constraints.

With respect to comments citing EIA gasoline consumption projections at the time of EISA’s enactment, together with the conventional biofuel allowance reflected in the statutory volumes tables (discerned by subtracting advanced biofuel volumes from total renewable fuel volume targets), as indicative that Congress did not intend for the RFS program to breach the E10 blendwall, as this would imply the RFS program is specific to ethanol, which is not the case. We note that ethanol can be in either advanced (e.g. sugarcane ethanol) or conventional (e.g., corn ethanol) forms, so the size of the conventional biofuel allowance does not necessarily reflect Congressional assumptions regarding ethanol use. Furthermore, while we have projected that increasing volumes of E15 and E85 will be used in 2017 that would effectively “breach” the E10 blendwall, these volumes are not mandated, and the market could elect to satisfy the final requirements with lower levels of ethanol and increased use of non-ethanol fuels. EPA has finalized volumes that leave space for 15 billion gallons of conventional biofuel. Other commenters suggested the opposite, that RFS was designed by Congress to encourage investment and “[breaking] through the blend wall.” The RFS program has encouraged investment in renewable fuels, and the current volumes for 2016 go beyond the blendwall. Other comments suggested that EPA’s role is not to promote renewable fuels, but rather to reasonably implement a complex program while ensuring compliance from industry, and support to consumers. EPA believes that this final rule does both – promote renewable fuels and implement the program in a manner that ensures compliance and does not disadvantage consumers.

We acknowledge that many parties commented urging Congressional action regarding the RFS program; unless and until the statute is amended, EPA will implement the statute in its current form. These comments are outside the scope of this rulemaking.

Some commenters suggested that RINs are only a compliance mechanism, and that the statute does not envision them as also providing incentives for increased renewable fuel production. Congress directed EPA to establish a regulatory program that would include credit provisions. EPA established the RIN system as a means to implement this statutory requirement. It is widely accepted that RIN prices vary with the stringency of the renewable fuel standards, and EPA has determined that RIN value generally operates to incentivize increased renewable fuel production and use. The market will generally determine which renewable fuel types (ethanol, biodiesel,

renewable diesel, CNG, etc.) are produced in response to the incentives provided by the RFS program.

EPA has responded to the August 18 IG Report in a memorandum that can be found on EPA's website at: https://www.epa.gov/sites/production/files/2016-10/documents/_epaoig_16-p-0275_agency_response.pdf. This response addresses the report's recommendations and EPA's response.

The RFS program has resulted in increasing volumes of renewable fuels each year. With this rulemaking, EPA has reached the volume of conventional fuel Congress envisioned, as well as the volume of non-cellulosic advanced biofuel. Additionally, over double the amount of biomass-based diesel Congress required has been used to replace fossil fuel-based diesel fuel.

2. Advanced biofuel, total renewable fuel, and conventional renewable fuel

2.1 Inability to meet statutory targets

Comment:

American Farm Bureau Federation

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-2016-0004-1660-A1 p.1]

American Fuel and Petrochemical Manufacturers (AFPM)

Simple math shows that Congress believed the full 15 billion gallon conventional biofuel mandate would be capable of being consumed as E10, since 161 billion gallons would allow for 16.1 billion gallons of ethanol consumption. However, circumstances have changed. Given declining gasoline consumption, full adoption of E10 nationwide would only allow for about 14 billion gallons of ethanol consumption this year. [EPA-HQ-OAR-2016-0004-1814-A1 p.5]

Anonymous 8

I urge you to reconsider your decision to reduce the Renewable Volume Obligations, as written into the Renewable Fuel Standard. [EPA-HQ-OAR-2016-0004-2405-A1 p.1]

Carbon Green BioEnergy

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.180]

we ask that the EPA reinstate the RVO to the full levels outlined by the bipartisan Congress and the President in 2007.

Carpenter, Judith

reconsider your proposed reduction in the baseline renewable volume obligations and return them to the levels decided upon by Congress in the Renewable Fuel Standard. [EPA-HQ-OAR-2016-0004-3283-A1 p.1]

Corn Producers Association of Texas (CPAT)

CPAT urges you to restore the 2017 Renewable Volume Obligations (RVO) for the Renewable Fuel Standard (RFS) program to the statutory amount and maintain a strong methodology. [EPA-HQ-OAR-2016-0004-1731-A1 p.1]

DENCO II, LLC

DENCO II requests that the EPA return to the statutory requirements as passed into law by Congress in 2007. [EPA-HQ-OAR-2016-0004-1693-A2 p.1]

Iowa Farm Bureau Federation (IFBF)

IFBF opposes the Environmental Protection Agency's (EPA) proposed reduction in the total amount of renewable fuels that must be blended into the nation's fuel supply. This decision severely damages ethanol production and harms further development of advanced biofuels. [EPA-HQ-OAR-2016-0004-1653-A1 p.1]

Maryland Grain Producers Association

Please raise the RVOs to statutory levels. [EPA-HQ-OAR-2016-0004-0845-A1 p.1]

Mass Comment Campaign sponsored by Absolute Energy (Paper) - (60)

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. [EPA-HQ-OAR-2016-0004-1359-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 23 (Paper) - (13)

I am writing to you in support of increasing the 2017 Renewable Volume Obligations (RVOs) under the Renewable Fuel Standard (RFS) to the statutory level of 15 billion gallons. [EPA-HQ-OAR-2016-0004-1970-A1 p.1]

Producers can absolutely produce at the statutory level of 15 billion gallons; consumers have demonstrated a demand for more alternative fuel options and the current auto fleet is equipped to accept higher blends. [EPA-HQ-OAR-2016-0004-1970-A1 p.1]

Mass Comment Campaign sponsored by DENCO II, investors (Paper) - (12)

I know the statutory requirement of 15.0 billion gallons of ethanol can easily be met. EPA even noted in their recent proposal, "To date we have seen no compelling evidence that the nationwide average ethanol concentration in gasoline cannot exceed 10 percent. It's vital that we fight for the highest achievable biofuel targets for America's 2017 fuel mix," [EPA-HQ-OAR-2016-0004-1967-A1 p.1]

Mass Comment Campaign sponsored by ethanol producers 1 (email) - (444)

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. [EPA-HQ-OAR-2016-0004-0555-A1 p.1]

Mass Comment Campaign sponsored by Golden Grain Energy, LLC - (32)

We, the undersigned, dedicated employees of Golden Grain Energy, LLC, respectfully request that the statutory requirements for conventional biofuel under the Renewable Fuel Standard be upheld. [EPA-HQ-OAR-2016-0004-3560-A1 p.1]

The original Renewable Volume Obligation of 15 billion gallons for conventional biofuels established by Congress under the RFS must be upheld. There is no legal, marketplace or consumer rationale for reducing the conventional biofuels level and the ethanol industry has already proven that the RVO levels proposed by EPA are too low. The suggested corn-based ethanol level for 2017 is below what was produced in 2015. [EPA-HQ-OAR-2016-0004-3560-A1 p.1]

Mass Comment Campaign sponsored by Lincolnway Energy LLC (Paper) - (37)

We the employees of Lincolnway Energy, LLC, respectfully request that the statutory requirements for conventional biofuel under the Renewable Fuel Standard be upheld. [EPA-HQ-OAR-2016-0004-1790-A1 p.1]

The original Renewable Volume Obligation of 15 billion gallons for conventional biofuels established by Congress under the RFS should be upheld. There is no legal, marketplace or consumer rationale for reducing the conventional biofuels level and the ethanol industry has already proven that the RVO levels proposed by EPA are too low. The suggested corn-based ethanol level for 2017 is below what was produced in 2015. [EPA-HQ-OAR-2016-0004-1790-A1 p.1]

Mass Comment Campaign sponsored by Little Sioux Corn Processors - (34)

We, the undersigned, dedicated employees of Little Sioux Corn Processors LLLP, respectfully request that the statutory requirements for conventional biofuel under the Renewable Fuel Standard be upheld. [EPA-HQ-OAR-2016-0004-3562-A1 p.1]

The original Renewable Volume Obligation of 15 billion gallons for conventional biofuels established by Congress under the RFS must be upheld. There is no legal marketplace or consumer rationale for reducing the conventional biofuels level and the ethanol industry has already proven that the RVO levels proposed by EPA are too low. The suggested corn-based ethanol level for 2017 is below what was produced in 2015. [EPA-HQ-OAR-2016-0004-3562-A1 p.1]

Mass Comment Campaign sponsored by Michigan Corn Growers Association (Web) - (43)

Please raise the RVOs to statutory levels. [EPA-HQ-OAR-2016-0004-2021-A1 p.1]

Mass Comment Campaign Sponsored by Novozymes (web) - (8)

Congress must leave the RFS alone, and EPA must get the statute back on track in 2017 with a strong RVO that drops the distribution waiver. [EPA-HQ-OAR-2016-0004-0717-A1 p.3]

Mass Comment Campaign sponsored by Plymouth Energy (paper) - (83)

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. [EPA-HQ-OAR-2016-0004-1704-A1 p.1]

Mass Comment Campaign sponsored by POET Biorefining 1 (email) - (401)

In May, the EPA unveiled a proposal that sets Renewable Volume Obligations below the statutory targets and below what the biofuels industry can produce. [EPA-HQ-OAR-2016-0004-1702-A2 p.1]

Mass Comment Campaign sponsored by Siouxland Energy Cooperative - (24)

We, the undersigned, dedicated employees of Siouxland Energy Cooperative, respectfully request that the statutory requirements for conventional biofuel under the Renewable Fuel Standard be upheld. [EPA-HQ-OAR-2016-0004-3561-A1 p.1]

The original Renewable Volume Obligation of 15 billion gallons for conventional biofuels established by Congress under the RFS must be upheld. There is no legal, marketplace or consumer rationale for reducing the conventional biofuels level and the ethanol industry has already proven that the RVO levels proposed by EPA are too low. The suggested corn-based ethanol level for 2017 is below what was produced in 2015. [EPA-HQ-OAR-2016-0004-3561-A1 p.1]

Mass Comment Campaign sponsored by Three Rivers Energy (Paper) - (28)

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. [EPA-HQ-OAR-2016-0004-1968-A1 p.1]

Michigan Farm Bureau (MFB)

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-2016-0004-1822-A1 p.4]

Midwest AgEnergy Group LLC

We believe the proposed RVO is inconsistent with the intent of the RFS and follows previous RVO precedent limiting renewable fuels to a percentage of traditional fuels. [EPA-HQ-OAR-2016-0004-1738-A1 p.1]

Missouri Department of Agriculture

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.68-69]

I would urge you to take a look at the levels. Get those up to the levels that Congress intended for the 2017 year and continue to expand that because Missouri agriculture and U.S. agriculture can support that.

National Corn Growers Association

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-2016-0004-1809-A1 p.7]

National Corn-to-Ethanol Research Center at SIUE

We recommend setting the 2017 requirements for renewable fuel at the levels intended by Congress. [EPA-HQ-OAR-2016-0004-1715-A1 p.2]

National Sorghum Producers (NSP)

The National Sorghum Producers strongly opposes any reduction in renewable volume obligations below statutory levels. [EPA-HQ-OAR-2016-0004-1785-A1 p.1]

North Dakota Ethanol Council (NDEC)

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. [EPA-HQ-OAR-2016-0004-1671-A1 p.2]

Schlueter, Paul

I strongly urge the EPA to adjust the 2017 Renewable Volume Obligations up to the levels set forth by congress in 2007. [EPA-HQ-OAR-2016-0004-0183-A1 p.1]

Schutte, Jay

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.135]

I am here to ask that the RVO levels be kept at the statutory levels.

Union of Concerned Scientists (UCS)

Achieving the ambitious target of 36 billion ethanol equivalent gallons is likely to take until at least 2030, and the targets will eventually be met with fuels that were not precisely what was envisioned in 2007 when the Energy Independence and Security Act was passed. [EPA-HQ-OAR-2016-0004-1672-A1 p.2]

Wisconsin Corn Growers Association

request that the EPA Renewable Volume Obligation (RVO) for 2017 be increased to the statutory level. [EPA-HQ-OAR-2016-0004-1637-A1 p.1]

Response:

Many stakeholders requested that we leave the 2017 volume requirements at the statutory targets. Commenters who took these views generally provided no comments specific to our analysis in the NPRM demonstrating that the 2017 statutory targets cannot be reached with renewable fuel that can be supplied in 2017.

Many stakeholders who requested that the 2017 standards be set at the statutory targets presumed that compliance would require a substantial drawdown of the bank of carryover RINs. As described in Section II.B of the final rule and Section 2.6 of this document, we do not believe it would be appropriate to intentionally draw down the bank of carryover RINs in order to increase the applicable volume requirements for 2017 above the level of renewable fuel that is reasonably attainable.

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. 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, 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, E85 sales in 2015 are estimated to have been 186 million gallons.¹ 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

¹ "Final estimate of E85 consumption in 2015," memorandum from David Korotney to docket EPA-HQ-OAR-2016-0004.

2017 beyond the level that we have finalized.² 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 highs by a significant margin, impacts on fuel prices, a substantial draw-down of the bank of carryover RINs and obligated party non-compliance.

Some stakeholders suggested that setting the 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, despite being reductions from the statutory targets, nevertheless require significant growth compared to the previous year. However, we note that the volume requirements that we are establishing in this final rule are higher than those we proposed, and include an implied volume for conventional renewable fuel of 15.0 billion gallons, equal to the statutory target for 2017.

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

Section 2.3.3:	Production capacity (ethanol)
Section 2.3.6.2:	Vehicles that can use it (E15)
Section 2.3.6.4:	Projected volume (E15)
Section 2.3.7.2:	Vehicles that can use it (E85)
Section 2.3.7.4:	Projected volume (E85)
Section 2.6:	Carryover RINS
Section 2.7.3:	Conventional renewable fuel / corn-ethanol "mandate"

² "Updated Assessment of the Impact of RIN Prices on the Retail Price of E85," Dallas Burkholder, Office of Transportation and Air Quality, US EPA. November 2016. EPA Air Docket EPA-HQ-OAR-2016-0004.

2.2 Waiver authorities

Comment:

National Council of Chain Restaurants (NCCR)

We request that you exercise waiver authority under the statute [EPA-HQ-OAR-2016-0004-2891-A1 p.6]

Response:

EPA believes that the reductions in advanced biofuels are not such that they will send a non-supportive signal to investors in BBD. EPA is reducing volumes in consideration of the capabilities of the market, and the appropriateness of the reductions to achieve the goals of the statute.

EPA is exercising its cellulosic waiver authority to reduce volumes of advanced biofuel and total renewable fuel. EPA believes that the supply of total renewable fuel and advanced biofuel after a reduction using the cellulosic waiver authority is adequate, and thus, EPA does find circumstances exist to justify a further reduction in volumes under the general waiver authority.

2.2.1 General waiver authority

Comment:

Adler's Antique Autos

Automobilists welcome the cellulosic and general waiver authority currently invoked by EPA, and encourage EPA to use this authority to adjust biofuel quantities so the ethanol level in gasoline does not rise above ten percent. [EPA-HQ-OAR-2016-0004-2523 p.1]

American Fuel and Petrochemical Manufacturers (AFPM)

EPA Has Authority to Address E10 Blend Wall and other Constraints on Transportation Fuel [EPA-HQ-OAR-2016-0004-1814-A1 p.32]

American Petroleum Institute (API)

EPA's grant of waivers based on a determination that there is an inadequate domestic supply is a permissible interpretation of the statute, and fully within EPA's authority. [EPA-HQ-OAR-2016-0004-3512-A2 p.3]

Archer Daniels Midland Company (ADM)

not only is 15 billion gallons readily achievable, but setting the statutory requirement would allow EPA to avoid use of a methodology that remains the focus of litigation [EPA-HQ-OAR-2016-0004-1727-A1 p.3]

Biotechnology Innovation Organization (BIO)

EPA thus does not need to rely on, and has no basis for invoking, the general waiver authority to reduce total renewable fuel volumes for 2017. [EPA-HQ-OAR-2016-0004-2721-A1 p.7]

the RFS statute and regulations themselves contain a number of inherent flexibilities that can be used to mitigate or reduce burdens on obligated parties, such as the use of carryover RINs and the option to carry compliance deficits forward. [EPA-HQ-OAR-2016-0004-2721-A1 p.25]

Clean Air Task Force (CATF)

CATF supports EPA's proposal to use its waiver authority to reduce 2017 biofuel volumes below the relevant statutory target levels in the RFS. Given corn ethanol's negative impact on the environment and constraints related to the E10 blend wall, EPA's proposal rightly reduces renewable volume obligations (RVOs) for the conventional (corn ethanol) mandate. [EPA-HQ-OAR-2016-0004-1804-A1 p.1]

DuPont Industrial Biosciences

Consistent with our comments to the agency on the proposed 2014 to 2016 Renewable Volume Obligation rule, we believe EPA lacks statutory authority to grant the waiver it has proposed under Section 211(o)(7)(A)(ii) of the Clean Air Act. [EPA-HQ-OAR-2016-0004-1827-A1 p.4]

The phrase “inadequate domestic supply” in Section 211(o)(7)(A)(ii) unambiguously refers back to “renewable fuel required under paragraph (2).” [EPA-HQ-OAR-2016-0004-1827-A1 p.16]

only when the supply of neat renewable fuel available to obligated parties for blending into transportation fuel is inadequate may the Administrator grant a general waiver under Section 211(o)(7)(A)(ii). [EPA-HQ-OAR-2016-0004-1827-A1 p.17]

EPA did not, however, think the provision ambiguous when it stated in the 2010 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.” Regulation of Fuels and Fuel Additives: Changes to the Renewable Fuel Standard Program, 75 Fed. Reg. 14,698, (Mar. 26, 2010). [EPA-HQ-OAR-2016-0004-1827-A1 p.17]

Comparing Section 211(o)(7)(A)(ii) to other waiver provisions in Section 211 of the Clean Air Act demonstrates that distribution capacity is not a valid justification for invoking the general waiver provision. [EPA-HQ-OAR-2016-0004-1827-A1 p.17]

In Section 211(o)(2)(B)(ii), for example, Congress instructed the Administrator to set renewable fuel requirements for calendar years after 2022—the last year for which the statute prescribes volumes—by analyzing, among other things, “the expected annual rate of future commercial production of renewable fuels” and “the sufficiency of infrastructure to deliver and use renewable fuel.” This provision further demonstrates that, when Congress wanted EPA to consider distribution capacity, it did not mince words and plainly said so. [EPA-HQ-OAR-2016-0004-1827-A1 p.18]

American Trucking makes two things perfectly clear: EPA may consider neither distribution capacity nor costs of compliance in deciding whether to grant a general waiver because of inadequate domestic supply. [EPA-HQ-OAR-2016-0004-1827-A1 p.18]

EPA may not consider costs of compliance in deciding whether to invoke the general waiver provision, which does not expressly enumerate costs of compliance as a relevant factor. [EPA-HQ-OAR-2016-0004-1827-A1 p.19]

As the Supreme Court has recognized, the deletion during a bill’s progression through Congress of the very language that would have authorized a questioned practice “is fairly seen . . . as a deliberate elimination of any possibility” that Congress intended the practice to be permitted under the statute. *Doe v. Chao*, 540 U.S. 614, 622-23 (2004) [EPA-HQ-OAR-2016-0004-1827-A1 p.19]

By enacting the renewable fuel standards, Congress sought “[t]o move the United States towards greater energy independence and security [and] to increase the production of clean renewable fuels.” Energy Independence and Security Act of 2007 (“EISA”), Pub. L. 110-140, 121 Stat. 1492. [EPA-HQ-OAR-2016-0004-1827-A1 p.19]

Congress also gave EPA authority to enforce these penalties through either a civil action or administrative assessment. CAA Section 205(b) and (c). Congress thus adopted a classic carrot-and-stick approach to accomplish its goal of steadily increasing the country’s use of renewable fuels over time, providing both flexibility and incentives but backing everything up with real legal consequences. [EPA-HQ-OAR-2016-0004-1827-A1 p.20]

Granting a waiver based on limitations in distribution capacity would reward heel-dragging by obligated parties and fundamentally undermine the statute’s clear purpose of providing a “jump-start to get [renewable fuels] to the market more quickly.” S. Rep. No. 109-78, at 10 (2005). [EPA-HQ-OAR-2016-0004-1827-A1 p.21]

interpreting Section 211(o)(7)(A)(ii) to permit EPA to issue a waiver based on obligated parties’ failure to make the investments necessary to improve the nation’s distribution capacity for renewable fuels would condone the very behavior Congress sought to change in the statute, fundamentally undermining the statutory purpose. [EPA-HQ-OAR-2016-0004-1827-A1 p.21]

DuPont does not agree with EPA that Section 211(k)(6) is instructive for interpreting the phrase “inadequate domestic supply” in Section 211(o)(7)(A)(ii) of the Clean Air Act. [EPA-HQ-OAR-2016-0004-1827-A1 p.23]

DuPont's judgment is that EPA's analysis is wholly inconsistent with the plain meaning of the text. A regulated party's failure to invest in and adopt new fueling infrastructure when existing laws and regulatory programs are in place that require such action is a prime example of a lack of prudent planning. [EPA-HQ-OAR-2016-0004-1827-A1 p.24]

"Congress chose to expressly differentiate between domestic supply and distribution capacity indicating that each of these elements was to be considered separately. This would indicate that the term inadequate supply, although ambiguous for the reasons discussed above, could in appropriate circumstances be read as more limited in scope." 80 Fed. Reg. 77,437. DuPont absolutely agrees.³⁵ [EPA-HQ-OAR-2016-0004-1827-A1 p.25]

35 EPA's analysis includes a discussion that "inadequate supply of" is applicable to either fuel or oxygenates and the same is true for "distribution capacity". EPA concludes that this underscores the ambiguity in these terms and therefore the agency has the discretion to interpret the application of these terms. DuPont does not agree with this portion of EPA's analysis.

DuPont Industrial Biosciences et al.

continue to believe that EPA's interpretation of the "general waiver" provision of the RFS is contrary to statutory authority. [EPA-HQ-OAR-2016-0004-1824-A1 p.2]

East Kansas Agri-Energy

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.126]

Nothing in the statute allows the EPA to waive required volumes based upon perceived distribution constraints.

Enerkem

EPA's use of a broadened interpretation of the general waiver authority to reduce the total renewable fuel mandate is unwarranted and undermines the RFS intent to incentivize higher blends [EPA-HQ-OAR-2016-0004-1820-A1 p.1]

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-2016-0004-1820-A1 p.1-2]

While Enerkem is a cellulosic ethanol producer, we know that successful commercialization of advanced technologies for producing biofuels from wastes and residues requires continued strong policy support for all biofuels. The levels in EPA's proposal fall short of numeric targets specified in the RFS, and this proposal undermines the RFS's intent to provide a regulatory push for the technical and infrastructure solutions to enable use of higher blends. Greater deployment of E85 and higher blends such as E15 will increase investor confidence which has been eroded by the protracted debate on the blend wall and previously proposed RVOs. We therefore encourage EPA to set the 2017 RVO for advanced and overall renewable fuel at the full statutory volumes in order to incentivize infrastructure development to support roll-out of higher blends. This would also restore certainty to the RFS program, which has been greatly destabilized by EPA's proposed expansion of its waiver authority. [EPA-HQ-OAR-2016-0004-1820-A1 p.2]

HollyFrontier Corporation

express strong support for EPA invoking its general waiver authority under present and future circumstances. [EPA-HQ-OAR-2016-0004-2867-A1 p.1] [Similar comment can also be found in Docket Number EPA-HQ-OAR-2016-0004-3559 p.99]

Independent Fuel Terminal Operators Association (IFTOA)

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-2016-0004-1823-A1 p.5]

Marathon Petroleum Corporation (MPC)

Marathon Petroleum Corporation (MPC) supports EPA's use of the cellulosic and general waiver authorities to reduce the volumes for 2017. [EPA-HQ-OAR-2016-0004-1806-A1 p.3]

Marquis Energy LLC

[The following comment was submitted as testimony at the Kansas City Missouri Public hearing on June 9, 2016. See Docket Number EPA-HQ-OAR-2016-0004-3558 p.148.]

a reduction in miles driven or an increase in average miles per gallon were not cited in the RFS2 as criteria for waiver authority for the EPA.

Minnesota Bio-Fuels Association, Inc. (MBA)

Limit EPA actions to the authority expressed by Congress. Exclude fuel storage and dispensing infrastructure issues from supply factors. [EPA-HQ-OAR-2016-0004-1871-A1 p.11]

Missouri Corn Growers Association (MCGA)

EPA's Use of General Waiver Authority to Reduce 2017 Total RVOs Impermissible [EPA-HQ-OAR-2016-0004-1782-A1 p.4]

EPA's interpretation of the proposed rule is misguided in its attempt to justify reducing total renewable fuel totals based on the perceived ethanol blend wall. Congress simply did not permit EPA with this authority in the RFS. [EPA-HQ-OAR-2016-0004-1782-A1 p.5]

EPA's continued reliance on flawed waiver authority significantly undermines the efficacy of the RFS moving forward and unnecessarily jeopardizes the RFS's ability to drive renewable fuel use to the 36 billion gallons called for in the statute. [EPA-HQ-OAR-2016-0004-1782-A1 p.6]

Missouri Office of the Attorney General

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.93]

Based on a plain reading of the statute, Congress has not appeared to have authorized the Administrator to adjust volume targets based on a concern that the market has not yet invested sufficiently in distribution.

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-2016-0004-1830-A1 p.2]

National Biodiesel Board

Nothing in the statute indicates that Congress gave EPA such broad discretion to reduce the statutory volumes; accordingly, EPA must focus on the potential availability of supply (and specifically, not demand factors) to determine if the statutory volumes should be reduced. [EPA-HQ-OAR-2016-0004-2904-A2 p.60]

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-2016-0004-2904-A2 p.80]

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.214]

we believe EPA continues to misconstrue its waiver authority. EPA is correct that Congress sought to be ambitious in moving the country toward advanced biofuels, but EPA's implementation of its waiver authority falls short.

National Marine Manufacturers Association (NMMA)

NMMA contends that the EPA has the authority, and the obligation, to enact volume metrics below the proposed 14.4 billion volumes of conventional biofuels, and below the proposed 4 billion gallons of advanced biofuels. [EPA-HQ-OAR-2016-0004-1949-A1 p.2]

Nestle Corporate Affairs

Support for the Proposed Rule, Need for Overhaul of RFS

we support EPA's use of its waiver authority with respect to both the cellulosic biofuels mandates – where actual cellulosic biofuel production has fallen significantly short of the RFS mandates¹ – and the other RFS elements, including the total biofuels requirement which implicitly sets the mandate for corn-based ethanol. [EPA-HQ-OAR-2016-0004-1868-A1 p.1]

E15 has failed to demonstrate its viability in the marketplace, providing ample justification of EPA's decision to properly use its statutory waiver authority again this year. [EPA-HQ-OAR-2016-0004-1868-A1 p.3]

North Dakota Farmers Union

We argue that, in this proposed rule, EPA attempts to use waiver authority that it does not have to reward the obligated parties for resisting the changes they are required to make, an outcome that is even more offensive since these interests have been awarded an undeserved "grace period" since 2014. [EPA-HQ-OAR-2016-0004-1819-A1 P.2]

Novozymes

EPA must get the policy back on track in 2017 with a strong RVO that drops the use of the distribution waiver because the reasons that Congress adopted the RFS have not changed: [EPA-HQ-OAR-2016-0004-1628-A1 p.1]

“Reduce U.S. consumption of imported, expensive, polluting, non-renewable fuel

“Strengthen the U.S. agricultural economy and increase productivity

“Increase transportation fuel efficiency

“Reduce GHG emissions

“Invest in renewable energy in the U.S. [EPA-HQ-OAR-2016-0004-1628-A1 p.1]

Remove the distribution waiver and require all eligible renewable fuels produced to be blended and available to consumers. [EPA-HQ-OAR-2016-0004-1734-A1 p.5]

PBF Energy LLC

PBF continues to support the Agency's measured approach to managing the RVO in the Proposed Rule (with some alteration in the required volumes as discussed below) because the Rule reflects an effort by EPA to address certain concerns raised by PBF and numerous other obligated parties with respect to the ethanol blendwall in the various petitions for waiver and prior comments submitted to EPA concerning annual RFS determinations. [EPA-HQ-OAR-2016-0004-2692-A1 p.2]

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-2016-0004-1668-A1 p.2]

Renewable Fuels Association (RFA)

When Used Appropriately, the Cellulosic Waiver Provision Alone Can Enable Implementation of the 2017 RVOs in a Way that is Consistent with Statutory Authorities, Congressional Intent and "Important Realities" in the Marketplace [EPA-HQ-OAR-2016-0004-1695-A2 p.7]

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-2016-0004-1695-A2 p.9]

Because EPA relies on the same fundamentally flawed application of its general waiver authority that it used in setting the 2014-2016 RVOs, we incorporate by reference our comments, and all attachments, in response to EPA's 2014-2016 RVO proposal.⁶⁷ [EPA-HQ-OAR-2016-0004-1695-A2 p.29]

67 RFA. Comments on Renewable Fuel Standard Program: Standards for 2014, 2015, and 2016 and Biomass-Based Diesel Volume for 2017; Proposed Rule (80 Fed. Reg. 33,100). July 27, 2015. Submitted to docket EPA-HQ-OAR-2015-0111.

Shell Oil Products US

We agree that EPA has authority to adjust the advanced and general renewable fuel categories when adjusting the cellulosic category. EPA is also correct to read the cellulosic waiver

provision and the general waiver provision together in a complementary way to give meaning to both. [EPA-HQ-OAR-2016-0004-1725-A1 p.2]

Society of Independent Gasoline Marketers of America (SIGMA) & National Association of Convenience Stores (NACS)

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.31.]

EPA has, we believe, appropriately and legally exercised its waiver authority, and therefore, we urge you to go forward and promptly, in the interest of the markets, finalize the proposal.

Response:

EPA is utilizing its cellulosic waiver authority to adjust volumes of total renewable fuel and advanced biofuels. A full discussion of this authority can be found in Section II. of the final rule, and Section 2.2.2 of this document.

Many commenters suggested that the use of the general waiver authority was not necessary as 15 billion gallons of conventional biofuel was achievable, and 4.2 billion gallons of advanced biofuel was achievable. Taking into consideration updated information received since the NPRM, EPA agrees with these commenters, and finds that it is not necessary to use the general waiver authority to further reduce volumes to resolve a situation where there would be inadequate domestic supply.

Other commenters suggested that EPA's use of the general waiver authority as proposed to reduce volumes of total renewable fuel was appropriate. EPA still finds that its proposed use of the general waiver authority to reduce volumes of total renewable fuel was valid, but now finds that the use of the general waiver authority is not necessary to further reduce volumes of total renewable fuel in 2017. The supply of total renewable fuel is adequate to meet 19.28 billion gallons, the resulting number subsequent to a reduction using the cellulosic waiver authority.

EPA agrees with commenters who suggest that the cellulosic waiver authority and general waiver authority should be read in a fashion that gives meaning to each authority. Thus, EPA disagrees with commenters who suggest that EPA may only reduce volumes under the cellulosic waiver authority when criteria under CAA 211(o)(7)(A) are met. Our interpretation of the cellulosic waiver authority is discussed in Section II of the preamble.

2.2.1.1 Inadequate domestic supply

Comment:

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-2016-0004-1733-A1 p.26]

EPA does not discuss the explicit reference to “the national quantity of renewable fuel” or “paragraph (2)” contained within CAA section 211(o)(7)(A) and instead argues that the definition of supply could be read to include an “adequacy of supply to the ultimate consumer” component based on an analysis of other similar CAA programs. However, going outside of CAA section 211(o)(7)(A) only weakens the agency’s argument that distribution can be read into the definition of supply. [EPA-HQ-OAR-2016-0004-1733-A1 p.27]

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-2016-0004-1733-A1 p.27]

EPA’s argument would seem to introduce legal chaos into the CAA by allowing regulators to count clear textual omissions as implied inclusions. [EPA-HQ-OAR-2016-0004-1733-A1 p.27]

CAA 211(o)(7)(E)(ii) addresses EPA’s authority to waive portions of the biomass-based diesel requirement. It limits EPA’s waiver authority to situations in which “the Administrator determines that there is a significant renewable feedstock disruption or other market circumstances that would make the price of biomass-based diesel fuel increase significantly [.]” [EPA-HQ-OAR-2016-0004-1733-A1 p.27]

Congress also directed EPA to consider distribution capacity in other RFS contexts. In Section 211(o)(2)(B)(ii), for example, Congress instructed the Administrator to set renewable fuel requirements for calendar years after 2022 by analyzing, among other things, “the expected annual rate of future commercial production of renewable fuels” and “the sufficiency of infrastructure to deliver and use renewable fuel.” [EPA-HQ-OAR-2016-0004-1733-A1 p.27]

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-2016-0004-1733-A1 p.28]

In other words, Congress decided not to include “distribution,” “capacity” or any combination thereof in the statute governing the RFS – even though these terms were included in prior drafts of the legislation and are used commonly throughout other parts of the CAA. [EPA-HQ-OAR-2016-0004-1733-A1 p.28]

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.”⁴⁴ 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-2016-0004-1733-A1 p.29]

EPA argues that if Congress did not intend for the agency to define the word “supply” more broadly to mean distribution/supply to consumer, then the only alternative is Congress meant “capacity to produce.” This is a “straw man” argument [EPA-HQ-OAR-2016-0004-1733-A1 p.29]

American Coalition for Ethanol (ACE)

Congress struck “...or inadequate distribution capacity” from the statute so it shouldn’t be applied [EPA-HQ-OAR-2016-0004-1679-A2 p.2]

Congress understood oil companies would exploit “distribution and infrastructure” to confine ethanol blending at ten percent of gasoline demand. [EPA-HQ-OAR-2016-0004-1679-A2 p.3]

American Farm Bureau Federation

While EPA’s proposed rule for 2017 RVOs is an improvement over the final rule for 2014-2016 RVOs, it does makes the same fundamental mistake: EPA again violates the law by inappropriately applying the “general waiver” provision to conventional renewable fuels and suggesting there is an “inadequate supply” to meet the 15 bg statutory requirement. The Clean Air Act does not permit EPA to take into account hypothetical constraints on ethanol distribution, such as the “blend wall,” when determining whether to utilize a general waiver of the volumes. In fact, the Clean Air Act is clear on this point [EPA-HQ-OAR-2016-0004-1660-A1 p.2]

Anonymous 1

Waiving the RFS based on the so-called E10 blend wall violates the law. Congress did not give EPA the authority to reduce the RFS based on perceived infrastructure or distribution capacity concerns. [EPA-HQ-OAR-2016-0004-0531 p.1]

Association of Equipment Manufacturers (AEM)

EPA Lacks Authority to Lower Blend Levels Based on Existing Infrastructure Capabilities and Sets Poor Precedent [EPA-HQ-OAR-2016-0004-0723-A1 p.2]

Biotechnology Innovation Organization (BIO)

As we explained in our comments on the 2014-2016 RFS Proposal, the term “inadequate domestic supply” unambiguously refers to the supply of RFS qualified volumes of renewable fuels. [EPA-HQ-OAR-2016-0004-2721-A1 p.7]

Chevron

Chevron agrees with the Administrator's determination that the blendwall meets the finding of "an inadequate domestic supply" as it is clear that there is an inadequate supply of vehicles capable of operating on ethanol blends above 10% and there is an inadequate supply of service station infrastructure capable of storing and dispensing those ethanol blends. [EPA-HQ-OAR-2016-0004-1684-A1 p.2]

Deere & Company

We believe EPA incorrectly interprets Congressional intent when it proposes to apply the statutory "inadequate domestic supply" waiver-authority to what are in fact, distribution constraints. [EPA-HQ-OAR-2016-0004-1654-A1 p.2]

DuPont Industrial Biosciences

EPA may issue a waiver under Section 211(o)(7)(A)(ii) only where producers in the United States are unable to produce a sufficient quantity of renewable fuel, such as ethanol, to meet the statutory requirements. For this reason, DuPont recommends in our introductory summary that there should be no reduction in Total Renewable Fuel Volumes for 2017 unless EPA has data that all biofuel plants combined cannot produce the RFS statutory volume. [EPA-HQ-OAR-2016-0004-1827-A1 p.16]

Governors' Biofuels Coalition

nothing in the statute allows EPA to waive required volumes based on distribution constraints. The agency also ignored RIN carryover credits that would have easily facilitated compliance with statutory volume requirements. [EPA-HQ-OAR-2016-0004-1729-A1 p.3]

Green Plains

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.175]

waiving the statutory levels of the RFS because of reduced demand may have been justified after 2008 because of the recession, but the justification is gone. Demand is at record level

Highwater Ethanol

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. [EPA-HQ-OAR-2016-0004-1662-A1 p.2]

Illinois Corn Growers Association and Illinois Renewable Fuels Association (ILRFA)

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. [EPA-HQ-OAR-2016-0004-1745-A2 p.1]

Illinois Farm Bureau

Inadequate supply? The 2016 corn market is making plenty of inexpensive feedstock available

Once again, the agency has creatively redefined what constitutes “inadequate supply” for the purposes of dropping the conventional biofuels target before the statutory required 15 billion gallons. [EPA-HQ-OAR-2016-0004-2770-A1 p.1]

The whole unnecessary issue of “inadequate supply” has simply been turned on its head. What’s even more amazing this year than last year is that EPA went through more than its fair share of “inadequate supply” gyrations to come up with a proposed number of 14.8 billion gallons of conventional biofuels to be blended in the 2017 U.S. motor fuel supply. [EPA-HQ-OAR-2016-0004-2770-A1 p.2]

Iowa Corn Growers Association (ICGA)

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. [EPA-HQ-OAR-2016-0004-1726-A1 p.2]

Iowa Office of the Governor

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 the EPA may only issue a general waiver based on a determination that there is “an inadequate domestic supply” and not on other grounds such as distribution capacity. [EPA-HQ-OAR-2016-0004-1747-A1 p.1]

Kimberley, Grant

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 the EPA may only issue a general waiver based on a determination that there is “an inadequate domestic supply” and not on other grounds such as distribution capacity. [EPA-HQ-OAR-2016-0004-3018-A1 p.1]

Marquis Energy LLC

As such, I ask that you revisit your original position indicating that the blend wall and lack of compliance by obligated parties does not qualify as reason to apply a waiver. [EPA-HQ-OAR-2016-0004-3498-A1 p.2]

In conclusion, we strongly urge the EPA to honor their original commitment to the Renewable Fuels Industry, American Agriculture, and the hundreds of other investors who risked so much to make first generation and second-generation biofuels a success. [EPA-HQ-OAR-2016-0004-3498-A1 p.2]

Mass Comment Campaign sponsored by Anonymous 15 (email) - (22)

While EPA's proposed rule for 2017 RVOs is an improvement over the final rule for 2014-2016 RVOs, it does makes the same fundamental mistake: EPA again violates the law by inappropriately applying the "general waiver" provision to conventional renewable fuels and suggesting there is an "inadequate supply" to meet the 15 bg statutory requirement. The Clean Air Act does not permit EPA to take into account hypothetical constraints on ethanol distribution, such as the "blend wall," when determining whether to utilize a general waiver of the volumes. In fact, the Clean Air Act is crystal clear on this point: If the supply of renewable fuel and RIN credits is "adequate" to meet the statutory volumes, then refiners are obligated to distribute those volumes to consumers. EPA's 2017 proposal continues to let those parties off the hook for a portion of their legal obligation. [EPA-HQ-OAR-2016-0004-1357-A1 p.1]

Mass Comment Campaign sponsored by Central Indiana Ethanol (CIE) (email) - (60)

EPA again violates the law by inappropriately applying the "general waiver" provision to conventional renewable fuels and suggesting there is an "inadequate supply" to meet the 15 bg statutory requirement. The Clean Air Act does not permit EPA to take into account hypothetical constraints on ethanol distribution, such as the "blend wall," when determining whether to utilize a general waiver of the volumes. In fact, the Clean Air Act is crystal clear on this point: If the supply of renewable fuel and RIN credits is "adequate" to meet the statutory volumes, then refiners are obligated to distribute those volumes to consumers. EPA's 2017 proposal continues to let those parties off the hook for a portion of their legal obligation. [EPA-HQ-OAR-2016-0004-1701-A2 p.2]

Michigan Farm Bureau (MFB)

EPA again violates the law by inappropriately applying the "general waiver" provision to conventional renewable fuels and suggesting there is an "inadequate supply" to meet the 15 bg statutory requirement. [EPA-HQ-OAR-2016-0004-1822-A1 p.2]

Midwest AgEnergy Group LLC

the manner in which EPA applied "inadequate domestic supply" to the blend wall is much different than other reformulated gas waivers for which EPA cited authority. The producers and suppliers of reformulated gas are also typically the producers/suppliers of traditional gasoline blends and are integrated into retail establishments. In the instance of this RVO waiver the product waived is typically viewed as an additive. Therefore suppliers of biofuels usually are NOT the producers and suppliers of the fuel they seek to replace and therefore have limited access into the retail establishments. [EPA-HQ-OAR-2016-0004-1738-A1 p.2]

We are also asking EPA to consider the potential for correlation to the percentage increase and the EPA enactment of “inadequate domestic supply”. The decrease in rate of infrastructure development is likely related to the perceived lack of need to incorporate higher level blends to meet RVOs. [EPA-HQ-OAR-2016-0004-1738-A1 p.5]

Minnesota Farm Bureau

EPA is inappropriately applying the “general waiver” provision to conventional renewable fuels and suggesting there is not an adequate supply to meet the 15 billion gallon statutory requirement. [EPA-HQ-OAR-2016-0004-2521-A1 p.1]

Minnesota Soybean Processors (MnSP)

EPA unfortunately is using backwards logic; requiring consumers to use the fuel first before requiring it defeats the intent of Congress inherent in EISA, that is, that the U.S. fuel portfolio must change. EPA has fallen victim to the falsehood that there is inadequate supply of RINs thus “supply” because customers are not consuming enough renewable fuel for Obligated Parties to meet their volume obligation; indeed there is more than ample production of advanced biofuels for Obligated Parties to acquire if they were required to blend them at higher levels. [EPA-HQ-OAR-2016-0004-1829-A1 p.2]

Missouri Corn Growers Association (MCGA)

EPA’s interpretation bends the meaning of “supply” well past its breaking point. [EPA-HQ-OAR-2016-0004-1782-A1 p.3]

We believe that applying the waiver authority in this way significantly undermines the program. EPA’s administratively created “reasonably achievable supply” standard – not based in the law – allows obligated parties to continue to circumvent the RFS mandates, which will continue to unnecessarily constrain growth beyond 10 percent ethanol blends. [EPA-HQ-OAR-2016-0004-1782-A1 p.6]

Mobley, Kevin

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. [EPA-HQ-OAR-2016-0004-0186 p.1]

National Biodiesel Board

As previously explained, understanding the purposes and structure of the provisions at issue, Congress chose its words carefully, and it made no mention of consideration of distribution to consumers under the waiver authority. [EPA-HQ-OAR-2016-0004-2904-A2 p.65]

National Corn Growers Association

EPA states, “Our decision to propose volumes for total renewable fuel that rely on using both the cellulosic waiver authority and the general waiver authority is based on the same fundamental reasoning we relied on in the ... 2014-2016 final rule.” NCGA contends that this justification is in direct conflict with the statute. In attempting to justify the proposed use of a “general waiver” to reduce the total applicable renewable fuel volumes, EPA cites “practical and legal constraints on the vehicles that use them” and asserts that distribution and consumption are applicable rationale for granting a waiver. In an effort to provide further rationalization for use of the general waiver, the proposed rule references use of the waiver authority under CAA 211(o)(7)(D)(i) for determination in the 2014-2016 final rule. EPA “determined that the volume of ethanol in the form of E10 or higher ethanol blends such as E15 or E85 that could be supplied to vehicles in 2017, would be insufficient to attain statutory targets...” [EPA-HQ-OAR-2016-0004-1809-A1 p.2]

the Agency’s interpretation of “inadequate domestic supply”—reading conceptions of “consumption” and “distribution” into that phrase—and its adoption of the so- called “blend wall” as a determinant of 2014 RVO levels are contrary to the text, purpose, structure and history of the RFS program. [EPA-HQ-OAR-2016-0004-1809-A1 p.3]

Congress explicitly rejected granting EPA the ability to waive the Standard based on infrastructure concerns. [EPA-HQ-OAR-2016-0004-1809-A1 p.6]

We believe that applying the waiver authority in this way significantly undermines the program. EPA’s administratively created “reasonably achievable supply” standard – not based in the law – allows obligated parties to continue to circumvent the RFS mandates, which will continue to unnecessarily constrain growth beyond 10 percent ethanol blends. [EPA-HQ-OAR-2016-0004-1809-A1 p.6]

National Farmers Union (NFU)

Throughout the preamble to the proposed rule, EPA repeatedly misconstrues constraints in the development of renewable fuels distribution infrastructure as “insufficient supply,” just as it did in the volume requirements for 2014, 2015, 2016, and the BBD requirement for 2017. [EPA-HQ-OAR-2016-0004-1651-A1 p.3-4]

An adequate supply of renewable fuel exists to allow the obligated parties to fulfill the 2017 volume requirements set in the EISA, which means EPA does not have the authority to waive any total renewable fuel volume requirements beyond the amount of cellulosic biofuel waived. [EPA-HQ-OAR-2016-0004-1651-A1 p.4]

In the event that EPA wrongly insists on considering distribution infrastructure in assessing the adequacy of the renewable fuel supply, they have still miscalculated the volume of renewable fuel that can be distributed and consumed. Other entities, such as Growth Energy, are offering evidence that there is more ethanol and biodiesel that EPA should account for if the Agency

properly executed its supply analysis, even under its own incorrect terms. [EPA-HQ-OAR-2016-0004-1651-A1 p.4]

Nebraska Farm Bureau Federation

EPA again violates the law by inappropriately applying the “general waiver” provision to conventional renewable fuels and suggesting there is an “inadequate supply” to meet the 15 bg statutory requirement. [EPA-HQ-OAR-2016-0004-2693-A1 p.2]

If the supply of renewable fuel and Renewable Identification Number credits is “adequate” to meet the statutory volumes, then refiners are obligated to distribute those volumes to consumers. EPA’s 2017 proposal continues to let those parties off the hook for a portion of their legal obligation. [EPA-HQ-OAR-2016-0004-2693-A1 p.2]

Renewable Fuels Association (RFA)

The Clean Air Act does not permit the Agency to take into account perceived constraints on “infrastructure”⁶⁸ or “constraints associated with supplying [i.e., distributing] renewable fuels to the vehicles and engines that can use them”⁶⁹ in determining whether to grant a general waiver based on an “inadequate domestic supply” of renewable fuel. [EPA-HQ-OAR-2016-0004-1695-A2 p.29]

The phrase “inadequate domestic supply” of “renewable fuel” is unambiguous, and requires the Agency to find both an inadequate capacity to produce renewable fuels, along with insufficient carryover RINs available to meet the RVO [EPA-HQ-OAR-2016-0004-1695-A2 p.30]

EPA’s proposed use of its general waiver authority is not supported by the legislative history of the RFS program [EPA-HQ-OAR-2016-0004-1695-A2 p.34]

Other Clean Air Act waiver provisions demonstrate that Congress has clearly distinguished the concept of “supply” from concepts of “distribution”, “consumption”, and the act of “supplying to” [EPA-HQ-OAR-2016-0004-1695-A2 p.35]

68 81 Fed. Reg. 34,785

69 81 Fed. Reg. 34,784

Syngenta

The agency’s belief that “supply” is equivocal to distribution capacity and potential for consumption by American motorists is off the mark. Congressional intent of the RFS was made clear in this regard: if the physical supply of renewable fuels exists to statutory volumes, then the EPA must enforce the uptake of those volumes into the market. [EPA-HQ-OAR-2016-0004-1832-A1 p.2]

The Andersons, Inc.

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.190]

We are confused by the EPA's reluctance to meet Congress's RFS2 requirement of 15 billion gallons of conventional renewable fuels. By waiving a portion of the RVO, the EPA is playing into the hands of the obligated parties who resist compliance with the law.

Congress gave EPA waiver authority based on the occurrence of inadequate supply. Today, the ethanol industry's annualized production capacity exceeds 15 billion gallons.

Western Plains Energy LLC

the EPA is overreaching in applying the interpretation of “inadequate domestic supply” to include their own assessment of the availability of fueling infrastructure. The assessment should simply be limited to availability fuel supply to the market, whereas the EPA is liberally applying the waiver authority to limited availability of fuel supply to the consumer. [EPA-HQ-OAR-2016-0004-1697-A1 p.1]

White Energy

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.212]

The EPA continues to incorrectly claim that there is a lack of supply and distribution capacity for renewable fuels, which is a fallacy.

Response:

As an initial matter, EPA notes that we have not used the general waiver authority to reduce volumes of total renewable fuel for 2017. The reduction in total renewable fuel and advanced biofuels under the cellulosic waiver authority reduces volumes to a level for which there is adequate domestic supply. Some commenters noted that they agreed with our determination in the proposal that there is an inadequate domestic supply of total renewable fuel. EPA has evaluated new information, and now concludes that reductions under the cellulosic waiver authority alleviate any inadequate domestic supply for 2017.

EPA continues to believe that its use of the general waiver authority to reduce volumes for 2014-2016 was justified and necessary. EPA also supports its interpretation of the meaning of “inadequate domestic supply.” To commenters who suggested otherwise, EPA has extensively addressed our use of the general waiver authority in the 2014-2016 rulemaking in the final rule, available at 80 FR 77420, 77433-47, and in the associated response to comments document available on EPA’s website.

Some commenters suggested that there should be no reduction in total renewable fuel volumes for 2017 unless there is data that the volume cannot be produced. We received similar comments on our proposed rule to establish standards for 2014-16. We disagree with this interpretation of the waiver authorities, as described in the preamble to that rule and in the associated response to comments document.

2.2.1.2 Severe economic harm

Comment:

American Petroleum Institute (API)

Whether or not to exercise its waiver authority on the additional ground that lack of a general waiver will cause severe economic harm is an “important aspect of the problem” that EPA should consider. [EPA-HQ-OAR-2016-0004-3512-A2 p.4]

Chevron

EPA should also justify the use of the general waiver authority on a finding of "severe economic harm" as described in the 2012 NERA study [EPA-HQ-OAR-2016-0004-1684-A1 p.2]

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 authority on other grounds to substantially reduce the statutory volumes. In light of our finding that the volumes requirements and associated standards being finalized are reasonably attainable, it follows that the final requirements will not cause severe economic harm, so further reductions on that basis are not necessary.

2.2.1.3 Severe environmental harm

Comment:

Action Aid et al.

As discussed above, there is ample and growing evidence for EPA to lower its final 2017 RVO for total renewable fuels given corn ethanol’s negative impacts on the environment, climate, and food security. [EPA-HQ-OAR-2016-0004-1801-A1 p.2]

If EPA conducted an accurate assessment of the RFS’s negative environmental impacts, as called for by O’Mara, it would find that the conditions exist for EPA to invoke its waiver authority

under Section 211(o)(7)(A)(i) on the basis that the program is severely harming the environment of the United States. [EPA-HQ-OAR-2016-0004-1801-A1 p.3]

DeCicco, John M.

both existing and proposed volumes of renewable fuel required by the RFS are causing severe environmental harm and therefore trigger the waiver provision of CAA Section 211(o)(7)(A)(i). From an environmental protection perspective, the current and future RFS rules should begin a phased reduction of all renewable fuel requirements [EPA-HQ-OAR-2016-0004-1828-A1 p.2]

National Wildlife Federation (NWF)

the cumulative impacts noted above clearly show an immediate and pressing environmental harm that should warrant EPA's invoking its general waiver authority to further lower the mandated level of conventional biofuels [EPA-HQ-OAR-2016-0004-1700-A2 p.5]

[The following comments were submitted as testimony at the Kansas City, Missouri public hearing on June 9, 2016. See Docket Number EPA-HQ-OAR-2016-0004-3559, pp.182-183.]

I argue, in fact, that the industrial-scale corn production required to produce 14 to 18 billion gallons of ethanol does, in fact, harm both the economy and the environment. And I respectfully ask the EPA to fully investigate the links between increasing corn production, nutrient runoff pollution, and the increasing prevalence of harmful toxic algal blooms that lead to degraded water quality.

Response:

Several commenters suggested that EPA should reduce volumes below those proposed using the general waiver authority under a finding of severe environmental harm. These commenters pointed to a range of harms, such as increased fertilizer and pesticide runoffs affecting water bodies (including the Gulf of Mexico and Lake Erie). EPA acknowledges the concerns expressed and agrees with the commenters who noted that when EPA sets volume requirements under the authority of Clean Air Act Section 211(o)(2)(B)(ii), we will be required 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. However, in order to lower volumes under CAA Section 211(o)(7)(A)(i), the Administrator must first determine that implementation of the volumes "would severely harm the economy or environment of a State, a region, or the United States."

EPA has previously interpreted the general waiver provision in CAA Section 211(o)(7)(A) in considering a waiver application from the State of Texas on grounds of severe economic harm.³ Certain aspects of EPA's interpretation in that context would also be relevant to consideration of a waiver on the basis of severe environmental harm. In particular, EPA interpreted the provision

³ See 73 FR 47168 (August 13, 2008).

as requiring that “implementation of the RFS program itself must be the cause of the severe harm.”⁴ It is not enough that the RFS program may “contribute significantly to severe harm, as part of a mix of forces.”⁵ In addition, EPA interpreted the use of “severe” as “indicating a point that is quite far along the continuum of harm”— “a much higher threshold than ‘significant adverse impacts’” and more than “serious,” but less than “extreme.”⁶ Finally, EPA concluded that there must be “a generally high degree of confidence that severe harm would occur from implementation from the RFS.”⁷ In other words, if we do not have a high degree of confidence that we can identify severe harm and causally link it to the RFS program, then exercise of the waiver authority is not appropriate.

While the commenters generally cite to environmental issues which they view as serious or severe and as associated with increased corn cultivation or use of other feedstocks, we do not believe that the information provided by commenters sufficiently establishes, for purposes of CAA Section 211(o)(7)(A)(i), that implementation of the volumes established by this rule will cause severe environmental harm. For example, given that a substantial portion of corn cultivation, but less than a majority, is for the purpose of renewable fuel, it is not clear whether, in assessing the impact of the current volume requirements on effects such as nitrate runoff levels in the Gulf of Mexico, it is more appropriate to consider the RFS as the direct cause or part of a mix of forces having an impact. Accordingly, we are not further reducing 2017 volumes on the basis of severe environmental harm.

2.2.2 Cellulosic waiver authority

Comment:

Action Aid USA & The Hunger Project

In the rule, 200 million gallons of additional advanced non-cellulosic fuel was deemed “reasonably attainable” in order to set the volume of 4 billion gallons of advanced fuel, rather than using the full cellulosic waiver authority to set the volume at 3.8 billion gallons. We believe that “what is reasonably attainable” is the wrong question to consider in this situation. [EPA-HQ-OAR-2016-0004-1817-A1 p.4]

We urge the Agency revise the rule to use the full cellulosic waiver authority in setting the advanced fuel mandate, and to make it clear that food-based biofuels are not an acceptable replacement for missing cellulosic biofuels. [EPA-HQ-OAR-2016-0004-1817-A1 p.4]

Adler's Antique Autos

⁴ See 73 FR 47171 (August 13, 2008).

⁵ *Id.*

⁶ See 73 FR 47172 (August 13, 2008).

⁷ See 73 FR 47171 (August 13, 2008).

Automobilists welcome the cellulosic and general waiver authority currently invoked by EPA, and encourage EPA to use this authority to adjust biofuel quantities so the ethanol level in gasoline does not rise above ten percent. [EPA-HQ-OAR-2016-0004-2523 p.1]

Advanced Biofuels Business Council (ABBC)

EPA correctly notes that in the event of a shortfall the agency must reduce the applicable volume of cellulosic biofuel projected to be available during that calendar year. [EPA-HQ-OAR-2016-0004-1733-A1 p.25]

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-2016-0004-1733-A1 p.25]

American Biogas Council (ABC)

Nevertheless, the continued use of EPA's waiver authority sends a negative message to the markets, resulting in reduced value of D3 RINs and lower investment in new projects. The RFS was intended to incentivize the establishment and growth of biofuels markets, not to hamper it. [EPA-HQ-OAR-2016-0004-1692-A1 p.2]

American Fuel and Petrochemical Manufacturers (AFPM)

EPA Has Authority to Address E10 Blend Wall and other Constraints on Transportation Fuel [EPA-HQ-OAR-2016-0004-1814-A1 p.32]

The Agency also has clear authority to make concomitant reductions in EISA's total renewable fuel and advanced biofuel volumes when it exercises its cellulosic biofuel waiver authority under CAA section 211(o)(7)(D). [EPA-HQ-OAR-2016-0004-1814-A1 p.32]

American Petroleum Institute (API)

EPA should, therefore, rely on its broad cellulosic waiver authority to the greatest extent possible. The general renewable fuel producers are essentially arguing that general renewable fuels should backfill the cellulosic space even though cellulosic renewable fuels would have provided a 60% GHG reduction and most general renewable fuels do not guarantee any GHG reduction at all due to EISA's grandfathering clause for general renewable fuels. [EPA-HQ-OAR-2016-0004-3512-A2 p.3]

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-2016-0004-3512-A2 p.24]

Biotechnology Innovation Organization (BIO)

In other words, with regard to EPA's exercise of its cellulosic waiver authority, we believe that EPA should "set the total volume requirement at" no less than "the maximum reasonably achievable level that will drive significant growth in renewable fuel use beyond what would occur in the absence of such a requirement, as Congress intended." [EPA-HQ-OAR-2016-0004-2721-A1 p.21]

EPA has not reasonably and persuasively demonstrated that it is necessary to reduce the advanced renewable fuel requirements by the entire proposed five billion gallons. [EPA-HQ-OAR-2016-0004-2721-A1 p.22]

Brazilian Sugarcane Industry Association (UNICA)

As an initial matter, UNICA does not believe that section 211(o)(7)(D)(i) gives EPA completely unfettered discretion to reduce cellulosic ethanol, advanced biofuel or total renewable fuels.⁴⁷ Rather, that section authorizes EPA to reduce cellulosic biofuel volumes when "the projected volume of cellulosic biofuel production is less than the minimum applicable standard under paragraph (2)(B)." Id. Section 211(o)(7)(D)(i) then authorizes EPA to lower the volumes for advanced biofuels and total renewable fuels at most by an amount equivalent to the projected shortfall for cellulosic biofuel. EPA can lower these volumes by a lesser amount but not by a greater amount. Id. Standing by itself, then, EPA has no authority to reduce advanced biofuel and total renewable fuel volumes in 2017 below its reduction of 5.2 billion gallons of cellulosic biofuel, the cellulosic shortfall.⁴⁸ To EPA's credit, it does not use the entire amount of the cellulosic shortfall for advanced biofuels, allowing some 200 million gallons to be met by other advanced biofuels (ironically, the exact amount EPA estimates for sugarcane ethanol imports). [EPA-HQ-OAR-2016-0004-1698-A2 p.22]

47 In its July 2015 and January 2014 comments, UNICA set forth in great detail its arguments for why reductions of the statutory volumes for advanced fuel and total renewable fuels in earlier EPA proposals were not consistent with the CAA's waiver provisions. EPA, in its Proposed Rule, once again plans to combine its waiver authorities to reduce total renewable fuel volumes, focusing on assertions of market demand. UNICA does not believe such assertions are correct nor can the waivers be used in this way.

UNICA continues to assert that reductions of advanced biofuels and total renewable fuels cannot and should not go well below the amounts EPA proposes for cellulosic ethanol and should only be based on inadequate market supply. However, since EPA did not use the general waiver authority to reduce advanced biofuels and did not reduce advanced biofuels beyond the full estimated shortfall of cellulosic fuel, UNICA will not focus on the issues it has raised in the past over the use of general waivers based on inadequate demand or to go beyond the cellulosic shortfall. To the extent EPA does reduce the final volume of advanced biofuels in 2017 beyond the cellulosic shortfall using the general waiver, UNICA incorporates its prior assertions that this is neither allowed under the CAA nor necessary.

48 For purposes of these comments, UNICA is assuming EPA has properly estimated reasonable production figures for cellulosic ethanol in 2017, but does not waive the argument that the volume should be higher.

Chevron

We encourage EPA to use the cellulosic waiver to the maximum extent when reducing the total renewable fuel and advanced biofuel standards and to minimize reliance on the general waiver [EPA-HQ-OAR-2016-0004-1684-A1 p.2]

Clean Air Task Force (CATF)

EPA again rightfully proposes to reduce the 2017 advanced biofuel RVO by close to the full amount that it plans to reduce the cellulosic RVO. [EPA-HQ-OAR-2016-0004-1804-A1 p.6]

Marathon Petroleum Corporation (MPC)

Marathon Petroleum Corporation (MPC) supports EPA's use of the cellulosic and general waiver authorities to reduce the volumes for 2017. [EPA-HQ-OAR-2016-0004-1806-A1 p.3]

Minnesota Bio-Fuels Association, Inc. (MBA)

Given the current situation whereby an adequate supply of ethanol exists (at least 15 billion gallons) along with an even greater market potential and expanding production capability, EPA should not modify the RVOs. [EPA-HQ-OAR-2016-0004-1871-A1 p.7]

By limiting the analysis to a few elements, EPA fails to provide the proper context in which to understand how Congress intended EPA to act. [EPA-HQ-OAR-2016-0004-1871-A1 p.8]

Minnesota Soybean Processors (MnSP)

EPA must not use the cellulosic biofuel waiver provision to reduce the statutory volume of Advanced Biofuels. EPA does not have unlimited authority to reduce the advanced and renewable fuel volumes using the cellulosic biofuel waiver provision and EPA's incorrect reading of this narrow waiver provision has not been affirmed by the D.C Circuit Court. [EPA-HQ-OAR-2016-0004-1829-A1 p.2]

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-2016-0004-1830-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, reading Section

211(o)(7) as a whole, EPA is limited to such criteria even under the cellulosic biofuel waiver provision. [EPA-HQ-OAR-2016-0004-2904-A2 p.59]

The D.C. Circuit has not, in fact, affirmed EPA's claimed broad discretion, as it has not yet ruled on the scope of EPA's authority to reduce the advanced biofuel volume. [EPA-HQ-OAR-2016-0004-2904-A2 p.60]

Such broad discretion is simply counter to the statute and its purposes, and allows EPA to circumvent the substantive and procedural protections Congress placed to "ensure" the mandated volumes are met, protecting investment already made and promoting new investment into biofuel production. This is further evidenced by the ability of EPA to reduce the cellulosic biofuel volume *after* 2016 in light of repeated or significant waivers, while retaining the advanced biofuel volume, where no such waiver was necessary. 42 U.S.C. § 7545(o)(7)(F). [EPA-HQ-OAR-2016-0004-2904-A2 p.61]

Congress set statutory volumes, and EPA's job is not to determine what the market will achieve, but, at a minimum, is to determine how much of those volumes possibly could be achieved. [EPA-HQ-OAR-2016-0004-2904-A2 p.62]

it remains unclear how EPA's purported "reasonably attainable" standard is consistent with the statute, much less how the public is supposed to determine what that means. [EPA-HQ-OAR-2016-0004-2904-A2 p.63]

EPA's reliance on the cellulosic biofuel provision allows it to avoid the factors that are included in the statute. While this further calls into question EPA's interpretation of the provision, it renders EPA's actions arbitrary. [EPA-HQ-OAR-2016-0004-2904-A2 p.64]

EPA has chosen to continue to rely on its cellulosic biofuel waiver authority, under which it claims it has broad authority, to continue to allow it to reduce the statutory factors to a level it wants without regard to the statutory factors. This is a usurpation of authority. Congress identified the specific factors which EPA's setting the volumes for biomass-based diesel starting in 2013 must be "based on." It is clear that the words "constrain the agency from 'abandon[ing]' or 'supplant[ing]' the specified factor altogether." *Catawba County, N.C. v. EPA*, 571 F.3d 20, 37 (D.C. Cir. 2009) (citation omitted). EPA has agreed that "the statute provides a list of factors we *must* consider." 77 Fed. Reg. at 59,460 (emphasis added). 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."). It is clear that EPA is attempting to mask its true objective—to reduce the statutory volumes to numbers it deems reasonable based on "demand" and compliance costs. This it cannot do. [EPA-HQ-OAR-2016-0004-2904-A2 p.88]

Congress anticipated increases in the diesel fuel market not to require Biomass-based Diesel to compete with other advanced biofuels.

EPA's approach ignores that, in EISA, Congress sought to increase the amount of renewable fuels in the diesel fuel markets—an entirely separate fuel market than that of gasoline. [EPA-HQ-OAR-2016-0004-2904-A2 p.90]

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.214-217]

Two issues that give us pause related to your reasonably attainable approach. The first is that the approach is not found anywhere in the statute. The statute requires EPA to create demand for advanced biofuels rather than to limit their use.

The second issue is this. EPA goes out of its way to find potentially available production of 312 million gallons of cellulosic biofuels to create a cellulosic biofuel volume. It makes little sense that Congress would then ask EPA, when there is more production of other advanced biofuels available, that you then limit those volumes by looking at constraints on use.

If you would apply that same logic to advanced biofuels, then your proposed volumes would be dramatically higher.

National Farmers Union (NFU)

No Obligation to Include Cellulosic Waiver in Total Renewable Fuel Volume Requirement

Even when EPA reduces the cellulosic biofuel requirement to accommodate shortfalls in domestic supply, the Agency is not obligated to reduce the total renewable fuel requirement at all, or to match. EPA should maintain the total renewable fuel requirement for 2017 in spite of lowering the cellulosic requirement. [EPA-HQ-OAR-2016-0004-1651-A1 p.5]

Nestle Corporate Affairs

Support for the Proposed Rule, Need for Overhaul of RFS

we support EPA's use of its waiver authority with respect to both the cellulosic biofuels mandates – where actual cellulosic biofuel production has fallen significantly short of the RFS mandates¹ – and the other RFS elements, including the total biofuels requirement which implicitly sets the mandate for corn-based ethanol. [EPA-HQ-OAR-2016-0004-1868-A1 p.1]

Renewable Fuels Association (RFA)

Based on its assessment that the projected volume of cellulosic biofuels available in 2017 will be less than the volumes specified in the statute, EPA is correctly proposing to invoke its authority to reduce the cellulosic biofuel volume requirements. [EPA-HQ-OAR-2016-0004-1695-A2 p.8]

EPA has the authority to waive the advanced biofuel standard and total renewable fuel standard by the “same or a lesser” volume as the cellulosic biofuel waiver [EPA-HQ-OAR-2016-0004-1695-A2 p.8]

It should be noted that fully carrying through the cellulosic waiver to both the advanced biofuel standard and total renewable fuel volume does not prohibit or discourage growth in the production and use of advanced biofuels beyond required levels. Any advanced biofuel production in excess of the finalized advanced biofuel standards would generate surplus RINs or be available to meet requirements for undifferentiated renewable fuel. [EPA-HQ-OAR-2016-0004-1695-A2 p.10]

Shell Oil Products US

We agree that EPA has authority to adjust the advanced and general renewable fuel categories when adjusting the cellulosic category. EPA is also correct to read the cellulosic waiver provision and the general waiver provision together in a complementary way to give meaning to both. [EPA-HQ-OAR-2016-0004-1725-A1 p.2]

Thus, using the cellulosic waiver authority, EPA can clearly reduce the advanced category to as low as 3.812 billion gallons (i.e., 9 billion - 5.188 billion = 3.812 billion). EPA’s proposal is 4.0 billion gallons for the advanced category, well within the cellulosic waiver authority. Indeed, EPA states that the Agency is relying solely on the cellulosic waiver authority to reduce the advanced mandate. Similarly EPA can clearly reduce the general renewable category to 18.812 billion gallons relying solely on the cellulosic waiver authority (i.e., 24 billion – 5.188 billion = 18.812 billion). EPA’s proposal for the general renewable of 18.8 billion gallons, therefore, only needs to rely on the general waiver authority for 12 million gallons. EPA should clarify this in the final rule. [EPA-HQ-OAR-2016-0004-1725-A1 p.2]

We urge EPA to resist the pleas of the general renewable fuel producers to increase the mandates to expand the role of general renewable fuels. Essentially, they are arguing that EPA should backfill the space Congress intended for cellulosic biofuels with general renewable fuels even though such grandfathered fuels are not subject to any greenhouse gas reduction requirements under this law. Taking that approach would be inconsistent with the structure of the law and Congress’ intent. [EPA-HQ-OAR-2016-0004-1725-A1 p.3]

Response:

A number of commenters supported the proposed reduction in cellulosic biofuel volumes to reflect our production projection. Many others also supported our proposed use of the cellulosic waiver authority to reduce advanced biofuel and total renewable fuel volumes. Some commenters specifically supported our view as discussed in the preamble to the proposed rule, that it would be generally appropriate for advanced biofuels to backfill for missing cellulosic volumes because of the high GHG reductions provided, but that this would not be the case for conventional renewable fuels in light of the 60% GHG reduction required by the definition of cellulosic biofuels, as compared to conventional biofuels which are either exempt from any GHG reduction requirements under 40 CFR 80.1403, or are subject to only a 20% GHG reduction

requirement. However, there was some criticism of EPA’s proposed use of the cellulosic waiver authority to reduce advanced biofuel and total renewable fuel applicable volumes, for several reasons. Some commenters suggested that determining “what is reasonably attainable” under the cellulosic waiver authority is the wrong question to consider. EPA has great discretion in determining reductions of advanced and total renewable fuel under the cellulosic waiver authority. EPA continues to believe that the factors it has considered as described in section IV of the preamble are reasonable and appropriate.

Some commenters criticized EPA’s use of the waiver authorities as sending a negative message to markets. EPA disagrees with this comment. The standards we are finalizing are increasing over past years and will send positive messages to markets of continued support for growth in renewable fuels. Setting standards that are not reasonably attainable would lead to noncompliance, a deleterious drawdown in the bank of carryover RINs and/or the need for subsequent waivers, all of which would undermine confidence in the RFS program and create uncertainty in renewable fuel markets.

A commenter suggested that EPA should set the total volume requirement at no less than the “maximum reasonably achievable level.” As explained in the preamble, we believe that the cellulosic waiver authority is best interpreted to require equal reductions in advanced and total renewable fuel. We determined the volume of advanced biofuel that was reasonably attainable and appropriate for use in 2017, resulting in a volume requirement that provides for significant backfilling of missing cellulosic volumes with advanced biofuel volumes. We applied an equal reduction to the total renewable fuel applicable volume, and determined that this volume was reasonably attainable, so no further reductions using the general waiver authority were needed. This approach results in an implied allowance for conventional biofuels of 15 billion gallons, equal to the volume of conventional biofuel envisioned in the statutory tables for 2017 and subsequent years through 2022, and an appropriate increment in advanced biofuel over that specified in the statute to partially backfill for missing cellulosic volumes. We believe our approach is reasonable.

Other commenters suggested that EPA does not have broad discretion to adjust volumes under 211(o)(7)(D)(i). Some made this statement with respect to advanced biofuels, others with respect to total renewable fuels, and yet others to both. 211(o)(7)(D)(i) states that when EPA reduces cellulosic biofuel volumes, it “may also reduce the applicable volume of renewable fuel and advanced biofuels requirement . . . by the same or a lesser amount.” Thus, 211(o)(7)(D)(i) clearly provides EPA with broad authority to reduce advanced and total renewable fuel volumes. The scope of EPA’s discretion in using the cellulosic waiver authority is discussed in Preamble Section II.

One commenter suggested that although we have authority to reduce the advanced biofuel and total volumes using 211(o)(7)(D)(i) authority when we reduce volumes of cellulosic biofuel, that we need not do so, and should not in the context of setting the 2017 rule. While we agree that we have broad discretion under the cellulosic waiver authority with respect to whether and the extent to which we reduce volumes of advanced and total renewable fuel, we believe that reductions in 2017 are appropriate, for the reasons described in the preamble.

A commenter suggested that if EPA reduces the advanced biofuel standard using its cellulosic waiver authority, it should not use the cellulosic waiver authority to reduce total renewable fuel. 211(o)(7)(D)(i) states that when EPA reduces cellulosic biofuel volumes, it “may also reduce the applicable volume of renewable fuel and advanced biofuels requirement . . . by the same or a lesser amount.” EPA has consistently interpreted this provision to result in equal reductions in total renewable fuel and advanced biofuels. EPA acknowledges that this is not the only permissible reading of the statute. However, we believe that our interpretation best furthers the goals of the statute. In light of the larger GHG emissions reductions required for advanced biofuels as compared to conventional biofuel, and the Congressional objective to dramatically increase the use of advanced biofuels in the time period between 2015 and 2022, we believe that it is generally appropriate for reasonably attainable and appropriate volumes of advanced biofuel to backfill for shortages in cellulosic biofuel. On the other hand, we do not believe it would be appropriate for the gap in the availability of cellulosic biofuel in 2017 to be filled or partially filled with non-advanced biofuel, taking into consideration both the substantially lower greenhouse gas emissions reductions required for non-advanced biofuel⁸ and the Congressional intent reflected in the statutory tables that use of these biofuels in this time period would not exceed the 15 billion gallons provided in the final rule. Some commenters stated that when exercising our 211(o)(7)(D)(i) authority EPA must use the criteria provided in 211(o)(7)(A) as well. We disagree. 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 and appropriate level, and to provide an equal reduction of the total renewable fuel applicable volume.

Some commenters suggested that EPA should apply the full cellulosic waiver to the advanced and total renewable fuel volumes to “make it clear that food-based biofuels are not an acceptable replacement for missing cellulosic biofuels.”

Their arguments are based on the concept that requiring greater quantities of non-cellulosic biofuels could result in greater production of food-based biofuels. They suggest that consideration of the feedstock source should also influence EPA’s decision to reduce volumes, in addition to greenhouse gas emissions savings. In setting the 2017 volume requirements, EPA has considered the feedstock sources and the use of these feedstocks for food, and has concluded that the volumes we are setting are reasonably attainable and appropriate. This topic is further discussed in Section IV.B.2 in the preamble. Some parties suggested that EPA should use the cellulosic waiver authority to the maximum extent. In exercising its discretion under the cellulosic waiver authority, EPA has chosen to partially backfill missing cellulosic volumes with reasonably attainable and appropriate volumes of advanced biofuel. We received support from other commenters on this approach.

⁸ Non-advanced biofuel must either meet the 20% reduction in lifecycle GHG emissions described in CAA 211(o)(2)(A)(i), or if not, qualify for a grandfathering exemption under 40 CFR 80.1403.

We received comments that EPA should further justify why we are reducing advanced biofuels by 5 billion under the cellulosic waiver authority. EPA's justification for this reduction can be found in Section IV of the Final Rule.

2.3 Ethanol

2.3.1 E10 blendwall & total gasoline demand

Comment:

American Coalition for Ethanol (ACE)

EIA is forecasting record gasoline demand for 2016 and 2017. [EPA-HQ-OAR-2016-0004-1679-A2 p.4]

Sales volumes from retailers and fuel marketers who are able to offer E15 and flex fuels prove the so-called E10 'blend wall' is a myth. [EPA-HQ-OAR-2016-0004-1679-A2 p.7]

[The following comments were submitted as testimony at the Kansas City, Missouri public hearing June 9, 2016. See Docket Number EPA-HQ-OAR-2016-0004-3359 p.18.]

Two and a half years ago, Bruce Vollan also told EPA, "The secret to getting over the blend wall is to try to get over the blend wall." That is proven true by a number of retailers, and I encourage EPA to also try to get over the blend wall.

American Highway Users Alliance

There is ample evidence from multiple comments on this docket that blends in excess of E10 will have profound consequences. We urge EPA to reaffirm its past acknowledgment of the market constraints associated with ethanol blends greater than E10. [EPA-HQ-OAR-2016-0004-1810-A1 p.1]

Biotechnology Innovation Organization (BIO)

In more recent projections for 2017, including the June Short Term Energy Outlook¹⁹, EIA has increased its projected gasoline use for 2017 by nearly 1 billion gallons (from 142 to 143 billion gallons). [EPA-HQ-OAR-2016-0004-2721-A1 p.9]

City of Bellevue

EPA's proposed Renewable Volume Obligations for 2017 could lead to ethanol volumes blended into gasoline that exceed 10 percent, and breach the "E10 Blend Wall." There is very little consumer demand for higher ethanol blends, such as E15 and E85 and there is still significant need and demand for E10 and ethanol free fuel. [EPA-HQ-OAR-2016-0004-1659-A1 p.1]

EPA lower the renewable fuel blending requirements and to set the final ethanol mandate sufficiently below 10 percent [EPA-HQ-OAR-2016-0004-1659-A1 p.1]

Clean Fuels Development Coalition/ Nebraska Ethanol Board

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.47]

The so-called blend wall is only real if EPA allows it to be real by undercutting the statutory volume requirements.

CountryMark

The difference in projections from almost a decade ago to current demand is stark. EPA must take this reduced overall demand into account and must lower the required renewable fuel volumes accordingly. [EPA-HQ-OAR-2016-0004-1826-A1 p.5]

Contrary to EPA's assertions throughout the Preamble, the E10 blendwall is real. [EPA-HQ-OAR-2016-0004-1826-A1 p.8]

Deere & Company

we object to any volume adjustments that are based on an artificial barrier associated with a perceived 'lack of customer demand' or so called 'E10 blendwall'. [EPA-HQ-OAR-2016-0004-1654-A1 p.1]

DuPont Industrial Biosciences

In more recent projections for 2017, including the June Short Term Energy Outlook and the 2016 Annual Energy Outlook (Early Release)⁴, EIA has increased its projected gasoline use for 2017 by nearly 1 billion gallons, from 142 to 143 billion gallons. [EPA-HQ-OAR-2016-0004-1827-A1 p.4]

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. [EPA-HQ-OAR-2016-0004-1827-A1 p.7]

Food Bank Council of Michigan

EPA should waive the RFS completely or at least waive down the blending volumes so that the E10 blend Wall is not breached. [EPA-HQ-OAR-2016-0004-1663-A1 p.1]

George Washington University, Regulatory Study Center

This statement represents a pivot from the agency's prior stance. While EPA is certainly justified in using its waiver authorities given these constraints, it is surprising and troubling to see EPA mandating volume requirements that push ethanol production beyond the blendwall. [EPA-HQ-OAR-2016-0004-2687-A1 p.5]

Governors' Biofuels Coalition

EIA is projecting record gasoline (E10) demand in 2016 and near-record consumption in 2017. [EPA-HQ-OAR-2016-0004-1729-A1 p.3]

Green Plains

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.172]

I believe the EPA gives much too much credence to, the blend wall.

Growth Energy

The most recent projections from the Department of Energy's Energy Information Administration ("EIA") indicate that ethanol consumption in 2017 will be higher than EPA anticipated in the NPRM. [EPA-HQ-OAR-2016-0004-3499-A1 p.6]

Highwater Ethanol

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. [EPA-HQ-OAR-2016-0004-1662-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. [EPA-HQ-OAR-2016-0004-2770-A1 p.1]

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. [EPA-HQ-OAR-2016-0004-2770-A1 p.2]

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. [EPA-HQ-OAR-2016-0004-2770-A1 p.2]

Our recommendation is for the agency to establish a much steeper and easily defensible trajectory for 2017 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-2016-0004-2770-A1 p.3]

Iowa Farm Bureau Federation (IFBF)

The sustained increase in gasoline demand means more ethanol will be consumed in E10 blends, while the U.S. Department of Agriculture's Biofuels Infrastructure Partnership is rapidly expanding the availability of E15 and E85. [EPA-HQ-OAR-2016-0004-1653-A1 p.2]

Iowa Office of the Governor

We strongly believe that the EPA is not responding to an infrastructure shortage for higher ethanol blends with this proposal, but rather that 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-2016-0004-1747-A1 p.2]

Kansas Farm Bureau

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 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. [EPA-HQ-OAR-2016-0004-1718-A1 p.1]

Lewis, Mike

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.85]

If one person with one gas station can help 49 gas stations get past the blend wall, then there really isn't a blend wall

Mass Comment Campaign sponsored by DENCO II, investors (Paper) - (12)

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. [EPA-HQ-OAR-2016-0004-1967-A1 p.2]

Midwest AgEnergy Group LLC

We also dismiss the idea of the blend wall somehow materializing faster than anticipated and the decrease in total liquid motor fuel consumption has led to the blend wall being reached earlier than expected. [EPA-HQ-OAR-2016-0004-1738-A1 p.2]

We believe strong gasoline demand and blending ratios above the EPA base consideration are more appropriate for establishing RVOs. [EPA-HQ-OAR-2016-0004-1738-A1 p.4]

Minnesota Bio-Fuels Association, Inc. (MBA)

The EPA, over the last few years, and in the proposed rule, has created a self-fulfilling prophecy with respect to the notion of reasonably achievable supply. [EPA-HQ-OAR-2016-0004-1871-A1 p.1]

Minnesota Corn Research and Promotion Council

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.127]

We've proven that the blend wall is a fabrication and a myth used as an excuse to unnecessarily slash the corn ethanol in the RFS.

National Association of Wheat Growers

EPA must address the “so-called” blend wall by fully taking into consideration the expanding use of E15 expanding with the EPA’s approval of the use of E15 in model year 2001 and newer cars, light-duty trucks, medium-duty passenger vehicles (SUVs) which includes more than 60% of those cars on the road today. [EPA-HQ-OAR-2016-0004-2697-A1 p.2]

National Corn-to-Ethanol Research Center at SIUE

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-2016-0004-1715-A1 p.1]

Nestle Corporate Affairs

Blend Wall and EPA’s Waivers

We do note our belief that the agency should base its final RFS volumes on the most up-to-date estimates of fuel usage, even if this should require further reductions in the volumes laid out in the proposed rule. [EPA-HQ-OAR-2016-0004-1868-A1 p.2]

Novozymes

Consideration of the fictitious “blend wall” should be excluded from the RVO setting process. [EPA-HQ-OAR-2016-0004-1734-A1 p.1]

Parrent, Kenneth

We have the capability to break through the Blend Wall. [EPA-HQ-OAR-2016-0004-0243-A1 p.1]

Porter, Lori

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.200-201]

Demands for higher blends of ethanol at our station proves the blend wall is a fictitious level

Renewable Fuels Association (RFA)

EIA has repeatedly under-projected gasoline consumption in recent years. Based on EIA's recent track record, it is likely that even the most current EIA projections available to EPA at the time the final rule is prepared will under-estimate actual 2017 gasoline consumption, thus providing EPA an overly conservative view of the amount of ethanol that can be consumed in E10 blends. [EPA-HQ-OAR-2016-0004-1695-A2 p.21]

Society of Independent Gasoline Marketers of America (SIGMA) & National Association of Convenience Stores (NACS)

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.31.]

And the blend wall isn't 10 percent ethanol. The blend wall is an adequate number of RINs to fulfill the obligations under the program, and we think there will be an adequate number of RINs generated under this program.

Response:

In response to the NPRM, many stakeholders repeated their views from the 2014-2016 rulemaking regarding the existence and nature of the E10 blendwall. We have provided some responses to these viewpoints in Section V.B.1 of the final rule.

Our view of the E10 blendwall falls between the two opposing viewpoints expressed by refiners and ethanol proponents. 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 2017, 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 2017 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 2017 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 2017, but the volumes of E15 and/or E85 that would be needed to reach the statutory targets are not achievable in 2017.

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.

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.

Several stakeholders commented that we should use a more recent version of EIA's Short-Term Energy Outlook (STEO) than the April, 2016 version we used in the NPRM to estimate gasoline demand in 2017. We agree that we should use updated EIA data. For this final rule we have used the October, 2016 version of the STEO both as the source of gasoline and diesel volumes used in calculating the applicable % standards, and as the source for gasoline energy demand used in determining the volume of ethanol that can be reasonably attained in 2017 considering certain estimates of E0, E15, and E85.

One stakeholder said that EIA's projections of future gasoline demand as provided in the STEO have been too low in previous years, and that EPA should account for this underestimate when making projections of the volume of ethanol that is reasonably attainable in 2017. We have addressed this issue in Section V.B.1.iv of the final rule.

One stakeholder said that the EPA should target a pool-wide gasoline ethanol content of less than 10% in part because blenders need a buffer to account for uncertainty associated with ethanol

content testing and downstream mixing in the fungible distribution system. We have addressed this issue in Section V.B.1.iv of the final rule.

One stakeholder said that EPA should use gasoline demand projections from EIA's Annual Energy Outlook. We have addressed this comment in Section V.B.1.iii of the final rule.

One stakeholder said that the blendwall should not be viewed as 10% ethanol on a pool-wide basis, but rather as an adequate number of RINs to fulfill the applicable volume requirements. While not the nomenclature typically used by other stakeholders nor in our rulemakings, this view nevertheless highlights the fact that the blendwall does not describe a fixed barrier but rather a transition between increases in total ethanol use that are easily achieved and those that are more difficult and costlier to achieve, as described above. In our final rule we have established a volume requirement for total renewable fuel that is based in part on our assessment of reasonably attainable volumes of ethanol, and that ethanol volume in turn is based on the belief that the pool-wide ethanol concentration can exceed 10% through the use of higher ethanol blends.

2.3.2 Exceeding the E10 blendwall

Comment:

25x'25 Alliance

EPA's proposed 2017 RVOs biofuel blending requirements is driven in part by the agency's incorrect assumption that "constraints in the marketplace" prevents the blending of larger percentages of renewable fuel into gasoline. By doing so the agency significantly underestimates the volume of renewable fuel that can be consumed in 2017 and beyond. [EPA-HQ-OAR-2016-0004-0473-A1 p.6]

ABATE of Pennsylvania

we are 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-2016-0004-2200-A1 p.1]

Adler's Antique Autos

EPA also asks for comments in the same section if 14.4 billion gallons is an appropriate volume for ethanol. The Energy Information Administration projects using 142 billion gallons of gasoline in 2017, and if all of that is E10 the ethanol volume would be 14.2 billion gallons. Automobilists recommend not going above 14.2 billion gallons as many variables could lower actual demand. [EPA-HQ-OAR-2016-0004-2523 p.1]

American Fuel and Petrochemical Manufacturers (AFPM)

The Agency's proposal, however, does not reduce volume requirements enough to ensure that consumers, fuel retailers, and obligated parties are protected from the adverse impacts of breaching the blend wall. [EPA-HQ-OAR-2016-0004-1814-A1 p.8]

EPA should not set a requirement for ethanol in gasoline that exceeds 9.7 percent of gasoline demand in 2017. [EPA-HQ-OAR-2016-0004-1814-A1 p.9]

American Highway Users Alliance

Our concerns can be addressed by EPA by more aggressively invoking its waiver authority to ensure that the E10 blend wall will not be breached and that ethanol-free fuel is widely available to motorcyclists and small engine users (whose engines may require E0) and other users who prefer ethanol-free fuels. An option for EPA to ensure that safe, affordable blends between E10 and E0 are available would be to reduce the ethanol mandate to 2015 levels (16.9 billion gallons). [EPA-HQ-OAR-2016-0004-1810-A1 p.2]

American Petroleum Institute (API)

API recommends that the 2017 RFS Standards should not require more than 13.92 billion gallons of ethanol. This volume is based on the assumption that the total gasoline pool in 2017 should contain 9.7 volume % ethanol on average, plus an allowance for the small amount of ethanol contained in E85. [EPA-HQ-OAR-2016-0004-3512-A2 p.5]

Anonymous 3

holding levels of ethanol in gasoline to 10% (I personally would like to see it eliminated altogether) [EPA-HQ-OAR-2016-0004-1925 p.2]

Arkadelphia Regional Economic Development Alliance

I respectfully request that the EPA lower the renewable fuel blending requirements and to set the final ethanol mandate sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-1666-A1 p.1]

Associated General Contractors of North Dakota

I request that the EPA lower the renewable fuel blending requirements and to set the final ethanol mandate sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-1754-A1 p.1]

Canon, William G.

and I am writing to you 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 2017 to no more than 9.7 percent of gasoline demand [EPA-HQ-OAR-2016-0004-0477-A1 p.1]

Cascadia Academy

I request for 2017 that the EPA require that ethanol blended into gasoline not exceed 10 percent [EPA-HQ-OAR-2016-0004-0714-A1 p.1]

City of Osceola, Arkansas

I respectfully request that the EPA lower the renewable fuel blending requirements and to set the final ethanol mandate sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-1665-A1 p.1]

Clean Air Task Force (CATF)

EPA should reduce the 2017 RVOs further so they do not exceed the blend wall (for ethanol) [EPA-HQ-OAR-2016-0004-1804-A1 p.2]

CMB Performance Horses

please set the final ethanol mandate to no more than 9.7% of gasoline demand. [EPA-HQ-OAR-2016-0004-1631-A1 p.1]

Coburn & Associates, LLC

At this time, I am requesting that the EPA lower the renewable fuel blending requirements and to set the final ethanol mandate sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-1749-A1 p.2]

Davis, James

I encourage the EPA to lower the renewable fuel blending requirements and to set ethanol standards sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-2166-A1 p.1]

Delta Township

The EPA should waive the RFS completely or at least waive down the blending volumes such that the E10 Blend Wall is not breached. [EPA-HQ-OAR-2016-0004-1685-A1 p.1]

Department of Economics Iowa State University

I am writing to urge the EPA to continue its policy of setting allowable ethanol production levels that recognize the fact that the vast majority of the nation's automobiles, trucks, power tools, and sporting equipment suggest ethanol blend levels not to exceed 10 percent. [EPA-HQ-OAR-2016-0004-2237 p.1]

The EPA should continue its prudent management of ethanol supplies in light of the nation's observed demand for ethanol, which is something like 10 percent of the nation's motor fuel demand. The nation's corn ethanol industry is stable and operating at or near capacity. The nation's petroleum suppliers have adjusted to a 10 percent ethanol blending norm. For all intents

and purposes, the two industries appear to have accommodated one another and are operating in tandem smoothly. [EPA-HQ-OAR-2016-0004-2237 p.2]

ExxonMobil

EPA should explicitly limit the total ethanol concentration to 9.7 percent or less of the gasoline pool. [EPA-HQ-OAR-2016-0004-1870-A1 p.1-2]

Glenn Davis, Virginia House of Delegates

I respectfully request that the EPA lower the renewable fuel blending requirements and set ethanol standards below 10 percent. [EPA-HQ-OAR-2016-0004-2543 p.1]

Greenwood Christian Church

I am writing to voice my concern about the proposed Renewable Fuel Standard for 2017 that could lead to ethanol volumes blended into gasoline that exceed 10 percent, and breach the "E10 Blend Wall" [EPA-HQ-OAR-2016-0004-1719-A1 p.1]

HabitatMap

lowering the "renewable fuel" blending requirements and setting ethanol standards sufficiently below 10 percent is the best way forward. [EPA-HQ-OAR-2016-0004-2683-A1 p.1]

Heath, Mark

I am STRONGLY OPPOSED to raising the ethanol standard in gasoline above 10 percent. [EPA-HQ-OAR-2016-0004-2671-A1 p.1]

Hehmeyer, Owen

I not only urge EPA to set the final ethanol mandate at no more than 10 percent of gasoline demand, I encourage the EPA to report to Congress that the RFS is totally unworkable. [EPA-HQ-OAR-2016-0004-2670-A1 p.2]

Independent Fuel Terminal Operators Association (IFTOA)

Requiring the blending of biofuels into the national gasoline pool at levels that exceed 10 percent severely limits industry's ability to use lower cost compliance options when changes occur in either the cost of biofuels or the cost of complying with the regulation. [EPA-HQ-OAR-2016-0004-1823-A1 p.2]

EPA should hold volumetric requirements to as close to 10 percent as possible. [EPA-HQ-OAR-2016-0004-1823-A1 p.2] In both the final 2014, 2015, and 2016 final RFS Rule and in the 2017 proposed rule, EPA assumes that efforts to increase the use of ethanol beyond the blendwall (10

percent ethanol) will be primarily a function of the volume of E85 that is consumed. [EPA-HQ-OAR-2016-0004-1823-A1 p.3]

The proposed mandates should not be based on the hope for major structural changes in the market, but rather on current market conditions. [EPA-HQ-OAR-2016-0004-1823-A1 p.4]

Indiana Grocery and Convenience Store Association (IGSCA)

I am also a farmer and I believe the lead to ethanol volumes blended into gasoline that exceed 10 percent would breach the "E10 Blend Wall." These higher ethanol blends, such as E15 and E85, could lead to negative economic consequences and also harm the small engines used in agriculture. [EPA-HQ-OAR-2016-0004-1661-A1 p.1]

Indiana Retail Council

I request that the EPA lower the renewable fuel blending requirements and to set the final ethanol mandate sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-2066 p.2]

Jung, Jerry

the EPA has an opportunity to reduce some of these negative impacts. Requiring ethanol volumes at a level lower than originally set out in the RFS statute will put less of a strain on the environment and allow for a more realistic market for ethanol. [EPA-HQ-OAR-2016-0004-1833-A1 p.1]

The blend wall is real and has real consequences. Oil companies will avoid blending more than 10 percent, trading fuel instead. Taking fuel out of the US market means that US gas prices spike. ⁶ [EPA-HQ-OAR-2016-0004-1833-A1 p.2]

⁶ <http://www.forbes.com/sites/jeffmcmahon/2014/02/26/ethanolsvictory-could-be-ethanol-ruin/#1426a293200e>

Kane Ranch

I am writing again to voice my concern about the proposed Renewable Fuel Standard for 2017 that could lead to ethanol volumes blended into gasoline that exceed 10 percent, and breach the "E10 Blend Wall." These higher ethanol blends, such as E15 and E85, have no significant consumer demand and could increase my costs of ranching due to engine damage and higher fuel costs. [EPA-HQ-OAR-2016-0004-1636-A1 p.1]

Kendall Cabinets Inc.

I'd propose that the EPA lower the renewable fuel blending requirements and to set the final ethanol mandate below 10 percent. [EPA-HQ-OAR-2016-0004-1755-A1 p.1]

Kisiel, John

I request that the EPA lower the renewable fuel blending requirements and to set the final ethanol mandate sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-1495-A1 p.1]

Marathon Petroleum Corporation (MPC)

EPA needs to reduce the volumes of ethanol blending to keep the domestic fuel supply below the E10 blendwall. [EPA-HQ-OAR-2016-0004-1806-A1 p.6]

Marine Trade Association of New Jersey (MTA/NJ)

Thus, I urge the agency to ensure to revise its 2017 proposal to reflect actual market conditions and keeping the total volume of ethanol at or below 9.7 percent. [EPA-HQ-OAR-2016-0004-0421 p.2]

Mass Comment Campaign sponsored by Anonymous 1 (Web) - (5,185)

I am writing to oppose the EPA proposed rule (EPA-HQ-OAR-2016-0004), which will further increase ethanol volumes beyond acceptable, risk-free levels. [EPA-HQ-OAR-2016-0004-0073 p.1]

Thus, I urge the agency to revise its 2017 proposal to reflect actual market conditions and keeping the total volume of ethanol at or below 9.7 percent. [EPA-HQ-OAR-2016-0004-0073 p.1]

Mass Comment Campaign sponsored by Anonymous 4 (Web) - (625)

The final RVO ruling should sharply restrict these volumes, in deference to the realities of today's infrastructure, engines and vehicle fleet. [EPA-HQ-OAR-2016-0004-0113 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. [EPA-HQ-OAR-2016-0004-0113 p.1]

The market, not a mandate, should drive which fuels are available to drivers, boaters and bikers. The EPA should lower the volume obligations in its final ruling to reflect the reality of what American consumers want and what their engines need. [EPA-HQ-OAR-2016-0004-0113 p.1]

Mass Comment Campaign sponsored by Anonymous 10 (email) - (771)

With major retailers now installing infrastructure to deliver higher ethanol blends, such as E15, consumers could have more choices of renewable fuel. We need to keep the RFS moving forward in order to guarantee that these ethanol blends have access to the market. [EPA-HQ-OAR-2016-0004-1166-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 15 (email) - (22)

The RFS is intended to change the way oil companies do business and spur investment in cleaner, lower carbon, domestic fuels like ethanol and the infrastructure necessary to accommodate higher biofuel blends. The RFS was designed to give American consumers more choices at the pump and lower gas prices, and to utilize ethanol as more than just a gasoline additive with octane boosting value. [EPA-HQ-OAR-2016-0004-1357-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 29 (paper) - (67)

As a consumer, I want to express my strong opposition to mandating ethanol volumes in gasoline above 10 percent. [EPA-HQ-OAR-2016-0004-2604-A1 p.1]

Mass Comment Campaign sponsored by ethanol producers 2 (email) - (87)

When the RFS was established, it always envisioned that ethanol blends above 10 percent would be required, regardless of the level of gasoline consumption. [EPA-HQ-OAR-2016-0004-1170-A1 p.1]

Mass Comment Campaign sponsored by residents of Central Ohio (Paper) - (37)

Consumers deserve more choices of renewable fuels. We need to keep the RFS moving forward in order to guarantee that these ethanol blends have access to the market. [EPA-HQ-OAR-2016-0004-1971-A1 p.1]

Mass Comment Campaign sponsored by North Dakota Energy Forum (Paper) - (41)

As classic car enthusiasts, we would like to voice our concern about the proposed Renewable Fuel Standard for 2017 that could lead to ethanol volumes blended into gasoline that exceed 10 percent, and breach the "E10 Blend Wall." These higher ethanol blends, such as E15, could drive away our fuel choices, damage our cars and lead to economic hardship to classic car owners as well as millions of Americans across the nation. [EPA-HQ-OAR-2016-0004-1789-A1 p.1]

These are also economic hardships that we and our fellow Americans should not be forced to bear. [EPA-HQ-OAR-2016-0004-1789-A1 p.1]

In the meantime, we respectfully request that the EPA lower the renewable fuel blending requirements and to set the final ethanol mandate sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-1789-A1 p.1]

Mass Comment Campaign sponsored by Vets4Energy (Web) - (3)

please set the final ethanol mandate to no more than 9.7 percent of gasoline demand. [EPA-HQ-OAR-2016-0004-1707-A1 p.1]

Michigan Boating Industries Association

I urge the agency to ensure to revise its 2017 proposal to reflect actual market conditions and keeping the total volume of ethanol at or below 9.7 percent. [EPA-HQ-OAR-2016-0004-2201-A1 p.2]

Missouri Chamber of Commerce and Industry

I respectfully request that EPA lower the renewable fuel blending requirements to a level below 10 percent. [EPA-HQ-OAR-2016-0004-2688-A1 p.1]

Missouri Marine Dealers Association and the Lake of the Ozarks Marine Dealers Association

EPA lower the renewable fuel blending requirements to a level below 10 percent. [EPA-HQ-OAR-2016-0004-2684-A1 p.1]

NAFA Fleet Management Association

NAFA urges EPA to set the final ethanol mandate at no more than 9.7% of gasoline demand to ensure ethanol levels in gasoline stay below the 10% blend wall. [EPA-HQ-OAR-2016-0004-1787-A1 p.2]

National Marine Manufacturers Association (NMMA)

NMMA argues that the EPA should set the RVOs for conventional biofuels at or below 9.7 percent—a level that will ensure that the country does not exceed the so-called blend wall and thus prevent the proposed scenarios where more mid and high level blends of ethanol are needed to achieve compliance. [EPA-HQ-OAR-2016-0004-1949-A1 p.2]

National Taxpayers Union (NTU)

Ethanol manufacturers would like to see more widespread use of E15 or E85 in order to alleviate the glut of ethanol created by the rule, but there is little appetite among consumers for higher blends of ethanol. [EPA-HQ-OAR-2016-0004-1874-A1 p.2]

R. Timothy Columbus, partner at Steptoe & Johnson, LLC on behalf of the Society of Independent Gasoline Marketers of America (SIGMA) and the National Association of Convenience Stores (NACS), explained at a recent House Energy and Commerce Subcommittee hearing, this is not a “build it and they will come” scenario. [EPA-HQ-OAR-2016-0004-1874-A1 p.2]

Mr. Columbus testified that the core problem with higher ethanol blends is that there is simply no significant market demand, and hence little profit or acceptable risk for gas station owners to sell E15 or E85. [EPA-HQ-OAR-2016-0004-1874-A1 p.2]

Nevada Franchised Auto Dealers Association

Increasing ethanol volumes blended into gasoline and diesel that exceed 10 percent, and breach the "E10 Blend Wall" is unnecessary and would lead to negative economic consequences. [EPA-HQ-OAR-2016-0004-1652-A1 p.1]

please do not increase the ethanol content in fuels above the current 9.7%. [EPA-HQ-OAR-2016-0004-1652-A1 p.1]

Nevada Trucking Association

Increasing ethanol volumes blended into gasoline and diesel that exceed 10 percent, and breach the "E10 Blend Wall" is unnecessary and would lead to negative economic consequences, including damaging the engines of our members. [EPA-HQ-OAR-2016-0004-1639-A1 p.1]

Please do not increase the ethanol content in fuels above the current 9.7%. [EPA-HQ-OAR-2016-0004-1639-A1 p.1]

New Mexico Cattle Growers' Association

look at the impact of these mandates and lower the renewable fuel blending requirements and to set ethanol standards sufficiently below 10 percent in order to ensure the well-being of our local economy and the beef industry. [EPA-HQ-OAR-2016-0004-1677-A1 p.2]

New Mexico Federal Lands Council

set ethanol standards sufficiently below 10 percent [EPA-HQ-OAR-2016-0004-1682-A1 p.2]

New Mexico Wool Growers, Inc. (NMWGI)

look at the impact of these mandates and lower the renewable fuel blending requirements and to set ethanol standards sufficiently below 10 percent in order to ensure the well-being of our local economy and the wool and lamb industry. [EPA-HQ-OAR-2016-0004-1683-A1 p.2]

North Dakota Petroleum Marketers Association

set the final ethanol mandate sufficiently below 10 percent [EPA-HQ-OAR-2016-0004-1756-A1 p.1]

Ohio Grocers Association

The EPA should lower the renewable fuel blending requirements and set ethanol standards sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-2079 p.1-2]

Ohio Coin Machine Association

I encourage the EPA to lower the renewable fuel blending requirements and to set ethanol standards sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-2719 p.2]

Ohio Council of Retail Merchants

I encourage the EPA to lower the renewable fuel blending requirements and to set ethanol standards sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-2893 p.2]

Ohio Licensed Beverage Association

I encourage the EPA to lower the renewable fuel blending requirements and to set ethanol standards sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-2206 p.2]

Ohio Spirits Association

I encourage the EPA to lower the renewable fuel blending requirements and to set ethanol standards sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-2252 p.2]

Ohio Veterans United

I encourage the EPA to lower the renewable fuel blending requirements and to set ethanol standards sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-1941 p.2]

Pasco Chamber of Commerce

EPA lower the ethanol blending requirements and to set the final ethanol level below 10 percent. [EPA-HQ-OAR-2016-0004-0245-A1 p.1]

Pennsylvania House of Representatives

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-2016-0004-1751-A1 p.1]

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. [EPA-HQ-OAR-2016-0004-1751-A1 p.1]

Pennsylvania Motorcycle Dealers Association

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-2016-0004-2868-A1 p.1]

The administration should not try to force the use of fuels like E85 and E 15 for which there is no significant consumer demand while trying to eliminate fuels like E0 for which actual consumers have shown a substantial demand. [EPA-HQ-OAR-2016-0004-2868-A1 p.1]

Pennsylvania Off Highway Vehicle Association

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-2016-0004-1757-A1 p.1]

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. [EPA-HQ-OAR-2016-0004-1757-A1 p.1]

Pennsylvania State Senate, 50th District

ask the EPA to set the final ethanol mandates at no more than 9.7 percent of gasoline demand [EPA-HQ-OAR-2016-0004-2202-A1 p.1]

I see little potential benefit to increasing the standard for the amount of ethanol to be blended into gasoline. These standards will drive fuels such as E85 and E15, 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-2016-0004-2202-A1 p.2]

Pennsylvania State Snowmobile Association (PSSA)

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-2016-0004-2869-A1 p.1]

The administration should not try to force the use of fuels like E85 and E 15 for which there is no significant consumer demand while trying to eliminate fuels like E0 for which actual consumers have shown a substantial demand. [EPA-HQ-OAR-2016-0004-2869-A1 p.1]

Petroleum Marketers Association of America

PMAA believes the ethanol volumetric standard should be trimmed to accommodate a 9.7% blend to ensure the E10 blend wall is not breached. [EPA-HQ-OAR-2016-0004-2771-A1 p.1]

Phillips 66 Company

The non-advanced or conventional renewable volume equates to 14.8 billion gallons. This significantly exceeds the volume that can be blended into gasoline as E10, even assuming no E0 in the marketplace. [EPA-HQ-OAR-2016-0004-1807-A1 p.3]

The Total Renewable should be set so that the conventional volume is equal to gasoline demand times 9.7% (to account for E0 demand) plus ethanol from some reasonable expected volume of E15 and E85. [EPA-HQ-OAR-2016-0004-1807-A1 p.7]

Rocky Mountain College

As an academician, mother and active community member I am again writing to voice my concern about the proposed Renewable Fuel Standard for 2017 that could lead to ethanol volumes blended into gasoline that exceed 10 percent, and breach the "E10 Blend Wall." These

higher ethanol blends, such as E15 and E85, could lead to negative economic consequences. [EPA-HQ-OAR-2016-0004-1629-A1 p.1]

S2 Yachts, Inc.

I am writing to voice my concern about the proposed Renewable Fuel Standard for 2017 that could lead to ethanol volumes blended into gasoline that exceed 10 percent, and breach the "E10 Blend Wall." [EPA-HQ-OAR-2016-0004-1748-A1 p.1]

At this time, I request that the EPA lower the renewable fuel blending requirements and to set the final ethanol mandate sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-1748-A1 p.1]

Scanlon Excavating & Trucking

request that the EPA set the final ethanol mandate under the Renewable Fuel Standard (RFS) for 2017 to no more than 9.7 % of gasoline demand. [EPA-HQ-OAR-2016-0004-2413-A1 p.1]

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. [EPA-HQ-OAR-2016-0004-2413-A1 p.1]

Scott, Dean

I am strongly opposed to any change of the Renewable Fuel Standard (RFS) that increases ethanol concentrations in domestic automotive gasoline from its current E10 (10% ethanol) level [EPA-HQ-OAR-2016-0004-3460-A1 p.1]

Society of Independent Gasoline Marketers of America (SIGMA) & National Association of Convenience Stores (NACS)

Motorists do not purchase products because members of SIGMA and NACS sell them; members of SIGMA and NACS sell products because their customers purchase them. To date, very few retailers selling mid to high level 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 seen minimal sales of these products. Indeed, retailers have found that even consumers with E85-compatible flex-fuel vehicles tend to purchase E10. [EPA-HQ-OAR-2016-0004-1808-A1 p.3-4]

South Carolina Association of Taxpayers (SCAT)

The proposed standards ask for an increase in the amount of ethanol to be blended into gasoline, forcing fuels on consumers such as E85 and E15 for which there is no significant consumer demand, while trying to eliminate ethanol-free fuels (e.g., E0) for which consumers have shown a substantial demand. [EPA-HQ-OAR-2016-0004-1691-A1 p.1]

Vets4Energy

I encourage the EPA to seriously consider lowering the renewable fuel blending requirements, and to set ethanol standards sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-1837-A1 p.1]

Washington Policy Center

the EPA needs to keep the mandated ethanol fuel percentage below 10 percent and reduce the RVO. [EPA-HQ-OAR-2016-0004-1669-A1 p.1]

Washington State House of Representatives, 28th Legislative District

I am writing to voice my concern about the proposed Renewable Fuel Standard for 2017 that could lead to ethanol volumes blended into gasoline that exceed 10 percent, and breach the "E10 Blend Wall." [EPA-HQ-OAR-2016-0004-0246 p.1]

At this time, I request that the EPA lower the renewable fuel blending requirements and to set the final ethanol mandate sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-0246 p.2]

Washington State Senate, 35th Legislative District

make sure the ethanol blend percentage stays under the "blend wall" of 10 percent to prevent consumer engine damage [EPA-HQ-OAR-2016-0004-0712-A1 p.1]

In the short term the ethanol blend percentage must be set well below 10 percent in gasoline to service the overwhelming demand for E10 and ethanol free fuel. [EPA-HQ-OAR-2016-0004-0712-A1 p.1]

Response:

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%. 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. However, 17.3 billion gallons is far less than the 36 billion gallons of renewable fuel that Congress targeted for use in 2022. 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.

A number of stakeholders, particularly refiners, argued that the 2016 volume requirements should be set in such a way that the pool-wide 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. As we said in the 2014-2016 final

rule, we do not find their arguments that the pool-wide ethanol content cannot be higher than 10% to be compelling. While we agree that use of E15 and E85 in 2017 cannot enable the market to achieve the statutory target for total renewable fuel, they can collectively contribute about three hundred million gallons to the total volume of ethanol supplied in 2017. The final 2017 volume requirement for total renewable fuel creates the opportunity for the market to exceed a pool-wide 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.

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 reasonably attainable volumes for the total renewable fuel standard, and is unrelated to our assessment of reasonably attainable volumes of biodiesel and renewable diesel for the total renewable standard. 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 and appropriate.

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 have considered increases in BBD separately from increases in ethanol. Our approach to determining whether the volume requirement for total renewable fuel is reasonably attainable 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 reasonably attained. 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 2017 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 said that the standards EPA sets under the RFS program should recognize that manufacturers of most gasoline-powered vehicles and engines suggest that the ethanol content of fuel used in their products should be no higher than 10%. EPA has made a determination that all 2001 and later model year vehicles can operate on E15, and FFVs can operate on any ethanol concentration between E10 and E85. E15 and higher ethanol blends are not permitted to be used in non-road engines or vehicles produced before 2001, and retail stations offering E15 must implement misfueling mitigation plans to ensure that such engines and vehicles are not refueled on E15. However, as described in Section V.B.1.ii and iii of the final rule, the number of vehicles that can use higher ethanol blends is not the primary constraint at issue in the determination of reasonably attainable volumes of ethanol. Instead, it is the number of retail stations that offer it, and to some extent the relative price of higher ethanol blends and E10.

One stakeholder said that EPA should continue to target about 10% ethanol in the nationwide gasoline pool since the ethanol and refining industries have adjusted their relative production to achieve this result, and are "operating in tandem smoothly." However, we do not believe that this is a sufficient reason for setting standards that are based on an assumption of a nationwide gasoline ethanol content of 10%. The statute sets ambitious targets for renewable fuel used in the transportation sector that are contingent on expanding the concentration of renewable fuels in gasoline and diesel through at least 2022. As a result, EPA has an obligation to investigate opportunities for increasing the supply of renewable fuel, and this includes increasing the use of ethanol in gasoline to the degree that such volumes are reasonably attainable.

Several stakeholders said that there is little demand among consumers for higher ethanol blends, and thus ethanol producers cannot expect to have a market for all the ethanol that they can produce. While we agree that demand for E15 and E85 is constrained, we do not believe that it should be assumed to be zero when determining the applicable volume requirements for 2017. We have taken into account the limited projected availability of E15 and E85 at retail when estimating the volume of ethanol that is reasonably attainable in 2017, and have updated our estimates of consumer responses to E85 price discounts as discussed in Section V.B.1.iii of the final rule. As a result, we believe that the supply of ethanol in 2017 can be higher than it was projected to be in 2016, although less than the total ethanol production capacity as discussed in Section 2.3.3.

Several stakeholders said that the nationwide average ethanol content of gasoline should be kept at or below 10% in order to ensure the well-being of other industries that are indirectly affected by the price of corn used for animal feed. 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. Further discussion of this issue can be found in Section 3.1.5.

One stakeholder said that the amount of ethanol that can be blended into gasoline at 10% is far less than the 14.8 billion gallon implied conventional renewable fuel volume requirement that EPA proposed, and that as a result 14.8 billion gallons is not achievable in 2017. As described

more fully in Section 2.7.3, this view conflates the implied conventional renewable fuel volume requirement with ethanol. The two are not the same. Significant volumes of non-ethanol conventional renewable fuel, primarily but not limited to biodiesel, are also reasonably attainable in 2017. Moreover, as described in Section V.B.1 of the final rule, we believe that E15 and E85 can supplement E10 to increase total ethanol supply above the E10 blendwall.

One stakeholder said that the EPA should target a pool-wide gasoline ethanol content of less than 10% in part because blenders need a buffer to account for uncertainty associated with ethanol content testing and downstream mixing in the fungible distribution system. This stakeholder suggested that blenders have historically aimed to blend at less than 10% ethanol, and that as a result EPA should set standards consistent with this practice. We investigated this issue using survey data collected by the Alliance of Automobile Manufacturers for 2011 - 2015 and determined that the average ethanol content of all gasoline that would qualify for the 1psi waiver was 9.80%.⁹ This estimate is based on the use of ASTM test method D-5599, which measures only the alcohol portion of the gasoline, not any denaturant that would have been included with the ethanol before it was blended into gasoline. Since the denaturant portion of ethanol is typically about 2%, ethanol that is blended into gasoline contains about 98% ethanol. When blended into gasoline, therefore, the E98 would result in a gasoline-ethanol blend containing about 9.8% pure ethanol, or 10.0% denatured ethanol. Based on this investigation, we have determined that it is appropriate to continue assuming that the denatured ethanol content of E10 is 10%.

2.3.3 Production capacity

Comment:

Bell, Megan

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.131]

There is plenty of corn and plenty of ethanol for fulfilling demand based on the schedule outlined by the renewable fuel standard.

Energy Vision, et al.

By capping production, you are sending a signal that the government no longer sees the production of biofuels as a priority. [EPA-HQ-OAR-2016-0004-2870-A1 p.1]

Jung, Jerry

⁹ Under the rounding method required under 40 CFR 80.9, ethanol concentrations of between 8.6% and 10.5% inclusive would qualify for the 1psi waiver.

Between 2005 and 2011, U.S. ethanol production nearly quadrupled from 3.9 billion gallons per year to 13.9 billion gallons per year and the number and capacity of U.S. ethanol plants more than doubled.¹ [EPA-HQ-OAR-2016-0004-1833-A1 p.1]

Because the RFS requires an increasing amount of ethanol be produced year over year, the federal government not only creates an artificial growing market, but also puts more strain on a system that may not always produce high corn yields. Droughts and other catastrophic events could affect corn growth – as happened in 2012. This would mean that instead of ensuring corn crops were used for food when shortages happen, there is a statutory requirement that crops be used for fuel in the case of shortages.² [EPA-HQ-OAR-2016-0004-1833-A1 p.1-2]

¹ <http://www.ourenergypolicy.org/wp-content/uploads/2013/07/The-Effect-oftheUS-Ethanol-Mandate-on->

² Id.

Little Sioux Corn Processors

[The following comment was submitted as testimony at the Kansas City Missouri Public hearing on June 9, 2016. See Docket Number EPA-HQ-OAR-2016-0004-3558 p.144.]

The industry clearly has the production capacity to meet the statutory requirements of the law. The industry has invested millions of dollars, increasing efficiency and production capacity. There has been a tremendous amount of capital invested in transportation services, technical expertise, and other support industries.

Mass Comment Campaign sponsored by National Corn Growers Association 2 (paper) - (387)

America's corn growers have produced more than enough corn to meet all food, feed, fuel and fiber needs. [EPA-HQ-OAR-2016-0004-3596-A1 p.1]

Missouri Corn Growers Association (MCGA)

EPA's proposal badly misjudges the domestic supply of ethanol, as well as the physical capacity of existing vehicles and infrastructure to consume ethanol. [EPA-HQ-OAR-2016-0004-1782-A1 p.3]

National Corn Growers Association

The ethanol industry has the capacity to supply substantially more renewable fuel than would be needed to meet the 2017 RVOs. [EPA-HQ-OAR-2016-0004-1809-A1 p.3]

Nebraska Corn Board (NCB)

the current corn ethanol industry more than capable of meeting the RFS requirement for conventional biofuels [EPA-HQ-OAR-2016-0004-1694-A2 p.2]

Parrent, Kenneth

America's farmers and ethanol industry responded by producing the corn and providing the infrastructure necessary to produce the 15 billion gallons of ethanol mandated by the RFS. [EPA-HQ-OAR-2016-0004-0243-A1 p.1]

Renewable Fuels Association (RFA)

The U.S. ethanol industry has the "nameplate" capacity to produce 15.61 bg annually and the industry's maximum production capacity is somewhat higher. ³⁷ [EPA-HQ-OAR-2016-0004-1695-A2 p.18]

37 <http://www.ethanolrfa.org/resources/biorefinery-locations/> It is not common for ethanol plants to produce at a rate that is 5-10% over nameplate capacity if warranted by market conditions. Thus, the ethanol industry likely has the technical capacity to produce 16.5 bg or more annually.

Show Me Ethanol

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.177]

The ethanol industry has proven that it, as a whole, is capable of producing enough gallons to meet the volumes in the original RFS.

WAEES

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.202]

In addition to distillers corn oil, feedstocks from other sources continue to grow.

Wisconsin Corn Growers Association

To continue moving our nation forward and reverse decades of greenhouse gas and toxic emissions from fossil fuel consumption, it is imperative that the EPA honors its commitment to this goal by increasing RVO levels to the necessary 15 billion gallons. Producers are more than capable of producing and our current auto fleet is ready to use the fuel production. [EPA-HQ-OAR-2016-0004-1637-A1 p.1]

Response:

Because of the constraints associated with the E10 blendwall, as well as other constraints on ethanol and non-ethanol biofuels as described in Section II.E.1 of the 2014-2016 final rule, renewable fuel production capacity is not the only relevant criterion in determining the level of qualifying renewable fuel supply that is attainable in 2017. Indeed, based on a consideration of production capacity alone, 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. 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 said that the proposed standards would cap ethanol production below total production capacity, sending a signal that the government no longer sees the production of biofuels as a priority. We disagree. While it is true that the proposed (and final) standards for 2017 are based on a level of ethanol supply that is below total production capacity, those standards have been based on the supply of ethanol that we have determined can be reasonably attained given infrastructure and other constraints. Setting the applicable standards substantially higher would not result in substantially higher use of ethanol. Indeed, we believe that substantially higher standards would result in a significant draw-down of the bank of carryover RINs and/or non-compliance and future waiver requests. Moreover, ethanol producers are not limited by the standards set under the RFS program. They can produce more ethanol than is required under the RFS program, and the market will determine if that additional ethanol production can be used. Ethanol producers also have the option of exporting ethanol, as they have in most previous years.

2.3.4 Refiner responsibilities to expand ethanol use

Comment:**Advanced Biofuels Business Council (ABBC)**

EPA 's decision to allow distribution issues to reduce blending requirements sends a clear signal to obligated parties that every gallon of RFS-eligible fuel secured will get built into the mandate and every gallon of RFS-eligible fuel avoided will get waived from the mandate. [EPA-HQ-OAR-2016-0004-1733-A1 p.6]

American Petroleum Institute (API)

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-2016-0004-3512-A2 p.21]

If the renewable fuels industry believes there is consumer demand and economic benefits from making such investments and is willing to accept the potential liability for selling fuels that are not compatible with consumers' vehicles, then it is reasonable to expect the renewable fuel industry will make such investments. [EPA-HQ-OAR-2016-0004-3512-A2 p.22]

Anonymous 8

The current glut in oil supply caused by OPEC's desire to drive out US shale production, has threatened the profit margin of the big companies engaged in oil production and supply to the United States. Your reduction in RVO's does nothing more than provide them with what amounts to a subsidy, by eliminating the mandate to use cleaner burning and self sustaining biofuels. [EPA-HQ-OAR-2016-0004-2405-A1 p.1]

Association of Equipment Manufacturers (AEM)

the existing shortfall in fueling infrastructure is the direct result of oil companies deliberately deciding to not install it. [EPA-HQ-OAR-2016-0004-0723-A1 p.3]

DENCO II, LLC

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, [EPA-HQ-OAR-2016-0004-1693-A2 p.2]

DuPont Industrial Biosciences

DuPont believes that the perceived constraints on delivering renewable fuel to consumers are nothing more than oil industry created obstacles to competition. [EPA-HQ-OAR-2016-0004-1827-A1 p.7]

Illinois Corn Growers Association and Illinois Renewable Fuels Association (ILRFA)

Your proposal not only chills and penalizes investment in biofuels capacity and new production but sends a clear message to the obligated parties that they are not going to be required to purchase and blend the RFS II volumes of conventional biofuels established by law. Therefore the obligated parties have absolutely no incentive to change their business practices and contracts which inhibit the sale of higher blends of ethanol. Neither do they have an incentive to invest in dispensers, tanks, and infrastructure to move additional biofuels into the marketplace according to their statutory obligations. [EPA-HQ-OAR-2016-0004-1745-A2 p.2]

Missouri Corn Growers Association (MCGA)

By continuing to embrace the flawed "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-2016-0004-1782-A1 p.3]

Nebraska Farmers Union

When we read your Executive Summary of the proposed rule, we shake our head. The summary often acknowledges that the oil industry retailers have been dragging their feet relative to structural deployment for E15, E85, and blender pumps. There is no question that the reason more ethanol has not been utilized is because of the failure of the petroleum retailers to provide renewable fuel infrastructure. [EPA-HQ-OAR-2016-0004-1688-A1 p.3]

Novozymes

the signal sent by this proposal is also confusing because it does not require the obligated parties to make available to consumers all of the renewable low carbon fuels we know can be produced. [EPA-HQ-OAR-2016-0004-1628-A1 p.1]

Schlueter, Paul

Obligated parties must do their part to market and sell these higher blend fuels or pay the penalty by purchasing RINs. [EPA-HQ-OAR-2016-0004-0183-A1 p.1]

Response:

Some stakeholders reiterated their concerns from the 2014-2016 final rule that EPA's methodology rewarded obligated parties for their recalcitrance in not investing in the infrastructure needed to substantially increase ethanol use above the E10 blendwall. We have responded to these comments, and the more general issue of the responsibilities that obligated parties have under the RFS program, in Section V.B.1.iv of the final rule. Additional discussion is provided below.

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 market participants.

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 their ability to undertake the short-term

activities available to them. 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.

One stakeholder said that by reducing the volume requirements below the statutory targets, EPA was effectively providing a subsidy to refiners whose profits had been negatively impacted by recent low crude oil prices. While setting the 2017 standards at the statutory targets would require refiners to acquire more RINs, we believe that the additional cost of doing so would be passed on to consumers through increased prices for gasoline and diesel as discussed in Section 3.1.4. Thus, we do not believe that higher volume requirements would result in lower profits for refiners, nor that lower volume requirements would result in higher profits. Rather it would result in varying costs for consumers. Regardless, we have based our determination of the applicable volume requirements for 2017 not on the basis of impacts on the refining industry, but rather on the levels that are reasonably attainable and, in some cases, appropriate based on a consideration of other factors.

2.3.5 E0

Comment:

Adler's Antique Autos

Section II.C.1. requests comments regarding E0 availability. It is wildly popular with vintage car collectors. They justify the high price as pampering their cars and rationalize they travel few miles, use few gallons. Wider availability would be good. Automobilists worry about E10 (or higher E content) corroding through fuel system components during storage, and starting

catastrophic fire for both the vehicle and storage building. Automobilists have the same concern as boaters with leaks concentrating vapors in confined places to explosive concentrations. We want to minimize the corrosivity of our fuel and concomitant catastrophic failure and fire. E0 fuel is good for storage over winter for those in the snowbelt. [EPA-HQ-OAR-2016-0004-2523 p.1]

American Fuel and Petrochemical Manufacturers (AFPM)

EPA's proposal understates consumer demand for E0. It is clear that the marketplace is unlikely to abandon billions of gallons of E0 in 2017 and replace it with ethanol blends in the short-term. [EPA-HQ-OAR-2016-0004-1814-A1 p.11]

While EPA recognizes the role E0 plays, it has arbitrarily refused to accept the EIA data that reveals the magnitude of E0 being consumed. [EPA-HQ-OAR-2016-0004-1814-A1 p.20]

The flat E0 share since 2011 conflicts with EPA's anticipation that E0 would continue to decrease over time. [EPA-HQ-OAR-2016-0004-1814-A1 p.20]

EPA's estimate of E0 for marine-use is not accurate. EPA incorrectly assumed that E0 was mainly sold to boaters at marinas – not retail stations. EPA's marina E0 sales estimate was based solely on sales of gasoline additive from one supplier that serves 640 out of 3,000 U.S. marinas. [EPA-HQ-OAR-2016-0004-1814-A1 p.23]

American Motorcyclist Association (AMA)

In the proposed 2017 rule, the EPA views E0 as a constraint on its plans for ethanol. This position contradicts data from the federal Energy Information Administration that shows 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. [EPA-HQ-OAR-2016-0004-1811-A1 p.2] [These comments can also be found in Docket Number EPA-HQ-OAR-2016-0004-3558 p.169.]

The practical effect of the EPA's action is that ethanol production will exceed the "blend wall," the point at which no more ethanol can be mixed into the nation's fuel supply without resulting in forcing into the market blends higher than 10 percent. That means more E15 and less E10 on the market, and the virtual phase-out of E0, which is necessary for millions of older and vintage machines. [EPA-HQ-OAR-2016-0004-1811-A1 p.2] [These comments can also be found in Docket Number EPA-HQ-OAR-2016-0004-3558 p.168.]

American Petroleum Institute (API)

the agency only quantifies recreational marine use of E0 and does not recognize other legitimate consumer demands for this fuel. [EPA-HQ-OAR-2016-0004-3512-A2 p.6]

a final rule that dismisses the real demand for E0 risks triggering the negative economic consequences of the ethanol blendwall. [EPA-HQ-OAR-2016-0004-3512-A2 p.6]

EPA should use the same methodology outlined in the referenced May 2016 EIA memo for developing E0 demand estimates. [EPA-HQ-OAR-2016-0004-3512-A2 p.6]

[The following comment was submitted as testimony at the Kansas City, Missouri public hearing on June 9, 2016. See Docket Number EPA-HQ-OAR-2016-0444-3559 p.20.]

Strong consumer demand for E0 continues to exist, as demonstrated in EIA data that show that E0 was 5.3 billion gallons in 2015. EPA standards should preserve the ability for consumers to choose E0.

Anonymous 3

We need to continue to make a reasonable amount of E0 for outdoor and recreational use [EPA-HQ-OAR-2016-0004-1925 p.2]

I am also against mandating that the total amount of ethanol-free gasoline (E0) be reduced to 200 million gallons a year. [EPA-HQ-OAR-2016-0004-1925 p.1]

Anonymous 4

First, I don't understand why governments (state/county/city) are allowed to regulate the sale of E0. I haven't found the exact Texas law, but I've heard several times that it is illegal to sell pure gas in any county with more than 100,000 people. This stinks of lobbying and isn't in the public interest. [EPA-HQ-OAR-2016-0004-1894 p.1]

Belluardo, John

I am forced to unnecessarily burn leaded gasoline in a low compression engine that both causes damage to my engine and spews poison into our atmosphere. This is a direct result of the government forcing every station in my area to lace the gasoline with ethanol making ethanol free gasoline unavailable. [EPA-HQ-OAR-2016-0004-2571-A1 p.1]

Boat U.S.

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, only 200 million gallons of E0 will be available in 2017 as compared to 5.3 billion gallons of E0 consumed in 2015². [EPA-HQ-OAR-2016-0004-1866-A1 p.1]

The memorandum³ 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-HQ-OAR-2016-0004-1866-A1 p.2]

2 Energy Information Administration, Almost all U.S. gasoline is blended with 10% ethanol, Today in Energy (May 4, 2016) <http://www.eia.gov/todayinenergy/detail.cfm?id=26092>

3 EPA Memorandum “Estimating E0 Volume Sold in the U.S. at marinas” 2015

Cascadia Academy

The EPA should set the Renewable Volume Obligations levels so that the public can be assured an adequate supply of fuel is available for use by those that can’t use ethanol blended fuels. [EPA-HQ-OAR-2016-0004-0714-A1 p.1]

Chesapeake Bay Yacht Clubs Association (CBYCA)

The EPA should set RVO levels so that the recreational boater can be assured an adequate supply of fuel that is safe for their needs. [EPA-HQ-OAR-2016-0004-3510-A1 p.1]

CountryMark

CountryMark does not believe that E0 gasoline should be limited strictly to recreational marine engine market. Although the Outdoor Power Equipment Institute (OPEI) generally permits the use of E10 gasoline in the equipment they manufacture, many users of such equipment (mowers, trimmers, etc.) generally prefer ethanol-free gasoline for these applications due to real performance issues associated with ethanol damage to engine components. [EPA-HQ-OAR-2016-0004-1826-A1 p.10]

Fort Washington Boating Association

EPA should set the RVO levels so that boaters can be assured an adequate supply of fuel that is safe for all boaters. [EPA-HQ-OAR-2016-0004-3364-A1 p.1]

Jakes Landing, LLC

Boat owners prefer all lead gas because their engines run better and incur fewer problems and that is why there continues to be strong demand for E0 fuel. [EPA-HQ-OAR-2016-0004-1670-A1 p.1]

revise the RFS standards and prevent the costly damage that will result in ethanol blends above the 10 % level. [EPA-HQ-OAR-2016-0004-1670-A1 p.1]

current EPA proposals to push E 15 blends onto the market will only serve to worsen the problems we already see with the current blends. [EPA-HQ-OAR-2016-0004-1670-A1 p.1]

Jones, R.

I am greatly concerned about the planned reduction in the production of E0 fuel. As a Boater, it is imperative that we be able to obtain sufficient E0 Fuel to operate our boats. [EPA-HQ-OAR-2016-0004-2013 p.1]

Whether you pass the proposal for E15 Fuels for Autos or not, please consider leaving the production levels for E0 at present levels at a minimum or increasing the production for recreational use only. [EPA-HQ-OAR-2016-0004-2013 p.1]

Magellan Midstream Partners

We believe EPA has significantly underestimated the volume of E0 in the domestic marketplace. [EPA-HQ-OAR-2016-0004-2695-A1 p.1]

E0 demand remains robust on our system and EPA's estimate for E0 demand does not reflect current market dynamics. [EPA-HQ-OAR-2016-0004-2695-A1 p.1]

We believe U.S. Energy Information Administration's data that shows E0 demand was 5.3 billion gallons in 2015 is more accurate. [EPA-HQ-OAR-2016-0004-2695-A1 p.2]

We are confident that the strong E0 demand that we have experienced is not dedicated solely to marine applications as EPA suggests. [EPA-HQ-OAR-2016-0004-2695-A1 p.2]

Marathon Petroleum Corporation (MPC)

EPA assumes that E0 demand would be between 100 and 300 million gallons for 2017. EPA's assumption continues to ignore consumer's actual demand for E0 as this assumption is contrary from data released by EIA on May 4, 2016, that showed that the demand for E0 in 2015 was 5.3 billion gallons. [EPA-HQ-OAR-2016-0004-1806-A1 p.4]

Marine Trade Association of New Jersey (MTA/NJ)

In addition, the EPA has done the boating public a great disservice by failing to account for market demand for ethanol-free gasoline. [EPA-HQ-OAR-2016-0004-0421 p.1]

Mass Comment Campaign sponsored by Anonymous 1 (Web) - (5,185)

In addition, the EPA has done the public a great disservice by failing to account for market demand for ethanol-free gasoline. In 2015, 5.3 billion gallons of E0 were consumed, yet the EPA is only allowing some 200 million gallons of this fuel for 2017. This number is not supported by sound analysis and disregards all basic market realities. [EPA-HQ-OAR-2016-0004-0073 p.1]

Mass Comment Campaign sponsored by Anonymous 22 (Web) - (572)

the EPA has done the boating and fishing public a great disservice by failing to account for market demand for ethanol-free gasoline. The EIA recently calculated that 5.3 billion gallons of E0 were consumed in 2015. However, in this proposal, the EPA would only allow 200 million

gallons of E0 fuel in 2017. This proposed volume of E0 is not supported by sound analysis and disregards all basic market realities. [EPA-HQ-OAR-2016-0004-1788 p.2]

Mass Comment Campaign sponsored by Anonymous 25 (USB) - (500,291)

ensuring the availability of ethanol-free gasoline. [EPA-HQ-OAR-2016-0004-3347-A1 p.2]

Mass Comment Campaign sponsored by North Dakota Energy Forum (Paper) - (41)

There are already too few fueling stations that sell ethanol-free gasoline, the recommended fuel for classic cars, and higher mandates could make ethanol-free choices obsolete. [EPA-HQ-OAR-2016-0004-1789-A1 p.1]

Mass Comment Campaign sponsored by Recreational Boat Owners (email) - (23,476)

As a recreational boat owner I am deeply concerned with the proposal (EPA-HQ-OAR-2016-0004), 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-2016-0004-0553-A1 p.1]

Mass Comment Campaign sponsored by Vets4Energy (Web) - (3)

trying to eliminate fuels ethanol-free fuels (e.g., E0) for which consumers have shown a substantial demand [EPA-HQ-OAR-2016-0004-1707-A1 p.1]

Michigan Boating Industries Association

the EPA has done the boating public a great disservice by failing to account for market demand for ethanol-free gasoline. [EPA-HQ-OAR-2016-0004-2201-A1 p.2]

Monroe Energy, LLC

The NPRM Significantly Underestimates E0 Use, and Consequently Overstates the Amount of Ethanol Used in E10 by Hundreds of Millions of Gallons. [EPA-HQ-OAR-2016-0004-1869-A1 p.9]

To the extent EPA is purposefully ignoring all E0 except the amounts consumed by recreational marine engines in order to “incentiviz[e] the market to continue to transition from E0 . . . to E10 and other higher level ethanol blends,”²⁴ that decision is not justified. There is no factual basis for believing that the RFS program can lead consumers, in 2017, to eliminate the 5 billion or more gallons of E0 that they have used consistently for years. [EPA-HQ-OAR-2016-0004-1869-A1 p.12]

24 Final Rule, 80 Fed. Reg. at 77,462.

National Marine Manufacturers Association (NMMA)

There are 12 million recreational vessels registered in the United States. Ninety-five percent of these vessels can be fueled at retail automotive service stations [EPA-HQ-OAR-2016-0004-1949-A1 p.1]

NMMA argues that the EPA should reduce the 2017 RVOs to reflect actual market conditions that are inclusive of consumer demand for E0. [EPA-HQ-OAR-2016-0004-1949-A1 p.2]

In 2015, E0 represented 3.7 percent of the total fuel consumed in the United States—a total of 5.3 billion gallons according to the EIA. The EPA proposed number represents a significant departure from the actual market realities; a difference that EPA failed to support in the proposal. [EPA-HQ-OAR-2016-0004-1949-A1 p.3]

According to BoatU.S., 90 percent of their members surveyed prefer ethanol free gasoline over any other fuel blend option.⁷ [EPA-HQ-OAR-2016-0004-1949-A1 p.4] [This comment can also be found in Docket Number EPA-HQ-OAR-2016-0004-3558 p.23]

EPA's E0 analysis continues to focus strictly on the marine engine sector, failing to take into account the millions of other engines prohibited to use mid and high level blends of ethanol. [EPA-HQ-OAR-2016-0004-1949-A1 p.4]

7 BoatU.S. Survey (August 2015)

Newton, Wendy

I don't understand why Americans... are being given less choices for ethanol free fuel options for the vehicles that can be damaged by ethanol. In California, we have no choice but to use blended ethanol fuel, E10. [EPA-HQ-OAR-2016-0004-1872-A1 p.1]

Phillips 66 Company

The E0 demand has varied over the years in the range of 3-5%. [EPA-HQ-OAR-2016-0004-1807-A1 p.3]

Shell Oil Products US

EPA underestimates E0 demand. EPA estimates E0 consumption at only 200 million gallons. In May 2016 EIA released its estimate that E0 demand in 2015 was 5.3 billion gallons. EIA's assessment demonstrates that EPA's estimate of 200 million gallons is a substantial underestimate. EPA should use E0 demand estimates provided by EIA using EIA's methodology. [EPA-HQ-OAR-2016-0004-1725-A1 p.3]

Response:

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 volume 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. Further details of this data analysis can be found in a memorandum to the docket.¹⁰

Several stakeholders said that since most recreational marine engines are refueled at retail service stations rather than marinas, most recreational marine engines refuel on E0. However, no data was provided to demonstrate that the retail service stations frequented by owners of recreational marine engines offer E0, nor was any data provided (aside from anecdotes described above) to demonstrate that owners of recreational marine engines always choose E0 when they have a choice of E0 or E10.

One stakeholder said that the proposed volume requirements would only allow the petroleum industry to produce 200 million gallons of E0 in 2017. 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

Several stakeholders said that the proposed standards would force E0 out of the market despite it being necessary for older and/or vintage engines. As described in more detail in Section 2.8, the market can provide E0 if there is demand for it so long as the total volumes of ethanol and non-ethanol renewable fuels are sufficient to meet the applicable standards.

One stakeholder said that the proposed standards would force higher ethanol blends into the market, causing damage to recreational marine engines. We note that E15 and higher ethanol blends are not permitted to be used in recreational marine engines, and retail stations offering E15 must implement misfueling mitigation plans to ensure that such engines are not refueled on E15.

Some stakeholders said that we had ignored significant historical demand for E0 in our determination of the total volume of ethanol that can be supplied. Several stakeholders pointed to a report from EIA suggesting that 5.3 billion gallons of E0 was consumed in 2015. These

¹⁰ "Estimating E0 use in recreational marine engines," memorandum from David Korotney to docket EPA-HQ-OAR-2015-0111.

stakeholders pointed out that it would be difficult for the market to transition about 5 billion gallons of E0 to E10 within one year. We have provided responses to these comments in Section V.B.1.i of the final rule.

One stakeholder said that EIA demonstrated that E0 demand rose from 3.4% in 2012 to 7% in 2014. This stakeholder did not provide a citation to the specific EIA data from which this level of E0 use was derived, and we are not aware of any EIA reports that indicate these levels of E0 use other than the May 4, 2016 report suggesting that 5.3 billion gallons of E0 was consumed in 2015.

One stakeholder said that EPA's analysis of E0 sold by marinas was based on sales of a gasoline additive from a single supplier. The stakeholder apparently based its comments on an older memorandum used for the 2014-2016 NPRM rather than on the newer memorandum used for the 2014-2016 final rule.^{11, 12} The newer memorandum uses several methods to estimate the volume of E0 sold at marinas.

Several stakeholders said that owners of recreational marine engines are not the only consumers who demand E0, and that ignoring this other demand for E0 was not appropriate. As described in Section V.B.1.i of the final rule, the RFS program is designed to increase the use of renewable fuel in the transportation sector, and thus could be expected to incentivize all but a small portion of gasoline to contain ethanol. That portion which would likely continue to use E0 would, in our estimation, be that portion which exhibits particular sensitivity to the use of gasoline with ethanol, due to concern regarding engine damage following water contamination and phase separation. It is this small portion that we have included in our determination of the applicable volume requirements for 2017. While some vehicle or engine owners other than owners of recreational marine engines may prefer E0, we do not believe that volumes of E0 used by such parties should be included in our determination of the applicable volume requirements for 2017 since they do not have the same particular sensitivity to gasoline blended with ethanol - with the exception of the oldest engines, essentially all vehicles and engines currently in use have been designed to be compatible with E10. We note, however, that the RFS program does not require the use of ethanol, and E0 can continue to be supplied if there is demand for it.

One stakeholder said that it is inappropriate for the government to make the sale of E0 illegal. The RFS program neither requires the use of ethanol in gasoline, nor prohibits the sale of E0. However, in some cases state or local governments may require the use of E10.

2.3.6 E15

¹¹ "Estimating E0 Volume Sold in the U.S. at marinas," memorandum from Lester Wyborny to EPA docket EPA-HQ-OAR-2015-0111.

¹² "Estimating E0 use in recreational marine engines," memorandum from David Korotney to docket EPA-HQ-OAR-2015-0111.

2.3.6.1 Infrastructure for dispensing

Comment:

25x'25 Alliance

EPA should thoroughly consider the rapid rate of expansion of fueling infrastructure for biofuels blends above E10 and adjust the RVOs upward to reflect this expanding market opportunity. [EPA-HQ-OAR-2016-0004-0473-A1 p.7]

American Coalition for Ethanol (ACE)

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.” [EPA-HQ-OAR-2016-0004-1679-A2 p.8]

American Fuel and Petrochemical Manufacturers (AFPM)

While USDA grants may have a marginal impact on the number of blender pumps in the marketplace, EPA provided no evidence that it had checked on the status of the USDA program. [EPA-HQ-OAR-2016-0004-1814-A1 p.24]

Prior to 2010, Underwriters Laboratories (the primary Nationally Recognized Testing Laboratory) had not listed a single dispenser as compatible with any alcohol concentration greater than 10 percent. Given that state fire codes 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. [EPA-HQ-OAR-2016-0004-1814-A1 p.25]

American Petroleum Institute (API)

Prior to 2010, Underwriters Laboratories (the primary Nationally Recognized Testing Laboratory) had not listed a single dispenser as compatible with any alcohol concentration greater than 10 percent. 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. [EPA-HQ-OAR-2016-0004-3512-A2 p.21]

Impacts of renewable fuel on infrastructure: The RFS has been ineffective in its ability for mandated renewable fuel volumes to effect infrastructure changes. [EPA-HQ-OAR-2016-0004-3512-A2 p.36]

EPA makes several assumptions regarding the BIP that are unsupported and optimistic: all 1500 stations will be in service for the full year in 2017; all stations will offer E15; and E15 sales will be 50% of total gasoline at all stations. [EPA-HQ-OAR-2016-0004-3512-A2 p.21]

Growth Energy

To be conservative, assume that there are only 100 existing non-BIP E15 stations and that half of the BIP stations upgrade by the end of 2016 and half do in 2017. If the stations convert at a constant rate in 2017, there would be the equivalent of 1,214 E15 stations throughout 2017. [EPA-HQ-OAR-2016-0004-3499-A1 p.37]

Highwater Ethanol

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-2016-0004-1662-A1 p.2]

Marathon Petroleum Corporation (MPC)

The DOE Alternative Fuels Data Center identified 312 stations selling E15 in June 2016. [EPA-HQ-OAR-2016-0004-1806-A1 p.5]

it is highly unlikely that in the last six months of 2016 an additional 1,400 stations will begin selling E15. As such, E15 should be excluded from any calculation of the 2017 renewable fuel volumes. [EPA-HQ-OAR-2016-0004-1806-A1 p.5]

Mass Comment Campaign sponsored by Anonymous 14 (email) - (406)

With the production ability of ethanol producers and the ability of the current auto fleet to accept higher blends, major retailers are now installing infrastructure to deliver higher ethanol blends, such as E15. [EPA-HQ-OAR-2016-0004-1171-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 14 (email) - (406)

With the production ability of ethanol producers and the ability of the current auto fleet to accept higher blends, major retailers are now installing infrastructure to deliver higher ethanol blends, such as E15. [EPA-HQ-OAR-2016-0004-1171-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 20 (email) - (13)

Ethanol is the cornerstone of our modern transportation fuel mix and is used in more than 90 percent of cars on the road today. We are proud to offer our consumers E10 and higher ethanol blends, like E15, and we have invested in infrastructure with plans to expand that choice for even more of our consumers. [EPA-HQ-OAR-2016-0004-1498-A1 p.1]

One of our top priorities and goals is to offer our customers a variety of fuel options at our pumps. We have made investments in our infrastructure in response to consumer demand for a less expensive, more environmentally friendly fuel. Our ability to sustain this choice for

consumers is dependent on a steady capacity to provide this product. E15 already accounts for a significant part of our overall sales. [EPA-HQ-OAR-2016-0004-1498-A1 p.1]

The intent of the RFS was, in part, to provide Americans with fuel choice and freedom, and we are pleased to play a part in expanding that choice to consumers who have embraced ethanol and E15 specifically. Moreover, we are thankful to be able to pass on savings to them with this choice and know that this is a major factor in consumer purchasing patterns. As more consumers embrace higher ethanol blends, like E15, the more important it becomes for us to be able to provide this option at our retail locations. We have done our part on the retail side by making significant infrastructure and marketing investments, and now we hope the Environmental Protection Agency (EPA) will do its part to protect this choice. [EPA-HQ-OAR-2016-0004-1498-A1 p.1]

Mass Comment Campaign sponsored by Missouri Corn Growers Association (paper) - (233)

Not only are we growing the corn to produce our fuel, but we are also partnering with the agriculture and biofuels industry to bolster a \$100 million USDA grant to increase the number of fuel tanks, service stations and E15 pumps around the country. [EPA-HQ-OAR-2016-0004-1705-A1 p.1]

Mass Comment Campaign Sponsored by Novozymes (web) - (8)

E15 is now available in 253 locations in 23 states and growing through Prime the Pump and the USDA BIP program. [For NC employees] E15 is now available at 58 Sheetz locations in North Carolina!

Mass Comment Campaign sponsored by residents of Central Ohio (Paper) - (37)

With the production ability of ethanol producers and the ability of the current auto fleet to accept higher blends, major retailers are now installing infrastructure to deliver higher ethanol blends, such as E15. [EPA-HQ-OAR-2016-0004-1971-A1 p.1]

Minnesota Bio-Fuels Association, Inc. (MBA)

E15, with respect to the ubiquitous E10, is a substantially similar fuel. As such, EPA should allow E15 to be stored in and dispensed from those fuel storage and dispensing systems which currently handle E10. [EPA-HQ-OAR-2016-0004-1871-A1 p.8]

Missouri Corn Growers Association (MCGA)

EPA's proposal badly misjudges the domestic supply of ethanol, as well as the physical capacity of existing vehicles and infrastructure to consume ethanol. [EPA-HQ-OAR-2016-0004-1782-A1 p.3]

National Taxpayers Union (NTU)

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. [EPA-HQ-OAR-2016-0004-1874-A1 p.2]

E15 faces similar demand and infrastructure problems. [EPA-HQ-OAR-2016-0004-1874-A1 p.2]

Near, Cheryl Worth

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.73]

With this new infrastructure, ethanol demand will, no doubt, increase.

Nebraska Corn Board (NCB)

The sustained increase in gasoline demand means more ethanol will be consumed in E10 blends, while the U.S. Department of Agriculture's Biofuels Infrastructure Partnership (USDA/BIP) is rapidly expanding the availability of E15 and E85. [EPA-HQ-OAR-2016-0004-1694-A2 p.2]

Novozymes

E15 is now available at 253 fueling locations in 23 states and growing with no reports of misfueling or equipment damage. [EPA-HQ-OAR-2016-0004-1734-A1 p.4]

Petroleum Marketers Association of America

In the near term, E15 will be offered at very few gas stations for the following reasons:

- “ 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 beyond storage tanks is listed for E15 use.
- “ Limited underground storage would force retailers to eliminate premium gasoline or E10 to make way for E15.
- “ Branded supply agreements generally bar retailers from making independent decisions on the type of fuel they sell.
- “ Retailer liability for consumer misfueling with E15 remains a strong disincentive for retailers. [EPA-HQ-OAR-2016-0004-2771-A1 p.2]

Currently, Underwriters Laboratories (UL) certifies gasoline retail infrastructure equipment to dispense and store up to a maximum 10 percent ethanol content. UL has refused to certify existing equipment already in use for E15 service. [EPA-HQ-OAR-2016-0004-2771-A1 p.2]

Retailers who decide to sell E15 could be held liable to pay for cleanup costs if a leak occurs due to the increased ethanol blends, and insurance companies may deny coverage. [EPA-HQ-OAR-2016-0004-2771-A1 p.2]

there is no legal or practical way for petroleum marketers to certify existing equipment for E15 use. The only method would be to install all new e15 certified equipment at existing sites. [EPA-HQ-OAR-2016-0004-2771-A1 p.3]

If higher ethanol blends were forced on petroleum marketers, it could force a system wide retrofit of UST systems that would not only impose high compliance costs on retail marketers but could also disrupt supply and result in sharp price increases at the pump. 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-2016-0004-2771-A1 p.3]

PMAA recently heard from a member marketer who decided to install E15 blend pumps at a new location going up in Indiana. The marketer learned firsthand what many other retailers are experiencing; there is no return for the considerable investment on E15 compatible equipment. This is due largely to the lower cost of E10 blended fuel and pervasive consumer resistance to using ethanol blends greater than E10 due to concerns over automobile engine and emission compatibility as well as reduced energy content and MPG. [EPA-HQ-OAR-2016-0004-2771-A1, pp.3-4]

Phillips 66 Company

A third concern is whether the retail equipment can handle the higher ethanol blend or not. [EPA-HQ-OAR-2016-0004-1807-A1 p.4]

Renewable Fuels Association (RFA)

just over 300 retail stations are selling E15.⁶² [EPA-HQ-OAR-2016-0004-1695-A2 p.26]

62 www.E85prices.com shows 3,454 stations are currently selling E85. We conservatively assume each of these stations has only one E85 pump. RFA internally tracks the number of stations selling E15.

Society of Independent Gasoline Marketers of America (SIGMA) & National Association of Convenience Stores (NACS)

retailer liability concerns are a key factor in fuel retailers' decision to not sell gasoline containing more than 10 percent ethanol. [EPA-HQ-OAR-2016-0004-1808-A1 p.4]

It is feasible to convert dispensers to ensure compatibility with higher levels of ethanol-blended fuel, but it is much more complicated to determine the compatibility of underground storage equipment [EPA-HQ-OAR-2016-0004-1808-A1 p.5]

Response:

A number of stakeholders pointed to efforts by major retailers to offer E15. We recognize these efforts, including those incentivized by USDA's Biofuels Infrastructure Partnership (BIP) program and the ethanol industry's Prime the Pump program, and have used the most up-to-date information from both of these programs to estimate how E15 offerings at retail are likely to expand through the end of 2017. Further discussion of these estimates is provided in Section V.B.1.ii of the preamble.

One stakeholder said that many retailers are avoiding installing E15 pumps because of poor return on investment, and theorized that this was due to the lower cost of E10 and customer resistance to higher ethanol blends. We recognize that return on investment is the primary consideration for many retail station owners, and that grant programs such as USDA's Biofuels Infrastructure Partnership and the ethanol industry's Prime the Pump program, are critical in this regard. It is for this reason that our projection of the number of stations offering E15 in 2017 is based primarily on changes expected to be brought about by these programs.

Several stakeholders representing ethanol interests said that the retail infrastructure to offer E15 is not a limiting factor in the level of E15 supply that can be achieved. One stakeholder further stated that recent data and information available from EPA's Underground Storage Tank Division supports the view that E15 can be rapidly deployed into the marketplace as the predominate form of regular unleaded gasoline, while another pointed to a study from NREL which said, "...the majority of installed tanks can store blends above E10." We disagree that retail infrastructure is not a limiting factor in E15 supply. Stakeholders representing retail stations indicated that, while it may be the case that much of the existing equipment at retail is compatible with E15, 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 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 non-road 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.

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. Actual costs for a retailer to offer E15 will vary depending on whether existing equipment can be recertified for E15, whether it is only pumps/dispensers that must be upgraded versus underground storage tanks, the number of dispensers at a given retail station that the retailer wants to be able to offer E15, and other factors. However, based on expenditures for USDA's BIP program, the average retail station upgrade costs about \$140,000 (approximately \$200 million in total funds to upgrade about 1,400 stations).

Some stakeholders said that retail stations being targeted under the BIP program were larger than average, such that it would be inappropriate to assume that the total gasoline throughput per station in the equation used to estimate E15 supply is equal to the nationwide average, currently about 0.95 million gallons per station per year. We have addressed this comment in Section V.B.1.ii of the final rule.

2.3.6.2 Vehicles that can use it

Comment:

American Fuel and Petrochemical Manufacturers (AFPM)

About 7 or 8 percent of the fleet are flexible-fueled vehicles (“FFVs”)¹¹ that can use gasoline blends from E0 to E85, and some newer model vehicles can use up to E15, but the overwhelming majority of the existing fleet would jeopardize warranties by using ethanol blends over 10 percent. [EPA-HQ-OAR-2016-0004-1814-A1 p.8]

11 EIA’s testimony offered at a hearing before the Senate Environment and Public Works Committee on February 24, 2016 reported 7 percent FFV penetration. EIA’s June 22, 2016 testimony at a hearing of the House Energy and Commerce Committee, Subcommittee on Energy and Power, included an 8 percent penetration estimate.

American Petroleum Institute (API)

With an average vehicle age of 11.5 years, the overwhelming majority of vehicles on the road today 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. [EPA-HQ-OAR-2016-0004-3512-A2 p.17]

Anonymous 1

Infrastructure and vehicles can safely handle E15 and flex fuels. [EPA-HQ-OAR-2016-0004-0531 p.1]

Anonymous 10

2. Most of the automobile engines on the road today will be damaged by 15% ethanol blends. [EPA-HQ-OAR-2016-0004-2151 p.1]

Anonymous 3

it is not even legal to use E15 in boat and other similar motors, the move to it coupled with the virtual elimination of E0 is a direct if covert attack on law abiding citizens who are sportsmen [EPA-HQ-OAR-2016-0004-1925 p.1]

Blue Ridge Golf Course

The vast majority of cars, trucks, and other non-road vehicles and engines in the U. S. can only be fueled with E0 or E10 gasoline without voiding the manufacturers warranty or potentially damage to the engine. Increasing that limit above E10 requirements only exacerbate the problem and creates an undo burden and expense to small companies such as ours. [EPA-HQ-OAR-2016-0004-2699 p.2]

Bunker Hill Farms, Inc.

Automakers have approved E15 for use in nearly 75% of new cars, and the EPA approves its use in more than 86% of cars on the road today. [EPA-HQ-OAR-2016-0004-2766-A1 p.1]

CMB Performance Horses

Higher ethanol blends, such as E15, could result in increased costs and time to consumers such as myself to fix vehicles or other gasoline-powered engines, such as lawnmowers, boats and motorcycles that are not designed to run on E15. [EPA-HQ-OAR-2016-0004-1631-A1 p.1]

Florida State Hispanic Chamber of Commerce

90 percent of vehicles on the road are not designed for E15 and manufacturers warn that using E15 could result in a voided new car warranty. [EPA-HQ-OAR-2016-0004-0247-A1 p.1]

Kansas Farm Bureau

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 [EPA-HQ-OAR-2016-0004-1718-A1 p.1-2]

Kendall Cabinets Inc.

We need to make sure that higher ethanol content is safe for all gas-operated vehicles and equipment (older cars, for instance, and boats, lawn mowers, snowmobiles, chain saws, etc.) and that proper protocols are established for preventing the inappropriate use of E15 (consumer education, warning labels, etc.). [EPA-HQ-OAR-2016-0004-1755-A1 p.1]

Mass Comment Campaign sponsored by North Dakota Energy Forum (Paper) - (41)

Many car owners have also spent significant time and money to upgrade and maintain their classic cars to run on E10. If the market moves to E15, car owners would have to invest more time and money to upgrade their cars, or worse, risk irreparable damage to their car and lose a significant investment. This is an unnecessary economic hardship that we do not want to be forced to bear. [EPA-HQ-OAR-2016-0004-1789-A1 p.1]

Mass Comment Campaign Sponsored by Novozymes (web) - (8)

Increase transportation fuel efficiency: Today more than 84% of the cars on the road are approved for E15 (2001 and newer) and that number keeps climbing. [EPA-HQ-OAR-2016-0004-0717-A1 p.2]

Mass Comment Campaign sponsored by POET Biorefining 5 (Paper) - (80)

Automakers approved E15 for use in nearly three-quarters of new cars, and the EPA approves its use in more than 86% of cars on the road today. [EPA-HQ-OAR-2016-0004-2881-A1 p.1]

Michelle Toohey Enterprises

The EPA's requirement to blend ever-increasing volumes of renewable fuel into the nation's fuel supply defies logic. It creates an unachievable mandate because the vast majority of cars, trucks and other non-road vehicles and engines in the United States can only be fueled with E0 or E10 gasoline without voiding the manufacturer's warranty and damaging the engines. [EPA-HQ-OAR-2016-0004-2355 p.2]

Minnesota Bio-Fuels Association, Inc. (MBA)

Light-duty vehicles manufactured after 2000 can use E15. This is a new "real-world" reality the EPA must fully embrace. [EPA-HQ-OAR-2016-0004-1871-A1 p.5]

The EPA should reorient itself to the new "real-world" situation and embrace an "E15 floor."
[EPA-HeQ-OAR-2016-0004-1871-A1 p.5]

Minnesota Corn Growers Association (MCGA)

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 annually. [EPA-HQ-OAR-2016-0004-1818-A1 p.2]

Missouri Corn Growers Association (MCGA)

EPA's proposal badly misjudges the domestic supply of ethanol, as well as the physical capacity of existing vehicles and infrastructure to consume ethanol. [EPA-HQ-OAR-2016-0004-1782-A1 p.3]

National Corn Growers Association

According to the American Coalition for Ethanol, 80 percent of the 253 million cars on the road today can use E15 – or approximately 200 million cars. [EPA-HQ-OAR-2016-0004-1809-A1 p.8]

National Taxpayers Union (NTU)

According to the American Automobile Association (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. [EPA-HQ-OAR-2016-0004-1874-A1 p.2]

Novozymes

Today more than 84 percent of the cars on the road (2001 and newer) are approved for E15 and that number keeps climbing. [EPA-HQ-OAR-2016-0004-1734-A1 p.4]

Ohio Coin Machine Association

Mandates requiring E15 could also result in a voided new car warranty. 90 percent of vehicles on the road are not designed for E15 and manufacturers warn that using E15 could result in a voided new car warranty. [EPA-HQ-OAR-2016-0004-2719 p.2]

Ohio Council of Retail Merchants

Mandates requiring E15 could also result in a voided new car warranty. 90 percent of vehicles on the road are not designed for E15 and manufacturers warn that using E15 could result in a voided new car warranty. [EPA-HQ-OAR-2016-0004-2893 p.2]

Ohio Licensed Beverage Association

Mandates requiring E15 could also result in a voided new car warranty. Up to 90 percent of vehicles now in use weren't designed for E15, and manufacturers warn that using E15 could result in a voided new car warranty. [EPA-HQ-OAR-2016-0004-2206 p.2]

Ohio Spirits Association

Mandates requiring E15 could also result in a voided new car warranty. As much as 90 percent of vehicles on the road are not designed for E15 and manufacturers warn that using E15 could result in a voided new car warranty. [EPA-HQ-OAR-2016-0004-2252 p.2]

Ohio Veterans United

Currently, E85 can only be used in flex-fuel vehicles, and studies have concluded that E15 could damage engines and fuel systems in millions of vehicles, motorcycles, boats and other gasoline-powered vehicles and equipment. [EPA-HQ-OAR-2016-0004-1941 p.2]

Parrent, Kenneth

Today, auto makers are providing engines that can use fuels that contains up to 15% ethanol [EPA-HQ-OAR-2016-0004-0243-A1 p.1]

Phillips 66 Company

Another E15 barrier is the fact that the auto manufacturers do not warrant the vast majority of the vehicles on the road for use with E15. [EPA-HQ-OAR-2016-0004-1807-A1 p.4]

Renewable Fuels Association (RFA)

EPA cites the “number of vehicles that can both legally and practically consume E15 and/or E85” as a “constraint” on the amount of ethanol that can be distributed to consumers.⁵⁸ In reality, there are no such legal or practical constraints posed by the existing vehicle fleet. [EPA-HQ-OAR-2016-0004-1695-A2 p.25]

58 81 Fed. Reg. 34,790

Shell Oil Products US

E15 is overestimated by EPA at 800 million gallons. E15 is only compatible with approximately 10% of vehicles on the road today, and is not compatible or legal to use in the vast majority of retail infrastructure. EPA overlooks these real world constraints in its E15 volume estimates. [EPA-HQ-OAR-2016-0004-1725-A1 p.3]

Unified Boaters of Canyon Ferry

We are against requirement E15 on fuels. E15 will damage many boat engines and result in extensive costs to boat owners. As E15 is prohibited in marine engines, this mandate would be against the law and put boat owners and marine owners in jeopardy of breaking the law. [EPA-HQ-OAR-2016-0004-2774-A1 p.1]

Wisconsin Corn Growers Association

our current auto fleet is ready to use the fuel production [EPA-HQ-OAR-2016-0004-1637-A1 p.1]

Response:

A number of stakeholders pointed to the large number of vehicles that are legally permitted to use E15, and one stakeholder said that E15 use by all vehicles would result in the displacement of 7 billion gallons of foreign oil and would remove as much as 8 million tons of GHGs from the air each year. However, as described more fully in Section V.B.1.ii of the final rule, we do not believe that the number of vehicles that are legally permitted to use E15 is the predominant factor in determining the volume of E15 that is likely to be consumed in 2017. Instead, it is the number of retail stations offering E15 in 2017 that is a more important factor in determining how much E15 is actually consumed.

A number of stakeholders pointed to the large number of vehicles that are legally permitted to use E15, and one stakeholder said that E15 use by all vehicles would result in the displacement of 7 billion gallons of foreign oil and would remove as much as 8 million tons of GHGs from the air each year. However, as described more fully in Section V.B.1.ii 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, are the predominant factors in determining the volume of E15 that is likely to be consumed in 2017. Instead, it is the number of retail stations offering E15 in 2017 that is more likely to determine how much E15 is actually consumed.

One stakeholder said that there were no legal or practical constraints posed by the existing vehicle fleet on the amount of ethanol that can be distributed to consumers. This comment mixes the consumption capacity of the vehicle fleet with the ability to distribute and dispense gasoline-ethanol blends. There are legal limitations on the ethanol concentration that is permitted in certain vehicles: while E10 can be used in all vehicles and non-road engines, E15 can only be used in FFVs and 2001 and later model year vehicles, and E85 can only be used in FFVs. However, as stated above, we do not believe that the consumption capacity of vehicles permitted to use higher ethanol blends is a predominant factor in determining the volume of ethanol that can be supplied in 2017. Instead, it is the practical constraints associated with distributing and dispensing higher level ethanol blends that are more constraining.

While some stakeholders were enthusiastic about the potential for expansion of E15 use in 2017, 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 non-road engines. Some

of the stakeholders expressing these concerns said that EPA had not done enough to ensure that this misfueling does not occur. While these comments are beyond the scope of this rule, we note that 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. While these comments address matters beyond the scope of this rulemaking, we note that 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.

There was significant disagreement among stakeholders about which vehicles can use E15. As stated before, EPA has determined that E15 is compatible with and legally permissible in, all 2001 model year and later vehicles. However, commenters representing the refining industry repeated previous claims that E15 is not compatible with any vehicle not specifically designed by the manufacturer to be compatible with E15 and/or not explicitly warranted to use E15. We acknowledge that no manufacturer has explicitly warranted their vehicles to use E15 before the 2012 model year, and some did not do so until the 2016 model year. However, the fact that no manufacturer has modified the warranty of previously manufactured vehicles to acknowledge the use of E15 does not, in our view, mean that those vehicles are not compatible with E15. Issues related to vehicle compatibility with E15 are also discussed in Section 7.5.4. To the extent that these commenters intend to suggest that some owners of 2001 model and later vehicles might not choose E15 if it is offered due to compatibility or warranty concerns, such behavior would be accounted for in the formula we have used to calculate E15 supply, in the variable showing the percent of gasoline sales that are E15 in a station offering both E10 and E15. The final rule uses a 15% value that is based on the limited data available.

Several stakeholders said that the use of E15 in some vehicles could result in its OEM warranty being voided. While many vehicles that can legally use E15 were produced prior to EPA's 2011 approval for the use of E15, it was EPA's determination that, as long as they were produced in 2001 or later, they are compatible with E15. We are not aware of any vehicle warranties which explicitly warn of nullification if E15 is used, nor are we aware of any actual cases of warranties being voided as a result of the use of E15 in a model year 2001 or later vehicle.

One party said that the proposed volume requirements would force small engines, particularly owners of boat engines, to use E15 despite the fact that E15 is not permitted to be used in such engines. The standards we set under the RFS program do not change the prohibitions on the use of E15 in non-road engines. Although the final 2017 standards are based on an expectation that the use of E15 will increase in 2017 compared to 2016, that increased use can only lawfully occur in 2001 model year and later vehicles.

We disagree with some stakeholders who said 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. Specifically, EPA has provided a waiver under CAA 211(f)(4) to allow E15 to be sold as gasoline for use in model year 2001 and later vehicles.

One stakeholder said that it would be an economic hardship for owners of classic/vintage cars if the market were to move to E15, due to the time and money needed to modify those cars to operate on E15. We expect that the market will continue to supply E10 to vehicles and equipment that create demand for such fuels. The RFS program does not require the use of E15 specifically or ethanol generally.

One stakeholder said that EPA should embrace an "E15 floor" wherein all gasoline is assumed to contain at least 15% ethanol. As described earlier, we acknowledge that the E15 consumption capacity of 2001 model year and later vehicles is large. However, the number of retail stations that are expected to offer E15 in 2017 is far less than the number of all retail stations. Moreover, vehicles produced prior to 2001 and all non-road engines are not permitted to use E15. As a result, it would not be appropriate to assume that the entire gasoline pool can be E15 in 2017.

2.3.6.3 Projected volume

Comment:

American Fuel and Petrochemical Manufacturers (AFPM)

The Agency also should continue to expect E15 volumes to be very low in 2017, much smaller than 50 million gallons. [EPA-HQ-OAR-2016-0004-1814-A1 p.12]

American Petroleum Institute (API)

A recent Report by Iowa Department of Revenue shows that the average per station E15 sales in Iowa is only 15% of average per station E10 sales.⁵⁵ Given this history and the concerns raised in this section, the EPA's aspirational goal of half of the gasoline sold at the average retail gasoline station being E15 is unlikely at best. [EPA-HQ-OAR-2016-0004-3512-A2 p.22-23]

Anonymous 3

I am against raising the ethanol levels in gasoline from 10% (E10) to 15% (E15) as a means to raise the amount of renewable fuels. [EPA-HQ-OAR-2016-0004-1925 p.1]

Anonymous 10

The EPA should clearly reject the proposed Ethanol 15% blend proposal based on the facts. [EPA-HQ-OAR-2016-0004-2151 p.1]

Archer Daniels Midland Company (ADM)

While the RVO Proposal uses an average location throughput of 950,000 gallons of gasoline for retailers selling E15, we know that the 725 stores with whom we are working collectively sell 2.2 billion gallons of gasoline annually - an average of 3 million gallons per store. Most of the BIP program recipients are high-volume locations like these, and we believe they are reflective of higher E15 volumes nationally. [EPA-HQ-OAR-2016-0004-1727-A1 p.2-3] [Similar comments can also be found in Docket Number EPA-HQ-OAR-2016-0004-3559, pp.32-33.]

Growth Energy

To be conservative, assume that there are only 100 existing non-BIP E15 stations and that half of the BIP stations upgrade by the end of 2016 and half do in 2017. If the stations convert at a constant rate in 2017, there would be the equivalent of 1,214 E15 stations throughout 2017. Using the conservative assumption that a dispenser's throughput is 45,000 gallons per month, those new E15 dispensers could deliver 1.312 billion gallons of E15 in 2017. [EPA-HQ-OAR-2016-0004-3499-A1 p.37]

[The following comment was submitted as testimony at the Kansas City, Missouri public hearing on June 9, 2016. See Docket Number EPA-HQ-OAR-2016-0004-3359 p.23-24.]

the rule fails to consider that ethanol producers, retailers, and the current auto fleet are fully capable of providing higher blends, such as E15, giving consumers a true choice at the pump.

Nestle Corporate Affairs

Lack of E15 Growth as Justification for Use of Waiver Authority

The argument for further substantial growth in corn ethanol demand rests almost entirely on the proposition that a higher 15% ethanol blend (E15) will be more widely offered by service stations and more widely accepted by consumers. We observe that there is little if any evidence that either of these events will occur soon. [EPA-HQ-OAR-2016-0004-1868-A1 p.2]

Newton, Wendy

Please do not mandate E15. I think you will find that most people will use Ethanol blended gasoline if it is the right choice for their vehicle and the way they use it. [EPA-HQ-OAR-2016-0004-1872-A1 p.1]

North Dakota Corn Growers Association

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.143]

The higher fuel priced market, the numbers show a jump from 10.09 in January of 2014 to 17.26 percent in April 2015. Looking at their markets overall, the numbers of E15 and mid-level ethanol blends are consistently over 12 percent of volume.

Petroleum Marketers Association of America

PMAA strongly opposes adoption of ethanol mandates for 2017 that would force the introduction of E15 gasoline blends. [EPA-HQ-OAR-2016-0004-2771-A1 p.1]

Quad County Corn Processors (QCCP), employees

Low fuel prices have spurred increased driving habits and record fuel demand. The USDA is projecting a historic excess supply of corn. The number of stations offering fuel blends above E10 will increase dramatically as a result of USDA's Biofuels Infrastructure Partnership. We have been experiencing record sales of E15 and E85 so please do not ignore current market conditions and the reality that motorists are embracing and demanding higher ethanol blends. [EPA-HQ-OAR-2016-0004-1323-A2 p.1]

Steitz, Jim

Again, please reject the proposal to increase the ethanol fraction of American retail gasoline to 15% [EPA-HQ-OAR-2016-0004-2058 p.2]

Response:

One stakeholder said that the proposed rule failed to consider that ethanol producers, retailers, and vehicle owners are capable of providing higher ethanol blends such as E15. While we did not provide a specific projection in the NPRM for E15 supply in 2017, we did propose that the total volume of ethanol could increase substantially in 2017, from 14.13 billion gallons to 14.4 billion gallons. This increase was expected to occur as a result of increases in the use of both E15 and E85. In the final rule we have made a more precise estimate of the volume of E15 that is reasonably attainable in 2017, demonstrating that in fact we do believe that the market is capable of increasing supply.

Several stakeholders said that since the number of retail stations likely to offer E15 in 2017 is a small fraction of all retail stations, supply of E15 should be assumed to be much smaller than 50 million gallons in 2017 or ignored altogether in the determination of the volume of ethanol that is reasonably attainable. We disagree. We believe it is both reasonable and appropriate to reflect all sources of renewable fuel supply in the determination of the applicable standards when they can be reasonably estimated and could be large enough to affect the applicable percentage standards.¹³ Further discussion of the approach we have taken to estimate a reasonably attainable volume of E15, including our estimate of the number of retail stations that may offer it, is provided in Section V.B.1.ii of the final rule.

¹³ Given the projected volume of gasoline and diesel used to calculate the % standards for 2017, a change in renewable fuel volume as small as 35 million gallons would change the applicable percentage standard by 0.01%, and considerably smaller volume changes could also change the applicable percentage standard by 0.01% if the precise applicable percentage standard is close to the rounded value. As described in Section VII.C of the final rule, we are setting all percentage standards to two decimal places, with the exception of cellulosic biofuel which is set to three decimal places.

Several stakeholders provided comments on how to determine the annual average volume of E15 sold at retail stations that offer it, making specific reference to the equation used in the 2014-2016 final rule:

$$\begin{aligned} \text{E15 volume} = & (\text{Total gasoline throughput per station}) \\ & \times (\text{Number of stations offering E15}) \\ & \times (\text{Fraction of total gasoline sales which are E15}) \end{aligned}$$

A number of refiners said that the fraction of gasoline sold at retail stations which was E15 was far lower than the 50% we had assumed in the NPRM. Another stakeholder said that new retail stations offering E15 have a higher than annual average gasoline throughput, and some offered specific throughput levels that they believed we should use in our determination of reasonably attainable E15 supply for 2017. We have addressed these comments in Section V.B.1.ii of the final rule.

One stakeholder said that EPA should assume that every E15 dispenser's throughput is 45,000 gallons per month. However, the stakeholder did not justify the use of this throughput value in light of the fact that most retail stations have many dispensers, nor did he address the fact that owners of 2001 and later model year vehicles may choose not to use E15 when E10 is also available as highlighted by other stakeholders. As described in Section V.B.1.ii of the final rule, we have estimated 2017 E15 supply based not on dispenser throughput, but rather on overall station throughput.

Several stakeholders 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 reasonably attainable, we are providing opportunities for E15 to grow if the market chooses that avenue to meet the volume requirements.

Several stakeholders said that it would not be appropriate for EPA to mandate the use of E15, or to set ethanol mandates that would force the use of E15. While we have made an estimate of the volumes of E15, as well as other ethanol blends and other types of renewable fuel, that can be reasonably attained in 2017 for the purposes of determining appropriate standards for 2017, this reflects our estimate of volumes that can be supplied in light of the statute's goal for annual increases. However, once set, the applicable standards can be met by a wide variety of ethanol fuel blends and/or types of renewable fuel.

2.3.7 E85

2.3.7.1 Infrastructure for dispensing

Comment:

25x'25 Alliance

EPA should thoroughly consider the rapid rate of expansion of fueling infrastructure for biofuels blends above E10 and adjust the RVOs upward to reflect this expanding market opportunity. [EPA-HQ-OAR-2016-0004-0473-A1 p.7]

American Petroleum Institute (API)

most retail stations would have to undergo extensive retrofits to install or upgrade their existing equipment to become E85-compatible and to be able to legally store and dispense E85. [EPA-HQ-OAR-2016-0004-3512-A2 p.14]

According to the Fuels Institute study, the “combination of margins and volume demonstrate that, over the time period being evaluated, E85 generated an average monthly profit of \$789. This is less profitable than either premium (\$1,193/month) or midgrade (\$1,466/month).” [EPA-HQ-OAR-2016-0004-3512-A2 p.16]

Anonymous 1

Infrastructure and vehicles can safely handle E15 and flex fuels. [EPA-HQ-OAR-2016-0004-0531 p.1]

Birr, Adam

EPA claimed that the proposed rule change for 2017 is due to a lack of compatible fueling infrastructure to distribute ethanol blended fuels. Minnesota has been a leader in expanding the use of homegrown ethanol. [EPA-HQ-OAR-2016-0004-3146-A1 p.1]

CountryMark

Over the last year, three CountryMark stations have discontinued offering E85 and another station is currently considering doing so due to poor sales. [EPA-HQ-OAR-2016-0004-1826-A1 p.11]

Governors’ Biofuels Coalition

As a result of USDA’s Biofuels Infrastructure Partnership grants and other programs, stations offering E85 are slated to grow 65% in the next 18 months. [EPA-HQ-OAR-2016-0004-1729-A1 p.3]

Growth Energy

EPA errs in its assessment of the likely impact of BIP and in its treatment of historical growth rates. A more accurate analysis shows that the maximum reasonably achievable number of E85 stations in 2017 is substantially above 4,000. [EPA-HQ-OAR-2016-0004-3499-A1 p.32]

That the market would add 485 E85 stations annually without any RFS pressure to expand the use of E85 shows that the 485 is, at most, the minimum achievable growth rate and that the

“maximum reasonably achievable” growth rate is likely far higher. [EPA-HQ-OAR-2016-0004-3499-A1 p.32]

And EPA’s prediction of the number of E85 stations misapprehends the industry’s infrastructure needs and its ability to expand quickly.

Illinois Corn Growers Association and Illinois Renewable Fuels Association (ILRFA)

Prime the Pump also invested and provided matching funds to several other projects in other states which will result in significant increases in sales of E-85 and E-15. [EPA-HQ-OAR-2016-0004-1745-A2 p.3]

Over \$30 million has been invested by Prime the Pump in other projects independent of the BIP Program funded projects. [EPA-HQ-OAR-2016-0004-1745-A2 p.3]

Mass Comment Campaign sponsored by DENCO II, investors (Paper) - (12)

At DENCO II we have reinvested over \$100,000 in equipment upgrades to our ethanol load-out system in order to offer E-85 and higher level blends directly to retailers. We are also a direct contributor to the Minnesota Biofuel Infrastructure Partnership to the tune of \$90,000, and we have invested \$103,000 into the Growth Energy led Prime the Pump initiative. This is money our industry is spending to help build out infrastructure so our product can compete on the same stage as gasoline. And, these investments will absolutely help the United States meet the RVO's as they were intended by congress. Without increasing the RVO's, E85 and higher level ethanol blend infrastructure investments will eventually stall and decline. [EPA-HQ-OAR-2016-0004-1967-A1 p.2]

Monroe Energy, LLC

to achieve 4,000 stations by January 1, 2017, the economy would need to add 895 new stations before the end of 2016—a feat that would require a 29% increase in the number of stations available nationwide in the next six months. [EPA-HQ-OAR-2016-0004-1869-A1, pp.17-18]

While the Korotney Memo speculates that the BIP program could increase the number of E85 stations to 3,641 by the beginning of 2017,⁴⁹ that rests on the assumption that the BIP program “is expected to increase the number of retail stations that have blender pumps by 1,486 by the end of 2016.”⁵⁰ The evidence cited for that assumption is a USDA webpage identifying the number of new blender pumps anticipated per state as a result of the BIP program. However, the USDA’s webpage nowhere suggests these pumps will be in place by the beginning of 2017; [EPA-HQ-OAR-2016-0004-1869-A1 p.18]

Moreover, even while acknowledging “the paucity of concrete information on the results of the BIP program,” the Korotney Memo nevertheless assumes that all 515 new ethanol tanks expected under the program will hold E85, [EPA-HQ-OAR-2016-0004-1869-A1 p.19]

the notion that 485 additional stations could be added in 2017, without BIP program funding, is sheer speculation. There is no evidence whatsoever to support it. [EPA-HQ-OAR-2016-0004-1869-A1, pp.19-20]

49 Korotney Memo 8.

50 Id. at 7.

National Taxpayers Union (NTU)

few consumers are even able to utilize E85 – only 2 percent of gas stations can provide the fuel. [EPA-HQ-OAR-2016-0004-1874-A1 p.2]

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. [EPA-HQ-OAR-2016-0004-1874-A1 p.2]

Near, Cheryl Worth

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.73]

With this new infrastructure, ethanol demand will, no doubt, increase.

Nebraska Corn Board (NCB)

The sustained increase in gasoline demand means more ethanol will be consumed in E10 blends, while the U.S. Department of Agriculture's Biofuels Infrastructure Partnership (USDA/BIP) is rapidly expanding the availability of E15 and E85. [EPA-HQ-OAR-2016-0004-1694-A2 p.2]

Petroleum Marketers Association of America

E85 sales do not justify the capital costs for infrastructure even with generous grants from federal and state governments. Retailers are increasingly discontinuing E-85 pumps due to lack of consumer demand. [EPA-HQ-OAR-2016-0004-2771-A1 p.4]

Society of Independent Gasoline Marketers of America (SIGMA) & National Association of Convenience Stores (NACS)

Although E85 normally can be sold for less dollars-per-gallon than the more widely available E10, this price differential does not generate sufficient demand to justify a retailer's capital investment costs. [EPA-HQ-OAR-2016-0004-1808-A1 p.4]

Response:

A number of stakeholders pointed to efforts by major retailers to offer E85. In contrast, other stakeholders pointed to examples of retailers who have discontinued offering E85 due to low sales. Despite these conflicting comments, we believe it is appropriate to account for expanding infrastructure wherein costs have been subsidized by USDA's Biofuels Infrastructure Partnership (BIP) program and/or the ethanol industry's Prime the Pump program. We have used the most up-to-date information from both of these programs to estimate how E85 offerings at retail are likely to expand through the end of 2017. Further discussion of these estimates is provided in Section V.B.1.iii of the final rule.

Some stakeholders provided comments on how the number of retail stations offering E85 could grow through the end of 2017 through grant programs, while others said that costs for new infrastructure and low expected profit margins would severely constrain such growth. We have addressed these comments in Section V.B.1.iii of the final rule, and in a memorandum to the docket.¹⁴

One stakeholder said that since a growth rate of 485 new E85 stations per year had been achieved in the past, EPA should assume this growth rate at minimum for 2017, and likely higher.¹⁵ As described in a new memorandum to the docket, we believe that there will be considerable overlap between documented efforts by specific retailers to install new capacity to offer E85, and efforts that are subsidized by either USDA's BIP program or the ethanol industry's Prime the Pump program.¹⁶ There is no reason to believe that many of those retailers that are interested in expanding E85 retail infrastructure would not take advantage of the funds available through these programs. Therefore, it would be inappropriate to assume that 485 new E85 stations per year would offer E85 independent from, and in addition to, new E85 stations arising from USDA's BIP program and the ethanol industry's Prime the Pump program.

2.3.7.2 Vehicles that can use it (Flexfuel vehicles/FFVs)

Comment:**ABATE of Pennsylvania**

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.

¹⁴ "Projections of retail stations offering E15 and E85 in 2017," memorandum from David Korotney to docket EPA-HQ-OAR-2016-0004.

¹⁵ "Estimating achievable volumes of E85," memorandum from David Korotney to docket EPA-HQ-OAR-2016-0004.

¹⁶ "Projections of retail stations offering E15 and E85 in 2017," memorandum from David Korotney to docket EPA-HQ-OAR-2016-0004.

Anonymous 1

Infrastructure and vehicles can safely handle E15 and flex fuels. [EPA-HQ-OAR-2016-0004-0531 p.1]

National Corn Growers Association

there are 20 million flexible fuel vehicles (FFVs) on the road today capable of using ethanol blends up to E85. [EPA-HQ-OAR-2016-0004-1809-A1 p.8]

National Taxpayers Union (NTU)

According to the American Automobile Association (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. [EPA-HQ-OAR-2016-0004-1874-A1 p.2]

Ohio Licensed Beverage Association

E85 can only be used in flex-fuel vehicles, [EPA-HQ-OAR-2016-0004-2206 p.2]

Ohio Spirits Association

E85 can only be used in flex-fuel vehicles [EPA-HQ-OAR-2016-0004-2252 p.2]

Ohio Veterans United

Currently, E85 can only be used in flex-fuel vehicles [EPA-HQ-OAR-2016-0004-1941 p.2]

Parrent, Kenneth

more than 20 million flex fuel vehicles on the highway are compatible with even higher blends. [EPA-HQ-OAR-2016-0004-0243-A1 p.1]

Renewable Fuels Association (RFA)

EPA cites the “number of vehicles that can both legally and practically consume E15 and/or E85” as a “constraint” on the amount of ethanol that can be distributed to consumers.⁵⁸ In reality, there are no such legal or practical constraints posed by the existing vehicle fleet. [EPA-HQ-OAR-2016-0004-1695-A2 p.25]

58 81 Fed. Reg. 34,790

Many of the FlexFuel cars which were too expensive for someone in a lower income family to purchase new, are now being sold as used cars at very affordable prices. I have acquaintances who now own a used FlexFuel car and are regularly fueling up with low cost E85. [EPA-HQ-OAR-2016-0004-0183-A1 p.1]

Response:

Some stakeholders pointed to the consumption capacity of FFVs in the current fleet. We have addressed this comment in Section V.B.1.iii of the final rule.

One stakeholder said that there were no legal or practical constraints posed by the existing vehicle fleet on the amount of ethanol that can be distributed to consumers. This comment mixes the consumption capacity of the vehicle fleet with the ability to distribute and dispense gasoline-ethanol blends. There are legal limitations on the ethanol concentration that is permitted in certain vehicles: while E10 can be used in all vehicles and non-road engines, E15 can only be used in 2001 and later model year vehicles and FFVs, and E85 can only be used in FFVs. However, as stated above, we do not believe that the consumption capacity of vehicles permitted to use higher ethanol blends is a predominant factor in determining the volume of ethanol that can be supplied in 2017. Instead, it is the practical constraints associated with supplying higher level ethanol blends to these vehicles that is more constraining.

2.3.7.3 Retail price of E85 versus E10

Comment:

CountryMark

CountryMark currently cannot lower E85 price to reflect its energy value (which would hopefully, but may not necessarily, improve sales) without losing money. [EPA-HQ-OAR-2016-0004-1826-A1 p.13]

Growth Energy

The fundamental problem with EPA's proposed approach to determining what E85 price discounts are "potentially achievable" is that it relies on historical performance without recognizing the different market dynamics that would exist with volume requirements set high enough to require increased E85 use to achieve compliance. [EPA-HQ-OAR-2016-0004-3499-A1 p.25]

Greater competition is certainly important, but the competition among E85 stations is a very minor factor. Apart from the relatively small slice of the consumer pool that fits into group (1) or (2)—government fleets required to buy E85 and consumers committed to E85 for non-economic reasons—to whom E85 stations may be able to charge a steep premium, E85 stations are not monopolies at all. "[T]here is monopoly power" only "[w]hen a product is controlled by one

interest, without substitutes available in the market.” E85 actually has a highly substitutable competitor product: E10. In other words, E85 exists in a highly competitive market for ethanol-blend transportation fuel. Indeed, that is why economists think about E85’s price to energy parity with E10. In recognition of this competitive landscape, the way to stimulate greater consumption

EPA’s assessment of the potential for E85 price discounts relies too heavily on historical data and a misunderstanding of the efficacy of RFS volume requirements.

Independent Fuel Terminal Operators Association (IFTOA)

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 likely that this “cross-subsidization” would injure consumers and have a negative impact on the national economy. [EPA-HQ-OAR-2016-0004-1823-A1 p.4]

Monroe Energy, LLC

The Korotney Memo is premised on the assumption that E85 prices will be no higher than energy parity—that is, a 22% discount relative to E10 prices. It considers other scenarios in which E85 is priced at a 25% of 30% discount relative to E10.³⁴ These scenarios are fanciful. [EPA-HQ-OAR-2016-0004-1869-A1 p.14]

The Memo does not identify the conditions that led to the highest historical monthly E85 price discounts, nor provide any reason to believe they can be sustained nationwide for a full year. [EPA-HQ-OAR-2016-0004-1869-A1 p.15]

34 Id. at 9.

Schlueter, Paul

when fuels like E85 are readily available and reasonably priced, consumers will use them in abundance. I have witnessed this in Ohio, Tennessee, and currently in Texas. The biggest barrier to E85 sales that I have seen is that many fuel retailers simply price the fuel prohibitively high. [EPA-HQ-OAR-2016-0004-0183-A1 p.1]

Washington State House of Representatives, 28th Legislative District

Furthermore the higher ethanol blends, such as E85, could lead to negative economic consequences since there is no significant demand. [EPA-HQ-OAR-2016-0004-0246 p.1]

Response:

Stakeholders were strongly divided on what E85 price discount may be attainable in 2017. Stakeholders representing ethanol interests generally said that an E85 price discount significantly

higher than energy parity is achievable, while stakeholders representing refiners and retailers generally said that this was not possible without losing money. No stakeholders provided an unambiguous, quantitative methodology for determining an appropriate future E85 price discount that would occur under the influence of higher RFS volume requirements. We have discussed this issue and our response to many of the comments we received in Section V.B.1.iii of the final rule, including comments that addressed the following issues:

The use of historical E85 price discounts as a basis for determining what could occur in the future.

The portion of the RIN value which is passed on to customers.

One stakeholder said that the relative price of E85 and E10 was the only relevant factor in determining the volume of E85 that can be supplied in 2017. We disagree. In addition to the paucity of retail stations which offer E85, other factors can also play a role in FFV owners' decisions about which fuel to use. These include unfamiliarity with E85, bias for or against ethanol, and the more frequent fill-ups required when using E85. Although we do not have a method for estimating the impact of these other factors, and no stakeholder made an attempt to quantify them, we believe that they are captured indirectly through the updated correlation between E85 sales volumes and E85 price discount as described in more detail in a memorandum to the docket.¹⁷

One stakeholder said that efforts to reduce the price of E85 would likely result in compensating increases in the price of E10. We agree that this is likely to occur, but we do not believe that it will have a negative impact on the national economy due to the fact that supply of E85 is likely to be much smaller than supply of E10 in 2017. For instance, if the average retail price of all E85 in 2017 is reduced 22% (representing energy parity) compared to the price of E10, the average retail price of all E10 would need to rise by about 0.1¢ if the full E85 price reduction were passed on to E10. Moreover, this E85 price reduction would likely be passed on to both gasoline and diesel, further diluting the impact.

One stakeholder said that the NPRM provided no reason to believe that the highest historical monthly E85 price discount could be sustained for a full year. The NPRM did not project a specific E85 volume for 2017, and thus did not discuss the E85 price discount that was achievable in 2017. Instead, in the NPRM we stated our belief that 14.4 billion gallons of ethanol could be supplied in 2017 based on changes in gasoline demand, the influence of programs such as USDA's BIP program, and our expectation for how the RFS standards we set would influence sales of E0, E15, and E85. For the final rule, we believe that an E85 price discount equal to energy parity (22%) can be reached in 2017 as discussed more fully in Section V.B.1.iii of the final rule, and in a memorandum to the docket.¹⁸ Stakeholders provided no basis for believing that this level is not achievable in 2017.

¹⁷ "Updated correlation of E85 sales volumes with E85 price discount," memorandum from David Korotney to docket EPA-HQ-OAR-2016-0004.

¹⁸ "Estimates of E15 and E85 volumes in 2017," memorandum from David Korotney to docket EPA-HQ-OAR-2016-0004.

2.3.7.4 Projected volume

Comment:

ABATE of Pennsylvania

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-HQ-OAR-2016-0004-2200-A1 p.1]

Advanced Biofuels Business Council (ABBC)

a January 2014 paper published by an analyst who EPA has contracted with to do RFS work (entitled “Feasibility and Cost of Increasing US Ethanol Consumption Beyond E10”) concluded that EPA could set the 2014 total renewable fuel target at 14.4 billion gallons and meet that standard with: 13 billion gallons of ethanol in E10, 800 million gallons of ethanol in E85, and the use of 600 million banked RINs without any additional E85 stations being built. [EPA-HQ-OAR-2016-0004-1733-A1 p.13]

The 2016 AEO shows more than 340 million gallons of ethanol consumed in E85 in 2015, and predicts that more than 500 million gallons of ethanol will be consumed in E85 in 2016. [EPA-HQ-OAR-2016-0004-1733-A1 p.18]

American Fuel and Petrochemical Manufacturers (AFPM)

EIA data indicate 87 million gallons were supplied in 2015, which was higher than in 2014 and 2013. [EPA-HQ-OAR-2016-0004-1814-A1 p.9]

it seems EPA has dismissed EIA data without discussing the issue with EIA, who may have been able to assist EPA in getting better estimates of E85. This is not an acceptable approach when setting regulations that impact billions of dollars and could adversely impact consumer fuel supplies. EPA must work with EIA, the federal energy data collection organization and the agency specifically identified in the RFS to provide estimates regarding transportation fuel, to determine the most accurate volumes available for EPA’s purposes. [EPA-HQ-OAR-2016-0004-1814-A1 p.28]

American Petroleum Institute (API)

EPA developed estimates of current and historical volumes of nationwide E85 consumption based on linear regression analyses of E85 sales volumes obtained from five states (MN, CA, IA, NY and ND) as a function of the price of E85 relative to gasoline as determined from data drawn from www.e85prices.com [EPA-HQ-OAR-2016-0004-3512-A2 p.7]

the disparate nature of the underlying data used by EPA lead us to question the accuracy and validity of the methodology developed by the Agency to estimate nationwide E85 volumes. [EPA-HQ-OAR-2016-0004-3512-A2 p.7]

Biotechnology Innovation Organization (BIO)

EIA further projects use of E85 fuel in 2017 at 735 million gallons in the 2016 Annual Energy Outlook. [EPA-HQ-OAR-2016-0004-2721-A1 p.9]

DuPont Industrial Biosciences

EIA also projects 735 million gallons of E85 fuel in 2017. This projection for E85 is considerably higher than EPA's internal projections of 200 to 400 million gallons [EPA-HQ-OAR-2016-0004-1827-A1 p.4]

Growth Energy

EPA's linear demand model is unsound, at least when E85 is priced below parity with E10, because it fails to account for the significant pool of highly price-sensitive consumers and it relies on data whose predictive force is limited.

In short, higher volume requirements will create the market conditions necessary for rapid expansion in the distribution and consumption of E85. Better models predict that the market could easily consume at least 750 million gallons of E85 in 2017, and very likely substantially more. [EPA-HQ-OAR-2016-0004-3499-A1 p.5]

EIA's 2016 Annual Energy Outlook projects that 734.905 million gallons of E85 will be consumed nationwide in 2017. [EPA-HQ-OAR-2016-0004-3499-A1 p.6]

Under its own interpretation of its power to define volume requirements, its task is to determine the maximum reasonably achievable volumes that could be consumed, and to do that, EPA must fully account for the fact that within its control (at least according to its interpretation of the Clean Air Act) are the "the volume-driving provisions of the RFS program." [EPA-HQ-OAR-2016-0004-3499-A1 p.28]

As is evident from the figure, the combined effects of a linear demand relationship and a limited pass-through of RIN value to E85 prices implies extremely high RIN prices for modest increases in E85 volumes. For example, the 200 – 400 million gallon E85 volume range cited in the proposed rule would correspond to RIN prices in the range of \$1.15 and \$3.57, much higher than recent RIN prices (about \$0.80) if the RIN price estimate is based on the demand relationship suggested in the Korotney analysis and the pass-through percentages suggested in the Burkholder analysis. The steep increase in RIN prices to achieve a very modest increase in E85 volumes suggests EPA has not assessed the validity of those internal analyses based on the plausibility of the composite model results. [EPA-HQ-OAR-2016-0004-3499-A3 p.28]

Drawing from our experience in the industry, we also believe that the right-hand side of the curve is reasonable, assuming that the discounts shown persisted in a sustained pricing environment (e.g., as would occur if EPA meaningfully changed how it implemented the RFS). In our experience, customers are very price-sensitive. For example, we have seen evidence of significant customer movement when different retailers engage in price wars over gasoline. Similarly here, once the inconvenience of E85 is compensated for below energy parity, we would expect retailers to market the price savings and for FFV owners to take advantage of them. [EPA-HQ-OAR-2016-0004-3499-A3 p.90]

The area where the two demand curves diverge is where there is not enough data to discern price behavior. Accordingly, the Brattle demand curve is a reasonable extrapolation of the existing data that show the beginning of change near energy parity. However, Stillwater's customer segmentation analysis predicts that there should be a distinct change in demand response to price as the price discount to E10 increases below energy parity because price seeking customers begin to see better value, and we believe these are the vast majority of FFV owners. [EPA-HQ-OAR-2016-0004-3499-A3 p.91]

HollyFrontier Corporation

Since 2014, HollyFrontier's sales of gasoline with greater than 10% ethanol have diminished by nearly 75%. [EPA-HQ-OAR-2016-0004-2867-A1 p.2]

Marathon Petroleum Corporation (MPC)

EPA estimates that flex fuel sales could be between 200 and 400 million gallons. These volumes are 2.25 to 4.5 times greater than the 87 million gallons reported by EIA for 2015. [EPA-HQ-OAR-2016-0004-1806-A1 p.5]

Monroe Energy, LLC

Given these significant "constraints associated with E85 pricing at retail and consumer responses to those prices,"²⁹ it is doubtful that E85 could reach 200 million gallons in 2017. [EPA-HQ-OAR-2016-0004-1869-A1 p.13]

To model consumer responsiveness to E85 pricing, the paper analyzes the relationship between E85 sales and E85 discounts in five states for which data are available: Minnesota, Iowa, North Dakota, California, and New York. It then assumes that consumers in the remaining 45 states will exhibit the same degree of responsiveness. [EPA-HQ-OAR-2016-0004-1869-A1 p.21]

That assumption is dubious. [EPA-HQ-OAR-2016-0004-1869-A1 p.21]

the Korotney Memo magnifies the flaw in using these five states to extrapolate consumer responsiveness nationwide by weighting the average responsiveness across the five states. Specifically, the paper weights each of the state-level responsiveness curves by the number of E85 stations in that state. [EPA-HQ-OAR-2016-0004-1869-A1, pp.21-22]

the rest of the data show that the entire nation does not exhibit the same consumer response as New York—a state with only 79 E85 stations at present (equal to about 2.5% of all E85 stations nationwide).⁶⁶ Otherwise, there would have been no reason to focus solely on New York to the exclusion of all other data. Nor does the Korotney Memo identify any reason to believe the rest of the nation could or would act more like New York during 2017. [EPA-HQ-OAR-2016-0004-1869-A1 p.23]

This general approach—isolating the data from the highest performing state or group E85 stations, and then speculating that EPA could reach its policy goals if every state or retail station were able to do as well—is the textbook definition of arbitrary and capricious decision-making.⁶⁸ It should not be the basis of important policy decisions. [EPA-HQ-OAR-2016-0004-1869-A1 p.24]

29 Id. at 34,800.

61 See Dallas Burkholder, Estimating E85 Consumption in 2013 and 2014, at 3, EPA-HQ-OAR2016-0004-0028 (Nov. 2015).

66 See Dep’t of Energy, Alternative Fuels Data Center, http://www.afdc.energy.gov/fuels/ethanol_locations.html.

68 EPA cites a paper published by Pouliot and Babcock estimating similar sales volumes in the event the nation achieves energy parity. EPA claims this paper supports its consumer response analysis and conclusions regarding E85 use in 2017. See NPRM, 81 Fed. Reg. at 34,790 (citing Sebastien Pouliot & Bruce A. Babcock, How Much Ethanol Can Be Consumed in E85? Card Policy Briefs (Sept. 2015), <http://www.card.iastate.edu/publications/synopsis.aspx?id=1239> (“Pouliot & Babcock”)). Several factors undermine Pouliot & Babcock’s conclusions. First, as mentioned, the analysis assumes nationwide energy parity pricing for a full year which, as explained above, is not possible without ignoring the absence of RIN pass-through and eliminating the supply constraints EPA has identified on E85. Korotney Memo 11. Second, the authors base their estimates of consumer demand and corresponding volumes on a single, nonpublic data source provided solely for their use by an unnamed “major Midwest chain of retail gasoline outlets.” Pouliot & Babcock. The data reflects daily station fuel sales and prices in only two cities, and Babcock and Pouliot then use their measurement of consumer demand in that two-city model to extrapolate consumer demand and total E85 sales nationwide. Id. There is no reason to think the two cities would be representative of the nation as a whole. The end result is a nationwide extrapolation far outside the data available to the authors, likely leading to large confidence intervals on their projections.

Phillips 66 Company

The E85 volumes have grown modestly over the past few years – the historical volumes taken from EIA follow a very linear trend. Using this historical trend to project E85 volumes for 2017

results in an E85 forecast volume of about 110 million gallons [EPA-HQ-OAR-2016-0004-1807-A1 p.4]

Quad County Corn Processors (QCCP), employees

Low fuel prices have spurred increased driving habits and record fuel demand. The USDA is projecting a historic excess supply of corn. The number of stations offering fuel blends above E10 will increase dramatically as a result of USDA's Biofuels Infrastructure Partnership. We have been experiencing record sales of E15 and E85 so please do not ignore current market conditions and the reality that motorists are embracing and demanding higher ethanol blends. [EPA-HQ-OAR-2016-0004-1323-A2 p.1]

Renewable Fuels Association (RFA)

A recent study published by economists at Iowa State University empirically confirms that flex fuel vehicle (FFV) drivers increasingly choose E85 as the fuel's discount to E10 widens.⁵⁴ The researchers partnered with retail stations in Colorado Springs, Des Moines, Little Rock, Tulsa, Sacramento, and Los Angeles to observe consumer purchasing behaviors and to survey FFV drivers about their attitudes toward E85. The study found that about 10% of FFV drivers in the cities outside of California choose E85 when it is priced the same as E10; 16% choose E85 when priced at 10% below the price of E10; 24% choose E85 when priced 20% below E10; and about 38% choose E85 when priced at 30% below the E10 price. At the Sacramento and Los Angeles stations, about 74% of FFV motorists choose E85 when priced the same as E10; 82% choose E85 when the price is 10% below the E10 price; 89% choose E85 when it is 20% cheaper than E10; and 94% choose E85 when the price is 30% lower than E10. [EPA-HQ-OAR-2016-0004-1695-A2, pp.22-23]

These results support the argument that E85 consumption does in fact increase in an accelerated, non-linear fashion as the retail discount to E10 widens. We strongly encourage EPA to reconsider its conclusion that E85 usage does not respond to retail price changes. [EPA-HQ-OAR-2016-0004-1695-A2 p.23]

EIA data indicate that E85 consumption was 326 mg in 2014 and 508 mg in 2015.⁵⁶ This means 241 mg and 376 mg of ethanol were consumed in 2014 and 2015, respectively. EIA projects E85 consumption of 699 mg in 2016, equating to 517 mg of ethanol consumption. [EPA-HQ-OAR-2016-0004-1695-A2 p.23]

54 K. Liao and S. Pouliot. "Willingness to Pay for Ethanol in Motor Fuel: Evidence from Revealed and Stated Preference for E85." Center for Agricultural and Rural Development, Iowa State University.
Working Paper 16-WP 562. March 2016. Available at:
www.card.iastate.edu/publications/dbs/pdffiles/16w562.pdf

56 EIA, Annual Energy Outlook 2016. May 2016. Reference Case Table 11 (“Petroleum and Other Liquids Supply and Disposition”) shows E85 consumption of 21,269 barrels per day in 2014 and 33,106 barrels per day in 2015. These volumes equate to 326 mg and 508 mg of E85 in 2014 and 2015, respectively.

Shell Oil Products US

E85 demand has been consistently less than 0.1% of annual gasoline demand according to EIA, and this fraction is not likely to grow significantly in the near term. EPA’s estimate of 400 million gallons would greatly exceed historical usage and is a substantial overestimate. [EPA-HQ-OAR-2016-0004-1725-A1 p.3]

Response:

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.

Many stakeholder comments related to projecting attainable volumes of E85 in 2017 are addressed in Section V.B.1.iii of the final rule. These comments include the following:

Refiners typically said that E85 volumes are likely to reach little more than around 100 million gallons in 2017 based on their own estimates of E85 in previous years using data collected by EIA from refiners, blenders, and ethanol production facilities. For instance, refiners suggested that E85 use in 2015 reached only 87 million gallons.

Ethanol proponents said that E85 volumes could reach at least 500 million gallons in 2017, and some provided estimates considerably higher. Several pointed to E85 supply projections from EIA's Annual Energy Outlook 2016 (AEO2016), which projects 735 million gallons for 2017.

Some stakeholders provided comments on the analysis, done in the context of the 2014-2016 final rule, of the relationship between E85 sales volumes at retail and E85 price discount derived from publically available data from six states. Additional discussion of these comments and the updated analysis conducted for this final rule can be found in a memorandum to the docket, including a discussion of comments concerning correlation linearity.¹⁹

¹⁹ "Updated correlation of E85 sales volumes with E85 price discount," memorandum from David Korotney to docket EPA-HQ-OAR-2016-0004.

One stakeholder said that demand for E85 has been relatively flat over the last several years, despite more stations offering it, suggesting that E85 supply is unlikely to grow noticeably in the future. In fact, E85 supply has increased over the last several years, from about 100 million gallons in 2010 to about 186 million gallons in 2015. This increase in supply is strongly correlated with an increase in the number of retail stations offering it over the same timeframe.

One stakeholder pointed to a 2014 study by Bruce A. Babcock and Sebastien Pouliot of Iowa State University which suggested that more than 1 billion gallons of E85 (containing 800 million gallons of ethanol) could have been supplied in 2014 if EPA had set the "ethanol mandate" at 14.4 billion gallons.²⁰ To begin with, the RFS program does not require the use of ethanol, and thus there is no "ethanol mandate." More importantly, the cited study is part of a larger body of work conducted by these two researchers and documented in a number of reports. We addressed that research in Sections 2.3.2 and 2.7.1 of the RTC document for the 2014-2016 final rule. In short, we believe that the assumptions used by these researchers ignored a number of critical aspects of market dynamics, most prominently limitations in the pass-through of RIN values to retail customers.

One stakeholder said that EPA is obligated to determine maximum achievable volumes that can be consumed by recognizing that it is under EPA's control to set standards that drive consumption. This stakeholder implied that the maximum achievable volumes are in fact determined by the standards that EPA sets. As described in Section II.A of the final rule, we are reducing volumes using only the cellulosic waiver authority, and thus are not basing the volume requirements on levels which represent the maximum achievable as we had proposed to do when using the general waiver authority. Instead, we are setting standards based on our assessment of levels that are reasonably attainable and appropriate, taking into consideration both those factors that directly affect supply and other factors as described in Section IV.B. More importantly, the standards we are setting for 2017 represent significant increases compared to 2016, based in part on our expectation that the levels that can be reached in 2017 are influenced by the standards we set. However, as described in Section V.B.1 of the final rule, the market is not unlimited in its ability to respond to the standards we set as implied by many stakeholders who represent the ethanol production industry. With regard to ethanol specifically, we note that the standards we set are not specific to ethanol, and the market can respond to the higher standards we are establishing for 2017 by either increasing volumes of ethanol through E15 and/or E85, or by increasing non-ethanol renewable fuels such as biodiesel and renewable diesel.

One stakeholder criticized the correlation between E85 sales volumes and E85 price discount that was developed for and used in the context of the 2014-2016 final rule, saying that the predictions it made were not plausible, and therefore the correlation was not valid.²¹ Specifically, this stakeholder said that, based on that correlation and estimates of RIN pass-through from an analysis conducted by Dallas Burkholder, moderate increases in E85 supply would require very high increases in RIN prices. This stakeholder did not provide any evidence that the predicted high RIN prices were not plausible. More importantly, it is inappropriate to determine the

²⁰ Babcock, Pouliot, "Feasibility and Cost of Increasing US Ethanol Consumption Beyond E10," Iowa State University Center for Agricultural and Rural Development, January 2014, 14-PB 17.

²¹ "Correlating E85 consumption volumes with E85 price," memorandum from David Korotney to EPA Docket EPA-HQ-OAR-2015-0111.

validity of a correlation based on the view that the predictions it makes do not meet expectations. This stakeholder presumed that moderate increases in E85 supply would be accompanied by moderate increases in RIN prices, but there is no reason to expect that this is so. Moreover, comparing the results of the correlation developed by EPA to preferred correlations developed by other parties is not a valid approach to determining validity. However, we note that in response to comments we have improved the statistical methodology used to develop the original EPA correlation, as well as adding additional data to the dataset used in the analysis. Therefore, we have updated the analysis for this final rule.²²

One stakeholder said it was doubtful that E85 supply could reach 200 million gallons in 2017. We note that E85 supply in 2015 was about 186 million gallons, and the number of retail stations offering E85 is growing substantially as described in Section 2.3.7.1. Therefore, it is reasonable to assume that E85 supply in 2017, two years later, can reach at least 200 million gallons; in fact, we have estimated that E85 supply in 2017 can be considerably larger than 200 million gallons as described in Section V.B.1.iii of the final rule.

One stakeholder said that it was inappropriate to assume that consumer response to relative E85 pricing in the six states analyzed is the same as consumer response in other states. However, this stakeholder did not provide an alternative approach to estimating consumer responsiveness nor more broadly of estimating supply of E85 that can be reasonably attained in 2017. In our updated analysis, we have made an effort to more accurately incorporate this assumption regarding consumer responsive into the correlation between E85 sales volumes and E85 price discount by treating states as random effects in the context of a mixed model in SAS.

One stakeholder said it was inappropriate to use a subset of the original dataset - specifically New York, which exhibited the strongest consumer response to relative E85 pricing - as the basis for determining E85 volumes, and consequently the applicable standards. However, as described in the original docket memorandum, we did not use the New York data to set the standards. First, the original correlation was neither cited nor used in the NPRM. Second, in the 2014-2016 final rule where the original correlation was in fact used, the correlation based on the full dataset (i.e. all six states) was in fact used in estimating achievable volumes of E85 for 2016. The New York data subset was used only in describing a possible scenario wherein higher E85 supply could be possible. For this final rule, we have not only used a correlation based on all six states, but we have updated the analysis and expanded the dataset to include additional data based on comments received.

2.3.8 Efficiency of the RIN mechanism

2.3.8.1 Impacts of standards on RIN prices

Comment:

²² "Updated correlation of E85 sales volumes with E85 price discount," memorandum from David Korotney to docket EPA-HQ-OAR-2016-0004.

Growth Energy

A transition to a new market regime (e.g., RVOs well beyond the blendwall) is frequently characterized by transitory volatile and/or high prices that subside quickly into a new equilibrium level. A good recent example of this phenomenon occurred in California in late 2011, prior to the 2013 compliance year for the carbon cap-and-trade market. Figure 6 shows the price per metric ton of CO₂ equivalent (\$/tonne) of California Carbon Allowances. Vintage 2013 allowances began trading on forward markets in late August 2011, and prices initially spiked to almost \$24/tonne before trading between \$12 and \$19 per tonne through 2013. Since the beginning of 2014, most trades have been observed in a relatively narrow range of \$12 - \$13. This follows similar experiences in new allowance markets for SO₂, NO_x, and other CO₂ markets. Markets generally find an equilibrium level after a period of adjustment, and we would expect the RIN market to produce a similar pattern. [EPA-HQ-OAR-2016-0004-3499-A3 p.32]

Iowa Corn Growers Association (ICGA)

EPA's proposal would let oil companies off the hook from the requirement to blend amounts of ethanol above the "blend wall" in 2017. As a result, RIN prices would continue to fall and the financial incentive to expand E15, Mid-Level Blends 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. [EPA-HQ-OAR-2016-0004-1726-A1 p.5]

Lippold Strategies, LLC

While breaking through the blend wall may happen by relying on the view that increases in RIN prices can actually help to incentivize the infrastructure investment needed to make higher ethanol blends available, this view conveniently ignores the devastating and existential impact that higher RIN prices have for refiners. [EPA-HQ-OAR-2016-0004-1739-A1 p.5]

Missouri Corn Growers Association (MCGA)

Had the Agency proposed keeping in place the statutory RVOs for renewable fuel, the Renewable Identification Number (RIN) market mechanism would have been allowed to properly function to ensure that required volumes of renewable fuels were produced and consumed. But by proposing an RVO for renewable fuel that is below the 10 percent ethanol (E10) "blend wall," the proposed rule completely eviscerates the RIN market—the very mechanism that would enable compliance with statutory blending requirements. [EPA-HQ-OAR-2016-0004-1782-A1 p.2]

the Agency's actions of artificially fixing the demand for RINs through lower than statutory levels of obligations, without any corresponding pressure on RIN supply (namely forcing obligated parties to use banked RINs to make up shortfalls) suppresses RIN prices and undermines the market force driving higher inclusion rates. [EPA-HQ-OAR-2016-0004-1782-A1 p.7]

National Chicken Council (NCC)

Effect of Breaching the Blendwall on Corn Market [EPA-HQ-OAR-2016-0004-1676-A1 p.3]

RINs in effect act as a subsidy for obligated parties. Poultry producers and their customers receive no such relief and must absorb or pass on the full higher costs of corn. [EPA-HQ-OAR-2016-0004-1676-A1 p.3]

National Corn Growers Association

Had the Agency proposed keeping in place the statutory RVOs for renewable fuel, the Renewable Identification Number (RIN) market mechanism would have been allowed to properly function to ensure that required volumes of renewable fuels were produced and consumed. But by proposing an RVO for renewable fuel that is below the 10 percent ethanol (E10) “blend wall,” the proposed rule completely eviscerates the RIN market— the very mechanism that would enable compliance with statutory blending requirements. Indeed, by undermining the RIN mechanism and attempting to codify the “blend wall” as a basis for modifying the 2017 RVOs, EPA’s proposal again establishes a process for setting annual RFS requirements that virtually guarantee ethanol production and consumption will never expand beyond current levels. [EPA-HQ-OAR-2016-0004-1809-A1 p.2]

Small Refinery Owners Ad Hoc Coalition

The volumes should be set at levels that promote liquidity in the RIN market to ensure that parties in need of RINs are able to acquire them from parties who have excess, rather than “ambitious” in the hopes that inflated RIN values will encourage exempt (non-refining) blenders voluntarily to invest in blending and distribution infrastructure against their best economic interest and the interests of their shareholders. [EPA-HQ-OAR-2016-0004-2364-A1 p.30]

Trenton Agri Products

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.157-158]

the EPA's proposal continues to discount the congressional purpose of the RIN pricing mechanism by proposing to set the 2017 RVO below the mandate, but yet at a level that is relatively easy for obligated parties to achieve. Pressure is taken off the RIN pricing and prevents further investment in E15 and E85 infrastructure.

Response:

One commenter stated that transitions to new market regimes are frequently marked by high and/or volatile prices, citing the California cap-and-trade CO₂ market as an example. They claimed that they expected the RIN market to produce a similar pattern. EPA acknowledges that this pricing behavior was observed in the RIN markets in 2013 when the RFS standards exceeded volumes that could generally be satisfied by blending ethanol to produce E10. To a lesser degree, similar pricing behavior has been observed with the release of our proposed and

final RFS annual volume requirements each year. We further believe that the equilibrium level that is reached will be impacted by a number of factors, including the stringency of the RFS standards, but also the price of crude oil, refined products, and agricultural commodities such as corn and soy oil, as well as changes in tax subsidies. Rather than a static equilibrium, RIN prices are expected to change throughout the year in response to a number of factors beyond the control or influence of EPA.

A commenter stated that EPA's proposal would "let oil companies off the hook" from requirements to blend ethanol above the blendwall. Another characterized the proposed 2017 standards as "easy to achieve" and claimed such standards would take pressure off obligated parties to invest in infrastructure necessary to consume higher volumes of ethanol. Still other commenters suggested that the proposed volumes were below the E10 blendwall and would therefore result in depressed RIN prices. The final total renewable fuel standard is roughly 5 billion gallons greater than the volume of ethanol that can be blended as E10 gasoline. Furthermore, EPA notes that while there are no RFS standards specifically requiring the use of ethanol, we nevertheless believe that the standards we are finalizing in this rule will result in the use of ethanol in mid and high level ethanol blends, such as E15 and E85 (see Section V of the preamble for a further discussion of the use of these fuels). We also dispute a commenter's claim that as a result of our proposed rule RIN prices will continue to fall. While high RIN prices themselves are not a goal of the RFS program, RIN prices have generally been rising since 2014, and continued to increase slowly after the release of the proposed rule.

A commenter claimed that EPA had ignored the negative impacts high RIN prices have on refiners. EPA has invested significant resources evaluating the impact of high RIN prices on refiners. After reviewing the available data, EPA believes that refiners are generally able to recover the cost of RINs in the prices they receive for their refined products, and therefore high RIN prices do not cause significant harm to refiners.²³

Some commenters claimed that had EPA not reduced the statutory volumes the RIN mechanism would have allowed the statutory volumes to be met. We disagree with this statement, and believe there are a number of factors that limit the market's ability to produce, distribute, and consume the statutory volumes of renewable fuel in 2017. These issues include, but are not limited to, difficulties related to the commercialization of cellulosic biofuel production technologies (discussed in further detail in Section III of the preamble) and the E10 blendwall (discussed in further detail in Section V of the preamble). We also disagree with the statement by a commenter that the proposed standards remove pressure from the market to acquire RINs, since obligated parties can rely on excess RINs carried over from previous years. We believe the relatively high RIN prices observed in 2016 demonstrate that the RFS standards are providing a significant incentive to increase the supply of renewable fuel in the United States despite the existence of excess RINs from previous years (for a further discussion of carryover RIN see Section 2.6 of the RTC document).

A commenter stated that the RIN values potentially increase the price ethanol producers can receive for ethanol produced from corn, and that higher RIN prices therefore give an advantage

²³ For more detail on EPA's assessment of this issue see "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.

to ethanol producers vs. other corn purchasers such as poultry producers. EPA acknowledges that if all else is equal, increasing the demand for renewable fuels and the feedstocks used to produce them the RFS program will likely increase the price for feedstocks that can be used to produce renewable fuels for all parties. This impact is not directly a result of the value of the RIN but rather the value of the renewable fuel. The price of the RIN is a function of many factors. When RIN prices rise or fall, it often has little or no impact on the market price for the renewable fuel or the feedstocks used to produce them. We further note that even with the incentives provided by the RFS, prices for ethanol and corn have been relatively low in recent years.

A commenter stated that EPA should set the RFS volumes at a level that promotes the liquidity of the RIN market and ensures that obligated parties that need RINs are able to acquire them. We do not believe it would be appropriate to reduce the required volumes below the levels we are finalizing in this rule in an effort to increase the liquidity and availability of RINs, as we do not believe the required volumes will result in an inadequate domestic supply of renewable fuels or cause severe economic harm. Furthermore, we have avoided setting the volume requirements with the intention of drawing down the existing bank of carryover RINs. We believe the current RIN bank, together with RINS associated with reasonably attainable volumes of renewable fuel, will provide a liquid RIN market. The active RIN markets and ability of the obligated parties to comply with the RFS standards to date are strong indicators that the RIN market is sufficiently liquid to allow obligated parties to acquire the RINs they need for compliance.

2.3.8.2 Impacts of RIN prices on E15 and E85 retail prices

Comment:

Absolute Energy

[The following comment was submitted as testimony at the Kansas City Missouri Public hearing on June 9, 2016. See Docket Number EPA-HQ-OAR-2016-0004-3558 p.83.]

RINs are incenting greater access to higher ethanol blends and driving renewable fuel use even when their value is not reflected at the pump. And quickly, we see new markets embracing higher ethanol blends, and added competition is pushing those RIN values towards their ultimate consumer, which, in turn, will drive demand for higher ethanol blends to even greater heights.

Advanced Biofuels Business Council (ABBC)

For example, the proposed 2017 RVO frames E85 RIN value pass through as a “failure,” without supporting documentation. There is no technical analysis to support this claim or to assess the expected market response to proper RFS implementation and theoretically higher RIN prices. This is extraordinary given that the market response to the RFS vis-à-vis greater renewable fuel use is the fundamental question at hand with this program and this rule. [EPA-HQ-OAR-2016-0004-1733-A1 p.15]

There appears to be at least two underlying flaws in Burkholder's analysis:

- As detailed in the RFA Memo, EPA does not seem to lag their RIN pass through analysis. It is well understood that retail markets need time to reflect changes upstream (e.g. changes in RIN values). The EPA staff memo on RIN pass through finds an R-squared correlation value of .079 (weak correlation) between RIN and E85 prices. As shown in the RFS Memo, the correlation jumps to 0.59 when the data is lagged 30 days. The difference is significant, as 0.59 correlation is modestly strong and suggests significant rather than weak pass through. [EPA-HQ-OAR-2016-0004-1733-A1 p.15]
- EPA's analysis of RIN pass-through fails to distinguish between the behavior of independently-branded E85 retailers and major oil company-branded E85 retailers. The Council and many others have repeatedly provided to EPA a detailed analysis by AJW, Inc. showing that "E85 is four times more likely to be sold at an independent-brand retail station than a major oil company branded station," and "[r]ising RIN prices tend to coincide with lower E85 prices only at independent-brand retail stations, while major-brand retail stations exhibit little or no E85 price differentiation vs. E10." Given that roughly half of all U.S. stations are independent, the analysis finds that "it is inappropriate for EPA to use national estimates for pricing, availability and demand for E85 ... [d]oing so will lead to artificially reduced assumptions regarding potential consumer demand because pricing at stations varies meaningfully from the average." [EPA-HQ-OAR-2016-0004-1733-A1 p.15]

We strongly encourage EPA to take another look at E85 pass through in preparation for finalizing the 2017 RVO. As discussed below, the estimates for E85 consumption contained in the proposed rule are indefensibly low (lower, in fact, than actual consumption in 2015 according to EIA data). The final rule should include projections for E85 consumption that better reflect what is happening in the marketplace, available data and analysis (including but not limited to EIA) and a robust analysis of the future market response to higher RIN prices with the RVOs now getting done on time. [EPA-HQ-OAR-2016-0004-1733-A1 p.16]

American Coalition for Ethanol (ACE)

Unfortunately, some wholesalers and suppliers are not passing RIN value along chain, which in turn makes it more difficult for retailers to see how they can make money offering E15 and flex fuels, particularly in a period when gas prices are low. The U.S. has lost some E85/blender pump/flex pump locations in the last year because some jobbers/wholesalers were not passing RIN value along the chain. These suppliers were feasting on the RIN value rather than sharing it downstream. [EPA-HQ-OAR-2016-0004-1679-A2 p.6]

Growth Energy

But the RIN pass-through is not at all fixed or inherently constrained. The price discount simply reflects the equilibrium point of E85 supply and demand in competition with E10. The historical pass-through rate is indicative of the historical supply and demand equilibrium. That the historical pass-through rate was low and thus historical E85 prices were typically above energy parity with E10 reflects the fact that the 2013-2015 period was characterized by volume

requirements that did not require significant consumption of E85 to achieve compliance because E10 alone would largely suffice. [EPA-HQ-OAR-2016-0004-3499-A1 p.27]

Stillwater's findings are striking. Consistent with historically observed behavior, Stillwater found that at lower RIN values, e.g., \$0.75, E85 dealers did not have incentive to pass along much of the RIN value, and so pass-through was only 55%, and the optimal discount was just 5%. That scenario, in fact, closely matches what is occurring today, with RIN values around \$0.80. When the RIN value went up to \$1.25, the dealer continued simply to pocket the difference; maintaining the same 5% discount, and thus lowering the pass-through on a percentage basis. This is consistent with EPA's prediction of what would happen with increases in RIN values in the current environment, with RVOs set to reflect historical performance rather to force growth beyond what the market would achieve on its own. [EPA-HQ-OAR-2016-0004-3499-A1 p.29]

But just a small increase in RIN value from \$1.25 to \$1.35 then changed the calculus considerably. Simply put, there was a tipping point, where it became in the station's interest in maximizing profits not to continue to maintain high margins, but instead to significantly increase pass-through, and discount the E85 to 25%. The dealer recognized that it would earn more if it expanded its customer pool by appealing to price-conscious consumers with E85 prices that were competitive with E10, i.e., priced below parity. This trend then continued as RIN values continued to increase, with a \$1.45 RIN value resulting in an E85 discount of 30%, a \$1.55 RIN value resulting in a discount of 35%, and ultimately an E85 discount of 45% at a \$1.75 RIN value. This analysis confirms the economic theory laid out by Brattle, that pass-through will increase as dealers see opportunity for profit through additional volumes. [EPA-HQ-OAR-2016-0004-3499-A1 p.29]

Stillwater's analysis thus shows that the pass-through rate is highly dynamic. As RIN values increase, there will eventually be a tipping point past which pass-through rates will increase substantially as dealers seek to drive additional volumes; in this case, they went from 55% to 87%. EPA therefore cannot simply calculate a historical pass-through rate and assume that this rate would apply in very different price environments. [EPA-HQ-OAR-2016-0004-3499-A1 p.30]

For this reason, we expect the blenders in the current market not to pass through all of the RIN value, but instead to retain some in the form of higher margins because the discounts will not drive additional sales. We expect this relationship to change if significantly greater volumes of E85 sales are necessary to meet the future RVOs. That is because recent RVO levels and the proposed RVO, set close to the E10 blendwall, could be satisfied by consumption in a relatively elastic portion of the demand relationship, as reflected in the non-linear functional forms depicted earlier. In order to meet a higher RVO, therefore, RIN prices rise to the level where blenders face stronger incentives to reduce E85 price (i.e., reduce their margins) in order to drive needed volumes. Once the market volume reaches the inflection point or a more price-elastic segment of the demand curve, then a virtuous cycle of higher volumes and lower blender margins (while still profitable) can create the required E85 volumes and provide obligated refiners sufficient RINs to meet much higher RVOs. [EPA-HQ-OAR-2016-0004-3499-A3 p.25]

Moreover, the high RIN prices would cause extraordinary profits for incumbent E85 blenders and/or retailers. While the RIN price increases would also slightly increase blender margins on E10, the E85 margins would grow much more quickly. Given the low barriers to entry into E85 production and distribution, the price of RINs can rise only so high before other blenders (who have heretofore focused solely on E10 production) would find entry into the E85 market profitable, realizing that RIN prices are so high that they could sell E85 at much higher discounts (i.e., with a much higher pass-through rate) while still earning substantial profits because of the elevated RIN prices. [EPA-HQ-OAR-2016-0004-3499-A3 p.32]

Once such entry occurs, or some incumbent blenders perceive a more profitable strategy involves discounting E85 to gain incremental volumes (thereby increasing the number of separated RINs for sale to upstream refiners), then larger E85 discounts would begin to emerge for retailers and ultimately FFV owners. While blender/retailer margins would likely fatten initially due to higher RIN prices, competition would quickly arise once it is clear that retaining the RIN value does not enable sufficient volume to satisfy the RVO, and entrants undercut high-margin incumbents in order to move volumes into the market to gain RINs. In turn, the higher discount to E85 would make it increasingly attractive to FFV owners facing the fuel decision at the pump; while a relatively small share of FFV owners may choose E85 at the pump when the discount is at its current below-parity rate of roughly 15%, the share of FFV owners choosing E85 is certain to increase as discounts cross the point of parity and hit 30%, 40%, et cetera. At this point a virtuous cycle can emerge where prices could fall dramatically and volumes expand significantly. [EPA-HQ-OAR-2016-0004-3499-A3 p.32]

Our analysis generates results that are qualitatively consistent with the conclusions reached by the EPA with respect to pass-through – RIN price values are only partially passed through by blenders to E85 retail prices, and do not appear to have an economically or statistically significant bearing on E10 prices. However, after addressing several issues in the data and specification used in the Burkholder Memo, we find evidence that under certain conditions, historical pass-through rates may be much higher than the EPA analysis concluded. Notably, our preferred specification, using a longer time series, state-level price data, and monthly and annual dummies, demonstrates that historical pass-through rates may be as high as 65% in states with better-developed E85 markets like Minnesota. [EPA-HQ-OAR-2016-0004-3499-A3 p.62-63]

Table 3.5 below reveals some insights about existing E85 stations. Again using Scenario 3, this table shows that at low throughputs the margin required to pay off investments is in the \$0.20 per gallon range. It could be said that station owners are not gouging the E85 customer or failing to pass on enough of the RIN value but are simply holding on to the high E85 margin because it is needed to pay off their investment due to the very low E85 throughput per station. [EPA-HQ-OAR-2016-0004-3499-A3 p.88]

There is another difference between these curves that is important to realize. To achieve strong demand at E85 discounts of 30% or more to E10 there are two key requirements. First, local FFV owners will need to know where to find the E85 site. Second, FFV owners will need to know that E85 will be consistently priced at levels that make it attractive relative to E10. We believe this level is 25-30% below E10, but in reality it is related to other factors including general price level, local competition for E85 sales, and local concentration of FFVs. Consumers will not drive

around looking for the single local E85 site if it is often more expensive to use than E10. [EPA-HQ-OAR-2016-0004-3499-A3 p.91]

The 2016 environment, with ethanol priced above gasoline, is difficult for E85 marketing. Margins tend to be low and with RINs priced at 74 cents, the E85 price point that optimizes gross margin is very close to the 14% below E10 observed recently. This indicates that E85 marketers are pricing to maximize gross margin as we would expect, and gives another validation for the structure of this model. This figure also shows that GM increases with RIN price and that optimum GM increases even more with higher RIN prices when the sales price is discounted more heavily. [EPA-HQ-OAR-2016-0004-3499-A3 p.93-94]

HollyFrontier Corporation

Clearly an elevated RIN price has not translated into higher demand for high blend biofuels. Despite high RIN prices, our wholesale marketing of high ethanol content fuels at prices that reflect both RIN savings and reduced energy content has not translated into either increased demand for the product, or proportionate savings for the end user at the retail location. [EPA-HQ-OAR-2016-0004-2867-A1 p.2]

given the thin, niche market for E85, marketers and retailers appear to be capturing a relatively higher price for a low volume of E85 sales, content to take a higher margin on low throughput rather than pursuing a lower margin, higher throughput model. As the 2015 Burkholder memo discusses, this is to be expected in an undeveloped market like E85. [EPA-HQ-OAR-2016-0004-2867-A1 p.2]

Illinois Farm Bureau

If EPA decides to implement the RFS as Congress intended 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-HQ-OAR-2016-0004-2770-A1 p.2]

Michigan Farm Bureau (MFB)

The fact of the matter is that the RFS2 and the RIN market that it established are functioning 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 again abandoning the RIN market as a mechanism for increasing the production and sale of higher ethanol blends. [EPA-HQ-OAR-2016-0004-1822-A1 p.3]

Monroe Energy, LLC

EPA reiterated these findings in the NPRM when articulating why a substantial increase in E85 volumes was not reasonably achievable for 2017, acknowledging the limited potential for growth in E85 supply due to “constraints associated with ... the failure of RIN process to be fully passed through to retail fuel prices.”⁴⁴ Having acknowledged these constraints as the basis for exercising waiver authority, it is irrational for EPA to ignore them in determining the amount of

E85 supply that is reasonably achievable for 2017. Any projection relying on the assumption that blenders and/or retailers will pass through RIN prices to achieve energy pricing parity during the entirety of 2017 should be rejected. [EPA-HQ-OAR-2016-0004-1869-A1 p.16]

there is no reason to believe that blenders or retailers will pass RIN value to retail customers in the form of lower E85 prices, and thus no reason at all to believe that the market can sustain pricing at energy parity for an entire year—let alone E85 price discounts below energy parity. [EPA-HQ-OAR-2016-0004-1869-A1 p.17]

44 NPRM, 81 Fed. Reg. at 34,787.

Renewable Fuels Association (RFA)

The RFA report provides evidence that a substantial portion of the RIN value is indeed being passed through to retail in order to lower E85 prices relative to E10 prices, particularly during periods when wholesale ethanol prices are priced near parity or above wholesale gasoline prices. Based on wholesale price data from the Omaha terminal rack, the RFA report finds that approximately 86- 90% of the RIN value was passed through to Nebraska E85 retail prices between January 2014 and May 2016. This stands in stark contrast to EPA’s suggestion that “only 44% of the RIN value is passed on from wholesale to the customer...”⁵¹ [EPA-HQ-OAR-2016-0004-1695-A2 p.22]

In examining the impact of RINs on retail E85 prices, it is particularly instructive to look at the E85 market’s behavior in late 2015 and early 2016.⁵ During this period, the collapse in crude oil prices caused wholesale gasoline prices to drop dramatically. For several months during this period, ethanol prices were near parity or higher than gasoline prices at most wholesale terminals. Thus, if RIN values were not being passed through to retail during this period, we would expect to see retail E85 prices at parity with or above E10 prices. Yet, this did not occur. [EPA-HQ-OAR-2016-0004-1695-A2, pp.39-40]

These results from Nebraska, which indicate a substantial amount of the RIN value was being passed on to retail, stand in contrast to the Burkholder memo’s suggestion that “only 44% of the RIN value is passed on from wholesale to the customer...” Some of the reasons for this disagreement are further explored in the following sections. [EPA-HQ-OAR-2016-0004-1695-A2 p.42]

EPA should update its RIN pass-through analysis to capture both 2012 (i.e., the period in which RINs had little or no value) and late 2015/early 2016. This would provide a clearer picture of the market’s behavior under a wider variety of conditions. [EPA-HQ-OAR-2016-0004-1695-A2 p.43]

We fully understand that E85prices.com provides the only publicly available E85 pricing data set that is national in scope, and we believe the data is accurate in representing prices at specific stations on specific dates. However, it does not appear the limitations of these data are properly

characterized in the Burkholder memo and the data is likely not robust enough to support the definitive conclusions presented in EPA's proposal for 2017 RVOs. [EPA-HQ-OAR-2016-0004-1695-A2 p.43]

Due to the limitations of the E85 prices.com data used by Burkholder (as described above), we performed a second set of regressions using the MDOC data on the E85-E10 discount for the period of Jan. 12 through Jan. 16 (Figure E). We used a longer time period that included 2012 and ran through January 2016 and incorporated a one-month lag on RIN values. The result was an R-squared value of 0.59. This compares to an R-squared value of 0.40 when the MDOC data are not lagged and the 0.079 value in the Burkholder analysis. The value of 0.59 derived from the MDOC data indicates a modestly strong relationship between RIN prices and the magnitude of E85's retail discount to E10, indicating that much of the RIN value was passed along to consumers in the form of reduced E85 prices. [EPA-HQ-OAR-2016-0004-1695-A2 p.47]

an important consideration in examining the relationship of the E85 retail mark-up to RIN prices is the wholesale price relationship for fuel ethanol and gasoline. That is, if wholesale fuel ethanol is priced at a significant discount to wholesale gasoline, then less of the RIN value needs to be passed on to facilitate E85 discounting at the retail level. In these cases, the blender may pass just enough of the RIN value along to maintain an attractive E85 discount to E10 at retail. Conversely, when wholesale fuel ethanol is priced at parity with or above wholesale gasoline, much more of the RIN value must be passed along to enable retail discounting. The simple Nebraska RIN pass-through analysis included at the beginning of this report lends empirical support to this idea. When Nebraska ethanol prices were above gasoline prices at the wholesale level, most or all of the RIN value was passed downstream to retail to enable E85 to be sold at a discount to E10. [EPA-HQ-OAR-2016-0004-1695-A2 p.48]

51 Id.

5 We assume E85 is a blend containing 74% ethanol and 26% hydrocarbon. Thus, the RIN value associated with a gallon of E85 is OPIS RIN value x 0.74.

Response:

EPA received several comments on the impacts of RIN prices on the retail prices of various fuels. Each of these comments are addressed below. We note, however, that even if EPA is under-estimating the potential for RIN prices to impact retail fuel pricing for E15 and E85, as some commenters have claimed, and as a result is under-estimating the volume of these fuels that can be consumed in 2017, assuming that RIN prices can have a greater impact on retail fuel prices than we have estimated in this final rule would not impact the volume standards we are establishing. This is because in this final rule we have determined that after exercising our cellulosic waiver authority (due to a shortfall in the projected production of cellulosic biofuel in 2017) there is no need to further reduce the required volume of total renewable fuel on the basis of inadequate domestic supply (see Section V of the preamble for a further discussion of the projected available supply of renewable fuel in 2017).

EPA continues to believe, based on our assessment of the available data, that the value of the RIN is generally passed through to consumers through lower effective prices of the renewable components of transportation fuels. This means that high RIN prices will generally reduce the retail price of fuel blends that contain high levels of renewable fuel (E85, B20), increase the retail price of fuel blends with little or no renewable fuel (E0, B0), and have little to no impact on the retail price of fuel blends with a renewable content approximately equal to the percent standards (E10). In addition to work done by EPA,²⁴ various studies by external parties have concluded that RIN prices do not impact retail prices of E10.²⁵ Similarly, EPA received comments from the National Association of Truck Stop Owners directly stating that higher RIN prices decrease their cost of acquiring biodiesel, and ultimately lower the retail prices of biodiesel blends.²⁶ These examples support EPA's belief that the value of the RIN is reflected in the retail price of fuel blends in cases where there is sufficient competition between retailers (E10, diesel and biodiesel blends).

A commenter stated that the RIN value is increasing access to higher level ethanol blends, even in situations where the RIN value is not reflected in the retail price of fuels at the pump. EPA generally believes the RIN value helps to incentivize retailers to invest in the equipment necessary offer higher level ethanol blends by allowing retailers to offer these fuels at a price that is competitive with E10 on an energy-equivalent basis and/or realizing higher profit margins for these fuels. To the extent the full value of the RIN is not passed on to consumers, the retailer is then able to use this value to recover its capital costs. We believe that the incentive provided by the RIN value, along with programs such as USDA's BIP program and the Prime the Pump program, will result in an increasing availability of these fuels at the retail level in future years.

A commenter stated that EPA has framed the ability for RIN prices to reduce the retail price of E85 as a failure, and suggests that EPA's assessment of the degree to which the RIN value has impacted the retail price of E85 would be improved by lagging RIN price data by one month and distinguishing between price impacts for branded and un-branded stations. EPA does not believe that higher RIN prices have failed to have an impact on E85 retail pricing, but rather that these impacts are not as significant as they would be if the full RIN value were being passed on to consumers. This is not necessarily unexpected in a market where the retailer must invest significant capital to offer higher level ethanol blends and there is little competition between E85 retailers, and we would expect that the RIN pass-through would increase as competition increases. EPA considered the impacts of lagging RIN price data by one month, as suggested by the commenter, in our correlations between the D6 RIN price vs. the E85 discount relative to E10 as well as the D6 RIN price vs. the E85 retail mark-up. We also considered additional data through July 2016 in these assessments.²⁷ In each case we found slightly stronger correlations

²⁴ See "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.

²⁵ For example, see "Analysis of Whether the Prices of Renewable Fuel Standard RINs Have Affected Retail Gasoline Prices," Informa Economics, Inc. (May 2015); "The Renewable Fuel Standard: How Markets Can Knock Down Walls," P.K. Verleger Jr. (Jan. 2014); "The Renewable Fuel Standard: A Path Forward," James H. Stock, Columbia SIPA Center on Global Energy Policy (April 2015).

²⁶ See comments from NATSO (EPA-HQ-OAR-2016-0004-1830).

²⁷ "Updated Assessment of the Impact of RIN Prices on the Retail Price of E85," Dallas Burkholder, Office of Transportation and Air Quality, US EPA. November 2016. EPA Air Docket EPA-HQ-OAR-2016-0004.

when the RIN price was lagged by one month, however the conclusions did not change. Using new data and the one month lag a simple correlation between the D6 RIN price and the price discount for E85 relative to E10 indicates that for each dollar increase in RIN price the price discount for E85 relative to E10 is expected to increase by 9% (compared to 5% in our original analysis). Using the new data and the one month lag we estimate that 53% of the RIN value is being reflected in the retail price of E85 (compared to 44% in our original analysis). Finally, we disagree with the commenters claim that because retail pricing behavior may vary between branded and unbranded stations the use of a national average price in our rule is inappropriate. Using national average price data captures both the E85 pricing behavior of branded and unbranded stations in proportion to their share of the E85 retail market. This is appropriate as we are projecting the volume of E85 expected to be consumed nationwide in 2017. It would be unreasonable to project that all stations suddenly change their pricing behavior in 2017 to that observed at unbranded stations, especially if there were a significant difference in the pricing behavior of branded and unbranded stations in recent years.

Some commenters claimed that some wholesalers and suppliers of E15 and E85 are not passing on the RIN value in the price of these fuels. While this may be true in some cases we currently do not have sufficient data on E85 wholesale pricing to determine if this is the case on a broad scale. Furthermore, we expect that in future years a desire to retain market share will lead to an increasing number of parties offering these fuels (especially if, as the commenter claims, they are currently able to retain some of the RIN value). This greater competition should in turn lead to lower margins among suppliers of these fuels and a greater portion of the RIN value being passed along to retail station owners and/or consumers.

A commenter stated that the RIN pass-through is not fixed or inherently constrained, and argued that at higher RFS volumes (and corresponding higher RIN prices) a greater portion of the RIN would be passed through to consumers. They cited several studies, including one by Stillwater Associates to support their claims. This study was consistent with EPA's assessment of the market under current conditions, finding that blenders and/or retailers of E85 were likely to seek to maximize their profit by withholding a large portion of the RIN value rather than by using the RIN value to decrease the price of E85 and increase sales volumes. The study by Stillwater Associates argued, however, that if standard were set high enough an inflection point would be reached and instead blenders and retailers would maximize profits by passing on a greater portion of the RIN value. Stillwater Associates conclusions are based on a hypothetical assumption of a consumer response where sales volumes of E85 increase dramatically when the retail price for E85 is discounted by more than 25% relative to E85. While sales data in such cases is limited, the data available to EPA do not support such a dramatic increase in sales volumes when retail prices for E85 reach this level of discount relative to E10.²⁸ The relationship between the discount for E85 relative to E10 and sales volumes of E85 assumed in the Stillwater Associates study drives the results. Because we do not believe this relationship is supportable based on market data we believe the conclusion, that higher RFS standards will cause an inflection point leading to higher RIN pass-through and significantly greater E85 sales, is highly speculative. Furthermore, Stillwater notes that achieving strong demand for E85 at discounts of 30% or more will also require that FFV owners know where to find E85 and that E85

²⁸ See "Updated correlation of E85 sales volumes with E85 price discount," memorandum from David Korotney to docket EPA-HQ-OAR-2016-0004.

consistently be priced at an attractive level. We add to this list that FFV owners will need to be aware that they own an FFV and that their vehicles are compatible with E85, and will need to be able to readily determine when E85 is priced competitively with E10. We do not believe these conditions are likely in 2017.

This commenter also noted that using certain sub-sets of data a RIN pass-through of up to 65% can be observed in the historical pricing data. We do not dispute these findings, however we do not believe it is appropriate to use a sub-set of data from a single state to model the expected RIN pass-through for the nation as a whole, especially when nationwide data is available that strongly suggests different conclusions. Finally, we re-iterate that even if potential E85 sales volumes are higher in 2017 than projected by EPA, this would not affect the total renewable fuel volume we are establishing in the final rule, as we are not reducing the total renewable fuel volume on the basis of a finding of inadequate domestic supply. Our assessment of reasonably attainable and appropriate advanced biofuel volumes is unrelated to constraints such as the E10 blendwall and those associated with supply of E15 and E85, and the conventional volume in the final rule reflects the implied 15 billion gallons provided in the statute, and results from application of the cellulosic waiver authority to provide an equal volume reduction for total renewable fuels as we determined appropriate for advanced biofuels.

A commenter claimed that higher RIN prices have not led to higher demand for biofuels and biofuel blends. We disagree with this statement, and note that the production, distribution, and supply of renewable fuels has increased significantly in recent years. We believe that the incentives provided by higher RIN prices, in response to higher RFS standards, have played a significant role in this increase.

Commenters claimed that the RFS program and RIN market are functioning as intended, and that the RIN market will be key in achieving the volumes Congress intended. We agree with these statements, and believe that the RFS program has effectively increased the production, distribution, and use of renewable fuels in the United States in previous years, and will continue to do so in the future. A commenter claimed that with our proposed rule EPA was abandoning the RIN market as a mechanism to increase the use of higher level ethanol blends. We disagree with this statement. While we believe the RIN mechanism can be effective at increasing the production, distribution, and use of renewable fuels we continue to believe there are limits to the degree to which the RIN mechanism can increase the supply of renewable fuel in the United States, especially in the near term.

A commenter stated that it was unreasonable to assume that blenders and/or retailers will pass-through the RIN value to consumers by reducing the retail price of E85. These comments mischaracterize EPA's conclusions. While we found that the RIN value was not fully passed through to consumers in the pricing of E85, we did find that a portion of the RIN value was reflected in the retail price of these fuels. The discount for E85 relative to E10 we assumed for the purposes of projecting the potential sales volumes of E85 in 2017 is higher than has been observed for a full year at a nationwide level, but is comparable to observed nationwide discounts in recent months. We therefore believe it is appropriate to use it for this purpose in this final rule.

A commenter disputed EPA's findings presented in the 2014-2016 final rule that approximately 44% of the RIN value was reflected in the retail price of E85. The commenter presented their own study based on data from Nebraska and an assessment using data from Minnesota to support their claims. EPA does not claim, as the commenter seems to imply, that none of the RIN value is passed on to consumers through the retail price of E85, but rather that the RIN value is not fully passed through. This view of the market is consistent with the observation of E85 retail prices that are lower than E10 retail prices at times when gasoline and ethanol are priced similarly at wholesale. EPA acknowledges that there may be parts of the country where a greater or lesser portion of the RIN is passed-through to consumers in the retail price of E85. In fact, we are aware of some situations where ethanol producers are the wholesalers of E85 and have relationships with retail stations to provide a larger price discount to consumers than is typically seen in the marketplace. However, this is not the predominant market situation. We do not believe, however, that it would be appropriate to extrapolate the finding from one area of the country (Nebraska) to the entire United States. This is especially true when data for the entire country is available and demonstrates a significantly different trend than the data from Nebraska, which accounts for only 2.5% of all E85 stations according to the DOE alternative fuel station locator. While we acknowledge that E85prices.com may not be a perfect representation of the retail price of E85 due to its reliance on user reported prices, we believe it is the best data available for this type of analysis, and far superior to relying on data from a single state.

We similarly do not believe that the regressions the commenter presented based on Minnesota data contradict EPA's findings that only a portion of the RIN value is passed on to consumers in the retail price of E85. We acknowledge that there is a correlation between higher RIN prices and greater discounts for E85 relative to E10 whether nationwide data or data from Minnesota is used. This relationship is to be expected, as higher RIN prices present an opportunity for greater discounts to the retail price of E85. We do not believe, however, that this type of analysis is sufficient to project the expected price discounts for E85 relative to E10 in future scenarios as it ignores significant factors such as the prices of gasoline and ethanol. As requested by the commenter we have updated our analyses from the 2014-2016 rule on the relationship between RIN prices and the relative prices of E85 and E10, as well as our assessment of the portion of the RIN value that is passed through to consumers in the price of E85. In these updated assessments we have lagged the RIN prices by one month as suggested by the commenter. We have also included more recent data (through July 2016). We do not believe it would be appropriate to include data from 2012 as the D6 RIN price was very low throughout 2012 (less than \$0.05), and we believe that attempting to determine the impact of such a small RIN price would not be possible, especially in light of the uncertainties associated with E85 retail pricing data noted by the commenter.

2.3.9 Other comments related to ethanol

Comment:

Anonymous 1

EPA's own proposal suggests E15 and E85 use could take up more than 300 million gallons of additional ethanol demand [EPA-HQ-OAR-2016-0004-0531 p.1]

Anonymous 11

Ethanol in the US motor fuel has continued to lower the national fleet's effective fuel mileage. [EPA-HQ-OAR-2016-0004-0697 p.1]

Belluardo, John

ethanol does not have the same energy content of diesel, gasoline or natural gas. [EPA-HQ-OAR-2016-0004-2571-A1 p.1]

Heath, Mark

ethanol, volume for volume, only has about 50 to 60 percent of the BTUs of gasoline [EPA-HQ-OAR-2016-0004-2671-A1 p.1]

Hehmeyer, Owen

Two physical properties of gasoline and diesel enable their great advantages as fuels -- their energy density and their liquid, non-corrosive nature. Ethanol fails on both counts, particularly at higher concentrations. Ethanol has a lower energy density (quantity of energy per unit volume) than both gasoline and diesel, making it less portable than petroleum products, and requiring larger sized fuel infrastructure (tanks, trucks) for the same energy. [EPA-HQ-OAR-2016-0004-2670-A1 p.1]

Iowa Farm Bureau Federation (IFBF)

It has been proven that when higher blends of ethanol are available at retail locations, sales of ethanol increase dramatically. [EPA-HQ-OAR-2016-0004-1653-A1 p.2]

The demand for E-15, E-30, and E-85 is strong and further infrastructure development and access to the market place has yet to be fully utilized. [EPA-HQ-OAR-2016-0004-1653-A1 p.2]

Iowa Office of the Governor

When consumers have choices, like they do in Iowa, they choose ethanol and other biofuels. [EPA-HQ-OAR-2016-0004-1747-A1 p.4]

Mass Comment Campaign sponsored by Anonymous 24 (Paper) - (3,299)

Not only should the EPA NOT increase the required ethanol content of gasoline, it should ELIMINATE THE CURRENT MINIMUM OF 10%. [EPA-HQ-OAR-2016-0004-1972-A1 p.1]

Mass Comment Campaign sponsored by POET Biorefining 2 (Paper) - (214)

We have used ethanol for many years and it is a great product [EPA-HQ-OAR-2016-0004-2882-A1 p.1]

Mass Comment Campaign sponsored by Vets4Energy (Web) - (3)

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 [EPA-HQ-OAR-2016-0004-1707-A1 p.1]

National Chicken Council (NCC)

Based on historic production, NCC believes these are overly aggressive assumptions. Thus, the 14.4 billion gallon level for ethanol is too high. [EPA-HQ-OAR-2016-0004-1676-A1 p.2]

Prairie Feed & Trucking, LLC

I am writing today to express my support for increasing the levels of ethanol for the Renewable Fuel Standard under consideration at this time. [EPA-HQ-OAR-2016-0004-1643-A1 p.1]

Stolar, Tim

For instance, Gasoline has an LHV (lower heating value) of 116,090 BTU/gal while Ethanol's LHV is 76,330 BTU/gal. And based on the First Law of Thermodynamics, we can figure things out relatively simply. Let's say you take a trip and drive 100 miles in a car that is getting 32 MPG at 60 mph using 100% gasoline. That trip used 3.125 gallons of fuel and burned 362,781 BTU's of energy (this is an important baseline). Now let's say you do the same trip under the exact same circumstances, but you run 100% ethanol in your vehicle (provided your fuel system can handle the corrosive nature of ethanol). Due to the reduction in caloric value, you will instead burn 4.75 gallons. In other words, you went from 32 mpg down to 21 mpg. In other words, efficiencies are reduced. [EPA-HQ-OAR-2016-0004-1524-A1 p.1]

Yinger, Alexander

Ethanol is a low energy density molecule which, when burned in internal combustion engines, yields far less ability to do work (move a vehicle) than conventional fossil fuels. [EPA-HQ-OAR-2016-0004-3340-A1 p.1]

Additionally, ethanol's great affinity for water greatly reduces the shelf-life of the gasoline with in which it is mixed resulting in far more waste fuel which is costly and environmentally challenging to dispose of. [EPA-HQ-OAR-2016-0004-3340-A1 p.1]

Response:

One stakeholder said that, according to the NPRM, E15 and E85 could collectively add 300 million gallons to ethanol supply. The NPRM indicated that the E10 blendwall was projected to be 14.21 billion gallons in 2017 (see Table II.B-1 of the NPRM), and that we expected about

14.4 billion gallons of total ethanol could be supplied in 2017. Therefore, the NPRM in fact projected that the use of E15 and E85 could increase the volume of ethanol supplied by about 200 million gallons.

Another stakeholder said that EPA's assumptions about the ability of the market to supply ethanol in 2017 were overly aggressive, and that the proposed total ethanol volume of 14.4 billion gallons was too high. In the final rule we have provided considerably more detail about why we believe that a somewhat higher level is reasonably attainable in 2017 based on projections of gasoline demand, E0, E15, and E85. We have made estimates of the rate of expansion of E15 and E85 offerings at retail, E15 production at terminals, and the potential for FFV owners to choose to use E85 rather than E10 based on sufficiently favorable fuel pricing. In addition, we have used updated information on gasoline demand that was not available at the time of the NPRM. In combination, we believe that these sources can result in a substantial increase in total ethanol supply in 2017 compared to 2016.

Several stakeholders expressed their belief that ethanol sales increase dramatically when higher ethanol blends are made available at retail. In their view, the only limiting factor is the retail infrastructure for offering such blends. Other stakeholders, in contrast, said that this is not the case. We have estimated both the number of retail stations likely to offer E15 and E85 in 2017, as well as consumer demand for E15 and E85 for retail stations that offer it, as described more fully in Sections V.B.1.ii and V.B.1.iii of the final rule.

Several stakeholders said that ethanol in gasoline has a lower volumetric energy content than conventional fossil-based fuels, reducing vehicle fuel economy and requiring larger storage facilities per unit energy. Other stakeholders pointed to increased concerns about ethanol's greater affinity for water and associated corrosivity as a reason that ethanol is inferior to gasoline. These facts are not directly relevant to the determination of the applicable volume requirements for 2017. To the extent that they preclude the market from choosing ethanol to comply with the RFS standards, the market can choose other non-ethanol renewable fuels to meet the applicable standards. However, we note that we account for the different volumetric energy content of different fuels in the determination of the number of RINs to be generated through the Equivalence Value.

One stakeholder said that EPA should eliminate the minimum requirement for 10% ethanol. There is no such requirement within the RFS program. The statute sets ambitious targets for renewable fuel used in the transportation sector that are contingent on expanding the concentration of renewable fuels in gasoline and diesel through at least 2022, and as a result EPA has an obligation to investigate opportunities for increasing the supply of renewable fuel. However, the RFS program does not require ethanol to be used. We have determined the applicable volume requirements for 2017 based on estimates of reasonably attainable volumes of all fuel types, including ethanol, but once the standards are set the market is free to choose any combination of fuel types to meet those standards.

2.4 Biodiesel + renewable diesel

2.4.1 Infrastructure for distributing, blending, & dispensing

Comment:

Darling Ingredients, Inc.

it should be noted that an increasing proportion of the Biomass Based Diesel comes from Renewable Diesel (potentially as much as 20% of the 2.7 billion gallon production estimated for 2017 in the Proposed Rule). Renewable Diesel simply has no distribution issues. Darling does not believe that distribution is in any way a limiting factor for Biomass Based Diesel usage and the requirement could easily be increased. [EPA-HQ-OAR-2016-0004-1721-A1 p.7]

Independent Fuel Terminal Operators Association (IFTOA)

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-2016-0004-1823-A1 p.5]

Musket Corporation

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.76]

We believe that the market can in the downstream side do at least an additional 500 million gallons of biodiesel into the fuel supply without significant or additional investments in infrastructure.

National Biodiesel Board

In 2013, NREL issued a report on a fuel quality survey of producers and terminals in 2011, finding more than 95% of biodiesel sampled, from both producers and terminals, met the fuel quality specifications. See NREL, Quality Parameters and Chemical Analysis for Biodiesel Produced in the United States in 2011, at iv (Mar. 2013), available at <http://www.nrel.gov/docs/fy13osti/57662.pdf>. Thus, there are no limitations on the use of the biodiesel produced in the United States today, and nothing in the statute gives EPA authority to address fuel quality unrelated to air emissions. [EPA-HQ-OAR-2016-0004-2904-A2 p.26]

In fact, blending at a terminal is not required nor necessary to get biodiesel into the market. Blending can occur all along the supply chain, including through splash blending in the truck on the way to the retail station or at the retail station itself. We have conducted a survey of biodiesel producers who reported that, in 2015, approximately 71% of product is sold directly to a

downstream blender or an end user, such as a truck stop, while only 15% is sold to a terminal.¹⁷ US Biodiesel Distribution Analysis at 15. [EPA-HQ-OAR-2016-0004-2904-A2 p.30]

Even if it is appropriate for EPA to consider constraints on distribution, which we disagree, EPA should only consider whether it can be done, which it can. EPA, instead, is trying to determine what will be done. That is beyond what Congress intended. In any event, we address each of EPA's contentions below. [EPA-HQ-OAR-2016-0004-2904-A2 p.30]

EPA appears to focus on limited storage as a "constraint" due to the need for specialized storage facilities to prevent gelling in cold weather. Based on the changes to the fuel specifications for biodiesel, these concerns, to the extent they exist, relate only to storage and transportation of B100, which may require insulated trucks or railcars and heating units for loading and unloading. Once the fuel is blended with diesel fuel (or even additives added), these are no longer needed. EPA itself has recognized this, noting that terminals will often store higher biodiesel blends like B50, instead of B100, "avoiding the need for heated/insulated biodiesel facilities." 75 Fed. Reg. at 14,758 n.124. Even to store and transport B100, this is not an expensive proposition, and has been done for years. The benefits from separating RINs, for example, allow parties to recoup those monies in relatively short order. This has led to biodiesel producers themselves investing in offsite distribution facilities. A survey of biodiesel producers found over 50% owned distribution facilities away from their facilities. [EPA-HQ-OAR-2016-0004-2904-A2 p.30]

A review of a listing of bulk storage facilities from OPIS/Stalsby's Petroleum Terminal Encyclopedia (27th Ed.) shows 38.5% of those locations that have expressly indicated storage of biodiesel or ultra-low sulfur diesel reference biodiesel. This shows that distribution is more widespread than EPA appears to believe. See also US Biodiesel Distribution Analysis at 15-16. [EPA-HQ-OAR-2016-0004-2904-A2 p.33]

EPA makes a conclusory statement that "for the market to continue to expand, it will likely require greater investment per volume of biodiesel supplied, as the new biodiesel distribution facilities will generally have access to smaller markets than the existing facilities, or will face competition as they seek to expand into areas already supplied by existing distribution facilities." 81 Fed. Reg. at 34,793. Again, EPA provides no explanation or support for this statement. There is no "greater investment" needed to distribute blends up to B20. Indeed, EPA previously recognized that incremental increases result in reduced costs, and benefits will continue to outpace costs. See 77 Fed. Reg. at 59,483. As the country moves to higher blends, nationally (using an estimated 60 billion distillate fuel market) this is a difference between the 2.7 billion gallons estimated by EPA in 2017 to 6 billion gallons at a B10 level and 12 billion gallons at a B20 level. [EPA-HQ-OAR-2016-0004-2904-A2 p.35]

EPA also wholly ignores the benefit of the RIN, contending, again with no support, that biodiesel distribution infrastructure projects "generally have long payback timelines," which are made more problematic given the current low oil prices. 81 Fed. Reg. at 34,793. While there is unused capacity for biodiesel blends already available for distribution, see, e.g., 76 Fed. Reg. at 38,868, EPA provides, again, no support for its conclusory statements. As the D.C. Circuit found, "high RIN prices should, in theory, incentivize precisely the sorts of technology and infrastructure investments and fuel supply diversification that the RFS program was intended to promote."

Monroe Energy v. EPA, 750 F.3d 909, 919 (D.C. Cir. 2014). EPA itself recognizes, although simply in passing, that RINs “have made it possible for some retailers to realize additional profits while selling biodiesel blends, while in many cases offering these blends at a lower price per gallon than diesel fuel that has not been blended with biodiesel.” 81 Fed. Reg. at 34,794; see also Testimony of Michael Whitney, Musket Corp. (EPA-HQ-OAR-2015-0111-1004). The costs of adding another storage tank or the few cents more to distribute by truck or rail are outweighed by the value provided with the RIN that can be sold for compliance. EPA must provide a stronger market signal to ensure continued investment, not try to hold the market down. [EPA-HQ-OAR-2016-0004-2904-A2 p.36-37]

The vast majority of the biodiesel sold does not go through a terminal, and Love’s blending averages around 9% of biodiesel. Similarly, Pilot’s/Flying J sells biodiesel across the country at approximately 424 of its locations. Pilot/Flying J lists 365 of those locations, across 29 states, as selling blends above B5. Travel Centers of America also sells biodiesel across the country at 134 of its 256 locations, with 85% selling blends above B5. That’s almost 900 stations across the country just with these three companies, and they have substantial room to continue to grow. Sales of biodiesel blends are not limited to these larger retailers. See US Biodiesel Distribution Analysis at 19. Even CountryMark, which EPA has previously cited, advertises the sale of B20 at some of its locations. NBB also maintains a list of retail stations, which accounting for Love’s and Pilot stations, includes over 850 additional stations of which over 67% list blends higher than B5 (Attachment 4). These are located all over the country, as shown in the following map. [EPA-HQ-OAR-2016-0004-2904-A2 p.38]

In fact, EPA’s statements regarding transportation of biodiesel via pipelines are incorrect. Biodiesel can be distributed through most pipelines. Pipelines carry 222.6 billion gallons of fuel annually, and 30-50% of pipelines do not carry jet fuel. Several pipelines have been carrying biodiesel on non-jet lines for several years. These include:

- Kinder Morgan for five years – Portland to Eugene, 115-mile pipeline;
- Explorer for four years - Houston to Dallas, Texas - 2,800 barrels per hour and has a line fill of 144,000 barrels;
- Colonial for two years – Atlanta to Bainbridge, Georgia – 150,000 b/d line;
- Planation Pipe Line, which starts in Mississippi and can ship to Athens, Georgia, Roanoke, Virginia, and can also move B5 to markets along Plantation systems in Birmingham and Oxford, AL, Bremen and Atlanta, GA, Belton and Spartanburg, SC and Charlotte and Greensboro, NC. [EPA-HQ-OAR-2016-0004-2904-A2 p.43]

Even if B20 is limited to those engines that OEMs have “approved” for B20, centrally-fueled fleets or larger retailers, as EPA contends, this remains a significant amount of volume. EIA estimates that the nation’s four largest on-highway diesel sellers make up 25% of total diesel volumes sold. EIA, Petroleum & Other Liquids: Gasoline and Diesel Fuel Update, https://www.eia.gov/petroleum/gasdiesel/diesel_proc-methods.cfm (release date July 5, 2016). These four alone, then, could sell over 2.75 billion gallons of biodiesel (25% of 55 billion times 20%). Service stations make up only 20% of sales volume with mid-sized truck stops making up the remainder. Id. A review of IHS Automotive Data for 2015 indicates that, just based on the

current recommendations, the fleet on the road today can handle over 3.5 billion gallons of biodiesel fuel. EPA-HQ-OAR-2016-0004-0386. [EPA-HQ-OAR-2016-0004-2904-A2 p.48]

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 significant increase in the blending requirement at the terminals, and thus a significant increase in the truck/rail car unloading, may be problematic at some locations. Biodiesel blending capability does not exist at every product terminal. Rather than every terminal blending biodiesel into the transportation 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 what, if any, additional blending at existing terminals could be achieved to cover the volume requirements. [EPA-HQ-OAR-2016-0004-1807-A1 p.7]

Renewable Energy Group (REG)

The expansion of terminals and bulk plants selling biodiesel and biodiesel blends, and the distribution infrastructure necessary to store and transport biodiesel to and from these facilities, does not limit the potential for the rapid expansion of the biodiesel supply. REG and many of our industry partners have made significant investments in terminal assets across the country to sell biomass-based diesel to more customers and increase the quantity of biomass-based diesel that can be provided to customers. Since 2012, REG has expanded distribution capabilities as well as our number of customers served. In 2012, we delivered 188 million gallons of biomass-based diesel to 368 customers across 39 states and 3 provinces in Canada. Last year, we supplied more than 345 million gallons of biomass-based diesel to 500 customers across 47 states and 5 provinces in Canada. This is a 183% increase in gallons and 136% increase in number of customers, showing that once customers begin using biomass-based diesel they like the product and increase the quantity of product they purchase. [EPA-HQ-OAR-2016-0004-3477-A1 p.2]

Terminal sales play an increasingly strong role in the distribution and offering of biomass-based diesel products across the United States. Over the past 5 years, REG has continued to grow its terminal distribution capabilities and capacity in order to support increased access to biodiesel blends across the country. REG continues to invest in additional terminal storage and capacity and is committed to making biomass-based diesel blends available wherever it is demanded. REG terminals allow the company to position biomass-based diesel via truck and rail where no production facilities are present; access to diesel terminal infrastructure has allowed REG's customers optionality and enhanced blending capabilities across the country. This method of introduction of biomass-based diesel blends has created new markets, with customers demanding increased volumes of blended fuel. [EPA-HQ-OAR-2016-0004-3477-A1 p.3-4]

In 2012, REG directed just over 16% of its total biodiesel sales through its terminal assets, with over 29 million gallons of biodiesel sold through 16 terminals, mainly in the Midwest. The

following year, 2013, REG sold approximately 43 million gallons, of its total biodiesel sales through 20 terminal assets. While the Midwest continues to have the largest number of terminals and handles the most gallons, the East and Gulf Coast PADDs significantly increased handled gallons. In 2014 REG directed almost 65 million gallons, of its biomass-based diesel sales through its terminals. Moreover, REG sold through 26 biodiesel terminals while expanding into the diesel terminal market (that allows for additional “custom” blending) with 6 additional terminals. Due to market conditions, REG experienced a slight drop in its 2015 terminal sales with just over 61 million gallons of biomass-based diesel going through its 24 different biodiesel terminals and 8 diesel terminals. **Through Q1 2016, REG has seen an increase in total biodiesel terminals to 24 and diesel terminals at 13; selling over 17 million gallons of biomass-based diesel.** [EPA-HQ-OAR-2016-0004-3477-A1 p.4]

Our current and anticipated future demand supported expanding our line of credit, with REG Energy Services recently receiving a \$30 million line of credit² that is providing additional capital to further expand REG’s nationwide distribution footprint of **37 terminal locations in 15 states.** [EPA-HQ-OAR-2016-0004-3477-A1 p.5]

Another example is the completion of a barge loading facility at REG Seneca in 2013. This upgrade allows the plant to ship the equivalent of approximately 65 truck-loads (approx. 420,000 gallons) of biodiesel along a waterway with access to both the Great Lakes and the Mississippi River. [EPA-HQ-OAR-2016-0004-3477-A1 p.7]

Based on the sample of state incentives, terminal infrastructure, and retail infrastructure biodiesel blending and distribution is expanding in a dramatic fashion and is not a constraint in the foreseeable future. In 2015, 796 retail locations offered a **B5 blend or greater.** [EPA-HQ-OAR-2016-0004-3477-A1 p.7]

During the June 9th EPA hearing in Kansas City, MO, Michael Whitney on behalf of Musket Corporation (fuel purchaser for Love’s Truck Stops), stated that they anticipate increasing blends by 100 million gallons per year every year out to 2018. He also stated that Love’s alone has sufficient blending capacity to accommodate the proposed RVO increases for 2017 and 2018. As of July 6, 2016, 304 Love’s stations offer biodiesel blends. More importantly, their website provides the blend level currently offered at each station. Pilot Travel Centers and Travel Centers of America also offer similar blend information. [EPA-HQ-OAR-2016-0004-3477-A1 p.8]

Concurrent with federal action a decade ago on renewable fuels, a number of states enacted legislation providing incentives for the use of biomass-based diesel, requirements for the use of biomass-based diesel, or both. Currently, these improved and extended state incentives are also helping to drive supply chain expansions; high quality product and the infrastructure to distribute allow biomass-based diesel to enjoy preferential demand. According to the U.S. Department of Energy¹⁰, more than 40 states have implemented various programs that encourage the use of biomass-based diesel through blending requirements as well as through various tax incentives. [EPA-HQ-OAR-2016-0004-3477-A1 p.9]

As you can see from the chart, imported volumes of biodiesel has increased since 2012 with just over 54 million gallons entering through 12 different cities across nine different states. While

volumes and terminals significantly increased in 2013 that was not the case for 2014. Import destination cities remained steady while the overall volume dropped. In 2015, imports expanded yet again, setting new bars for number of cities and total volume. While data is only available through April of 2016, this year has seen a jump in biodiesel imports, with 118 million gallons entering through 24 cities. Furthermore, the total number of gallons of biomass-based diesel imported in the first quarter of 2016 is the highest number in the past five years. Thus, biodiesel imports since 2012 have displayed a capacity for growth through the increased use of different port cities and states, as well as in total volumes imported. In fact, from 2012 through April of 2016, 25 different states, as well as 55 unique cities served as entry points for biodiesel into the United States. [EPA-HQ-OAR-2016-0004-3477-A1 p.11]

United States Canola Association

The U.S. biodiesel industry has provided these benefits without significant disruption or adverse impacts to consumers. There are no limitations on using biodiesel blends throughout the diesel fuel market and vehicles are not limited by increased volumes of biodiesel. U.S. farmers can produce more feedstock, U.S. biodiesel producers have unused capacity, there are no infrastructure impediments to modest volume increases and U.S. workers, consumers and the environment would benefit. [EPA-HQ-OAR-2016-0004-1723-A1 p.2]

Response:

One commenter stated that renewable diesel does not have any limitations with respect to the distribution that would limit the use of this fuel in 2017. EPA generally agrees with this assessment. We believe that volumes of renewable diesel used in the United States in 2017 will instead be limited by the limited production capacity of renewable diesel in the United States and abroad in combination with the demand for this fuel in other countries.

One commenter noted a desired balance between the price of biomass-based diesel RINs and the proper incentives to support investments made in the biodiesel industry, including investments made to distribute biodiesel. We have not explicitly considered the price of RINs in our projections of the available volumes of advanced and total biodiesel and renewable diesel. Our approach to setting the advanced biofuel volume requirement is described in the preamble. In general, we have set the volume at a level that we have determined to be reasonably attainable and appropriate, allowing a considerable volume of these fuels to backfill for missing cellulosic volumes. This approach will result in use of investments made by industry to enable an increasing supply of these fuels, while avoiding the negative consequences that may be associated with overly ambitious requirements.

One commenter suggested that based on their experience, sufficient infrastructure exists to increase the supply of biodiesel and renewable diesel by at least 500 million gallons in 2017. The commenter did not provide data or analyses to support their estimate, however there was substantial supporting data provided by other commenters with similar suggestions. Taking these comments into consideration, we have increased our assessment of the supply of biodiesel and renewable diesel in 2017 to 2.9 billion gallons (this is an increase of 200 million gallons from the

proposed volume and an increase of 400 million gallons from the volume projected for 2016 in the establishing the 2016 RFS standards).

One commenter argued that it was inappropriate for EPA to consider distribution constraints in the context of establishing RFS standards. We disagree, as the ability to distribute biodiesel and biodiesel blends directly impacts the extent to which such fuels can be used in the transportation sector or as heating oil and jet fuel.

NBB provided EPA with results from a biodiesel fuel quality survey conducted by NREL. They argue that this study, which found that more than 95% of all fuel sampled met the fuel quality specifications, showed that there are no limits to the use of biodiesel in the United States today. Another commenter similarly claimed that there are no limits to the supply of biodiesel to the United States in 2017. We strongly disagree. While the quality specifications may address some of the fuel quality and cold temperature concerns associated with biodiesel, they do not address all the issues related to biodiesel distribution, compatibility with the manufacturers fuel recommendations, and feedstock availability that could potentially constrain biodiesel use in the United States, especially at volumes beyond the 2.9 billion gallons projected in this final rule. See Section V.2 of the preamble for a further discussion of the potential constraints on the supply of biodiesel and renewable diesel in 2017.

NBB provided information from OPIS supporting their claim that 38.5% of bulk storage facilities have storage facilities for biodiesel. This is consistent with comments by another commenter stating that biodiesel blending infrastructure is not present at all terminals. They further stated that blending biodiesel at a terminal was not a necessary step in getting biodiesel to market, and provided data on the many different ways biodiesel is distributed to the end users. This was supported by comments from REG detailing their efforts to expand biodiesel distribution, through terminals, bulk plants, or direct to retail and/or end users. EPA has reviewed this data and increased our estimates of the amount of biodiesel and renewable diesel that we believe can be supplied in 2017. We believe the information provided by commenters demonstrates that the current distribution infrastructure, together with the potential for new infrastructure that can be added in 2017, is sufficient to distribute the 2.9 billion gallons of biodiesel and renewable diesel projected in this final rule. We have also updated our discussion of the ability to transport biodiesel blends via pipeline in accordance with the information provided in NBB's comments.

NBB commented that specialized storage facilities are only needed for the storage of B100, and that these needs may be minimized by storing and transporting biodiesel blends rather than B100. EPA recognizes that this is one way to address this issue, however we note that it may require additional storage capacity to store blended fuel rather than B100, and may similarly require additional trucks to transport biodiesel blends, relative to those needed to transport un-blended biodiesel. Another commenter raised concerns that additional volumes of biodiesel would likely require greater transportation of biodiesel by truck and/or rail, and greater capacity to load and unload these truck and rail cars. We acknowledge that expansion of these facilities may be necessary, but we believe that to the degree they are necessary to achieve the final volumes we have determined are reasonably attainable, that they can be completed in 2017. We also believe that alternative methods for transporting biodiesel and biodiesel blends, such as via

barge or pipeline, may play a large role in biodiesel distribution in future years, as some commenters suggested.

NBB provided data on a number of large retail outlets that are selling biodiesel blends that exceed the B5 blend level. Similarly, REG provided data showing that 796 retail locations offered biodiesel blends of B5 or greater in 2015. We recognize that this is the case at many large retail outlets, such as truck stops and travel centers. We also recognize that an increasing portion of the diesel engines in the United States are approved to use biodiesel blends up to B20, and have reflected this data in our final rule. The willingness and ability of large retail outlets to offer biodiesel blends at levels above B5 is one of the primary reasons for the increase in our projection of the total volume of biodiesel and renewable diesel that can be supplied in the United States in 2017 to 2.9 billion gallons.

NBB contested statements in our proposed rule that future increases in the volume of biodiesel supplied will likely require greater investment per volume of biodiesel supplied. EPA acknowledges that this may not be the case in situations where biodiesel use is increasing in a market with an established distribution network for bringing the fuel to market. However, the focus of this statement was on supplying biodiesel to markets where it is currently not available. We continue to believe supplying these new markets will require greater investment (on a per gallon of biodiesel basis), as we believe it is reasonable to assume that the market is currently supplying the lowest cost markets, before expanding into higher cost areas.

EPA is not ignoring the potential for the benefit of the RIN to incentivize increasing supplies of biodiesel, as one commenter suggested. In fact, without the value provided by the RIN biodiesel would be significantly more expensive on a per gallon basis than petroleum diesel. The federal biodiesel blenders tax credit as well as state-level incentives and/or mandates also play a significant role in increasing the potential supply of biodiesel and renewable diesel. If the RIN value, together with the federal tax credit and state-level incentives, did not allow biodiesel, and biodiesel blends, to be able to be offered at a discount to petroleum diesel, we believe the supply of biodiesel would be significantly lower than projected in this final rule. Rather, the standards we are setting acknowledge that the ability for RINs to increase the supply of renewable fuels in 2017 is not without limit.

One commenter provided an estimate of the potential import capacity for biodiesel. This comment is discussed in Section V.2.iii of the preamble.

2.4.2 Vehicles that can use it

Comment:

Advanced Biofuels Association (ABFA)

In recent testimony before the U.S. House of Representative's Energy and Commerce Committee, the EIA raised the issue of a biodiesel blend wall of 5% on a national basis. ABFA

members disagree with this assertion. In fact, several members of our association regularly blend 10% or more biodiesel across their systems. [EPA-HQ-OAR-2016-0004-1831-A1 p.5]

American Petroleum Institute (API)

Vehicle constraints and consumer preference

API fundamentally agrees with EPA's assessment of potential limits on the growth of biodiesel and renewable diesel consumption capacity from the perspective of vehicle constraints and consumer preference. As EPA notes in the Preamble of the proposed rule, both the Federal Trade Commission and the ASTM International Specification for diesel fuel (ASTM D975) allow for biodiesel concentrations of up to five volume percent (B5) to be sold as diesel fuel. No separate labeling is required for blends containing up to B5 at the retail pump, so these blends are indistinguishable from petroleum-based diesel to the consumer. While many of the makers of passenger car and light truck diesel models offered for sale in the US warrant their vehicles for operation on B5 or less, the vast majority of diesel fuel in the US is consumed by heavy duty vehicles and non-road engines. Although a number of heavy-duty diesel engine OEMs have, in recent years, begun to upgrade and warrant their engine models to operate on biodiesel blends containing up to 20 volume percent (B20), it is important to recognize that heavy-duty vehicle and non-road engines have extremely long service lives (~500,000+ miles), and therefore fleet turnover will serve to constrain the overall growth in consumption of blends containing biodiesel in excess of 5% by volume. [EPA-HQ-OAR-2016-0004-3512-A2 p.40]

Darling Ingredients, Inc.

The Proposed Rule concludes that consumption capacity is adequate to achieve the projected usage of 2.7 billion gallons in 2017, but limitations will develop beyond 2017. Darling disagrees with conclusion that 2.7 billion gallons represents a consumption capacity wall for Biomass Based Diesel. [EPA-HQ-OAR-2016-0004-1721-A1 p.8]

Since the majority of engine manufacturers have already approved Renewable Diesel for blends exceeding 20% and diesel fuel is often distributed from retail outlets, which can offer more varieties of fuels, Darling anticipates there to be substantial volumes of Renewable Diesel, which will not be affected by the 5% labeling law. [EPA-HQ-OAR-2016-0004-1721-A1 p.8]

Minnesota Soybean Processors (MnSP)

We specifically ask EPA to rectify its erroneous claim that engine warranties limit usage of Biomass-Based Diesel and Renewable Diesel. [EPA-HQ-OAR-2016-0004-1829-A1 p.3]

National Biodiesel Board

While EPA uses the phrase "designed and warranted for B20," this is not an accurate description. OEMs recommend fuels in their owner manuals, and may reference fuels that should be used in the vehicles. In addition, EPA has not identified any particular "design" required to use B20. Nor have any of the OEMs that still have not recommended B20 in their vehicles identified a design

characteristic of their vehicles that would not allow at least blends up to B20. As noted, the ASTM standards were developed for use in the same diesel engines as petroleum diesel fuel. Indeed, consumer acceptance and consumer pressure have prompted car companies to verify use of blends up to B20 in separate letters, notwithstanding statements in the owner's manual regarding recommendation of use of B5. [EPA-HQ-OAR-2016-0004-2904-A2 p.44]

Moreover, even assuming EPA's numbers are correct, it remains clear that the majority of diesel vehicles on the road, which are still under a manufacturer's warranty, are "approved" for the use of B20 or higher blends. EPA has acknowledged that "most medium and heavy-duty engine manufacturers now warrant the use of blends up to B20 in their more recent models." 80 Fed. Reg. at 33,116. While, again, we dispute the use of the term "warrant," OEMs have agreed that over 50% of the Class 8 vehicles on the road in 2015, according to IHS Automotive data, can use B20, representing over 2.7 billion gallons of biodiesel alone. Testimony of Scott Fenwick, June 9, 2016, EPA-HQ-OAR-2016-0004-0386. This number will only continue to grow with the new model years coming on line. [EPA-HQ-OAR-2016-0004-2904-A2 p.47]

According to a new 2016 Fleet Purchasing Outlook study conducted by NTEA, biodiesel is the most commonly used alternative fuel option in the market. 2016 Fleet Purchasing Outlook at 18. Survey data shows 18% of fleets use biodiesel now, up from 15% in 2015. Id. Biodiesel also ranks first in terms of future interest in alternative fuels, with more fleets planning to acquire or continue using biodiesel than any other alternative fuel option. Id. The survey represented a diverse pool of fleet professionals representing a broad range of fleet sizes, vehicle weight classes and vocational truck applications. [EPA-HQ-OAR-2016-0004-2904-A2 p.50]

Response:

EPA agrees with commenters that the use of biodiesel is not limited to B5 blends in 2017. We also acknowledge that renewable diesel can often be used at higher blend levels than biodiesel, and there are significant opportunities to expand the use of renewable diesel in the United States.

One commenter noted that the majority of diesel fuel in the United States is consumed by heavy duty vehicles and non-road engines with long service lives, suggesting that the owners of these engines would be reluctant to use biodiesel blends above B5. We agree that this may be the case, however we note that there are also a large number of engines in the in-use fleet (including both light-duty and heavy-duty vehicles) that have been approved to use biodiesel blends up to B20 by the engine manufacturers. Data submitted by NBB suggests that over 30% of all diesel vehicles and over 50% of all class 8 trucks (the vehicles that use the majority of the diesel fuel in the United States) are approved by the engine manufacturers to use biodiesel blends up to B20. While we disagree with the suggestion from NBB that we should disregard the engine manufacturers' recommendations for the fuel type approved for use in their engines, we nevertheless believe there is significant opportunity for the use of biodiesel blends up to B20 in engines that are approved to use these fuels. We also note that we have amended the discussion, as suggested by NBB, of diesel engine manufacturer recommendations to clarify that the engine manufacturers do not warranty biodiesel, or any other type of fuel.

For a further discussion of the ability of vehicles to use biodiesel and renewable diesel see Section V.2.vi of the preamble.

2.4.3 Cold temperature impacts

Comment:

Adler's Antique Autos

If gelling is a concern, winter blends below 5% are appropriate, and EPA should adjust quantities down. [EPA-HQ-OAR-2016-0004-2523 p.1]

CountryMark

Customer concerns about biodiesel are not without merit: Poor cold weather properties have impeded greater volumes of biodiesel from entering our fuel system. Biodiesel can start to gel at 40°F 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. Within these constraints, we average less than 1.5% biodiesel in all of our diesel fuel sales. [EPA-HQ-OAR-2016-0004-1826-A1 p.7]

National Biodiesel Board

Moreover, without regard to biodiesel, additives have been developed to also address low temperature operability for all diesel fuel, and specifically petroleum diesel, often resulting in #1 diesel fuel or other additives being blended with #2 diesel fuel. The need to take actions to address cold weather is the same regardless of whether it is petroleum or renewable-based diesel fuel. [EPA-HQ-OAR-2016-0004-2904-A2 p.24]

To support its claims that cold weather limits the use of biodiesel, EPA refers to the list of retailers provided by the NBB which indicates that some retailers offer biodiesel blend levels that differ in the summer and winter to account for these cold temperature impacts. 81 Fed. Reg. at 34,793. As an initial matter, the list says nothing about why these stations sell different blends of fuel. Regardless, out of 1083 listed stations, only 29 referenced a specific blend during certain times of the year and only 5 expressly indicated that they only sold B5 in the winter. (Attachment 4). That's less than 3% of the stations listed, and nine indicated that they sold higher blends than B5 in the winter, as high as B50 in Oregon and Maryland. EPA cannot simply cherry-pick data and then contend there is a "constraint" on biodiesel use. [EPA-HQ-OAR-2016-0004-2904-A2 p.25]

Owner-Operator Independent Drivers Association (OOIDA)

OOIDA members are intimately aware of differing fuel blends. A driver can be left in a dangerous position with "gelled" fuel leading to an unexpected engine shut down after filling up

in a warmer region of the country, then traveling to a region experiencing very cold temperatures. The implications of such a situation include the immediate peril of parking on the shoulder of a highway (quite possibly in hazardous roadway conditions), the lack of heat due to the non-operational engine, the potential loss of a load, or the loss of a customer due to late delivery. The type and quality of fuel which feeds an engine is critical to preventing these undesirable situations. [EPA-HQ-OAR-2016-0004-0220-A1 p.1]

Response:

EPA received several comments on the ability to use biodiesel blends during cold temperatures. Some commenters suggested that biodiesel could not or should not be used in cold temperatures, while other commenters stated that if handled correctly, biodiesel could be used year-round in the United States. EPA recognizes the challenges associated with using biodiesel blends in cold weather. We also acknowledge that the industry has developed approaches for addressing these issues, including heated storage and blending with #1 diesel or other additives. We recognize the experience of several cold weather states that have used biodiesel blends without significant reported issues in recent years. While we recognize that retailers and consumers may choose to avoid biodiesel blends in cold weather situations, we do not believe that these individual choices will prevent the supply of biodiesel and renewable diesel in the United States from reaching the 2.9 billion gallons projected in 2017 in this final rule.

2.4.4 Production capacity

Comment:

American Petroleum Institute (API)

Domestic biodiesel production capacity is too small. Between 2011 and 2015, domestic biodiesel production annual capacity has averaged 2.1 billion gallons and monthly production capacity utilization averaged 55%. Even with EPA's implementation of the RFS, the EIA reported that domestic biodiesel production peaked at 1.4 billion gallons in 2013. [EPA-HQ-OAR-2016-0004-3512-A2 p.39]

Registered biodiesel production is unproven and likely too small. EPA reports in the proposed rule that registered biodiesel production for the RFS is around 2.7 billion gallons. Therefore it would require the industry to run at an average capacity utilization of 93% for a year to generate 2.5 billion gallons. In review of data on EPA's EMTS website, monthly biodiesel RIN generation has never reached 93% capacity utilization for even a single month. In recent years, capacity utilization has mostly been within the 60% to 80% range. Over the entire EMTS data base, the highest 12 consecutive month average for capacity utilization is 75%, which is far short of achieving 2.5 billion gallons. EPA points to limiting factors at registered biodiesel production facilities related to idled plants and availability of viable feedstocks. [EPA-HQ-OAR-2016-0004-3512-A2 p.39]

Baker Commodities, Inc.

has the capacity to produce more fuel than the RFS levels recommended by your agency. [EPA-HQ-OAR-2016-0004-1656-A1 p.1]

BHT Resources

The biodiesel industry has the capacity to produce more fuel than the RFS levels recommended by your agency. This industry offers great growth potential with a strong RFS. [EPA-HQ-OAR-2016-0004-1630-A1 p.1]

Iowa Office of the Governor

The EPA's proposal significantly misses the mark for biodiesel, particularly given the large volume of idle production capacity installed in Iowa and across the country, which stand ready for significant production. [EPA-HQ-OAR-2016-0004-1747-A1 p.1]

we have the capacity to produce much, much more. Iowa has a vast supply of feedstocks available to the biofuels industry and the potential to expand further is very achievable. [EPA-HQ-OAR-2016-0004-1747-A1 p.2]

Kimberley, Grant

The EPA's proposal significantly misses the mark for biodiesel, particularly given the large volume of idle production capacity installed in Iowa and across the country, which stand ready for significant production. [EPA-HQ-OAR-2016-0004-3018-A1 p.1]

National Biodiesel Board

EPA actually is substantially underestimating total available capacity in the United States. Although EPA did not provide a list of facilities in the docket, NBB assumes the biodiesel capacity number is based on EPA's list from the 2014-2016 RFS at EPA-HQ-OAR-2015-0111-3579. This list has two numbers, capacity based on the registration with EPA (over 2.9 billion) and capacity based on "publicly available data" (almost 2.7 billion). As an initial matter, EPA never explains why it believes the publicly available information is more accurate than information submitted to EPA under its regulations. Under the Data Quality Act, EPA has a duty to ensure the integrity of data on which it relies, and it is unclear why it believes this publicly available data is more reliable than information required by law. Also, we have reviewed that list and compared it to capacity numbers that we have found through publicly available information. Based on EPA's own information regarding registered capacity and these publicly available sources, we estimate the registered biodiesel capacity for these facilities to be over 3 billion gallons (over 4.5 billion RINs) (Attachment 2). This also does not account for the fact that the registered or nameplate capacity may not reflect actual production capacity. For example, production capacity has exceeded nameplate capacity in several instances as facilities become more efficient. An additional 10-15% of actual production capacity could be added to account for removal of bottlenecks. [EPA-HQ-OAR-2016-0004-2904-A2 p.20]

With an expanded biomass-based diesel volume requirement, the large amounts of existing, certified, but *idle* biodiesel production capacity, from a large number of independent producers, could provide significant consumer benefits by increasing retail competition with petroleum-based diesel at the pump. [EPA-HQ-OAR-2016-0004-2904-A2 p.98]

Publisher Render Magazine Placerville

The biodiesel industry has the capacity to produce more fuel than the RFS levels recommended by EPA. [EPA-HQ-OAR-2016-0004-2052 p.2]

Rendered animal fats and used cooking oils contribute approximately 30 percent of the feedstock for production of biodiesel and renewable diesel. [EPA-HQ-OAR-2016-0004-2052 p.2]

Response:

EPA recognizes that the registered production capacity for biodiesel and renewable diesel, in the United States and in foreign countries, is significantly higher than the volume of biodiesel and renewable diesel we are projecting can be supplied to the United States in 2017. In this final rule we have updated our estimate of registered biodiesel producers, as suggested by NBB. The total registered capacity of domestic biodiesel and renewable diesel is currently approximately 4.2 billion gallons. When considering only domestic biodiesel and renewable diesel producers that generated RINs in 2015 or 2016 the registered capacity of these facilities is approximately 3.1 billion gallons. Additionally, there are billions of gallons of registered capacity from foreign facilities. We therefore do not believe that the biodiesel and renewable diesel production capacity is likely to constrain the supply of biodiesel in 2017. Rather, we believe a number of other factors, discussed in more detail in Section V.2 of the preamble, will constrain the supply of biodiesel and renewable diesel to some level below the registered production capacity of all biodiesel and renewable diesel production facilities.

One commenter suggested that capacity utilization in the biodiesel industry has been in the range of 60% to 80% and that EPA should consider this factor in assessing attainable volumes. While it may be appropriate to consider historic utilization rates in determining available production capacity, we believe these historic low utilization rates are a reflection of the over-built nature of the biodiesel industry as well as other constraints present in previous years such as feedstock availability and the ability to distribute and use biodiesel, rather than an inability for these facilities to achieve utilization rates closer to 100% of their nameplate capacity.

The commenters also mischaracterize EPA's statements about registered biodiesel and renewable diesel capacity from our proposed rule. In the proposed rule EPA stated that registered domestic biodiesel and renewable diesel production capacity exceeded the volume of these fuels we projected could be supplied to the market in 2017 (2.7 billion gallons), not that the production capacity of registered facilities was equal to 2.7 billion gallons. As noted above, actual registered production capacity is higher than the 2.9 billion gallons we are projecting can be supplied in 2017, even if only domestic biodiesel and renewable diesel facilities that generated RINs in 2015 or 2016 are considered. The relatively low historic utilization rates noted by the commenter do not change our view that production capacity is not likely to be a limiting factor in 2017.

2.4.5 Feedstock availability

Comment:

Action Aid USA & The Hunger Project

We also call for the Agency to be particularly mindful of the risks related to the proposed rule's potential role in expanding palm oil production and the related hunger risks [EPA-HQ-OAR-2016-0004-1817-A1 p.1]

We are concerned that the market will respond with increasing use of conventional biodiesel from palm oil, and the resulting land and environmental risks this poses. [EPA-HQ-OAR-2016-0004-1817-A1 p.3]

there are particular risks from expanding palm oil production. In addition to the environmental costs, the potential impact on land rights is very concerning. [EPA-HQ-OAR-2016-0004-1817-A1 p.3]

American Cleaning Institute (ACI)

ACI remains 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-HQ-OAR-2016-0004-1735-A1 p.1]

Domestic oleochemical manufacturers face disruptions in the market availability and price for animal fats as a direct result of delays in establishing RFS required volumes and the uncertainty of an extension of the biodiesel production tax credits. On the other hand, biodiesel producers are given the guaranteed market of the RFS and a production tax credit, which provides biodiesel producers with extraordinary market leverage in the purchase of animal fats. [EPA-HQ-OAR-2016-0004-1735-A1 p.3]

The RFS and biodiesel production tax credit is pricing the domestic oleochemical industry out of the market and forcing it to find cheaper and more plentiful foreign-sourced palm oil, which, over time, will drive this industry overseas (Table 2). [EPA-HQ-OAR-2016-0004-1735-A1 p.5]

EPA must use its discretionary authority to ensure adequate supply of these feedstocks for all industries, not just biofuels. EPA should limit the percentage of the animal fat supply that can be used in the production of biofuels or eliminate animal fats as a feedstock option. [EPA-HQ-OAR-2016-0004-1735-A1 p.7]

American Petroleum Institute (API)

Feedstock Availability

EPA should not set volumes, either advanced or biomass-based diesel, that could require 2.5 billion gallons of biodiesel for 2018 as suggested by the National Biodiesel Board (NBB). There are inadequate supplies to meet this standard without potentially requiring a drawdown of carry-over RINs or causing disruptions to feedstock supplies. [EPA-HQ-OAR-2016-0004-3512-A2 p.38]

Feedstock supply disruptions: EPA provides sound reasoning for focusing on soybean oil as a feedstock for biodiesel volume above 1.28 billion gallons. Data published by EIA104 reports that soybean oil is the single largest feedstock input for biodiesel production and according to USDA data, soybeans are the largest crushed oilseed in the U.S. Producing biodiesel from soybean oil is more land intensive than producing ethanol from corn and potential bushel and acreage implications of increasing biodiesel above 1.28 billion gallons are illustrated in the table below. Compared to recent actual soybean production, increasing the biodiesel volume mandate could result in relatively large changes. For example, increasing the biodiesel volume from 1.28 to 2.5 billion gallons could require an additional 820 million bushels of soybeans and up to an additional 18 million acres. [EPA-HQ-OAR-2016-0004-3512-A2 p.39]

Annual soybean crushing capacity in the U.S. is around 1.8 billion bushels per year producing around 20 to 22 billion pounds of soybean oil. The portion of soybean oil being used for biodiesel production (methyl ester) has increased from around 9% in 2005 to 28% in 2015. [EPA-HQ-OAR-2016-0004-3512-A2 p.39]

Baker Commodities, Inc.

Rendered animal fats and used cooking oils contribute approximately 30 percent of the feedstock for production of biodiesel and renewable diesel. [EPA-HQ-OAR-2016-0004-1656-A1 p.1]

Darling Ingredients, Inc.

Darling agrees with the EPA's assessment that there are adequate feedstocks to support the 2017 proposed volumes. In fact, there are more than adequate feedstocks. The reality is that crop based production of oils is exceeding demand for both the food and the fuel sectors around the world and there is an increasing volume of "waste oils" available as the market provides incentives for them to be recovered while the U.S. is continuing to struggle to export both its crop based oils and its rendered animal fats as oversupply weighs on the world market. [EPA-HQ-OAR-2016-0004-1721-A1 p.6]

International Council on Clean Transportation (ICCT)

Our assessment finds that, based on projected changes in the production of major BBD feedstocks and their consumption in other sectors, the availability of these feedstocks for BBD production has been increasing. We expect growth in feedstock availability of 42 million biodiesel-equivalent gallons in 2018 compared to 2017, and an average annual increase in

availability of 31 million gallons over the period 2016-2022. [EPA-HQ-OAR-2016-0004-1800-A1 p.2]

In our updated assessment, we find that the production of several major BBD feedstocks is likely to increase over the next several years; this includes vegetable oils (soy, canola, corn) due to yield improvements, as well as animal fats (tallow, poultry fat, etc) due to an expectation of growing livestock production in the U.S. Consumption of these resources in food products, livestock feed, and some industrial uses is expected to increase as well, reducing the net growth in BBD feedstock availability. We do not expect production of inedible corn oil, a by-product of corn ethanol processing, to increase substantially, but the expected increase in edible corn oil production will offset some of the increase in demand for vegetable oils in food. While used cooking oil has become a prominent BBD feedstock, we do not find any indication that collection of used cooking oil in the U.S. is likely to increase, and so no additional availability can be expected from this feedstock. [EPA-HQ-OAR-2016-0004-1800-A1 p.5]

Overall, we find a growing availability of BBD feedstocks in the U.S. that will not be needed in other industries. We project an increase of 42 million biodiesel-equivalent gallons in 2018 over 2017, and an average annual increase in feedstock availability of 31 million gallons over the period 2016-2022. [EPA-HQ-OAR-2016-0004-1800-A1 p.5]

Kimberley, Grant

Iowa has a vast supply of feedstocks available to the biodiesel industry and the potential to expand further is very achievable. [EPA-HQ-OAR-2016-0004-3018-A1 p.1]

MARC-IV Consulting, Inc.

[The following comment was submitted as testimony at the Kansas City, Missouri public hearing on June 9, 2016. See Docket Number EPA-HQ-OAR-2016-0004-3559, pp.74-76.]

last year biomass-based diesel fuel, the feedstock split was approximately half vegetable oils, and the other half was composed of animal fats, used cooking oil as well as distillers corn oil. And I know in the proposed rule, distillers corn oil is one of the feedstocks you noted that you thought was limited in terms of growth. Our research would indicate the fact that we think we'll continue to see yield improvements and we'll continue to see growth.

we work with LMC International to look at the global feedstock supplies. Their work, which is updated on an annual basis, the most recent annual update, they noted the fact that with RFS-qualifying fats and oils, they believe that we'll see an average annual growth rate of about 3.3 percent or, said more succinctly, between 2017 and 2020, about an 11 percent increase.

So after factoring in demand for non-biodiesel uses, so all the other existing uses, this equates globally to about 9 billion gallons worth of fats and oils that can be used to be processed in the biodiesel and renewable diesel, increasing to about 10.5 billion gallons worth of supply in 2020.

So if the biomass-based diesel fuel RVO in 2018 was set at 2.5 billion gallons, feedstock supplies would not be a limiting factor.

Mass Comment Campaign sponsored by Anonymous 19 (email) - (12)

In addition, rendered animal fat is a significant feedstock for biodiesel and renewable diesel and these markets have become an important part of the livestock and animal fats industry. In fact, biomass-based diesel is now one of the largest markets for animal fats. [EPA-HQ-OAR-2016-0004-1497-A1 p.2]

The importance of the biodiesel market to farmers and livestock producers has increased significantly over the past decade as soybean oil has been displaced from domestic food markets as a result of the FDA determination requiring the elimination of all partially hydrogenated oil, which creates trans-fat. Since the trans-fat labeling requirements were announced in 2003, over 3 billion pounds of soybean oil has been displaced from the food market. As food companies move toward compliance with the complete ban on trans-fat, additional amounts of soybean oil will likely be displaced. [EPA-HQ-OAR-2016-0004-1497-A1 p.2]

National Biodiesel Board

Approximately one fourth of all animal fats produced in the U.S. are now converted into biodiesel. [EPA-HQ-OAR-2016-0004-2904-A2 p.18]

While EPA raised concerns with LMC's analysis with respect to the 2014-2016 RFS, as noted, EPA itself did not find feedstock to be a constraining factor for biomass-based diesel. Moreover, EPA's concerns with LMC's analysis are based on a misunderstanding of its findings and an over-simplistic view of how the oil and fats commodity markets work. While LMC does indeed review the global availability of qualifying fats and oils, a key finding is that a significant portion of those feedstocks are produced in the United States and Canada. Furthermore, the RFS does not require qualifying feedstocks to originate in the United States. For example, used cooking oil has become a global commodity being traded for production of biodiesel. [EPA-HQ-OAR-2016-0004-2904-A2 p.71]

A key finding by LMC is that future *supply* of qualifying oils and fats is expected to outpace future demand. It is important to note that the feedstocks used by biodiesel are agricultural by-products or wastes. The supply is generally divorced from demand and must find a market somewhere. For example, with increasing demand for soybean meal,⁷¹ there will be additional soybean oil available. As countries shift their use of soybean oil consumption for food due to trans fatty acids, however, the soybean oil must still find a home.⁷² As another example, used cooking oil is generated separately and apart from any potential demand for biodiesel. But, with increasing biodiesel production, there is greater incentive to collect that waste grease. The growth of the industry does not reduce supply of vegetable oil that otherwise would have been used. Rather, it provides a home for the surplus oils and fats that are produced. [EPA-HQ-OAR-2016-0004-2904-A2 p.72]

Detailed analysis conducted by NBB demonstrates that significant volumes of feedstocks are available to the biomass-based diesel industry. An analysis conducted by Dr. John Kruse, WAEES, confirms sufficient feedstock availability for at least a 2.5-billion-gallon volume requirement for biomass-based diesel in 2018. WAEES Study at 33. The modeling found increases, not just in soybean oil use on which EPA focuses, but continued increases in use of DCO. *Id.* It should also be noted that this modeling does account for global biodiesel mandates and other policies potentially affecting imports. *Id.* at 33-34. Indeed, as Dr. Kruse notes, these other mandates are being increased because of a perceived glut of available feedstocks in the home countries. *Id.* at 33. [EPA-HQ-OAR-2016-0004-2904-A2 p.73]

Union of Concerned Scientists (UCS)

We agree with EPA's assessment that BBD feedstock will grow only slowly over time, and also that the possibility that biodiesel production could bid away feedstocks from existing users does not alter the basic availability of feedstock. We recently reviewed the data on biodiesel feedstocks and found that growth over the last few years was based on onetime factors that do not constitute the basis for future trends¹, so we expect future feedstock availability to be more constrained than recent years. The International Council for Clean Transportation has also done a detailed projection of biodiesel feedstock availability that finds that "the United States can support an average annual increase of about 31.5 million biodiesel-equivalent gallons of BBD per year through 2022." [EPA-HQ-OAR-2016-0004-1672-A1 p.1]

While it may be true that feedstocks will remain physically available, the relevant question in setting the target for advanced biofuels and BBD is not simply whether feedstocks and fuels can be delivered to the market, but also whether these fuels will meet the environmental requirements of the RFS. Biodiesel made from feedstocks that are bid away from other users of oils and fats will be replaced on the global marketplace somehow. Since, as the previously cited analysis explains, many of the vegetable oils and fats come from inelastic sources, it is reasonable to expect them to be backfilled in large measure by palm oil. Therefore, expanding the use of biodiesel beyond the growth of available feedstocks will indirectly expand demand for palm oil and accelerate associated deforestation. [EPA-HQ-OAR-2016-0004-1672-A1 p.2]

Response:

We received several comments related to the availability of feedstocks that can be used to produce biodiesel and renewable diesel. Some commenters urged EPA to be mindful of the impacts of the RFS standards on markets beyond the fuel market in the United States. Potential impacts of concern to commenters included disruptions of feedstock supplies, increasing demand for palm oil, and competition for feedstocks and increasing prices in the oleochemical industry. API argued that because of these concerns, EPA was justified in focusing on the expected supply of soy bean oil in considering higher standards for biodiesel and renewable diesel.

Other parties claimed that there are sufficient feedstocks to meet and exceed the volume of biodiesel and renewable diesel projected in the NPRM (2.7 billion gallons). These parties referred to expected increases in oil crop production, corn oil recovery, and increasing recovery

of waste oils (including rendered animal fat) as feedstock sources expected where growth is expected.

We believe that there will be sufficient feedstocks available to produce the 2.4 billion gallons of advanced biodiesel and renewable diesel and the 2.9 billion gallons of total biodiesel and renewable diesel we are projecting will be supplied in 2017 in this final rule. In our assessment of the availability of feedstocks we focused on the expected growth in the feedstocks that can be used to produce biodiesel and renewable diesel for which advanced and/or biomass-based diesel RINs can be generated. In doing so, we believe that we are minimizing the likelihood for many of the negative impacts mentioned by the commenters to occur. See Section IV.2 for a further discussion of this assessment. See Section 3.2 of the RTC for a discussion of the environmental impacts and considerations associated with the final rule.

Commenters also submitted the results of three different models designed to assess the availability of feedstocks for biodiesel and renewable diesel. EPA's assessments of these models are discussed in Section IV.2 of the preamble.

2.4.6 Total volume achievable

Comment:

Advanced Biofuels Association (ABFA)

ABFA is also concerned that EPA is proposing what looks to be an extremely generous 14.8 billion mandate for conventional biofuels on the basis that the D4 pool will provided the sufficient excess number of RINS beyond the D4 RVO to cover any shortfall. [EPA-HQ-OAR-2016-0004-1831-A1 p.7]

American Petroleum Institute (API)

API recommends that EPA remove the 400 million gallons of conventional biodiesel/renewable diesel from the calculated standards volume. [EPA-HQ-OAR-2016-0004-3512-A2 p.23]

Anonymous 1

EPA expects 600 million ethanol equivalent gallons of conventional biodiesel to qualify in 2017 [EPA-HQ-OAR-2016-0004-0531 p.1]

Biotechnology Innovation Organization (BIO)

Projected biomass-based diesel volume. Likewise, a simple correction to EPA's calculation of the ethanol equivalency of biomass-based diesel supply would increase the projected supplies of biodiesel and renewable diesel. EPA clearly recognizes that renewable diesel consumption, which earns 1.7 RINs per gallon based on ethanol equivalency, is growing and has fewer barriers

to growth compared to biodiesel. The Energy Information Administration also recognizes this in making projections for the 2016 Annual Energy Outlook. Yet EPA calculates the entire projected supply of biomass-based diesel for 2017 as if it is all biodiesel, earning just 1.5 RINs per gallon. An adjusted ratio of RINs per gallon for biomass-based diesel, accounting for relative volumes of biodiesel and renewable diesel and using either 2015 or 2016 as a baseline, would produce an ethanol equivalency conversion ratio of 1.55 RINs per gallon. EPA acknowledges and corrects this error elsewhere in the proposed rule, in Table IV.B.1-1. If EPA were to apply this correction to its RIN calculations, EPA's estimation of 2.7 billion gallons of biomass-based diesel use in 2017 would generate 4.185 billion RINs, compared to the 4.050 billion RINs that EPA currently counts. [EPA-HQ-OAR-2016-0004-2721-A1 p.10]

EPA uses projections of exported biodiesel from the Energy Information Administration to estimate the number of RINs that have been or will be separated for exports and will therefore be unavailable to obligated parties to meet annual obligations. In the 2014-2016 RFS Rule, EPA demonstrated the systematic differences between EIA estimates of exported biodiesel and EPA Moderated Transaction System ("EMTS") data on RINs separated from exports of biomass-based diesel. EPA also compared EMTS data to export estimates from the U.S. International Trade Commission, indicating they are nearly identical. Yet, in the proposed rule, EPA once again uses demonstrably inaccurate export data from EIA in estimating RINs that will be unavailable to obligated parties for compliance. EPA is likely overestimating biodiesel exports in 2017 by using EIA data to calculate the average growth rate for biomass-based diesel. EPA should once again use the largest achievable growth rate and raise its estimate of available biomass-based diesel consumption to 2.9 billion gallons, which the Agency recognizes is achievable. [EPA-HQ-OAR-2016-0004-2721-A1 p.13]

EPA should also continue to correct its ethanol equivalency ratio for biomass-based diesel when calculating advanced biofuel volumes. [EPA-HQ-OAR-2016-0004-2721-A1 p.14-15]

Clean Air Task Force (CATF)

Palm oil and biomass-based diesel: EPA should adopt 2017 and 2018 RVOs (the latter for biomass-based diesel) that do not further incentivize production of vegetable oils, such as palm, given palm oil's social and environmental problems. Even though palm biodiesel has rightly failed to qualify for the minimum 20% greenhouse gas (GHG) reduction threshold in the RFS, grandfathered biofuel (from facilities that were in production before 2007, which are not required to reduce GHGs by at least 20%) is still being imported to meet overall U.S. renewable fuel mandates. [EPA-HQ-OAR-2016-0004-1804-A1 p.2]

All three of EPA's proposed RVOs are too high, in part because they would exacerbate the environmental and social problems linked to the production of palm oil. First, the proposed biomass-based diesel RVO for 2018 would increase the overall demand for both biodiesel and, more generally, vegetable oil. Second, because the proposed total renewable fuel RVO for 2017 would create a gap in the implied mandate for conventional biofuels that cannot be met by ethanol, the proposal would likely further increase the reliance on biodiesel as an RFS compliance option. Both of these outcomes will indirectly encourage an environmentally and socially-damaging expansion of palm oil production. [EPA-HQ-OAR-2016-0004-1804-A1 p.6]

CountryMark

a discussion of the practical limitations of biodiesel blending is in order. [EPA-HQ-OAR-2016-0004-1826-A1 p.7]

CountryMark was an early adopter of incorporating biodiesel into its diesel products upon the request of some of its owner-customers. Since 2006, all four of our Indiana terminals have had the ability to blend biodiesel at their respective loading racks. [EPA-HQ-OAR-2016-0004-1826-A1 p.7]

This being said, there are limitations to our customers' acceptance of biodiesel. Some are enthusiastic about biodiesel, while others want zero biodiesel in their purchased diesel. We provide the choice of how much biodiesel they want in their diesel product. We price biodiesel at the same price as diesel or provide discounts for biodiesel blends to incent purchases. Nevertheless, raising the amount of biodiesel in our blends is a challenge on a voluntary basis which could lead to mandatory blending of biodiesel. Although forcing our customers to accept BBD could help meet our RFS obligation, if we were to impose a minimum BBD blend on our customers, we would risk losing their business which would economically harm our business. [EPA-HQ-OAR-2016-0004-1826-A1 p.7]

International Council on Clean Transportation (ICCT)

Increasing the demand for BBD above domestic feedstock availability will very likely increase the prices of these commodities and result in negative indirect effects, including:

- a) Bidding feedstocks away from other uses; these other uses would replace this feedstock with another. As an example, if tallow is diverted from soaps and other industrial projects to BBD production, soaps and other products will turn to a low cost alternative, likely to be palm oil or petroleum-based oils. [EPA-HQ-OAR-2016-0004-1800-A1 p.4]
- b) Increased imports of feedstock or BBD from other countries. Increased feedstock exports or BBD production in those countries would very likely have the same effect as above, diverting fats, oils and greases from other uses and leading to feedstock switching. [EPA-HQ-OAR-2016-0004-1800-A1 p.4]

Kimberley, Grant

we urge the EPA to increase its biomass-based diesel targets to 2.5 billion gallons for 2018 in the final rule. [EPA-HQ-OAR-2016-0004-3018-A1 p.1]

Monroe Energy, LLC

These problems with the proposed rule are underscored by the available data on RIN generation in 2016. Through the first five months of 2016, the market has generated only 96 million physical gallons of conventional biodiesel and renewable diesel. Even assuming generation triples over the next six months, and that somehow 100% of that supply is used for transportation

activities, EPA would still fall short of its 2016 projections. The shortfall is even greater if only a portion of the conventional biodiesel and renewable diesel generated is actually made available for compliance. For example, even if a record 75% of generation were used for transportation activities in 2016, the market would need to generate an additional 436 million gallons over the next seven months to reach EPA's assumed level of 400 million gallons available for 2016 compliance. [EPA-HQ-OAR-2016-0004-1869-A1, pp.29-30]

In sum, EPA erred when it assumed a supply of 400 million gallons of conventional biodiesel and renewable diesel in 2016, and it should avoid repeating that error in the 2017 rule. EPA should instead look to historical growth in this category and assume no more than what the actual data indicates is the maximum achievable supply. Such an adjustment would reduce the total volume requirement for 2017 by several hundred million gallons of ethanol-equivalent biofuel. [EPA-HQ-OAR-2016-0004-1869-A1 p.30]

National Association of Truck Stop Operators (NATSO)

EPA should thus feel comfortable establishing ambitious biomass-based diesel and advanced biofuel RVOs, as this can serve to lower the costs of acquiring and blending biodiesel, which in turn enables NATSO members to sell their products to consumers at lower prices and thereby increase consumer demand for biodiesel. [EPA-HQ-OAR-2016-0004-1830-A1 p.4]

At the same time, if these RVOs are set too high, it will increase obligated parties' operating costs and potentially impose upward pressure on the cost of diesel fuel. (Obligated parties will want to recover the costs of acquiring and retiring the necessary RINs, and/or will be incentivized to export diesel fuel to avoid incremental RVO increases. The diminished domestic supply will lead to higher diesel prices.) [EPA-HQ-OAR-2016-0004-1830-A1 p.4]

National Biodiesel Board

The industry has shown a 30% increase in biomass-based diesel production over 2015 from January through May, 2016. Production tends to pick up substantially after the first quarter of the year, and EPA reported over 194 million gallons of biomass-based diesel in April and over 200 million gallons in May. As we've repeatedly pointed out to EPA, the U.S. biodiesel industry can produce over 200 million gallons a month, as previously evidenced by production in December of 2013 (about 220 million gallons) and December of 2014 (about 214 million gallons). The biomass-based diesel industry, therefore, is well on its way to exceed the 2.1 billion gallons EPA projected for 2016, and even the 2.3 billion gallons EPA projected for biomass-based diesel in 2017. [EPA-HQ-OAR-2016-0004-2904-A2 p.15]

In addition, a key factor that EPA does not consider in its assessment are the numerous state incentives that are promoting increased use of biodiesel. These incentives are promoting higher blends of biodiesel with no reported problems of distribution or use. [EPA-HQ-OAR-2016-0004-2904-A2 p.26]

If Congress wanted EPA to make determinations as to what the market could handle, rather than let it work as it has done when EPA enforces the program, it would not have set statutory volumes. [EPA-HQ-OAR-2016-0004-2904-A2 p.37]

To estimate potentially available volumes, EPA converts all of the biomass-based diesel volumes to ethanol-equivalent volumes only using the biodiesel equivalence value of 1.5. Heating oil and renewable diesel, however, have higher equivalence values of 1.6 and 1.7 (mostly 1.7), which provide, not only additional RINs, but additional incentives to use those fuels. Based on the ratio of biodiesel to renewable diesel production, we get an average equivalence value around 1.55. EPA's estimate of 2.3 billion gallons of biomass-based diesel would increase by about 115 million ethanol-equivalent gallons if EPA accounted for the increasing volumes of renewable diesel. With the expected increased production of renewable diesel in the United States due to recent expansions, this ratio could change in favor of a higher equivalence value, resulting in additional ethanol-equivalent gallons. [EPA-HQ-OAR-2016-0004-2904-A2 p.75]

EPA's approach ignores expected increases in use of renewable fuel outside the gasoline pool, despite Congress's expectation to increase use of renewable fuels in the diesel pool, including in non-road applications, heating oil and jet fuel applications. 42 U.S.C. § 7545(o)(1)(L) (defining transportation fuel to include fuel for use in motor vehicles and nonroad vehicles and engines); 7545(o)(2)(A)(i) (requiring renewable fuel in "transportation fuel" not just "gasoline"); 7545(o)(5)(E) (providing for generation of credits for additional fuel, which is renewable fuel that replaces fossil fuel in heating oil and jet fuel). Despite the proven production and available capacity of biomass-based diesel, EPA proposes only a 5% increase of the biomass-based diesel volume from the volume it set in 2017.⁹⁴ That's only a 5% increase for a diesel fuel market that makes up almost 30% of the transportation fuel EPA estimated would be used in 2017 (EPA-HQ-OAR-2016-0004-0017). Indeed, *the higher* EPA sets the biomass-based diesel standard the less ethanol it can expect to be drawn into the gasoline pool. *See* 80 Fed. Reg. at 33,118 ("[I]t 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."). [EPA-HQ-OAR-2016-0004-2904-A2 p.90-91]

While we appreciate that EPA has increasingly provided information on RINs, the current data tables do not provide the information needed. Even if they did, EPA provides little by way of explanation as to their meaning. This is particularly true with respect to the table that purports to identify "available" RINs. [EPA-HQ-OAR-2016-0004-2904-A2 p.125]

This has increasingly become a problem given that EPA's assessment of RIN supply does not track the information it provides to the public. The public relies on the RIN generation table, yet EPA subsequently discounts certain RINs that are retired. The RIN generation table, however, purports to correct for certain errors, and, moreover, RINs generated still shows production. The "available" RIN table is almost meaningless as it is still unclear how one determines how many prior-year RINs were used to meet compliance in any particular year and, thus, one cannot determine the potential availability of prior year RINs to meet the requirements. [EPA-HQ-OAR-2016-0004-2904-A2 p.125]

Neste Oil

In setting the standards, the Agency has failed to fully account for the impact of renewable diesel. Renewable diesel has an energy equivalence value of 1.7 - a 13% increase in the number of RINs over the same volume of first-generation, methyl-ester biodiesel. Focusing only on the supply of biodiesel in the RVO analysis eliminates the inclusion of this higher energy-density fuel and ignores and fails to include these additional RIN volumes in the analysis of the industry's ability to meet increasing standards for biomass-based diesel. As increasing volumes of renewable diesel continue to be realized in the US biomass-based diesel pool, the old proxy of using 1.5 RINs/gal for biomass-based diesel becomes antiquated and now longer fully accounts for the RIN contributions. [EPA-HQ-OAR-2016-0004-1821-A1 p.2]

Renewable Fuels Association (RFA)

In the proposed rule, EPA “acknowledge[s] that imports of conventional (D6) biodiesel and renewable diesel have increased in recent years, and are likely to continue to contribute to the supply of renewable fuel in the United States in 2017.”⁵⁷ Table II.D-1 of the proposal shows that EPA used an estimated volume of 400 million “physical gallons” of conventional biodiesel and renewable diesel for determining the proposed RVOs. We agree with EPA’s estimated volumes and believe the Agency’s assessment is consistent with the market’s behavior in recent years. Table 5 below shows that 275 mg of conventional biodiesel and renewable diesel accounted for the generation of more than 450 million RINs in 2015, up from 205 mg and 337 million RINs in 2014. We agree with EPA that this volume will continue to grow in the future. [EPA-HQ-OAR-2016-0004-1695-A2 p.24] [Table 5 can be found on page 24 of document number EPA-HQ-OAR-2016-0004-1695-A2.]

The data also indicate that the average RIN equivalency value associated with these fuels was 1.65 RINs per gallon in both 2014 and 2015. Thus, to determine the 2017 D6 RIN generation potential associated with the projected 400 mg of conventional biodiesel and renewable diesel, it is appropriate to apply the same equivalency value. This suggests these fuels will likely contribute some 660 million D6 RINs in 2017. [EPA-HQ-OAR-2016-0004-1695-A2 p.25]

57 81 Fed. Reg. 34,798

Response:

EPA received several comments expressing concern that in the NPRM we had over-estimated the volume of advanced and conventional biodiesel and renewable diesel that could be supplied in 2017. Another commenter agreed with EPA’s projection of conventional biodiesel and renewable diesel, noting that it was consistent with market behavior in recent years and that the supply of these fuels was expected to grow in the future. While it may be the case that the supply of conventional biodiesel and renewable diesel in 2016 is lower than the projected supply, we note that the more relevant factor is whether or not the total supply of qualifying renewable fuel supplied in 2016 meets the required volumes. We have consistently noted that our projections for individual fuel types may not materialize, and that the market could choose a different fuel mix to achieve the volume requirements. Based on information from our EMTS system year to date,

and when taking into account seasonal variations in RIN generation in previous years, we believe that the supply of renewable fuel in 2016 will meet the required volumes.

Some commenters raised concerns that meeting the RFS standards would result in diverting feedstocks from other uses and/or increasing volumes of palm based biodiesel and renewable diesel, which they viewed as a negative outcome. For further discussion of the available feedstocks, including a discussion of the potential impacts that could result from feedstock switching see Sections IV.2 and V.2.i of the preamble and Section 2.4.5 of the RTC document. Environmental impacts are discussed in Section 3.2 of the RTC.

NBB argued that EPA should increase the required volumes of biodiesel and renewable diesel under the RFS program. To support their request, they cited high production volumes in previous months, as well as providing information on their assessment of available feedstocks, the ability of the market to distribute biodiesel, and various state incentives that may support increased biodiesel and renewable diesel production and use. After reviewing this information, we believe that the projected supply of biodiesel and renewable diesel in 2017 is higher than estimated in our NPRM. In the final rule we have projected reasonably attainable and appropriate volumes of advanced biodiesel and renewable diesel for 2017 to be 2.4 billion gallons and have increased our projection of total biodiesel and renewable diesel in 2017 to 2.9 billion gallons. In establishing the advanced biofuel volume requirement through use of the cellulosic waiver authority and the biomass-based diesel volume requirement pursuant to CAA Section 211(o)(2)(B)(ii), EPA is not constrained to require the maximum volume of biodiesel and renewable diesel than can be supplied to the market. For a further discussion of the factors that EPA considered, see Sections IV.2, V.2, and VI of the preamble.

One commenter stated that the proposed RFS standards could lead to the mandatory blending of biodiesel, and would not allow them to offer diesel fuel without biodiesel to their customers. The RFS standards provide obligated parties with a significant amount of flexibility with respect to how they acquire the RINs necessary to satisfy their obligations. An obligated party may choose to offer any legal fuels to their consumers, provided that on an annual average basis they meet their RFS obligations. If they choose to offer diesel fuel without biodiesel they can increase the blend levels of the biodiesel blends they do offer, or purchase separated RINs from parties that have excess RINs. We believe the standards finalized in this rule can be satisfied, while still allowing parties the option of offering diesel fuel without biodiesel if it is advantageous for them to do so.

Another commenter stated that EPA should feel comfortable establishing “ambitious” standards for biomass-based diesel and advanced biofuels, noting that this can lower the cost of acquiring these fuels through higher RIN values. They did caution, however, that if the RVOs are set too high they could lead to higher prices for diesel fuel, which could have negative impacts on the economy. EPA believes that while the advanced biofuel requirement in today’s rule represents a significant increase over the 2016 requirement, it is nevertheless reasonably attainable and appropriate. We also believe that we have appropriately exercised our discretion in establishing the biomass-based diesel requirement for the reasons discussed in Section VI of the preamble. We believe that the requirements are below the level likely to result in the negative impacts mentioned by the commenter.

EPA received comments requesting that we adjust the equivalence value used to determine the number of RINs generated for biodiesel and renewable diesel. We agree with these comments and have adjusted the equivalence value used to project the number of RINs generated for biodiesel and renewable diesel to 1.55 for purposes of projecting reasonably attainable volumes of advanced biofuel and total renewable fuel. This value reflects our assessment of the relative volumes of biodiesel and renewable diesel likely to be used, and is an intermediate value between their respective equivalence values. We believe at this time it is more appropriate to use a single equivalence value for all biodiesel and renewable diesel, rather than separate values for advanced and conventional biodiesel and renewable diesel. We also note, however, that even if a higher equivalence value were used for conventional biodiesel and renewable diesel, such as the 1.65 requested by a commenter, this would not increase the required volume of total renewable fuel in 2017. See Section IV.2 for a further discussion of this issue. As described in Section VI of the preamble, the formula specified in the regulations for establishing the biomass-based diesel standard requires use of an equivalence value of 1.5, together with the applicable volume we establish pursuant to CAA Section 211(o)(2)(B)(ii) and the EIA projection of gasoline and diesel use in 2017. We have used the approach required by the regulation, but note that we derived the applicable volume for BBD understanding that the percentage standard would be derived in this fashion.

One commenter stated that EPA should use data from EMTS, rather than from EIA, to determine the number of RINs retired due to renewable fuel exports in previous years. In the NPRM we did not have sufficient data to allow us to use EMTS to determine the number of RINs retired due to exports of renewable fuel for 2014 and 2015. This data is now available, and data on RIN retirements for exported biodiesel from EMTS for 2011-2015 has been used in the final rule. We have also added additional data and explanation on RIN generation and retirements, both in the preamble (See Section IV.B.2 of the preamble) as well as in memos to the docket²⁹, as requested by a commenter. We further note that much of the data requested by the commenter, including information on RINs retired for reasons other than compliance as well as annual compliance data is available on EPA's public website.³⁰

2.4.7 Advanced volume reasonably attainable

Comment:

Baker Commodities, Inc.

²⁹ "Comparison of 2016 availability of RINs and 2016 standards," memorandum from David Korotney to docket EPA-HQ-OAR-2016-0004.

³⁰ Information on RIN generation and retirements, as well as annual compliance data for obligated parties is available at <https://www.epa.gov/fuels-registration-reporting-and-compliance-help/public-data-renewable-fuel-standard>

Increasing the RFS volumes will allow the industry to grow faster and utilize the production capacity that is now idle, due to the low RFS volumes; as well as create jobs, reduce dependence on petroleum fuels, and help clean the environment. [EPA-HQ-OAR-2016-0004-1687-A1 p.1]

EPA has the opportunity to reduce pollution from transportation, reduce dependence on petroleum diesel and improve air quality by encouraging increased development and use of biodiesel. I urge you to increase the 2017 RFS for advanced biofuel to at least 4.75 million gallons and the 2018 RFS for biomass-based diesel to 2.5 billion gallons. [EPA-HQ-OAR-2016-0004-1656-A1 p.2]

BHT Resources

I urge you to increase the 2017 RFS for advanced biofuel to at least 4.75 million gallons and the 2018 RFS for biomass-based diesel to 2.5 billion gallons. [EPA-HQ-OAR-2016-0004-1630-A1 p.1]

Biotechnology Innovation Organization (BIO)

EPA should recalculate the volumes used to determine the proposed advanced biofuel RVOs using 2.9 billion gallons of biomass-based diesel [EPA-HQ-OAR-2016-0004-2721-A1 p.14]

California Biodiesel Alliance (CBA)

The California Biodiesel Alliance (CBA) is in strong support of higher Biomass-based Diesel and Advanced Biofuel volumes in the pending Renewable Fuel Standard (RFS) proposal to further support biomass-based diesel production in the US. [EPA-HQ-OAR-2016-0004-1678-A1 p.1]

The EPA's initial proposal, while moving in the right direction, still underestimates the biodiesel industry's ability to contribute to the Advanced Biofuel volumes for 2017 and to ramp up production in 2018. [EPA-HQ-OAR-2016-0004-1678-A1 p.1]

As such, the overall Advanced Biofuel category for 2017 should be above 4 billion gallons as proposed and could easily be increased to at least 4.75 billion gallons. [EPA-HQ-OAR-2016-0004-1678-A1 p.1]

California's groundbreaking Low Carbon Fuel Standard policy is incentivizing low carbon fuels, and works best with increasing RFS volume requirements. [EPA-HQ-OAR-2016-0004-1678-A1 p.1]

Deere & Company

Overall advanced biofuels volume in the 4.75 billion gallon range for 2017 is definitely achievable and sustainable. Higher levels are further justified in light of the significant greenhouse-gas reductions provided by biomass-based diesel. [EPA-HQ-OAR-2016-0004-1654-A1 p.2]

International Council on Clean Transportation (ICCT)

ICCT recommends that EPA revise the proposed 2017 volumes for advanced biofuel and renewable fuel downward in order to account for limitations in BBD feedstock availability. [EPA-HQ-OAR-2016-0004-1800-A1 p.6]

Monroe Energy, LLC

EPA projects a 200 million gallon increase in advanced biodiesel as compared to 2016, for a total of 2.3 billion gallons.⁷⁹ But EPA fails to support that conclusion, which reflects a 9.5% increase in advanced biodiesel for 2017 over the baseline it used to set 2016 standards. Aside from remarking that total biodiesel/renewable diesel (i.e., both advanced and conventional) volumes have increased annually by 226 million gallons on average,⁸⁰ and a passing reference to the biodiesel tax credit, it is unclear what leads EPA to conclude that essentially all of the 200 million-gallon annual increase for 2017 will come from advanced biofuel. [EPA-HQ-OAR-2016-0004-1869-A1 p.31]

79 NPRM, 81 Fed. Reg. at 34,791, 34,799-801.

80 Id. at 34,795.

NAFA Fleet Management Association

NAFA requests that the agency reconsiders the proposal, and adopt stronger biomass--based diesel and advanced biofuels programs volumes. The biodiesel industry has suggested that the advanced biofuel category for 2017 could easily be increased to 4.75 billion gallons. [EPA-HQ-OAR-2016-0004-1787-A1 p.1]

National Biodiesel Board

the biomass-based diesel industry has shown it can produce over 200 million gallons in one month. [EPA-HQ-OAR-2016-0004-2904-A2 p.69]

EPA, however, provides no reason why all of its estimated biodiesel and renewable diesel use (2.7 billion gallons in 2017) should not fall under the advanced biofuel program. [EPA-HQ-OAR-2016-0004-2904-A2 p.70]

While NBB acknowledges that imports of “conventional (D6) biodiesel and renewable diesel have increased in recent years, and are likely to continue to contribute to the supply of renewable fuel in the United States in 2017,” EPA provides no explanation why advanced biodiesel must “compete” with other advanced biofuels, while EPA accounts for this “conventional (D6)” fuel in its estimated “supply” for the overall program. 81 Fed. Reg. at 34,798. [EPA-HQ-OAR-2016-0004-2904-A2 p.70]

By simply adjusting the estimate for biomass-based diesel from 2.3 to 2.7 billion gallons (and accounting for the higher equivalence value for renewable diesel), EPA can get to 4.75 billion gallons, which should be the absolute minimum of the advanced biofuel program for 2017. [EPA-HQ-OAR-2016-0004-2904-A2 p.76]

Volumes Used by EPA to Determine the Proposed Advanced Biofuel Volume for 2017	
Cellulosic Biofuel	312 M
Biomass-based Diesel	4,185 M*
Imported Sugarcane Ethanol	200 M
Other non-ethanol advanced	50 M
Total	4,747 M

*To account for the volumes of renewable diesel in the D4 pool, we use a 1.55 equivalence factor, rather than the 1.5 EPA uses. As previously noted, with the expected increases in renewable diesel production in the United States, the 1.5 value would not appropriately reflect the amount of ethanol-equivalent gallons that could be available. Thus, EPA's use of 1.5 already underestimates the amount of advanced biofuel that could be produced.

We think the advanced biofuel industry can do much more. The market adjusts, and EPA should not use the volume setting process to reduce the volumes when there is potentially available supply. Anything less than 4.75 billion gallons for 2017 would be unreasonable and would not meet the objectives that were set forth by Congress in 2007. [EPA-HQ-OAR-2016-0004-2904-A2 p.76]

Due to the lateness of EPA issuing the volumes for 2014 and 2015, EPA is correct to state that those years do not provide a good point of reference for understanding the biomass-based diesel industry. EPA, however, also contends that the "available BBD RINs in 2012 were slightly less than the BBD standard." 81 Fed. Reg. at 34,808. The industry clearly generated RINs well above the 1-billion-gallon requirement. EPA, however, discounts the production because some of those gallons were exported. While EPA did not count such gallons in assessing supply for 2014 and 2015 (which we dispute), there is no justification for EPA to contend that the industry did not produce enough gallons. EPA also ignores that there were excess RINs from 2011, making those additional RINs unnecessary. Indeed, EPA does not contend that there were not excess RINs from 2012, which there were. [EPA-HQ-OAR-2016-0004-2904-A2 p.82]

EPA has artificially kept the biomass-based diesel numbers low. It provides no support or explanation for why only 100 million gallon annual increases (about 8 million gallons a month) are appropriate given the ability of the industry to grow at much higher levels. Indeed, EPA previously found an almost 300-million-gallon increase appropriate based on the statutory factors. [EPA-HQ-OAR-2016-0004-2904-A2 p.85]

We also do not see any restrictions on increasing co-processing of renewable feedstocks with petroleum diesel fuel. Although renewable diesel generating D5 RINs is also used in the diesel market, renewable hydrocarbon diesel has the same characteristics as petroleum diesel, and there are no restrictions on blending biodiesel and renewable diesel. Indeed, companies are looking at renewable diesel/biodiesel only blends. Thus, we again fail to see how increasing the biomass-based diesel market restricts the production of these types of fuels. 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 2017 standards, diesel fuel makes up about 30% of the total transportation fuel market subject to the RFS. Instead, we view keeping them down in favor of promoting these fuels as restricting the ability of biomass-based diesel to enter the market controlled by petroleum diesel already. [EPA-HQ-OAR-2016-0004-2904-A2 p.95]

National Renderers Association (NRA)

Biodiesel has emerged as an important replacement market, and a readily 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 2017 and 2018 are set at levels recommended by NRA. [EPA-HQ-OAR-2016-0004-2694-A1 p.3]

Publisher Render Magazine Placerville

EPA has the opportunity to reduce pollution from transportation, reduce dependence on petroleum diesel, and improve air quality by encouraging increased development and use of biodiesel. I urge you to increase the 2017 RFS for advanced biofuel to at least 4.75 million gallons and the 2018 RFS for biomass-based diesel to 2.5 billion gallons. [EPA-HQ-OAR-2016-0004-2052 p.2]

Thumb BioEnergy

The EPA's initial proposal, while moving in the right direction, still underestimates the biodiesel industry's ability to contribute to the Advanced Biofuel volumes for 2017 and to ramp up production in 2018. [EPA-HQ-OAR-2016-0004-1550-A1 p.1]

the overall Advanced Biofuel category for 2017 should be above 4 billion gallons as proposed and could easily be increased to at least 4.75 billion gallons. [EPA-HQ-OAR-2016-0004-1550-A1 p.1]

Valley Proteins

Please consider increasing the 2017 RFS for advanced biofuel to at least 4.75 million gallons and the 2018 RFS for biomass-based diesel to 2.5 billion gallons. [EPA-HQ-OAR-2016-0004-1632-A1 p.2]

Western Iowa Energy LLC

The EPA's initial proposal, while moving in the right direction, still underestimates the biodiesel industry's ability to contribute to the Advanced Biofuel volumes for 2017 and to ramp up production in 2018. [EPA-HQ-OAR-2016-0004-1696-A1 p.1]

the overall Advanced Biofuel category for 2017 should be above 4 billion gallons as proposed and could easily be increased to at least 4.75 billion gallons. [EPA-HQ-OAR-2016-0004-1696-A1 p.1]

Response:

Commenters stated that increasing the advanced standard would encourage increased growth in the advanced biofuels industry, and would provide many environmental and economic benefits. After reviewing the comments on the NPRM, along with additional data received since the publication of the NPRM, we believe that greater volumes of advanced biofuels can be supplied to the United States in 2017. In this final rule we have increased the advanced biofuel volume requirement to 4.3 billion gallons.

Several commenters requested that the advanced biofuel volume requirement be increased to 4.75 billion gallons. In making our determination of the reasonably attainable and appropriate volume of advanced biofuels finalized in this rule EPA has considered the set of issues related to production, distribution and consumption (leading to an assessment of what is "reasonably attainable") and the potential consequences of a volume requirement at the upper range of attainability such as of feedstock switching or diversion of biofuels from other countries. This consideration led us to a final requirement that is less than we believe could be realized, but which is "appropriate" in light of these considerations. In this rule we are finalizing a volume for advanced biofuel that is higher than the proposed volume, but still lower than the 4.75 billion gallons requested by some commenters. See Section IV for further discussion of the determination of the advanced biofuel standard for 2017.

One commenter requested that EPA project a volume of 2.9 billion gallons of advanced biodiesel in 2017 in determining the advanced biofuel standard. Similarly, another commenter stated that EPA should require that the entire volume of biodiesel and renewable diesel that EPA projected could be supplied in the NPRM should be required to be advanced biofuel, and that the advanced biofuel standard should therefore be increased. While EPA believes that 2.9 billion gallons of biodiesel and renewable diesel can be produced, distributed, and consumed in 2017, we do not believe it would be appropriate to project growth in advanced biodiesel and renewable diesel volumes that exceeds the projected growth in the feedstocks that can be used to produce these fuels (see Section IV.B.2 for further discussion on this issue). We therefore believe it is reasonable and appropriate to assume 2.4 billion gallons of advanced biodiesel and renewable diesel in setting the advanced biofuel standard.

Other commenters requested that EPA finalize a lower advanced biofuel standard than we proposed, citing concerns about the availability of feedstocks that can be used to produce advanced biodiesel and renewable diesel. As discussed in Section IV.B.2 we believe that there are sufficient feedstocks to produce the volumes of advanced biodiesel and renewable diesel finalized in this rule.

A commenter claimed that EPA had failed to justify the proposed increase in the projected volume of advanced biodiesel and renewable diesel in the NPRM. EPA believes that the discussions of the ability for the market to produce, distribute, and consume biodiesel in Section V.B.2, together with our assessment of available feedstocks in IV.B.2, provide an adequate justification for the volumes of advanced and total biodiesel and renewable diesel finalized in this rule.

2.4.8 Consumer response

Comment:

Adler's Antique Autos

EPA is correct, that "biodiesel blends up to B5 are unlikely to be noticed by consumers" unless they read these proposals and comments. Diesel owners may not associate the accelerated fuel system corrosion with the biodiesel blend. We do not want any further enrichment beyond 5% blends. [EPA-HQ-OAR-2016-0004-2523 p.1]

Darling Ingredients, Inc.

the Proposed Rule concludes that consumer acceptance of Biomass Based Diesel may be impacted by low energy prices. Darling disagrees with that logic. Consumers have shown absolutely no resistance to diesel fuel containing 5% Biomass Based Diesel and the pricing of diesel fuel containing Biomass Based Diesel is not dependent upon the price of oil, but rather on the proportion of the incentives which are accessible to the retail marketer. [EPA-HQ-OAR-2016-0004-1721-A1 p.8]

Response:

EPA acknowledges the impact that various biodiesel incentives, including the RFS program, have on the retail price of biodiesel blends, however we continue to believe that the price of oil and the petroleum fuels produced from them (including diesel fuel) also have an impact on the retail pricing of biodiesel blends, both in absolute terms and relative to diesel fuel without biodiesel. To-date, consumers have not demonstrated any significant hesitancy to purchase biodiesel blends when priced competitively at retail. We believe this will continue to be the case in 2017.

2.5 Imports of renewable fuel

2.5.1 General

Comment:

Advanced Biofuels Association (ABFA)

Imports have become a fundamental security issue for the RFS program, and we applaud the EPA for recognizing this element in the setting of the RVO. Last year, the pool saw 538 million gallons of imports from various countries enabling markets of both diesel blended fuels and heating oil.³ This trade leads to competition in the market and, by extension, to more friendly consumer pricing in the overall biodiesel market. ABFA believes in supporting our customers. These imports also provide an ability to blend more gallons of fuels that reduce GHG emissions by at least 50% in the U.S. These gallons are fundamentally important to extending the penetration for all biodiesel and renewable diesel in U.S. markets. [EPA-HQ-OAR-2016-0004-1831-A1 p.4]

3 U.S. Energy Information Administration. "Today in Energy." Apr. 11, 2016. <http://www.eia.gov/todayinenergy/detail.cfm?id=25752>.

Chevron

We believe it is counter to the intent of Congress that compliance with the Energy Independence and Security Act rely, in part, on the importation of biofuels. Consequently, EPA should not include a volume of imported sugar cane ethanol when determining the volume standard for the advanced biofuel category. [EPA-HQ-OAR-2016-0004-1684-A1 p.3]

Iowa Soybean Association & Iowa Biodiesel Board

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.72]

The RVO should be increased to consider the influx of foreign product to ensure U.S. production also benefits from a growing RFS. And increasing the RVO, regardless of Argentina, will allow domestic producers a larger market opportunity than they currently have.

Lippold Strategies, LLC

The Proposed Rule Stimulates Dependence on Foreign Ethanol

the Proposed Rule results in the unintended consequence of incentivizing additional Brazilian sugarcane ethanol imports. This directly undermines U.S. national security interests and energy independence since it raises costs for refineries, directly disadvantages domestic ethanol producers, and places U.S. compliance at the whim of an often unstable international actor. [EPA-HQ-OAR-2016-0004-1739-A1 p.9]

U.S. regulatory policy should not subsidize international industries that diminish the resiliency of the U.S. energy market and our refinery base and, as a result, jeopardize and undermine U.S. energy and national security. [EPA-HQ-OAR-2016-0004-1739-A1 p.10]

Marathon Petroleum Corporation (MPC)

To facilitate advanced biofuel growth in the short-term, additional advanced biofuels, such as ethanol from Brazilian sugarcane, will need to be imported. Importing advanced biofuels requires significant financial resources and importing expertise. For example, to import product economically, the importer must transport large volumes of renewable fuel by vessel into accommodating ports. Smaller Rack Sellers may not need such large volumes for blending and may not be logistically situated to transport the imported renewable fuel from the port to the blending facilities. These Rack Sellers will not help increase renewable fuel imports. [EPA-HQ-OAR-2016-0004-3607-A1 p.7]

National Sorghum Producers (NSP)

Relying on foreign ethanol is anathema to the concept of American energy independence, [EPA-HQ-OAR-2016-0004-1785-A1 p.1]

Response:

Stakeholders primarily raised two opposing views on imports:

1. EPA should not consider any imports in establishing the renewable fuel volume standards.
2. EPA must account for all potential imports so that any underestimates of potential imports in the determination of the final volume requirements would not 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. 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.

One stakeholder said that the 2017 volume requirements should be increased from the proposed levels based on the volume of renewable fuel expected to be imported. Such an approach, they argued, would ensure that domestic production benefits from the applicable standards. We have indeed accounted for imports of renewable fuel in our estimates of reasonably attainable supply for 2017.

2.5.2 Sugarcane ethanol

Comment:

Advanced Biofuels Association (ABFA)

the advanced biofuels pool provides a significant security of supply opportunity in the form of Brazilian sugar cane ethanol. [EPA-HQ-OAR-2016-0004-1831-A1 p.6]

American Fuel and Petrochemical Manufacturers (AFPM)

EPA should not encourage sugarcane ethanol imports through the advanced biofuel requirement. Instead, the volume for sugarcane ethanol should be zero for the purpose of setting the advanced biofuel standard to represent uncertainty inherent in such imports. [EPA-HQ-OAR-2016-0004-1814-A1 p.12]

American Petroleum Institute (API)

According to data from EIA that show renewable fuel imports from Brazil have decreased down to zero for the first four months of 2016. 62 Therefore, EPA should not presume any sugarcane imports in 2017 [EPA-HQ-OAR-2016-0004-3512-A2 p.24]

Brazilian Sugarcane Industry Association (UNICA)

Brazilian sugarcane ethanol exports are based on a number of factors, including weather conditions, sugarcane harvests, and world prices, which are beyond the control of Brazilian mills and the EPA. But a leading driver of imports into the United States is a stable and predictable demand spurred on by the consistent and rising volumes of the RFS2 as they were enacted into law. [EPA-HQ-OAR-2016-0004-1698-A2 p.8]

While exports to the United States were far lower in 2014 and 2015, this is likely a result of the significant uncertainty regarding the RFS2 program [EPA-HQ-OAR-2016-0004-1698-A2 p.8]

Brazil currently produces close to eight billion gallons of sugarcane ethanol each year and makes on average 600 million gallons of its annual production available for other countries to import.²⁰ Preliminary figures for 2016/2017 indicate volumes of sugarcane ethanol produced are still increasing, despite the difficulties the sector has encountered in the recent years. Specifically, according to the first projection by UNICA, Brazilian ethanol exports should hit nearly 480 million gallons in the April 2016 to March 2017 crop year. [EPA-HQ-OAR-2016-0004-1698-A2 p.10]

volumes of sugarcane ethanol available for export do not fluctuate solely based on production but mainly upon market conditions. The RFS2 program can create such market incentives. [EPA-HQ-OAR-2016-0004-1698-A2 p.12]

The fluctuating global price for sugar will have limited impact on Brazil's capacity to produce exports of sugarcane ethanol. [EPA-HQ-OAR-2016-0004-1698-A2 p.14]

Brazil has recently raised the blend of ethanol in its gasoline from 25 percent to 27 percent, without a significant impact on compliance or on volumes available for export. [EPA-HQ-OAR-2016-0004-1698-A2 p.14]

CARB has stated that sugarcane ethanol would likely play a "key compliance role" in the LCFS.³¹ Under the LCFS, California rates sugarcane ethanol as a high-performing low-carbon fuel.³² Indeed, sugarcane ethanol is among the principle commercial-scale ethanol fuels capable

of meeting the LCFS's lifecycle GHG emissions requirements.³³ [EPA-HQ-OAR-2016-0004-1698-A2 p.18]

trade in ethanol is impacted by a number of factors, including government laws and regulations promoting biofuels. Since these laws and regulations are not uniform across jurisdictions, divergent market incentives for sugarcane and corn ethanol can make such two way trading more likely. But such foreign market incentives and whether other nations' demands are met by exporting domestic non-advanced biofuels are irrelevant to EPA's analysis. EPA can and should look only to fulfilling the intent of the RFS2 program. [EPA-HQ-OAR-2016-0004-1698-A2 p.20]

As stated above, Brazil has the capacity to provide significant amounts of advanced biofuels to help with RFS2 compliance, where the proper market incentives exist. Yet it does not appear that EPA made any detailed effort to calculate exactly how much sugarcane ethanol might be available to support a lower reduction under section 211(o)(7)(D)(i); it just assumed that, for reasons discussed above, Brazil was unlikely to import more than 200 million gallons of sugarcane ethanol into the United States. As indicated above, EPA's assumptions about the availability of sugarcane ethanol imports are incorrect. Brazil has the installed capacity to make available significantly more gallons of advanced biofuels for exports in 2017 if EPA helps drive the market with higher volume requirements than it now proposes. [EPA-HQ-OAR-2016-0004-1698-A2 p.23]

20 Average exports of the last 4 years, according to SECEX data.

31 CARB, Air Resources Board, Low Carbon Fuel Standard 2011 Program Review Report, Final Draft, at 170 (Dec. 8, 2011), available at http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/20111208_LCFS%20program%20review%20report_final.pdf

32 See Cal. Energy Comm'n, Transportation Energy Forecasts and Analyses for the 2009 Integrated Energy Policy Report: Final Staff Report, at 86 (May 2010), available at <http://www.energy.ca.gov/2010publications/CEC-600-2010-002/CEC-600-2010-002-SF.PDF> ("Currently, Brazilian sugarcane ethanol has the lowest carbon life-cycle rating of all of the different types of ethanol that are currently being produced at commercial-sized facilities."); Cal. Air Res. Bd., Carbon Intensity Lookup Table for Gasoline and Fuels that Substitute for Gasoline, Table 6), available at http://www.arb.ca.gov/fuels/lcfs/121409lcfs_lutables.pdf; see also Sonia Yeh & Julia Witcover, Univ. of Cal. Davis Inst. of Transp. Studies, Status Review of California's Low Carbon Fuel Standard, at 9 (Jan. 2014), available at http://www.its.ucdavis.edu/research/publications/publication-detail/?pub_id=2008 ("The relatively low [carbon intensity] ratings of sugarcane ethanol and waste biodiesel translate into more \$/gal than corn ethanol or soy biodiesel.").

33 Yeh & Witcover, supra note 32 at 4 (sugarcane ethanol is the second most consumed biofuel under the LCFS).

Monroe Energy, LLC

Imported sugarcane ethanol contributed only 89 million RINs in 2015,⁸⁶ and it appears only to have contributed 1.87 million RIN through the first five months of 2016.⁸⁷ [EPA-HQ-OAR-2016-0004-1869-A1 p.32]

86 EPA, Public Data for the RFS, 2015 (June 10, 2016), available at <https://www.epa.gov/fuelsregistration-reporting-and-compliance-help/public-data-renewable-fuel-standard>.

87 EPA, Public Data for the RFS, 2016 (June 10, 2016), available at <https://www.epa.gov/fuelsregistration-reporting-and-compliance-help/public-data-renewable-fuel-standard>.

National Biodiesel Board

Focusing only on 2010-2015 improperly places greater emphasis on the three years that EPA did not fully implement the advanced biofuel program [EPA-HQ-OAR-2016-0004-2904-A2 p.77]

The same studies EPA previously relied on to find sugarcane ethanol would be available toward meeting the advanced biofuel volumes predicted increasing imports in 2017, well above 200 million gallons. The FAPRI-ISU 2012 World Agricultural Outlook projected that Brazil can have 2.235 billion gallons available for export in 2017, and projected the United States would import 749 million gallons of ethanol (EPA-HQ-OAR-2013-0479-0021). Although FAPRI no longer updates that report, its latest U.S. Baseline Briefing Book estimates that the RFS requirements and the California LCFS “motivate sustained ethanol imports of nearly 0.4 billion gallons.” U.S. Baseline Briefing Book, FAPRI-MU Report No. 02-16, at 37 (2016), available at <https://www.fapri.missouri.edu/wp-content/uploads/2016/03/FAPRI-MU-Report-02-16.pdf>. EIA also has estimated as much as 894 million gallons of ethanol imports (non-cellulosic)

for 2017 (EPA-HQ-OAR-2013-0479-0006). [EPA-HQ-OAR-2016-0004-2904-A2 p.77-78]

Renewable Fuels Association (RFA)

the best available evidence suggests EPA’s estimate of 200 mg of sugarcane ethanol imports is overly optimistic and not consistent with marketplace realities. [EPA-HQ-OAR-2016-0004-1695-A2 p.11]

Response:

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 2.5.1, it is appropriate to 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 of the NPRM how imports of sugarcane ethanol could be lower or higher than recent historical levels, and in Section IV.B.1 of

the final rule we provide additional discussion of this issue. However, we disagree with the view that imports of sugarcane ethanol will necessarily displace corn-ethanol. The final 2017 volume requirements will create opportunities for increases in the total volume of ethanol used in the U.S. in comparison to 2016. While we cannot predict how the market will choose to meet the significant growth in renewable fuel between 2016 and 2017, there will be opportunities for both imports of sugarcane ethanol and domestically produced corn-ethanol to meet the higher standards finalized for 2017.

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 sugarcane 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 sugarcane ethanol, but also advanced butanol and other drop-in fuels. We believe these other advanced fuels are important 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. 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 stakeholder comments related to imports of sugarcane ethanol are addressed in Section IV.B.1 of the final rule. These comments include the following:

Stakeholders representing some refiners and conventional ethanol interests said that our estimate of 200 million gallons was too high given recent import levels, including data from the first few months of 2016. We note that, in addition to our response to these comments in Section IV.B.1 of the final rule, we do not believe that 200 million gallons of imported sugarcane ethanol is too high given that there have also been domestically-produced volumes of advanced ethanol in the past. Since the variability in historical imports of sugarcane ethanol is considerably larger than the volumes of domestically-produced advanced ethanol that have been supplied in the past, which has averaged about 25 million gallons over the past five years, we have subsumed consideration of domestic advanced ethanol within the consideration of reasonably attainable volumes of imported sugarcane ethanol.

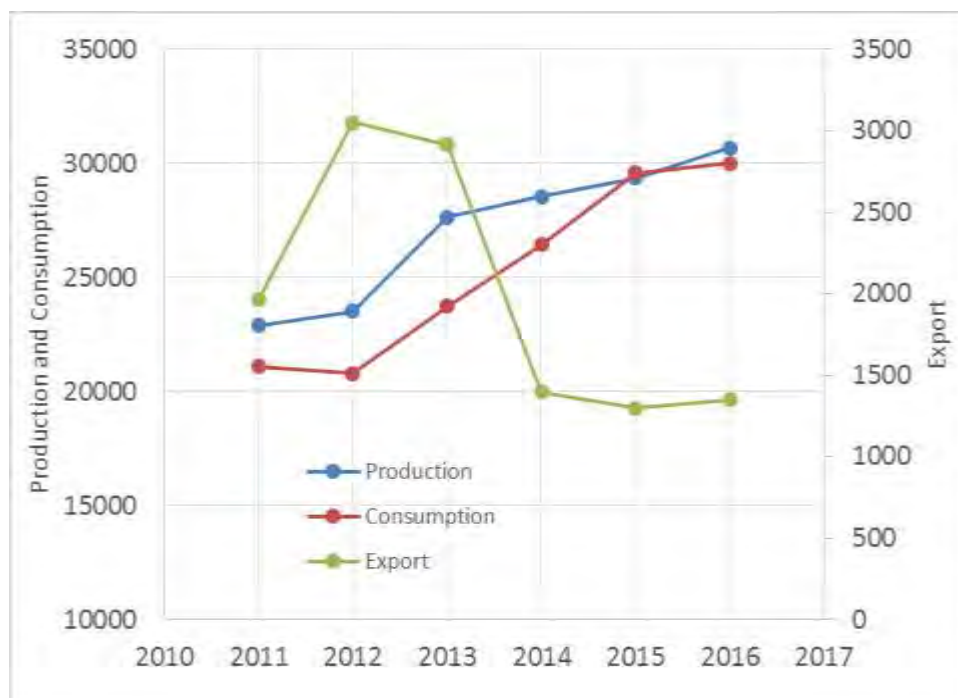
Stakeholders who represent advanced biofuel interests generally believed that our assumption of 200 million gallons of imported sugarcane ethanol for 2017 was too low. Some commenters cited projections from other sources that were considerably higher than 200 million gallons, and even pointed to the historical maximum of 681 million gallons for sugarcane ethanol imported in 2006 as evidence that volumes larger than 200 million gallons are possible.

UNICA said that EPA had not accounted for sugarcane ethanol that would be used to help California meet its Low Carbon Fuels Standard (LCFS)

The Brazilian Sugarcane Industry Association (UNICA) said that it was not appropriate for EPA to use actual import data from 2010 - 2015 as the basis for estimating the potential import volume in 2017, and that potential ethanol exports from Brazil to the U.S. are driven primarily by a combination of Brazilian ethanol production capacity and opportunities created by the RFS program itself. We have responded to these comments in Section IV.B.1 of the final rule.

UNICA also argued that ethanol production has been increasing recently, and that it can make on average 600 million gallons available for export. Based on data from USDA's Foreign Agricultural Service, we agree that ethanol production in Brazil has been increasing. However, domestic ethanol consumption in Brazil has been increasing as well, and this would be expected to reduce volumes available for export. USDA projects that in 2016, total ethanol exports from Brazil will reach about 360 million gallons, lower than the 600 million gallons cited by UNICA and also considerably lower than export volumes from 2011 - 2013. Moreover, the 360 million gallons would be total exports from Brazil, and not necessarily all of it would be imported by the U.S. Based on these considerations, we continue to believe that imports of sugarcane ethanol into the U.S. are highly uncertain, and that UNICA has overestimated its ability to supply ethanol to the U.S. in 2017.

Ethanol in Brazil (million liters)³¹



UNICA disputed our belief that the worldwide price of sugar could influence ethanol production in Brazil, and contribute to the uncertainty in the volume of Brazilian sugarcane ethanol that can

³¹ "USDA FAS Brazil Biofuels Annual 8-10-15," docket EPA-HQ-OAR-2016-0004.

be exported to the U.S. While UNICA did say that there are technical limits in the degree to which Brazilian mills can shift between sugar production and ethanol production, UNICA also admitted that this flexibility could affect about 10% of the sugarcane processed. This could easily represent a change of several hundred million gallons of ethanol export volume, contributing to the uncertainty in the volume of sugarcane ethanol that could be exported to the U.S.

UNICA said that EPA had not made any detailed effort in the NPRM to calculate exactly how much sugarcane ethanol might be available in 2017. In the NPRM we reiterated our observation that imports of sugarcane ethanol have been highly variable in the past. This fact makes it impossible to calculate exactly how much sugarcane ethanol will be imported in 2017; the number of factors involved is large and there is no mechanism for predicting how they will change between now and the end of 2017. As a result, we have no alternative but to consider historical import levels and the uncertainty associated with potential future imports in our determination of the applicable volume requirements. (We note that, in the context of uncertainty, the variability in historical imports of sugarcane ethanol is considerably larger than the volumes of domestically-produced advanced ethanol that have been supplied in the past, which has averaged about 25 million gallons over the past five years. As a result, we have, as a simplifying methodological measure, subsumed consideration of domestic advanced ethanol within the consideration of reasonably attainable volumes of imported sugarcane ethanol.) We note that neither UNICA nor any other stakeholder provided a calculation of exactly how much sugarcane ethanol would be imported into the U.S. in 2017 that takes into account the various factors influencing such imports, such as world demand for sugar and ethanol, effects of climate and plantings on Brazilian sugarcane production, and Brazilian gasoline demand and requirements for ethanol concentration of gasoline.

2.5.3 Advanced biodiesel + RD

Comment:

Archer Daniels Midland Company (ADM)

In comments submitted by ADM last year, we stated that imports were on pace to exceed 150 million gallons in 2015. In fact, according to the U.S. Energy Information Agency (EIA), 183 million gallons of biodiesel were imported from Argentina in 2015. [EPA-HQ-OAR-2016-0004-1727-A1 p.4]

From January through May of this year, 182 million gallons of biodiesel have already been imported from Argentina, and Argentina exports biodiesel in the largest volumes from June to December. As a result, we project that another 250 to 300 million gallons could land in the U.S. during the balance of this year. This is supported in Chart 1 by EIA import data and public vessel tracking data for February through June 2016. [EPA-HQ-OAR-2016-0004-1727-A1 p.4]

EPA has stated that its intent is to allow biomass-based diesel to have the ability to compete to fulfill a portion of nested D5 RIN volumes. However, with projected total biodiesel imports of 800 million gallons this year, along with EPA's estimated 200 million gallons of imported Brazilian ethanol, a 100 million gallon increase for 2018 will only dissuade long-term investments required to improve productivity and efficiency. [EPA-HQ-OAR-2016-0004-1727-A1 p.5] [These comments can also be found in Docket Number EPA-HQ-OAR-2016-0004-3558, pp.92-93.]

Darling Ingredients, Inc.

The combination of the impact of lifting currency controls on the Argentine peso and the potential demand created by the LCFS will drive further imports into the U.S. As discussed above, it is almost impossible to envision less than an additional 200 million gallons of Biomass Based Diesel net imports in 2017 and, with some guidance from the EPA, additional volumes could be possible in 2018. [EPA-HQ-OAR-2016-0004-1721-A1 p.10]

International Council on Clean Transportation (ICCT)

BBD imports necessary to meet the RFS mandate are expected to increase year over year as the deficit between available feedstock and required volumes increases. In 2015, the United States imported roughly 334 million gallons of biodiesel and 204 million gallons of renewable diesel (EIA, 2016b, c). [EPA-HQ-OAR-2016-0004-1800-A1 p.13]

Energy Information Administration (EIA). 2016b. "U.S. Imports of Biomass-Based Diesel Fuel." Available at http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=M_EPOORDB_IM0_NUS-Z00_MBBL&f=A [EPA-HQ-OAR-2016-0004-1800-A1 p.15]

Energy Information Administration (EIA). 2016c. "U.S. Imports of Other Renewable Diesel Fuel." Available at http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=M_EPOORDO_IM0_NUS-Z00_MBBL&f=A [EPA-HQ-OAR-2016-0004-1800-A1 p.15]

Minnesota Soybean Processors (MnSP)

MnSP requests that EPA correct its flawed analysis of foreign imports coming in to the United States. [EPA-HQ-OAR-2016-0004-1829-A1 p.2]

We ask EPA to correctly account for the significant impact of foreign sourced biodiesel quantities [EPA-HQ-OAR-2016-0004-1829-A1 p.3]

NAFA Fleet Management Association

The U.S. biodiesel and renewable diesel industry has the ability and capacity to increase production above and beyond the standards called for in the proposal, particularly when you consider the potential for sharply increased imports qualifying for the RFS. [EPA-HQ-OAR-2016-0004-1787-A1 p.1]

National Biodiesel Board

We anticipate that already mature biodiesel and renewable diesel markets from Singapore, Indonesia, the European Union and South Korea will continue to ship product to the U.S. at increasing levels over the next three years. Also, this year, we are beginning to realize the effect of EPA's decision to streamline feedstock certification for Argentinian biodiesel. The new process is widely expected among market participants to result in significant new volumes of Argentinian biodiesel coming to the U.S. We anticipate between 330 and 400 million gallons of Argentinian biodiesel to be imported into the United States in 2016 – a significant increase. [EPA-HQ-OAR-2016-0004-2904-A1 p.3]

EPA also ignores that there is substantial capacity available to send exports to the United States. Approximately 80 foreign facilities are currently registered under the RFS program, with over 4.3 billion gallons of capacity (Attachment 3). In the last three years, EIA has posted imports of biomass-based diesel and renewable diesel from Argentina, Australia, Belgium, Canada, Germany, South Korea, Netherlands, Panama, Portugal, Spain, Taiwan, Finland and Singapore. Considering only facilities in these countries, this still represents 3.6 billion gallons of capacity. The following table shows registered capacity for the most active countries that have exported to the United States in the last three years, with the highest annual volume reported by EIA. [EPA-HQ-OAR-2016-0004-2904-A2 p.54]

Industry participants estimate 385 to 435 million gallons could be imported from Argentina into the United States this year. See Testimony of Kent Engelbrecht, ADM, June 9, 2016, EPA-HQ-OAR-2016-0351 at 1. These are persons that follow the markets for a living, unlike EPA. NBB modeling efforts, conducted by WAEES, which have been shown to be relatively accurate, if not conservative, similarly projects U.S. imports from Argentina to be in the range of 300 to 400 million gallons for 2016. [EPA-HQ-OAR-2016-0004-2904-A2 p.57]

National Renderers Association (NRA)

The RFS levels should also be increased more than proposed by EPA to account for the recent sharp increase in imports. [EPA-HQ-OAR-2016-0004-2694-A1 p.7]

United States Canola Association

In addition, we are experiencing increasing levels of imported biomass-based diesel. Imports of biomass-based diesel have increased every year from 2012 through 2015, and EPA indicates that there were over 560 million gallons of biomass-based diesel imports in 2015. Furthermore, the U.S. Energy Information Administration's Short Term Energy Outlook issued in June 2016 estimates 629 million gallons of biomass-based diesel imports in 2016 and 721 million gallons in 2017. [EPA-HQ-OAR-2016-0004-1723-A1 p.3]

WAEES

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.203]

Due to programs in other countries, such as the differential export taxes in Argentina, the U.S. should anticipate increased imports of biodiesel and renewable diesel.

Response:

Several commenters asserted that imported volumes of advanced biodiesel and renewable diesel were likely to be high in 2017. One commenter estimated that 800 million gallons of biodiesel would be imported into the United States in 2016, along with 200 million gallons of sugarcane ethanol. They argued that in light of these expected volumes of imported renewable fuel EPA should increase the BBD standard by more than 100 million gallons from 2016 to 2017. Another commenter estimated that imports of Argentine biodiesel would be approximately 400 million gallons in 2016, and that the production capacity of foreign registered biodiesel producers is significant. Similarly, another commenter noted that changes to the Argentine currency and the demand created by California's LCFS program would result in an increase in imported biodiesel volumes of more than 200 million gallons in 2017. In 2015, the most recent year in which data are available, imports of advanced biodiesel and renewable diesel were 382 million gallons and imports of conventional biodiesel and renewable diesel were an additional 180 million gallons. We expect that imports of biodiesel and renewable diesel are likely to be higher in 2016 than in 2015.

In the context of determining the 2017 advanced biofuel standard in this final rule we have projected that the supply of advanced biodiesel and renewable diesel would increase by 300 million gallons from 2016 to 2017, and that the total supply of biodiesel and renewable diesel would increase by 400 million gallons. These volumes are higher than those projected in our proposed rule. We believe that even if the volumes of imported biodiesel and renewable diesel are as high as projection by some commenters in 2017, the increases from 2016 to 2017 in this final rule provide a sufficient incentive for growth in the biodiesel and renewable diesel industry, including the incentives to improve facility productivity and efficiency noted by the commenter. We do not believe it would be appropriate to increase the 2018 BBD standard beyond 2.1 billion gallons for the reasons stated in Section VI of the preamble.

Other commenters stated that it is likely that the proposed standards would result in increased biodiesel imports, with some stating that increased imports would be necessary due to limited projected growth in biodiesel and renewable diesel feedstocks produced in the United States. We acknowledge that both imports of finished biodiesel and renewable diesel and imports of feedstocks for processing into biodiesel and renewable diesel may occur in order to comply with the 2017 standard. For a further discussion of EPA's projection of available feedstocks for producing advanced biodiesel and renewable diesel see Section IV.B.2 of the preamble.

2.5.4 Conventional biodiesel + RD

Comment:

American Petroleum Institute (API)

A direct implication of setting renewable fuel volume standards that exceed the ethanol blendwall is that it encourages imported biodiesel that is produced from palm oil. [EPA-HQ-OAR-2016-0004-3512-A2 p.23]

This outcome of increased palm oil biodiesel consumption in the U.S. is another inconsistency with EISA's stated purpose to "...to increase the production of clean renewable fuels..." [EPA-HQ-OAR-2016-0004-3512-A2 p.23]

Darling Ingredients, Inc.

The Proposed Rule concludes that 2017 net imports will not increase from the 2015 levels of 470 million gallons. Darling disagrees with this conclusion because net imports between 2012 and 2015 increased by more than 570 million gallons and net imports increased from 2014 to 2015 by almost 250 million gallons. [EPA-HQ-OAR-2016-0004-1721-A1 p.7]

Renewable Energy Group (REG)

After calculating the highest capacity of imports in each of the 55 cities over the years 2012-2016, there is a potential import capacity of 659,610,000 gallons of biodiesel for the US. While this number is conditionally based on many factors, it also does not account for other possible biodiesel import terminal sites that could be used if future demand dictated, nor does it establish that the maximum biomass-based diesel imported through a given city in a year is the actual limit. **Furthermore, when comparing this potential 659 million gallon capacity to the highest year of imports (2015), the US has only achieved 71% of its supposed import capacity**, falling almost 200 million gallons short and thus leaving room for additional foreign biomass-based diesel gallons to enter the United States. [EPA-HQ-OAR-2016-0004-3477-A1 p.12]

Response:

EPA acknowledges that one potential impact of the 2017 standards is an increasing demand for imported conventional (D6) biodiesel and renewable diesel, and that some parties may view this as an undesirable outcome. Given the nested nature of the standards and the lack of any ethanol specific standards, regardless of the standards we set and on what basis, conventional biodiesel can always be used to meet the non-advanced (conventional) portion of the total renewable fuel standard in lieu of other conventional biofuels such as corn ethanol. If EPA were to attempt to seek to reduce the incentives to supply conventional biodiesel to the United States, this could only be done by decreasing the opportunity for conventional biofuels to contribute towards satisfying the total renewable fuel standard. Such an action, however, would negatively impact the incentives for all conventional biofuels, not just conventional biodiesel and renewable diesel. We do not believe such an action is appropriate. See Section 3.2 of the RTC for a discussion of

the environmental impacts and considerations associated with the RFS standards we are establishing for 2017.

EPA disagrees with the commenter's claim that our proposed rule concluded that net imports of biodiesel and renewable diesel would not increase from 2015 levels in 2017. Furthermore, in this final rule we have increased required volumes for both advanced biofuel and the total renewable fuel from the proposed volumes. These changes are in part the result of expectations that the supply of biodiesel and renewable diesel, including both domestically produced and imported biodiesel and renewable diesel, will increase by 400 million gallons relative to the supply of these fuels in 2016. For a further discussion see Section V of the preamble.

A commenter estimated the potential import capacity at approximately 660 million gallons based on historical data. We believe this is a reasonable estimate, and have included this estimate in our discussion of potential biodiesel and renewable diesel imports in this final rule.

2.6 Carryover RINs

Comment:

Al-Corn Clean Fuel

[The following comment was submitted as testimony at the Kansas City Missouri Public hearing on June 9, 2016. See Docket Number EPA-HQ-OAR-2016-0004-3558 p.62.]

we believe RIN stocks must be considered as you determine whether the supply is adequate.

American Coalition for Ethanol (ACE)

By definition carryover RINs constitute domestic supply and must be included in the Agency's calculation of domestic supply. [EPA-HQ-OAR-2016-0004-1679-A2 p.5]

when EPA sets surplus RIN stocks aside during the volume setting process, it puts even more market control back in the hands of oil companies, hurting renewable fuel producers and consumers. [EPA-HQ-OAR-2016-0004-1679-A2 p.5]

American Farm Bureau Federation

there are nearly two billion surplus Renewable Identification Numbers (RINs) available to help obligated parties cover any shortfall in physical blending and comply with the statutory volume requirements. It is illogical that EPA would ignore RIN stocks in determining whether supply is "adequate" to meet statutory volumes. Because carryover RINs represent physical gallons that are—or were—in the fuel supply, they must be included in calculating the appropriate RVOs. [EPA-HQ-OAR-2016-0004-1660-A1 p.2]

American Fuel and Petrochemical Manufacturers (AFPM)

We agree with EPA that carryover RINs should not be considered in setting the annual RFS standards for 2017: [EPA-HQ-OAR-2016-0004-1814-A1 p.17]

Historically, EPA requires that these invalid RINs have to be replaced with valid RINs that have the same D code. Continuing this practice in the event that any additional invalid RINs are discovered in the future would remove replacement RINs from the market – either reducing the number of new RINs generated or reducing the amount of banked RINs. This replacement would reduce the flexibility of RFS compliance provided by banked carryover RINs. [EPA-HQ-OAR-2016-0004-1814-A1 p.18]

American Petroleum Institute (API)

EPA should adjust renewable fuel volumes downward to adhere to their proposed approach for 2017 in that collective carryover RINs not intentionally be drawn down and that renewable fuel volumes are not set at levels that envision a reduction in carryover RINs. [EPA-HQ-OAR-2016-0004-3512-A2 p.45]

EPA must also account for RINs deemed invalid in setting RFS standards to maintain the total inventory of RIN carryover. [EPA-HQ-OAR-2016-0004-3512-A2 p.45]

Biotechnology Innovation Organization (BIO)

EPA should not exclude carryover RINs from its consideration of the supply of fuels that are available to satisfy 2017 RVO requirements. Doing so would be in direct conflict with the goals of the RFS program, and would be arbitrary and capricious. [EPA-HQ-OAR-2016-0004-2721-A1 p.25]

we respectfully submit that building and preserving a RIN bank as a justification for waiving statutory volume requirements is particularly perverse and unlawful. [EPA-HQ-OAR-2016-0004-2721-A1 p.25]

A large bank of carryover RINs diminishes the price of individual RINs, and thereby reduces the value of investing in the production, distribution, and retailing infrastructure needed to make the statutory program succeed for the long term. [EPA-HQ-OAR-2016-0004-2721-A1 p.26]

the proposed rule's theory of a RIN bank would be likely to result in (and, in any event, would unnecessarily and unjustifiably risk) the expiration of a substantial number of unused RINs. [EPA-HQ-OAR-2016-0004-2721-A1 p.26]

EPA has failed to substantiate or demonstrate why obligated parties need a bank of carryover RINs to ensure additional compliance flexibility beyond what is provided in the statute and is already available. [EPA-HQ-OAR-2016-0004-2721-A1 p.27]

EPA has not explained how large the RIN bank would need to be in order to provide an extra measure of flexibility to obligated parties that would be sufficient from EPA's perspective. [EPA-HQ-OAR-2016-0004-2721-A1 p.27]

EPA EMTS data suggest that there will be another major surplus of RINs generated in 2016, therefore adding significantly to the RIN bank. The bank could be augmented by "nearly a billion more carryover RINs heading into 2017." [EPA-HQ-OAR-2016-0004-2721-A1 p.28]

EPA must take account of the EMTS data in setting volume requirements, and must avoid unnecessary increases in the RIN bank, given the negative policy consequences for the program of doing so. [EPA-HQ-OAR-2016-0004-2721-A1 p.28]

EPA has not justified proposing to exclude carryover RINs in its consideration of supply available to meet volume obligations. To comply with statutory requirements, and to avoid impeding the statute's purposes, EPA must take into consideration the use of all available carryover RINs to meet volume obligations (or, in the alternative, EPA must at least take into account the use of a substantial number of such RINs). [EPA-HQ-OAR-2016-0004-2721-A1 p.28]

Chevron

We agree that carryover RINs play an important role in the RFS, allowing obligated parties to manage their compliance from year to year and to provide a cushion for future unplanned shortages of RINs. [EPA-HQ-OAR-2016-0004-1684-A1 p.3]

EPA should reduce the 2017 RFS volume standards as recommended above to preserve an adequate carryover RIN balance and to ensure that obligated parties can comply with the program. [EPA-HQ-OAR-2016-0004-1684-A1 p.4]

DuPont Industrial Biosciences

EPA should not exclude carryover RINs from its consideration of the supply of fuels that are available to satisfy 2017 RVO requirements. Doing so would be in direct conflict with the goals of the RFS program, and would be arbitrary and capricious. EPA has no authority to attempt to build a bank of carryover RINs, regardless of whether it might be thought that doing so is important or helpful. [EPA-HQ-OAR-2016-0004-1827-A1 p.5]

Growth Energy

even if EPA has discretion regarding how much to account for the RIN bank when exercising its general waiver authority, EPA's proposal is arbitrary and capricious and otherwise impermissible. There is no reason—and EPA has certainly never provided a reason, including in the course of the 2014-16 rulemaking—why a smaller RIN bank could not serve as an adequate "buffer." [EPA-HQ-OAR-2016-0004-3499-A1 p.41]

EPA's proposed treatment of the RIN bank for 2017 represents a complete reversal of its prior position. [EPA-HQ-OAR-2016-0004-3499-A1 p.42]

EPA is wrong that there is "considerable uncertainty" preventing it from analyzing whether there will be an "overabundance of carryover RINs" after the 2016 compliance demonstrations are made such that it would be appropriate to set the 2017 volume requirement high enough to intentionally draw the bank down partially. [EPA-HQ-OAR-2016-0004-3499-A1 p.42]

EPA's reliance on this apparent uncertainty amounts to an impermissible abdication, rather than exercise, of its claimed discretion to determine the extent to which the RIN bank should be accounted for in exercising its general waiver authority and setting RVOs. [EPA-HQ-OAR-2016-0004-3499-A1 p.44]

HollyFrontier Corporation

HollyFrontier urges EPA to maintain a robust RIN bank. [EPA-HQ-OAR-2016-0004-2867-A1 p.3]

The chief reason why the RIN bank must be preserved is to provide as much market liquidity as possible. [EPA-HQ-OAR-2016-0004-2867-A1 p.3]

Additionally, a strong RIN bank serves as insurance against weaker than expected consumer demand. [EPA-HQ-OAR-2016-0004-2867-A1 p.3]

Illinois Farm Bureau

The agency fails to take into account rollover RINs from previous years when setting the requirements in its proposed rule. However, EPA should consider that accounting for at least a portion of the roll over RINs in the market and setting volume standards accordingly will help hold a price in the RIN market that will result in competitive pump prices for E15 and E85. [EPA-HQ-OAR-2016-0004-2770-A1 p.2]

Independent Fuel Terminal Operators Association (IFTOA)

The Association supports EPA's decision not to include carryover RINs in its calculation to determine the appropriate reduction in the standards. [EPA-HQ-OAR-2016-0004-1823-A1 p.3]

Marathon Petroleum Corporation (MPC)

We support EPA's position of not using carryover RINs for compliance as these carryover RINs are necessary for market liquidity and to absorb the impacts of supply disruptions that occur in a given year. [EPA-HQ-OAR-2016-0004-1806-A1 p.7]

Mass Comment Campaign sponsored by Anonymous 15 (email) - (22)

Because carryover RINs represent physical gallons that are—or were—in the fuel supply, they must be included in calculating the appropriate RVOs. [EPA-HQ-OAR-2016-0004-1357-A1 p.1]

Additionally, there are nearly 2 billion surplus RINs available to help obligated parties cover any shortfall in physical blending and comply with the statutory volume requirements. It is illogical that EPA would ignore RIN stocks in determining whether supply is “adequate” to meet statutory volumes. [EPA-HQ-OAR-2016-0004-1357-A1 p.1]

Mass Comment Campaign sponsored by Central Indiana Ethanol (CIE) (email) - (60)

Additionally, there are nearly 2 billion surplus RINs available to help obligated parties cover any shortfall in physical blending and comply with the statutory volume requirements. It is illogical that EPA would ignore RIN stocks in determining whether supply is "adequate" to meet statutory volumes. Because carryover RINs represent physical gallons that are-or were-in the fuel supply, they must be included in calculating the appropriate RVOs. [EPA-HQ-OAR-2016-0004-1701-A2 p.3]

Michigan Farm Bureau (MFB)

there are nearly two billion surplus Renewable Identification Numbers (RINs) available to help obligated parties cover any shortfall in physical blending and comply with the statutory volume requirements. [EPA-HQ-OAR-2016-0004-1822-A1 p.2]

Because carryover RINs represent physical gallons that are—or were—in the fuel supply, they must be included in calculating the appropriate RVOs. [EPA-HQ-OAR-2016-0004-1822-A1 p.2]

Midwest AgEnergy Group LLC

Treatment of RINs and carry over RINs

Whatever value is carried over, the proposed RVO provides obligated parties maximum flexibility by not accounting for carry over RINs. While EPA cites flexibility required for carry over, it neglects to mention there is also the opportunity for obligated parties to carry over a deficit. Given this flexibility can work in both directions; we believe the treatment of carry over RINs must be included when setting 2017 targets. [EPA-HQ-OAR-2016-0004-1738-A1 p.3]

Minnesota Farm Bureau

there are nearly two billion surplus Renewable Identification Numbers (RINs) available to help cover any shortfalls in physical blending and comply with the statutory volume requirements. It would be unreasonable to ignore RINs when calculating the appropriate RVOs. [EPA-HQ-OAR-2016-0004-2521-A1 p.2]

Missouri Corn Growers Association (MCGA)

Even in a scenario where annual ethanol production falls short of statutory RVO levels, the availability of billions of carryover RINs will ensure the combined supply of RINs and physical gallons are sufficient to meet the statutory requirements. Astonishingly, EPA's proposal entirely omits the availability of carryover RINs to aid obligated parties in meeting RVO requirements. [EPA-HQ-OAR-2016-0004-1782-A1 p.3]

Banked RINs

MCGA believes statutory volumes of conventional ethanol can be easily achieved by simply requiring any gap be filled by retiring excess RINs. [EPA-HQ-OAR-2016-0004-1782-A1 p.6]

We believe the EPA should target at least a reduction of 100 million RINs within the 2017 carryover. [EPA-HQ-OAR-2016-0004-1782-A1 p.7]

Murphy USA, Inc.

Murphy also supports EPA's decision not to include "banked" RINs in its determination of the proper mandates for 2017. These carryover RINs are an essential tool to provide flexibility to the program and allow parties to comply with the RFS Program in those circumstances when RINs may be limited. [EPA-HQ-OAR-2016-0004-1875-A1 p.1]

National Biodiesel Board

we do not agree that EPA must ensure that there will be supplies of carryover RINs in later years, and use of prior-year RINs already reduces the statutory requirement for actual physical gallons. Thus, EPA can, and should, consider whether prior-year RINs could also contribute to make up any shortfall in the statutory volumes. [EPA-HQ-OAR-2016-0004-2904-A2 p.59]

National Chicken Council (NCC)

Availability of RINs

the overly aggressive volume obligations proposed for 2017 (see above discussion on biodiesel) will likely result in further using the inventory of excess carryover RINs, leading to longer term spillover effects. [EPA-HQ-OAR-2016-0004-1676-A1 p.8]

National Corn Growers Association

Excessive levels of carry-over RINs from the prior year drive down RIN prices and ultimately reduce the retail industry's incentive to offer higher blends of ethanol, such as E15 and E85. [EPA-HQ-OAR-2016-0004-1809-A1 p.7]

We believe the EPA should target at least a reduction of 100 million RINs within the 2017 carryover. [EPA-HQ-OAR-2016-0004-1809-A1 p.7]

Nestle Corporate Affairs

Carryover RINs

we would also add that if the agency believes that the production and use of ethanol serve environmental and energy-independence goods, we would caution against deliberately setting a mandate that could only be met through a net drawdown in RINs. [EPA-HQ-OAR-2016-0004-1868-A1 p.2]

PBF Energy LLC

PBF strongly supports EPA's decision not to account for carryover RINs in its assessment of the volume requirements for 2017 because it mitigates the potential for unnecessary and non-market based spikes in RIN prices. [EPA-HQ-OAR-2016-0004-2692-A1 p.3]

Renewable Fuels Association (RFA)

EPA's proposal to ignore carryover RINs in setting 2017 RVOs contradicts the Agency's treatment of carryover RINs in previous rulemaking and administrative actions [EPA-HQ-OAR-2016-0004-1695-A2 p.14]

Obligated parties may carry a RIN deficit for one year at a time, providing additional flexibility in complying with statutory RFS requirements [EPA-HQ-OAR-2016-0004-1695-A2 p.16]

Given Congress's intent to provide compliance flexibility through the RFS credit trading system, and in light of both EPA's previous handling of carryover RINs and the Court's affirmation of EPA's previous treatment of carryover RINs, we believe the Agency must consider the impact of available RIN stocks when considering the final rule for 2017 RVOs. [EPA-HQ-OAR-2016-0004-1695-A2 p.16]

Shell Oil Products US

EPA correctly determined that it would not be appropriate to attempt to set the standards for 2017 such that obligated parties would have to drain their banked RINs to maintain compliance. [EPA-HQ-OAR-2016-0004-1725-A1 p.3]

Response:

Similar to the comments received on the 2014-2016 final rule, comments from obligated parties supported EPA's proposal to not intentionally draw down the bank of carryover RINs in setting the 2017 volume requirements 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. Conversely, many renewable fuel producers asserted that the statute requires EPA to consider carryover RINs in determining whether there is an inadequate domestic supply. These 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 2017 through the use of EPA's general waiver authority. We note, however, that we are not using our general waiver authority in this final

action, so arguments that carryover RINs must be considered part of the “supply” when EPA uses the general waiver authority on the basis of a finding of “inadequate domestic supply” are not relevant.

EPA appreciates the importance of carryover RINs to the RFS program. As the comments indicate, carryover RINs have played a crucial role in obligated parties 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 establishing the renewable fuel volume requirements for 2017, we have weighed these various roles for carryover RINs 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. We began our analysis by taking into account the further progress that can be made to overcome constraints such as the E10 blendwall and to increase the supplies of various types of renewable fuel to the vehicles (and other qualifying uses) that can make use of it. In light of the uncertainties and challenges in setting and meeting the standards, as well as allowing for the aforementioned benefits of carryover RINs 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 2017 without the express intention or expectation of a drawdown in the current bank of carryover RINs.

As explained in Section II.B 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 2017 annual volume requirements. In *Monroe Energy v. EPA*, 750 F.3d 909 (D.C. Cir. 2014) the U.S. Court of Appeals for the DC Circuit 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 may be inadequate to allow compliance. 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.

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 2017, we project that as many as 1.54 billion carryover RINs will be available for compliance, down from the 1.72 billion carryover RINs available for meeting the 2014 standards. This is approximately 8 percent of the final 2017 total renewable fuel volume standard and less than half of the 20 percent limit permitted by the regulations to be carried over for use in complying with the 2017 standards. Consistent with our past practice, we considered the availability of carryover RINs in making a determination about whether and how to reduce the 2017 statutory volume requirements, and that assessment was properly done in view of the specific circumstances present for 2017. Considering all of the various relevant factors for 2017, including the potential benefit to biofuel producers in drawing down the bank of carryover RINs, the role they play for obligated parties in a well-functioning, liquid market for managing

compliance, the declining number of carryover RINs, the uncertainty in their balance due to delayed compliance with the 2015 standards, the increased level of the 2016 and 2017 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 2017 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 2017 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.B of the final rule and below, we believe the circumstances for 2017 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 to maintain the statutory volume targets or minimize the reduction in the statutory volume targets, since higher standards generally create higher short-term 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 2017, requiring use of higher volumes than proposed. Thus, the RFS program will continue to place upward pressure on the production of renewable fuels.

As discussed in the 2014-2016 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.³² If such currently unforeseen events occur without a bank of

³² See 80 FR 77483-84 (December 14, 2015).

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 2017 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 2017 volumes should be waived consistent with EPA's cellulosic waiver authority. We have set the advanced and total biofuel volume requirements to a level that we believe will be reasonably attainable in 2017. Setting standards in this manner should not result in a drawdown in the bank of carryover RINs. 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.

Several commenters noted that if EPA counted on carryover RINs being drawn down as justification for maintaining the statutory volumes or if EPA established the 2017 volume standards such that they result in a targeted reduction of 100 million RINs in the carryover RIN bank, 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. 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.B of the final rule and elsewhere in this response, we believe we took appropriate account of these statutory elements and the specific circumstances relevant to setting and meeting the 2017 standards in concluding that it would be unwise to set standards that effectively require a significant drawdown of carryover RINs. 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 2017 will

artificially suppress RIN prices. EPA received similar comments that the 2016 standards would result in suppressed RIN prices, when in fact RIN prices throughout 2016 have been higher than in past years. 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. We believe that the carryover RINs available for 2017 should be preserved to provide market liquidity and to help meet compliance challenges and uncertainties in this time period and the future.

Several commenters objected to EPA's proposed rationale that carryover RINs should be preserved as a program "buffer" and argued that EPA had not explained just how large of a carryover RIN bank was necessary to provide an adequate buffer for the program. 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.³³ 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. While EPA is not currently in a position to state with specificity the optimal size of the carryover RIN bank, we note that the carryover RIN bank has been steadily decreasing over the past several years, from a level of 2.6 billion RINs in 2013 down to its current level of 1.54 billion RINs. Furthermore, the relative number of available carryover RINs has decreased from approximately 16% of the total renewable fuel standard in 2013 to approximately 8% of the total renewable fuel standard in 2017. Due to the likelihood of increasingly challenging standards in the future, we do not expect the carryover RIN bank to increase significantly in the near future, and that it is more likely that it will continue to decrease. Thus, we do not believe it is necessary at this time to determine an optimal carryover RIN bank size.

Several commenters suggested that EPA's public RIN generation data indicated that there would be a significant increase in the carryover RIN bank in 2016, and that EPA should establish the 2017 standards so as to avoid this "unnecessary increase." We disagree and note that as

³³ 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>.

discussed earlier, there remains considerable uncertainty in the size of the number of carryover RINs that will be available in 2017. While in the proposed rule for the 2017 standards we estimated that there would be at most 1.72 billion carryover RINs available in 2017, we now estimate that this number has decreased to 1.54 billion carryover RINs. This decrease is primarily due to several recently announced settlement agreements regarding allegations of RIN fraud, resulting in the expected retirement of over 65 million RINs. In light of this assessment, we disagree that there is likely to be an increase in the bank of carryover RINs in 2017, and as a result we also disagree that there is a need to set the standards to compensate for an expected increase.

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. The two-year valid life of RINs is based on the statutory provision in CAA 211(o)(5)(C) specifying the valid life of credits in the RFS program. 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.

2.7 Determination of standards

2.7.1 Advanced biofuel volume

Comment:

Action Aid USA & The Hunger Project

reject backfilling for cellulosic biofuels with more food-based fuels. [EPA-HQ-OAR-2016-0004-1817-A1 p.1]

Of particular concern with the 2017 rule is the new step the EPA is taking by using food-based advanced biofuels to partially backfill for missing cellulosic gallons. [EPA-HQ-OAR-2016-0004-1817-A1 p.3]

Replacing missing cellulosic gallons with food-based biofuels then does not just mean 10 percent more emissions than hoped. Instead, it will perpetuate our reliance on these harmful fuels and suggest that another food-based biofuel boom would find a market in the United States. [EPA-HQ-OAR-2016-0004-1817-A1 p.4]

Advanced Biofuels Association (ABFA)

We believe the current proposal for the RVO, which includes imported volumes, drives more production and use of these fuels as well as sending a strong signal of support by the U.S.

Government for the biomass-based diesel sector worldwide. [EPA-HQ-OAR-2016-0004-1831-A1 p.3]

ABFA is concerned about the recent uptick in the number of companies coming under investigation for RIN fraud. [EPA-HQ-OAR-2016-0004-1831-A1 p.5]

It is a concern that, since those years in which the RINs have been invalidated have long since been closed out, that RINs will be replaced by more recently created RINs required to meet the current RVO. Since the majority of these invalidated RINs are in the D4 and D5 pool, we would recommend EPA consider raising both mandates to accommodate the RIN bank. [EPA-HQ-OAR-2016-0004-1831-A1 p.5]

American Coalition for Ethanol (ACE)

As EKAE President and CEO Jeff Oestmann remarked at the June 9, 2016 hearing EPA conducted in Kansas City, "...let us not forget that our renewable fuels future will continue to be built on the foundation of conventional ethanol production. Renewable diesel allows us to create two different fuels from one kernel of corn. That means corn is the feedstock for both conventional biofuel and advanced biofuel. If EPA truly wants advanced biofuels to succeed, the RFS must follow the pathway outlined in the statute approved by Congress. We cannot take the detour EPA has proposed through its novel use of the general waiver authority." [EPA-HQ-OAR-2016-0004-1679-A2 p.9-10]

American Council for Capital Formation (ACCF)

government support for corn ethanol is preventing the progress and development of advanced biofuels. [EPA-HQ-OAR-2016-0004-1713 p.2] [Similar comments can also be found in Docket Number EPA-HQ-OAR-2016-0004-3558 p.200.]

American Fuel and Petrochemical Manufacturers (AFPM)

EPA should then reduce the applicable volume of total renewable fuel further than it has proposed, using its general waiver authority, limiting requirements in 2017 to 17.12 billion gallons for total renewable fuel and 3.2 billion gallons for advanced biofuel (again, see Section II.). [EPA-HQ-OAR-2016-0004-1814-A1 p.34]

American Petroleum Institute

In the Proposed Rule, EPA applied most, but not all, of its exercise of the cellulosic waiver to the advanced biofuel and total renewable fuel RVOs. 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-2016-0004-3512-A2 p.24]

Biotechnology Innovation Organization (BIO)

We note that we agree with EPA that it is appropriate to “backfill,” to the extent feasible, any shortfall in cellulosic biofuel volumes with other advanced biofuels [EPA-HQ-OAR-2016-0004-2721-A1 p.13]

EPA appears inappropriately to be basing advanced biofuel production projections for coming years on past-year performance, rather than on production or distribution capacity under development. In setting 2017 advanced biofuel volumes, EPA openly assumes “that the supply of conventional and advanced biodiesel and renewable diesel volumes would be equal to those supplied in 2015.” [EPA-HQ-OAR-2016-0004-2721-A1 p.14]

the required advanced biofuel volume for 2017 should be over 4.6 billion gallons [EPA-HQ-OAR-2016-0004-2721-A1 p.14]

EPA must also abandon the methodology that limits future market space to past production performance, due to its chilling effect on new production. [EPA-HQ-OAR-2016-0004-2721-A1 p.41]

Brazilian Sugarcane Industry Association (UNICA)

Although, as described above, UNICA does not believe the proposed level of reductions of advanced biofuels is supported, if EPA nonetheless decides to move in this direction, it should lower the volumes only to the absolute extent it finds necessary, and certainly no lower than as proposed. [EPA-HQ-OAR-2016-0004-1698-A2 p.25]

Cargill Meat Solutions

I work for Cargill Meat Solution and am writing to strongly encourage you to increase the proposed RFS volumes for advanced biofuel in 2017 and biomass-based diesel in 2018. [EPA-HQ-OAR-2016-0004-3564 p.1]

I urge you to increase the 2017 RFS for advanced biofuel to at least 4.75 billion gallons and the 2018 RFS for biomass-based diesel to 2.5 billion gallons. [EPA-HQ-OAR-2016-0004-3564 p.1]

CountryMark

CountryMark recommends the 2017 AB mandates be adjusted further downward (holding to 2016 requirements, if not further) until AB are able to further penetrate the fuels market. [EPA-HQ-OAR-2016-0004-1826-A1 p.8]

George Washington University, Regulatory Study Center

Due to the high costs of producing cellulosic and the technological barriers facing the industry, it is likely that 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-2016-0004-2687-A1 p.4]

Mass Comment Campaign sponsored by Biodiesel.org (email) - (397)

Particularly as the Obama Administration strives to address climate change and improve air quality, the EPA should finalize biodiesel and Advanced Biofuel volumes under the RFS that better reflect the ability of the industry to respond to market demand and contribute to the RFS program and that paves the way for meaningful progress toward our shared goals for reducing pollution and our dependence on petroleum, while benefiting the economy. [EPA-HQ-OAR-2016-0004-0554-A1 p.1]

Minnesota Soybean Processors (MnSP)

We urge this Administration to increase the proposed 2017 Renewable Fuel Standard (RFS) volumes for the Advanced Biofuel pool to a minimum of 4.75 billion gallons. While an increase to 4.75 billion gallons of Advanced Biofuels would increase the total Renewable Fuel volume for 2017, it is extremely important the EPA recognize and acknowledge the vast majority of that increase would impact the U.S. diesel fuel market and NOT the gasoline market. [EPA-HQ-OAR-2016-0004-1829-A1 p.1]

National Biodiesel Board

We are writing to urge you to revisit and increase the proposed 2018 Biomass-based Diesel volume under the Renewable Fuel Standard to at least 2.5 billion gallons and the 2017 Advanced Biofuel volume to at least 4.75 billion gallons. [EPA-HQ-OAR-2016-0004-2904-A1 p.1]

At a minimum, EPA must consider whether, if not the volumes, the sought after increases can be met (and then some). [EPA-HQ-OAR-2016-0004-2904-A2 p.69]

By simply adjusting the estimate for biomass-based diesel from 2.3 to 2.7 billion gallons (and accounting for the higher equivalence value for renewable diesel), EPA can get to 4.75 billion gallons, which should be the absolute minimum of the advanced biofuel program for 2017. [EPA-HQ-OAR-2016-0004-2904-A2 p.76]

Volumes Used by EPA to Determine the Proposed Advanced Biofuel Volume for 2017

Cellulosic Biofuel	312 M
Biomass-based Diesel	4,185 M*
Imported Sugarcane Ethanol	200 M
Other non-ethanol advanced	50 M

Total 4,747 M

We think the advanced biofuel industry can do much more. The market adjusts, and EPA should not use the volume setting process to reduce the volumes when there is potentially available supply. Anything less than 4.75 billion gallons for 2017 would be unreasonable and would not meet the objectives that were set forth by Congress in 2007. [EPA-HQ-OAR-2016-0004-2904-A2 p.76]

there has been D5 RINs generated for biogas, including 25.9 million RINs in 2013, and 20.4 million RINs in 2014. [EPA-HQ-OAR-2016-0004-2904-A2 p.79]

it does not appear that EPA considers additional heating oil and jet fuel that also could potentially be used to meet the advanced biofuel program. While much of this is under the D4 category (and addressed above), there has been additional gallons of heating oil and renewable diesel that do not qualify as biomass-based diesel that has also been available. [EPA-HQ-OAR-2016-0004-2904-A2 p.79]

If EPA finds new data affecting its analysis for advanced biofuels, even if from public comments, this would be a new proposed reduction in the volume not based on what it stated beforehand or on the cellulosic biofuel reduction and, thus, would be a further waiver of the statutory volumes. This is different from EPA increasing the volumes to better meet its obligation to ensure the statutory volumes are met, and thus the public being fully aware of the overall goals of Congress. [EPA-HQ-OAR-2016-0004-2904-A2 p.124]

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.215]

Despite Congress's goal to move the market and despite EPA itself recognizing that the market has and will react to the volumes it sets, at the end, you arrive at a proposed volume of only 4 billion gallons for advanced biofuels.

National Renderers Association (NRA)

The rendering industry recommends EPA adopt an RFS volume level of at least 4.75 billion gallons in 2017 for advanced biofuel and 2.5 billion gallons in 2018 for biomass-based diesel. [EPA-HQ-OAR-2016-0004-2694-A1 p.7]

Phillips 66 Company

Total Advanced volumes should be set equal to the sum of a realistic cellulosic volume plus the 2.0 billion gallons (3.0 billion gallon RINs) for biomass based diesel. [EPA-HQ-OAR-2016-0004-1807-A1 p.7]

Renewable Biofuels LLC (RBF)

the EPA also set the advanced biofuels volumes for 2017 well below demonstrated capacity and far below where they should be to continue to grow the domestic industry. We believe this volume should be set well above the proposed 4 billion gallons [EPA-HQ-OAR-2016-0004-1689-A1 p.2]

We encourage the EPA to increase the advanced biofuels volumetric requirement for 2017 to at least 4.7 billion gallons [EPA-HQ-OAR-2016-0004-1689-A1 p.3]

Renewable Energy Group (REG)

REG believes a 4.0 billion gallon advanced RVO for 2017 does not show enough growth for the market to significantly invest and expand. With rapid growth that removes slack from the industry, biomass-based diesel producers have proven they can achieve and exceed production and distribution of additional gallons of fuel to contribute to the Advanced standard. [EPA-HQ-OAR-2016-0004-3477-A1 p.12]

Rock House Advisors LLC

increase both the BBD and total advanced category to a more meaningful volume in the final rule. [EPA-HQ-OAR-2016-0004-1717-A1 p.4]

Small Refinery Owners Ad Hoc Coalition

EPA's proposed volumes should account for the volume of RINs that have been and will be invalidated due to RIN fraud. [EPA-HQ-OAR-2016-0004-2364-A1 p.32]

Response:

Some commenters supported our proposed use of our waiver authority 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 appropriate, 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.

One stakeholder was concerned that the proposed standards would allow food-based advanced biofuels to backfill some of the shortfall in cellulosic biofuel. Cellulosic biofuels are by definition not produced from feedstocks that could be used for food, whereas some other advanced biofuels can be produced from feedstocks that could also be used for food. Biodiesel and renewable diesel, for instance, can be produced from food-based crops such as soybean oil, but they can also be produced from non-food based feedstocks such as waste grease. Insofar as non-cellulosic advanced biofuels are allowed to partially backfill the shortfall in cellulosic

biofuel, the total advanced biofuel volume would likely be composed of a greater proportion (though not necessarily a greater absolute volume) of food-based biofuels than would have been the case under the statutory volume targets. Since we have lowered the cellulosic biofuel applicable volume based on our production projection for 2017, we have broad discretion under the cellulosic waiver authority to consider an equal or lesser reduction in advanced biofuels. We believe it is reasonable and appropriate not to use the cellulosic waiver authority to lower the advanced biofuel standard by the full amount of the cellulosic biofuel reduction, but instead to allow reasonably attainable and appropriate volumes of non-cellulosic advanced biofuels to partially backfill the shortfall in cellulosic biofuel. While we acknowledge that this could result in the use of some food-based feedstocks for renewable fuel production, this result was specifically authorized and envisioned in the statute, as reflected by the inclusion of planted crops among the categories of renewable biomass that may be used to make qualifying renewable fuel. We note also that under the statutory applicable volume tables the volume of non-cellulosic advanced biofuel envisioned for 2017 is 3.5 billion gallons, and increases to 5 billion gallons by 2022. The approximately 4 billion gallon volume of non-cellulosic advanced biofuel that we have specified for 2017 is somewhat higher than the level envisioned in the statute for 2017, but well below the level of such fuels Congress expected would be used by 2022. This somewhat higher interim volume reflects our assessment that it is appropriate to allow non-cellulosic advanced biofuels to partially backfill for missing cellulosic volumes in light of the associated GHG and energy security benefits. Given the relatively small incremental volume involved, we consider it unlikely that our action in marginally accelerating the statutory schedule for deployment of non-cellulosic advanced biofuels will have a meaningful impact on food availability. Other stakeholders, such as the Biotechnology Innovation Organization, supported our approach.

One stakeholder said that the approach EPA takes to determining the appropriate volume of advanced biofuel to require for 2017 should also account for cases of fraudulent RIN generation that have occurred, and another stakeholder further suggested that we make a projection of the number of RINs likely to be invalidated due to fraud in 2017. We disagree. When RINs are determined to be invalid due to fraudulent generation, or for any other reason, and an action is taken on the part of EPA to require some level of remediation through the retirement of valid RINs, the total pool of RINs available for compliance with the applicable standards is reduced. The number of RINs retired for enforcement obligations has totaled only about 70 million between 2010 and 2015, representing less than 0.1% of all RINs generated over that timeframe. The number of RINs available in the marketplace (including carryover RINs) is sufficient to cover this volume while not materially affecting compliance with the applicable standards. See Section II.B of the final rule for a more complete discussion of our assessment of the availability of carryover RINs. Further, actions EPA has been taking are anticipated to further reduce the opportunities for fraud going forward, including some changes currently proposed in the recently proposed Renewable Enhancement and Growth Support rulemaking. As for suggestions that we make projections of future fraud, this is nearly impossible. Even for fraud investigations underway, the details of these cases are highly confidential, the outcome of these investigations are uncertain, and the remedial actions that may be required are also uncertain.

One stakeholder suggested that, at minimum, EPA should target volume increases (rather than absolute volumes) in advanced biofuel that are at least as large as the annual increases in the

statutory targets. We disagree. When using the cellulosic waiver authority, we believe it is appropriate to reduce advanced biofuel (and total renewable fuel) volumes to levels that are reasonably attainable and appropriate based on a reasoned consideration of relevant factors (and which per the statute can be no larger than the reduction in cellulosic biofuel). While annual increases that were expected by Congress as reflected in the statutory volume targets, or annual increases that have actually occurred in the past, can serve as benchmarks for what may be possible in the future, neither can be applied blindly to 2017 without consideration of the capabilities of the market and other factors which may make other volume increases more appropriate.

Many stakeholder comments related to the proposed volume requirement for advanced biofuel are addressed in Section IV.B of the final rule. These comments include the following:

Some commenters suggested that it would be most consistent with the statutory goals if we were to set the volume requirement for advanced biofuel equal to the maximum achievable volume rather than what is reasonably attainable.

Some stakeholders suggested that volumes of non-cellulosic, non-BBD advanced biofuels higher than 50 million gallons were possible in 2017, while others suggested that we should ignore supply from these other advanced biofuel sources altogether, citing the low volumes supplied in the past. Such volumes would include heating oil, jet fuel, biogas that is not cellulosic, naphtha, and non-BBD renewable diesel. See Section IV.B.3 of the final rule for further discussion.

Among commenters who suggested an alternative, higher volume for the 2017 advanced biofuel volume requirement, most based it primarily on a higher assumed level of BBD of between 2.5 and 2.9 billion gallons. See also Section 2.4.7.

Parties representing the refining industry generally believed that the proposed volume of 4.0 billion gallons for advanced biofuel was too high. They suggested an alternative 2017 advanced biofuel volume requirement of 3.2 billion gallons, based on 200 million gallons of cellulosic biofuel and 2.0 billion gallons of biodiesel.

Some stakeholders argued that EPA's support for advanced biofuels required that it also support conventional renewable fuel by establishing an implied volume of 15 billion gallons for 2017. We recognize that some producers utilize processes that can produce both advanced and conventional biofuels from different components of the same feedstocks, and that increasing all the applicable standards would be of interest to such parties. We agree with the comment insofar as we acknowledge that both conventional and advanced biofuels play important roles under the statute. Our action in the final rule supports both types of fuels. As we are exercising our cellulosic waiver authority to allow reasonably attainable and appropriate volumes of advanced biofuel to partially backfill for missing cellulosic volumes, we are also raising the implied volume of conventional renewable fuel to 15 billion gallons.

One stakeholder said it would be inappropriate for EPA to base the 2017 volume requirement for advanced biofuel on what was supplied in the past, and quoted the following from the NPRM:

"the supply of conventional and advanced biodiesel and renewable diesel volumes would be equal to those supplied in 2015." (81 FR 34786)

However, the quoted text was not part of a discussion of the methodology used to determine the proposed volume of advanced biofuel for 2017. Instead, it was in the context of the determination that the statutory targets were not achievable. Neither the proposed nor final volume requirements for 2017 were set equal to actual supply in 2015; rather, both reflected increases. However, we have used past trends in supply as one of a variety of factors in our assessment of what may be possible for the future, including in the context of determining reasonably attainable and appropriate volumes of advanced biodiesel and renewable diesel as discussed more fully in Section IV.B.2 of the final rule.

One stakeholder suggested that the 2017 advanced biofuel volume target be left at the 2016 level of 3.61 billion gallons or below in order to provide additional time for advanced biofuels to penetrate the market, and to ensure that such levels can be reached before the standard is further increased. While supply in the past can provide important information about what may be possible in the future, we do not believe it would be appropriate to limit future standards to what has been achieved in the past or to set 2017 standards equal to the 2016 levels when there is reason to believe that higher volumes produced in concert with increased production of advanced feedstocks are reasonably attainable, and that use of such higher volumes will promote the GHG and energy security benefits envisioned by the statute. This is discussed further in Section IV of the final rule. We note that, as discussed in a memorandum to the docket, the available data indicate that the market is on track to meet the applicable standards for 2016.³⁴ We believe that this supports our use of a largely similar approach to assessing the potential for advanced biofuel supply in 2017 as was used in developing the 2016 requirement.

Some commenters expressed concern that in continuing to raise the standards in a way that allows for an increase in conventional biofuels such as corn ethanol, EPA was undermining support for, and investment in advanced biofuels. The final 2017 standards raise both the volume requirement for advanced biofuel and the implied volume for conventional renewable fuel to record levels that we believe will provide ongoing support for both advanced biofuels and conventional fuels.

2.7.2 Total renewable fuel volume

Comment:

Action Aid et al.

the proposed total renewable fuel RVO for 2017 would set the implied conventional biofuels mandate at a level that could be as much as 746 million gallons above the projected E10 blend wall, thereby creating a "gap" in the total renewable fuel RVO that cannot be met by ethanol.³⁶

³⁴ "Comparison of 2016 supply and 2016 standards," memorandum from David Korotney to docket EPA-HQ-OAR-2016-0004.

As a result, analysts expect that the proposal will further increase the reliance on biodiesel as an RFS compliance option³⁷ which in turn will indirectly increase demand for palm oil.³⁸ [EPA-HQ-OAR-2016-0004-1801-A1 p.8]

36 Scott Irwin and Darrel Good. “EPA’s Proposed 2017 RFS Standards: Is a Push Still a Push?” at 4, farmdoc daily (6):100, Dept. of Agricultural and Consumer Economics, Univ. of Illinois at Urbana-Champaign (May 26, 2016) (<http://farmdocdaily.illinois.edu/2016/05/epa-proposed-2017-rfs-standards.html>); Scott Irwin and Darrel Good. “RFS Standards Beyond 2017—Biodiesel or Bust?” farmdoc daily (6):104, Dept. of Agricultural and Consumer Economics, Univ. of Illinois at Urbana-Champaign (June 2, 2016) (<http://farmdocdaily.illinois.edu/2016/06/rfsstandards-beyond-2017-biodiesel-or-bust.html>).

37 Irwin and Good (June 2, 2016) at 4.

38 Yin Qiu. “The Substitution Effect between Soybean Oil and Palm Oil and Global Carbon Emissions” (2014) (<http://gradworks.umi.com/15/54/1554542.html>).

American Cleaning Institute (ACI)

The Proposed Rule’s suggestion that BBD can make up for the volumetric shortfalls of other renewable fuels further threatens the market availability of animal fats. [EPA-HQ-OAR-2016-0004-1735-A1 p.4]

American Fuel and Petrochemical Manufacturers (AFPM)

EPA should then reduce the applicable volume of total renewable fuel further than it has proposed, using its general waiver authority, limiting requirements in 2017 to 17.12 billion gallons for total renewable fuel and 3.2 billion gallons for advanced biofuel (again, see Section II.). [EPA-HQ-OAR-2016-0004-1814-A1 p.34]

Biotechnology Innovation Organization (BIO)

the total renewable fuel RVO for 2017 should be set at more than 19.6 billion gallons [EPA-HQ-OAR-2016-0004-2721-A1 p.15]

Darling Ingredients, Inc.

When the available supply established in the Proposed Rule for each type of Biofuel is compared, it is clear that the Total Renewable Fuel volume mandates failed to include both the Liquid Cellulosic volumes and the Sugarcane ethanol volumes. The Proposed Rule does consider those two fuel categories when calculating the Advanced Biofuel mandate, but the EPA (which makes sense) DOES NOT include them when establishing the Total Renewable Fuel I volume mandate (which does not make sense). [EPA-HQ-OAR-2016-0004-1721-A1 p.4]

Highwater Ethanol

The EPA should decouple issues involving advanced biofuel gallons from the total volume of renewable fuel [EPA-HQ-OAR-2016-0004-1662-A1 p.2]

Holmes, Steve

In the absence a strong, lawful, science-based validation of the policy, the proposed 2017 renewable fuel volume requirements must be lowered to minimize further unintended consequences of the RFS. [EPA-HQ-OAR-2016-0004-3600-A1 p.1]

Independent Fuel Terminal Operators Association (IFTOA)

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 Agency should, therefore, adopt a more balanced approach taking into account its desire for more renewable fuel to be sold and used as well as current market constraints. [EPA-HQ-OAR-2016-0004-1823-A1 p.3]

Kansas Soybean Association

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.222]

We still wish you would increase those volume numbers for us

Kimberley, Grant

Once again, supporters of the biodiesel and renewable fuel industry write to strongly encourage you to revise and increase the proposed U.S. Environmental Protection Agency (EPA) Renewable Fuels Standard (RFS) volume obligation levels closer to congressionally authorized levels [EPA-HQ-OAR-2016-0004-3018-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 22 (Web) - (572)

The current proposed rule puts the public at risk by increasing the total renewable fuel requirements by 700 million gallons next year, and increasing the volume levels past the acceptable 9.7 percent threshold. These dangerous volumes will continue to push higher blends of ethanol into the fuel supply to the detriment of boaters and anglers. [EPA-HQ-OAR-2016-0004-1788 p.1-2]

Therefore, I urge the agency to revise its 2017 proposal to reflect actual market conditions and keep the total volume of ethanol in the fuel supply at or below 9.7 percent. [EPA-HQ-OAR-2016-0004-1788 p.2]

Mass Comment Campaign sponsored by National Corn Growers Association 2 (paper) - (387)

I strongly oppose the proposed Renewable Volume Obligation (RVO) rule. [EPA-HQ-OAR-2016-0004-3596-A1 p.1]

Michelle Toohey Enterprises

I implore the EPA to reduce the 2016 standards to reflect market realities. [EPA-HQ-OAR-2016-0004-2355 p.3]

National Council of Chain Restaurants (NCCR)

refrain from increasing the total renewable fuel volume for 2017 and maintain the level which was set for 2016. [EPA-HQ-OAR-2016-0004-2891-A1 p.6]

National Wildlife Federation (NWF)

Reduce the Renewable Fuel Mandate Below the 2016 Level of 18.11 Billion Gallons. [EPA-HQ-OAR-2016-0004-1700-A2 p.5]

North Dakota Petroleum Marketers Association

urge the EPA to lower the renewable fuel blending requirements [EPA-HQ-OAR-2016-0004-1756-A1 p.1]

Response:

One stakeholder said that the proposed volume of 18.8 billion gallons for total renewable fuel would result in an implied conventional volume that would be 746 million gallons above the E10 blendwall. This stakeholder further stated that this increment could not be met with ethanol, and that as a result it would be filled with palm biodiesel. We disagree that E10 is the only ethanol-based fuel that can contribute to meeting the implied conventional volume. Based on our assessment of the combined contributions from E15 and E85, along with projected 2017 gasoline demand from EIA, in the proposal we projected that 14.4 billion gallons of ethanol could be reached in 2017, nearly 200 million gallons above the projected E10 blendwall. In our final rule we have increased the projection of gasoline demand for 2017 and the associated E10 blendwall, and have provided a more detailed description of why we believe that about 200 million gallons of ethanol above the updated E10 blendwall are reasonably attainable in 2017. Nevertheless, we are projecting that the total renewable fuel volume requirement of 19.28 billion gallons may include 500 million gallons of conventional biodiesel and renewable diesel. Further discussion of the impact of our proposed and final volume requirements on supply of conventional biodiesel and renewable diesel can be found in Section 2.4.6.

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

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 U.S. jobs. EPA believes that higher renewable fuel 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. Additional responses to comments on the impacts of the 2017 standards on feedstocks can be found in Section 2.4.5.

Conventional biodiesel and renewable diesel will be used in practice to help meet the total renewable fuel standard to the degree that it out-competes corn ethanol and other conventional biofuels in the marketplace. In part incentivized by the final 2017 standards that we are finalizing, we expect some volumes of conventional biofuel will continue to enter the United States either directly as imports of renewable fuel, or as imported feedstocks which are then used to produce renewable in the U.S. As a result, biodiesel and renewable diesel used to help meet the final 2017 standards is unlikely to be produced entirely from domestic feedstocks.

One stakeholder said that the 2017 volume requirement for total renewable fuel should be 17.12 billion gallons, based on 3.2 billion gallons of advanced biofuel and 13.92 billion gallons of ethanol. We disagree. This approach assumes that the implied conventional volume is equivalent to all ethanol, which is incorrect; there are non-ethanol volumes that qualify as conventional renewable fuel, and ethanol volumes that qualify as advanced biofuel. Moreover, the 13.92 billion gallons of ethanol is based on the assumption that ethanol volumes above the E10 blendwall are not possible. As described in Section 2.3.2, this is not the case. Finally, we have addressed this stakeholder's proposal that the advanced biofuel volume requirement be set at 3.2 billion gallons for 2017 in Section IV.B.4 of the final rule.

One stakeholder said that the total renewable fuel volume requirement for 2017 should be 19.6 billion gallons or higher, based on an advanced biofuel volume requirement of 4.6 billion gallons and the statutory implied volume for conventional of 15.0 billion gallons. We have addressed comments related to higher volumes of advanced biofuel in Section 2.7.1, and comments related to the implied conventional volume in Section 2.7.3.

One stakeholder said that we had miscalculated the total renewable fuel volume requirement by excluding liquid cellulosic biofuel volumes and sugarcane ethanol volumes (see Table II.C.3-1 in the NPRM). This stakeholder misunderstood the treatment of ethanol volumes in the determination of total renewable fuel. The inclusion of total ethanol in this calculation includes all forms of ethanol, including cellulosic ethanol and sugarcane ethanol. Therefore, it would be double-counting to include cellulosic ethanol and sugarcane ethanol in addition to total ethanol when calculating the volume requirement for total renewable fuel.

One stakeholder said that we should "decouple" issues involving advanced biofuel from those involved in total renewable fuel. In Section IV of the final rule, we first consider those issues

related to reasonably attainable and appropriate supply of advanced biofuel. Based on our use of the cellulosic waiver authority, we then calculate the total renewable fuel volume requirement by applying the same reduction to the statutory target for total renewable fuel as was applied to the statutory target for advanced biofuel. Finally, we consider those issues that impact supply of total renewable fuel. To the degree possible, therefore, we do consider those issues related to advanced biofuel separately from those issues related to total renewable fuel. However, since advanced biofuel is nested within total renewable fuel, there are some issues which overlap, such as distribution and infrastructure which impact renewable fuels of the same type equally regardless of whether those fuels qualify as advanced biofuel or non-advanced (conventional) renewable fuel.

One stakeholder said that the standards we set should not be aspirational since doing so would not recognize current market constraints. The approach we have taken is to first determine cellulosic biofuel volumes based on a production projection that reflects a neutral aim at accuracy. We have then determined what volumes of advanced biofuel are reasonably attainable and, in some cases, appropriate based on other considerations. In this context, we have taken into account a variety of market constraints as described in Sections IV of the final rule. Finally, we have determined that applying an equal volume reduction to the total renewable fuel applicable volume will result in reasonably attainable volumes, and that a further reduction using the general waiver authority is not warranted. In assessing reasonably attainable volumes, we have taken into account, using methodologies described in the preamble, the ability of the market to increase renewable fuel production, distribution and use in response to the standards we set. We have approached this task with consideration of potential constraints.

One stakeholder said that the total renewable fuel volume requirement should be set in such a way as to ensure that the pool-wide ethanol content of gasoline does not exceed 9.7%, so that owners of recreational marine engines will not end up using higher level ethanol blends. We have responded to comments requested 9.7% pool-wide ethanol content in Section 2.3.2, and to comments related to the use of higher ethanol blends in recreational marine engines in Sections 2.3.5 and 7.5.4.

Several stakeholders suggested that the 2017 total renewable fuel volume target be left at the 2016 level of 18.11 billion gallons, or reduced below this level. Given the statutory directive to increase renewable fuel use in this time period, we generally do not believe it would be appropriate to limit future standards to what has been achieved in the past unless supply or other constraints required such an approach. That is not the case for 2017. As discussed in Section V of the final rule, we believe that total renewable fuel supply in 2017 can be considerably higher than it has been in the past. We note that, as discussed in a memorandum to the docket, the available data indicates that the market is on track to meet the applicable standards for 2016.³⁵

2.7.3 Conventional renewable fuel / corn-ethanol "mandate"

³⁵ "Comparison of 2016 supply and 2016 standards," memorandum from David Korotney to docket EPA-HQ-OAR-2016-0004.

Comment:

25x'25 Alliance

The amount of conventional ethanol allowed in the proposed rule (14.8 billion gallons) is less than the 15 billion gallon “constant” volume for conventional, starch-based ethanol that has been identified in statute since 2015. [EPA-HQ-OAR-2016-0004-0473-A1 p.3]

Advanced Biofuels Business Council (ABBC)

The proposed rule has the cellulosic ethanol industry competing with corn ethanol in a constrained (i.e. capped) ethanol marketplace. [EPA-HQ-OAR-2016-0004-1733-A1 p.7]

the 15-billion-gallon (equivalent) statute for conventional biofuel is easily achievable in 2017 via a combination of: (a) increasing gasoline demand due to low oil prices; (b) increasing availability of E15 and E85; and, (c) steady supplies of conventional biodiesel and renewable diesel. [EPA-HQ-OAR-2016-0004-1733-A1 p.18]

EPA failed to follow its own protocol when setting the 2015 blending requirement for undifferentiated (conventional) renewable fuel. [EPA-HQ-OAR-2016-0004-1733-A1 p.20]

American Coalition for Ethanol (ACE)

EPA’s blending volumes for implied conventional biofuel in 2017 should be increased to the 15 billion gallon statutory level in the final rule [EPA-HQ-OAR-2016-0004-1679-A2 p.4]

Anonymous 1

I write to ask you to increase the blending target for conventional biofuel to the statutory level of 15 bg for 2017. [EPA-HQ-OAR-2016-0004-0531 p.1]

Anonymous 7

I request that the EPA consider making no further increase to the ethanol blend requirement [EPA-HQ-OAR-2016-0004-2457 p.1]

Baalman, Brian

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.209]

I urge you to reconsider the RVO requirement of 15 billion.

Birr, Adam

I am writing to urge the Environmental Protection Agency (EPA) to return to statutory requirements of the Renewable Fuel Standard (RFSII) for the non-advanced biofuel (conventional) category. [EPA-HQ-OAR-2016-0004-3146-A1 p.1]

Carlson, Terry

many others support ending the ethanol mandate.

I do too. [EPA-HQ-OAR-2016-0004-2163-A1 p.1]

Clean Air Task Force (CATF)

Further reduction of the implied corn ethanol mandate would also create headroom under the E10 blend wall for environmentally superior types of cellulosic and other “advanced” ethanol. [EPA-HQ-OAR-2016-0004-1804-A1 p.4]

Commonwealth Agri-Energy

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.181]

We are opposed to EPA's proposed rule reducing the 2017 blending obligation for conventional renewable fuels from the levels envisioned by Congress in the Energy Policy Act of 2007. We urge EPA to finalize RVOs for 2017 that are consistent with the statutory requirement of 15 billion gallons for conventional renewable fuels.

Corn, LP

The original Renewable Volume Obligation of 15 billion gallons for conventional biofuels established by Congress under the RFS must be upheld. [EPA-HQ-OAR-2016-0004-2414-A1 p.1]

Deere & Company

we ask that EPA stand by the statutory volume of 15 billion gallons of conventional biofuel in 2017. [EPA-HQ-OAR-2016-0004-1654-A1 p.2]

DuPont Industrial Biosciences

EPA had to project the net available supply of 2015 RINs available for compliance. EPA clearly states that it intended to take seasonal increases in RIN generation into account when making the projection, but then failed to do so. [EPA-HQ-OAR-2016-0004-1827-A1 p.5]

DuPont Industrial Biosciences et al.

Reducing the Overall Total RVO Will Thwart the Commercial Viability of Cellulosic Ethanol in the United States. [EPA-HQ-OAR-2016-0004-1824-A1 p.3]

we think it is essential that EPA maintain the highest total renewable fuel requirements possible. At a minimum, EPA should not waive total renewable fuel levels below the carry-through of the cellulosic reduction. [EPA-HQ-OAR-2016-0004-1824-A1 p.3]

East Kansas Agri-Energy

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.129]

The statute requires 15 billion gallons of conventional renewable fuels in 2017, and we see absolutely no reason for EPA to set the RVO below that level. Anything less sends a negative signal to investors about the sturdiness of the RFS program's very foundation.

Eastman, John

keep ethanol levels where they are and don't increase what the American People don't want. [EPA-HQ-OAR-2016-0004-0557 p.1]

Fitzgibbons, John

Please do not increase the levels used in our fuel system. [EPA-HQ-OAR-2016-0004-2081 p.1]

Governors' Biofuels Coalition

Because the 2014-2016 final rule was released before data was available on full-year 2015 RIN generation, EPA had to project the net supply of 2015 RINs available for compliance. EPA stated that it intended to take seasonal increases in RIN generation into account when making the projection, but then failed to do so. [EPA-HQ-OAR-2016-0004-1729-A1 p.4]

Hay, Steve

I hope that you will correct this situation and increase the level of ethanol back to the levels Congress established [EPA-HQ-OAR-2016-0004-1618-A1 p.1]

Highwater Ethanol

I believe that the EPA as the authority to set the volume at the target set by congress of 15 billion gallons. [EPA-HQ-OAR-2016-0004-1662-A1 p.3]

Hoxie Implement Co. Inc.

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. [EPA-HQ-OAR-2016-0004-3509-A1 p.1]

Illinois Corn Growers Association and Illinois Renewable Fuels Association (ILRFA)

the Illinois Corn Growers Association and the Illinois Renewable Fuels Association strongly urges USEPA to move the RVO numbers for conventional biofuels back to 15 billion gallons of corn starch ethanol for 2017 as required by law. USEPA has not proven that there is a supply problem related to the purchase of conventional biofuels by the obligated parties [EPA-HQ-OAR-2016-0004-1745-A2 p.9]

Illinois Farm Bureau

The proposed 14.8 billion gallons of conventional biofuel is inadequate and amounts to a simple rounding error. Illinois Farm Bureau's 80,000 farmer members call on the agency to increase the amount of conventional biofuels to the statutory level of 15 billion gallons. [EPA-HQ-OAR-2016-0004-2770-A1 p.3]

Indiana Corn Growers Association

We recommend that the 2017 RVO be returned to the statutory level of 15 billion gallons. 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-2016-0004-1786-A1 p.2]

Iowa Office of the Governor

we strongly urge the EPA to raise the final RVO to the statutory 15 billion gallon level in 2017. Doing so would eliminate the risk of further litigation and ensure that the program is faithful to the statute and congressional intent. [EPA-HQ-OAR-2016-0004-1747-A1 p.2]

Iowa Renewable Fuels Association (IRFA)

EPA should set the renewable volume obligation for corn-based ethanol in 2017 at 15 billion gallons, as prescribed by Congress, [EPA-HQ-OAR-2016-0004-1867-A1 p.1]

Jardon, Carl

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.148]

By setting the RVO conventional target at 14.8 billion instead of 15 billion, the EPA is effectively capping corn ethanol at that number, cutting corn usage by 71.4 million bushels.

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 2017 period remain as they are written in the law. [EPA-HQ-OAR-2016-0004-2689-A1 p.1]

EPA's proposed RVO level for ethanol will restrain growth not only in the conventional ethanol industry, but also in the up and coming cellulosic ethanol industry. [EPA-HQ-OAR-2016-0004-2689-A1 p.1]

Kansas Ethanol

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.159]

request that the EPA increase the 2007 RVOs to the original mandated 15 billion gallons per year for grain-based ethanol.

Kansas Farm Bureau

we dispute the need to also reduce the volumes of conventional ethanol. [EPA-HQ-OAR-2016-0004-1718-A1 p.1]

We suggest the agency set the volume standard for conventional renewable fuel at the RFS2 mandated level of 15 billion gallons for 2017 and beyond. [EPA-HQ-OAR-2016-0004-1718-A1 p.1]

Kentucky Corn Growers Association

we respectfully request EPA follow the RFS statute; set the levels for conventional biofuels at 15 billion gallons. [EPA-HQ-OAR-2016-0004-1805-A1 p.1]

Lightner Farms, Inc.

Please allow it to continue to bring positive outcomes by expanding ethanol volume mandates. [EPA-HQ-OAR-2016-0004-2759-A1 p.1]

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. Our facility just expanded and our new blend rate exceeds 300 million gallons a year. Rolling back the RVO from the initially proposed amount of 15 billion gallons to 14.8 billion negatively impacts the market in which we anticipate selling these additional gallons. As such, we will be forced to export our American Made product to other countries that appreciate and acknowledge the value that ethanol brings to the fuel supply. [EPA-HQ-OAR-2016-0004-3498-A1 p.1]

If the industry is required to scale back production and demand is limited, there is a high likelihood that some plants would have to slow production, forcing them to run at less than efficient rates or close their doors. If an ethanol plant is required to take a temporary shutdown, it not only affects employees but it is also detrimental to the contracts and relationships they have built up with vendors. If the plant is forced to shutdown permanently, the effects are not only detrimental to the employees but also the vendors, agricultural sector, logistics sector and local communities. [EPA-HQ-OAR-2016-0004-3498-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 3 (Web) - (718)

The EPA should refer to the facts and lower the ethanol volumes in its 2017 proposal before the rule becomes final. [EPA-HQ-OAR-2016-0004-0112 p.1]

Mass Comment Campaign sponsored by Anonymous 12 (email) - (106)

The conventional biofuel amount of 14.8 billion gallons is an increase from 14.5 billion in 2016, but still falls short of the RFS as it was originally written. While the 2017 proposed rule is a step forward from last year, true support of the biofuels industry would be a rule that includes the full 15 billion gallons. The EPA sent the wrong message in issuing a proposal that is below statutory levels because ethanol producers are already capable of producing at the 15 billion gallon level, and retailers and the current auto fleet can currently accommodate the full 15 billion gallons. [EPA-HQ-OAR-2016-0004-1168-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 13 (email) - (3333)

I am writing to urge you to increase the 2017 Renewable Volume Obligations (RVOs) under the Renewable Fuel Standard (RFS) to statutory levels of 15 billion gallons. [EPA-HQ-OAR-2016-0004-1169-A1 p.1]

As the final rule takes shape, I hope that you will consider the implications on consumer choice and take RVO levels to 15 billion gallons to meet the environmental challenges of the 21st century. [EPA-HQ-OAR-2016-0004-1169-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 15 (email) - (22)

Given the accomplishments of the RFS program to date, EPA's proposal to reduce the 2017 renewable volume obligation (RVO) for conventional renewable fuel from statutory level of 15 billion gallons (bg) is a stunning misstep. [EPA-HQ-OAR-2016-0004-1357-A1 p.1]

Detailed analysis by the Renewable Fuels Association demonstrates that the market can readily achieve the 15 bg requirement for conventional biofuels in 2017. The ethanol industry has the physical capacity to produce well over 16 bg per year and it has recently operated at an annualized output rate of 15.4 bg. The sustained increase in gasoline demand means more ethanol will be consumed in E10 blends, while the U.S. Department of Agriculture's Biofuels Infrastructure Partnership is rapidly expanding the availability of E15 and E85. Further, a significant volume of non-advanced biodiesel and renewable diesel is expected to contribute to the conventional renewable fuel pool as well. [EPA-HQ-OAR-2016-0004-1357-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 20 (email) - (13)

I am writing to you in support of increasing the 2017 Renewable Volume Obligations (RVOs) under the Renewable Fuel Standard (RFS) to statutory levels of 15 billion gallons. I sincerely hope that my comments will be taken into account in your decision. [EPA-HQ-OAR-2016-0004-1498-A1 p.1]

For that reason, we need RVO levels that are in tune with what ethanol producers can produce and what our consumers are ready to consume. Producers can absolutely produce at the statutory level of 15 billion gallons; consumers have demonstrated a demand for more alternative fuel options; and the current auto fleet is equipped to accept higher blends. As EPA even noted in their proposal, "To date we have seen no compelling evidence that the nationwide average ethanol concentration in gasoline cannot exceed 10.0%" [EPA-HQ-OAR-2016-0004-1498-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 27 (web) - (6)

I encourage EPA to finalize the 2017 conventional renewable fuel requirement at the statutory level of 15 bg [EPA-HQ-OAR-2016-0004-0420]

Mass Comment Campaign sponsored by Anonymous 28 (paper) - (5)

I ask that you personally work to achieve the 15 billion gallons RVO level to maximize the positive economic and environmental benefits of ethanol utilization. [EPA-HQ-OAR-2016-0004-2408-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 3 (Web) - (718)

Failing as a gateway to second generation and advanced biofuels, the RFS functions essentially as a mandate for corn ethanol - a grandfathered biofuel that, as explained by the Environmental Working Group, would fail to meet the definition of "renewable" on its own. The 2017 RVO proposal would make each of these problems worse at the expense of people and the environment. [EPA-HQ-OAR-2016-0004-0112 p.1]

Mass Comment Campaign sponsored by Central Indiana Ethanol (CIE) (email) - (60)

EPA's proposal to reduce the 2017 renewable volume obligation (RVO) for conventional renewable fuel from statutory level of 15 billion gallons (bg) is a stunning misstep. [EPA-HQ-OAR-2016-0004-1701-A2 p.2]

Detailed analysis by the Renewable Fuels Association demonstrates that the market can readily achieve the 15 bg requirement for conventional biofuels in 2017. The ethanol industry has the physical capacity to produce well over 16 bg per year and it has recently operated at an annualized output rate of 15.4 bg. [EPA-HQ-OAR-2016-0004-1701-A2 p.2]

Mass Comment Campaign sponsored by ethanol producers 1 (email) - (444)

As an ethanol producer, I am writing you with concern regarding the recent proposed rule for the 2017 Renewable Volume Obligations (RVOs) as required under the Renewable Fuel Standard (RFS). [EPA-HQ-OAR-2016-0004-0555-A1 p.1]

Mass Comment Campaign sponsored by Iowa Renewable Fuels Association 1 (Paper) - (3,330)

I urge you to get the RFS back on track, as Congress intended, by finalizing corn-based ethanol volumes according to the law-15 billion gallons for 2017. [EPA-HQ-OAR-2016-0004-3594-A1 p.1]

Mass Comment Campaign sponsored by Putnam County YMCA (Paper) - (5)

I would ask that you reconsider your decision to reduce the amount of domestic biofuels and restore the volumes as prescribed by the RFS. [EPA-HQ-OAR-2016-0004-2401-A1 p.2]

Mass Comment Campaign sponsored by Southwest Iowa Renewable Energy LLC (SIRE) (paper) - (27)

We, the undersigned, dedicated employees of Southwest Iowa Renewable Energy, LLC, (SIRE) respectfully request that the statutory requirements for conventional biofuel under the Renewable Fuel Standard be upheld. Our jobs and the welfare of our families depends upon it. The original Renewable Volume Obligation of 15 billion gallons for conventional biofuels established by Congress under the RFS must be upheld. There is no legal, marketplace or consumer rationale for reducing the conventional biofuels level and the ethanol industry has already proven that the RVO levels proposed by EPA are too low. The suggested corn-based ethanol level for 2017 is below what was produced in 2015. [EPA-HQ-OAR-2016-0004-1703-A1 p.1]

We're proud to produce a cleaner-burning, American-made fuel. We implore the EPA to protect our jobs and the well-being of our families, our local economy and our environment by restoring the Renewable Volume Obligations of the Renewable Fuel Standard to the statutory level of 15 billion gallons in 2017 as established by Congress. [EPA-HQ-OAR-2016-0004-1703-A1 p.1]

McCauley, Ken

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.159-160]

The uncertainty created by EPA's confounding decisions on the RVO levels for conventional levels of the ethanol industry is just creating confusion.

Michigan Corn Growers Association

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.19.]

I ask the EPA to act to restore the renewable volume obligations for ethanol to the statutory amount.

Michigan Farm Bureau (MFB)

EPA's proposal to reduce the 2017 renewable volume obligation (RVO) for conventional renewable fuel from statutory level of 15 billion gallons (bg) is a striking misstep. [EPA-HQ-OAR-2016-0004-1822-A1 p.1]

Meeting the 15 bg requirement would eliminate the risk of further litigation, eliminate conflict with stakeholders, and ensure the program is faithful to the statute and congressional intent. [EPA-HQ-OAR-2016-0004-1822-A1 p.2-3]

Minnesota Corn Growers Association (MCGA)

request that the Environmental Protection Agency (EPA) adhere to the statutory requirements of the Renewable Fuel Standard (RFS) for the non-advanced biofuel (conventional) category. [EPA-HQ-OAR-2016-0004-1818-A1 p.1]

EPA should not reduce corn starch ethanol when it is providing a less expensive fuel option for consumers and creating a competitive fueling market. Corn starch ethanol is paving the way for other renewable fuel sources to gain market access and a reduction in the RVO will undermine this progress. [EPA-HQ-OAR-2016-0004-1818-A1 p.2]

Minnesota Farm Bureau

MFBF opposes EPA's 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-2016-0004-2521-A1 p.1]

Farm Bureau believes the market can achieve the 15 billion gallon requirement for conventional biofuels in 2017. [EPA-HQ-OAR-2016-0004-2521-A1 p.2]

Mobley, Kevin

I am AGAINST the proposal from the EPA to lower the RFS ethanol volume requirement [EPA-HQ-OAR-2016-0004-0186 p.1]

National Association of Wheat Growers

NAWG supports the Renewable Fuels Standard as passed by Congress and opposes EPA's proposed reduction in the 2017 Renewable Volume Obligation (RVO) under the RFS. [EPA-HQ-OAR-2016-0004-2697-A1 p.1]

National Restaurant Association

we urge the EPA to further decrease the ethanol volumes in the final rule. [EPA-HQ-OAR-2016-0004-2696-A1 p.2]

National Women involved in Farm Economics (WIFE)

strongly opposed to the EPA's proposed rule regarding the 2017 Renewable Volume Obligations (RVO) for the Renewable Fuel Standard (RFS) Program. We need a program that maintains the standard we have or even be increased. [EPA-HQ-OAR-2016-0004-2540 p.2]

Nebraska Corn Board (NCB)

We ask that your proposal of 14.8 billion gallons of non-advanced or "conventional" fuels be raised to the statutory level of 15 billion gallons. [EPA-HQ-OAR-2016-0004-1694-A2 p.1]

Nebraska Corn Growers Association

We ask that your proposal of 14.8 billion gallons of non-advanced or "conventional" fuels be raised to the statutory level of 15 billion gallons. [EPA-HQ-OAR-2016-0004-1730-A1 p.1]

Raising the non-advanced or "conventional" fuels level to 15 billion gallons would result in the usage of nearly 71.5 million bushels of corn. This would be a significant amount of corn off the market in this time of depressed agricultural markets and large carryover of the previous year's crop. [EPA-HQ-OAR-2016-0004-1730-A1 p.1]

Nebraska Farm Bureau Federation

opposition to the EPA's 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-2016-0004-2693-A1 p.1]

North Dakota Corn Growers Association

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.143]

we ask you to reconsider recent actions and be bold leaders in setting the 2017 RVO number back to 15 billion gallons.

Parrent, Kenneth

The Indiana Corn Growers Association strongly encourages the EPA to maintain the RFS as it was originally designed, which mandates a Renewable Volume Obligation of 15 billion gallons of ethanol to be blended in 2017 [EPA-HQ-OAR-2016-0004-0243-A1 p.1]

Pennington-Peine, Nicholas

The Renewable Fuels Standard does provide a mandate. It requires that 15 billion gallons of conventional biofuels be blended into transportation fuel. Programs like the RFS are necessary to support and de-risk innovation and investment. [EPA-HQ-OAR-2016-0004-3303-A1 p.1]

Plymouth Energy

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.40]

Simply that you show the same commitment we have by giving us the numbers that the RFS intended of the 15 billion gallons so that we can continue to grow like we've proven we can.

POET Biorefining

[The following comment was submitted as testimony at the Kansas City Missouri Public hearing on June 9, 2016. See Docket Number EPA-HQ-OAR-2016-0004-3558 p.152.]

reconsider the 14.8 billion gallon threshold and look to bring that back to the 2007 15 billion gallon level.

Porter, Lori

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.200]

we urge you to raise the RVO levels back to statutory levels.

Quad County Corn Processors (QCCP), Delayne Johnson, CEO

we would respectfully request EPA move the 2017 RVO for D6 RIN's to 15 billion gallons [EPA-HQ-OAR-2016-0004-1325-A2 p.1]

Quad County Corn Processors (QCCP), employees

The original Renewable Volume Obligation of 15 billion gallons for conventional biofuels established by Congress under the RFS must be upheld. There is no legal, marketplace or consumer rationale for reducing the conventional biofuels level and the ethanol industry has already proven that the RVO levels proposed by EPA are too low. The suggested corn-based ethanol level for 2017 is below what was produced in 2015. [EPA-HQ-OAR-2016-0004-1323-A2 p.1]

Remlinger Manufacturing Company

The EPA should get the RVO levels to the 15 billion gallons. Companies are capable of producing that amount and cars are equipped to use that amount. [EPA-HQ-OAR-2016-0004-2758-A1 p.1]

Renewable Fuels Association (RFA)

EPA's projection of D6 RIN generation for October-December 2015 does not follow the projection protocol established by EPA itself in the docket memo. [EPA-HQ-OAR-2016-0004-1695-A2 p.17]

Schnell, Rolland

I ask that you support increased levels of ethanol in the 2016 Renewable Fuel Standard. [EPA-HQ-OAR-2016-0004-2214-A1 p.1]

Siouxland Ethanol

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.203]

We feel strongly that the EPA should comply with the RVO of 15 billion gallons of corn ethanol as established by Congress in the RFS.

South Dakota Corn Growers Association

We urge the EPA to return to the statutory volumes that are contained in the Energy Independence Security Act. [EPA-HQ-OAR-2016-0004-2132 p.2]

South Dakota House of Representatives

I encourage EPA to finalize the 2017 conventional renewable fuel requirement at the statutory level of 15 bg, in consideration of the EISA's authority to force branded transportation fuel companies to offer higher biofuel blends to the consumers who want them. [EPA-HQ-OAR-2016-0004-1251 p.2]

Southwest Iowa Renewable Energy

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.43]

couple things that come to mind in regard to number one is commitment of the RFS and the statutory requirements for conventional biofuel ethanol to reach 15 billion gallons in 2015. And based on that, there was a lot of investment made and the commitments made by investors, producers to get up to that 15 billion production capacity.

And I think, without question, that capacity has been there now for several years and demonstrated currently in the current production mode.

I think that commitment needs to be held, and certainly the marketplace will be able to handle the 15 billion gallons.

Sportsmen Yacht Club

We are opposed to the EPA's plan to increase the country's ethanol mandate again in 2017. [EPA-HQ-OAR-2016-0004-1838-A1 p.1]

Steitz, Jim

I urge you to reject the pending EPA proposal to increase further the 2017 and 2018 biofuel volume mandates, and most importantly to terminate the 'conventional fuel' portion of this program, which is largely fulfilled by diverting a large share of America's corn production. [EPA-HQ-OAR-2016-0004-2058 p.1]

Syngenta

if the EPA flinches on their commitment to the production of current conventional biofuels, it would result in decreased potential for the full-scale commercialization of next generation biofuels. [EPA-HQ-OAR-2016-0004-1832-A1 p.1]

Trenton Agri Products

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.157]

conventional biofuel producers have shown we have the technology and the capacity to exceed the mandated 15 billion gallons of ethanol a year.

Urban Air Initiative

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.227-230]

However, as the RFS statutory target for corn or conventional ethanol is 15 billion gallons per year, from our perspective, the proposed 14.8 billion denies CO₂ and GHG reduction benefits that are available if the full 15 billion were allowed.

Revising the 2017 RVO proposal to allow the final 200 million gallons under the conventional or corn starch cap is the first step in that direction.

Wesley K Clark & Associates, LLC

I urge EPA to issue a final rule reflecting Congress' statutory levels of 15 billion gallons for the 2017 final rule. [EPA-HQ-OAR-2016-0004-3508-A1 p.1]

Western Plains Energy LLC

Based on the data presented in EPA's own proposed rule, it is clear that ample supply exists; therefore, the conventional volume obligations should be left at the statutory 15 billion gallons. [EPA-HQ-OAR-2016-0004-1697-A1 p.2]

By capping production, you are sending a signal that the government no longer puts priority on the production of biofuels. [EPA-HQ-OAR-2016-0004-1697-A1 p.2]

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. [EPA-HQ-OAR-2016-0004-1697-A1 p.2]

I urge the EPA to continue to support the RFS and to adjust the 2017 total renewable fuel to 19 billion gallons, of which 15 billion gallons would be represented by conventional biofuels. [EPA-HQ-OAR-2016-0004-1697-A1 p.2]

Wisconsin Biofuels Association (WBA)

To continue moving our nation forward and reverse decades of greenhouse gas and toxic emissions from fossil fuel consumption, it is imperative that the EPA honors its commitment to this goal by increasing RVO levels to the necessary 15 billion gallons. [EPA-HQ-OAR-2016-0004-1638-A1 p.1]

Response:

The vast majority of commenters, most of whom had ties to the corn ethanol industry, were opposed to any reductions in the statutory implied volume requirement for conventional renewable fuel. 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 asked that the volume of conventional renewable fuel be set at the implied statutory target of 15 billion gallons also 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 and/or corn compared to recent years. However, our proposed level of 14.8 billion gallons for the implied volume of conventional renewable fuel would have represented an increase from the 2016 level of 14.5 billion gallons, not the decrease that some stakeholders claimed it would be. Nevertheless, based on comments received and additional information acquired since release of the NPRM which supports the greater availability of renewable fuels, including an increase in projected gasoline consumption, we are finalizing standards that provide an implied conventional renewable fuel volume of 15.0 billion gallons, the same as the implied conventional volume in the statute.

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. Significant 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 needed, and the conventional renewable fuel volume should not be used to determine how the market will respond vis-a-vis the E10 blendwall.

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. Nevertheless, as noted above, the final rule in fact provides an implied conventional volume of 15 billion gallons.

One stakeholder requested that we terminate the conventional renewable fuel portion of the RFS program due to its impacts on corn production. We do not believe that the implied volume of conventional renewable fuel should be zero. Under the cellulosic waiver authority, we cannot reduce the volumes of advanced biofuel and total renewable fuel any more than the reduction in cellulosic biofuel. Under the general waiver authority, while we have the authority to waive volumes based on a finding of inadequate domestic supply or severe harm to the economy or

environment, the commenter has not provided, and the record does not contain, information indicating that zero volumes of corn ethanol are required to avoid such harms or as a result of inadequate domestic supply. Responses to comments on the impacts of the implied volume for conventional renewable fuel on the use of corn are addressed in Section 3.1.5.

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 Congress provided EPA with broad discretion under the cellulosic waiver authority to reduce or maintain statutory volumes of advanced and total renewable fuel when we reduce volumes of cellulosic biofuel. 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 of renewable fuels, include cellulosic biofuels, 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 it would not lead us to a different approach to the final rule for 2017. Moreover, we note that the final conventional fuel implied volume is 15 billion gallons, matching that provided in the statutory tables for 2017.

One stakeholder said that EPA had made an error in its calculation of the applicable volume requirement for total renewable fuel in 2015, and could remedy this error by adjusting the 2017 volume requirement upward by the same amount as the 2015 error. Another stakeholder said that EPA had not accounted for seasonal variations in estimating 2015 supply despite intending to do so. We do not believe these statements are an accurate portrayal of the approach taken to setting the 2015 standards. Because the 2014-2016 final rule was released at the end of November of 2015, it was necessary to make a projection of actual 2015 RIN supply. Actual data was available through September of 2015, but we needed to make a reasonable projection for the last three months of the year. To do this, we looked at the seasonal trends in prior years to determine if RIN supply tended to go up, down, or stay flat for the last three months of those years. We created a protocol as follows:

- If RIN generation in the last three months increased in both 2013 and 2014, we would conclude that it should also increase in 2015 as well.
- If RIN generation in the last three months decreased in both 2013 and 2014, we would conclude that it should also decrease in 2015 as well.
- If RIN generation did not consistently increase or decrease in 2013 and 2014, we would conclude that it should remain flat in 2015.

In a memorandum to the docket, we described our protocol as applying to trends calculated to a single decimal place given the level of precision in estimates of such trends, and applied it

correctly according to how it was described.³⁶ However, one table in the memorandum showed the trends to three decimal places. This made it appear that as though we should have used a slightly increasing trend for D6 RINs instead of a flat trend. If we had used an increasing trendline, the total projected number of D6 RINs generated in 2015 would have been about 90 million higher than what we finalized (for example, the total standard would have been 17.02 instead of 16.93 bill gal). In short, there was no "error" in the determination of the 2015 standards, since we followed the particular methodology we developed for this purpose. Aside from the fact that any of a number of reasonable methodologies could have been chosen, we acknowledge that the docket memorandum did not describe the methodology and its application clearly enough. Even if there had been an error in the determination of the 2015 applicable volume requirement, we do not believe it would be reasonable and appropriate, particularly in this limited instance, to adjust a future standard to account for discrepancies between past standards and actual supply.

One stakeholder said that the proposed use of the general waiver authority to reduce the volume of total renewable fuel beyond the reduction made under the cellulosic waiver authority would force cellulosic ethanol to compete with corn ethanol. Similarly, another stakeholder said that, since conventional renewable fuel is composed primarily of corn-ethanol, EPA could make it easier for environmentally superior advanced and cellulosic ethanol to expand by reducing the implied volume for conventional renewable fuel. In the determination of the applicable volume requirement for advanced biofuel, we have accounted for all the cellulosic ethanol that we project will be produced, and all of the non-cellulosic advanced ethanol that we believe can be reasonably attained in 2017. In the determination for advanced biofuel, we did not directly consider the impacts of constraints on ethanol supply. Instead, we considered constraints on ethanol supply in the context of determining the applicable volume requirement for total renewable fuel (and, by extension, the implied volume of conventional renewable fuel). As a result of this approach, we do not believe that competition between conventional and advanced/cellulosic ethanol will negatively impact cellulosic ethanol prospects in 2017.

One stakeholder said that by proposing 14.8 billion gallons for the implied volume of conventional renewable fuel instead of 15.0 billion gallons, EPA was effectively capping corn ethanol at 14.8 billion gallons. We disagree. The RFS program does not limit the production or sale of any qualifying renewable fuels, nor does it prevent the generation of RINs for any volume of qualifying renewable fuel. Renewable fuel producers can produce and sell any volume, including volumes above the applicable RFS volume requirements, if they can be supplied for transportation purposes in the U.S. We note, however, that we are finalizing an implied volume of 15.0 for conventional renewable fuel rather than the 14.8 billion gallons we proposed.

One stakeholder said that the proposed increase in the implied volume for conventional renewable fuel was essentially a mandate for corn ethanol which produces higher greenhouse gas emissions and air pollutants, contaminates water ecosystems, and contributes to the reduction of fragile grass and wetlands. The applicable standards under the RFS program are not specific to corn ethanol, or ethanol generally. Moreover, as described in Section V of the final rule, the final implied volume of conventional renewable fuel was based on a determination that a portion

³⁶ "Projection of annual renewable fuel supply in 2015," memorandum from David Korotney to docket EPA-HQ-OAR-2015-0111.

would be met with conventional biodiesel and renewable diesel. See also responses to comments on the environmental impacts of renewable fuels in Section 3.2.

Several stakeholders said that the proposed implied volume of 14.8 billion gallons for conventional renewable fuel in 2017 was below actual 2015 supply. This is not true. While there were 14.83 billion D6 (conventional) RINs generated in 2015, 201 million were retired for spills, non-qualifying uses, etc. and 397 million were retired for exports. Therefore, 14.23 billion RINs were actually supplied to the market and available for use in compliance with the 2015 standards.³⁷

2.7.4 Other comments related to the determination of standards

Comment:

Action Aid USA & The Hunger Project

We remain deeply concerned about the impact that food-based biofuels have on hunger, and urge you reduce the mandate for food-based biofuels to prevent additional growth and begin to end our reliance on these fuels. [EPA-HQ-OAR-2016-0004-1817-A1 p.1]

We urge the Agency to revise its 2017 and biomass-based diesel 2018 rules to freeze any growth in food-based biofuels, and to begin phasing out food-based biofuel mandates. [EPA-HQ-OAR-2016-0004-1817-A1 p.2-3]

Darling Ingredients, Inc.

When calculating the ethanol-equivalent volumes for Biomass Based Diesel, EPA failed to consider that an increasing proportion of the RINs generated by Biomass Based Diesel are from Renewable Diesel, which has a higher multiplier (1.7) than does Biodiesel (1.5). In 2014-2016 (through May 2016), the ethanol-equivalent gallons generated by Biomass Based Diesel production averaged 1.54. [EPA-HQ-OAR-2016-0004-1721-A1 p.2]

Mass Comment Campaign sponsored by Anonymous 6 (Web) - (345)

Today, it appears the country is not on target to meet even its 2016 volume obligations for many of the categories (i.e., cellulosic and total renewables), rendering it unrealistic, unsafe and irresponsible to force an additional 700 million gallons of biofuels - 300 of which would be corn ethanol - into the fuel supply. RIN generation so far in 2016 has been low and there is no reason to expect higher volumes of biofuels in 2017. [EPA-HQ-OAR-2016-0004-0115 p.1]

Monroe Energy, LLC

³⁷ " Comparison of availability of RINs and standards for previous years," memorandum from David Korotney to docket EPA-HQ-OAR-2016-0004.

if the final standards for 2016 exceed actual supply available to comply with those standards, that fact would severely undermine the reasonableness of the proposed requirements for 2017. EPA therefore must reassess whether the final percentage standards for 2016 were in fact reasonably achievable in light of the actual data for 2016 that will be available to EPA when it finalizes the 2017 standards [EPA-HQ-OAR-2016-0004-1869-A1 p.34]

National Taxpayers Union (NTU)

While the volumes recommended by the proposal mark a modest reduction from the levels specified in the underlying statute, the overall increase versus 2016 volumes is out of step with marketplace realities and not sufficiently limited to provide the relief taxpayers need. It is unlikely that the U.S. will be able to meet the 2016 standard and refiners are expected to exceed the E10 blendwall this year. For these reasons, it is unclear how our gasoline supply could accommodate the volumes this proposal lays out. [EPA-HQ-OAR-2016-0004-1874-A1 p.1]

Response:

Several stakeholders said that since the methodology that we proposed using for 2017 was the same as that used to establish the 2016 standard, we should precede its application to 2017 by a demonstration that actual supply in 2016 is on track to meet the applicable standards. Given that the methodology used for 2016 was new, they said, this step is necessary to legitimize its application in 2017. We note that actual supply of renewable fuel is a function of many factors that cannot be predicted, and a shortfall in actual supply does not necessarily indicate that the methodology used to determine the applicable standards was flawed. Nevertheless, we have evaluated supply in 2016 to date and have determined that the market is on track to meet the 2016 standards, providing support for the methodology we used to develop the applicable standards in that year, and the similar approach we are taking in this rule. A memorandum to the docket details this assessment.³⁸

EPA also received comments on the equivalence value EPA used to convert the reasonably attainable volume of advanced biodiesel and renewable diesel into a projected number of RINs for the purpose of deriving the proposed advanced biofuel standard. We have responded to these comments in Section IV.B.2 of the final rule.

2.8 Volume scenarios / market response to the standards

Comment:

American Coalition for Ethanol (ACE)

Using EPA's own volume scenarios for E15 and E85 as illustrated by Table II.E-1 on page 34800 of the proposed rule, an additional 200 to 400 million gallons of ethanol demand could

³⁸ "Comparison of 2016 availability of RINs and 2016 standards," memorandum from David Korotney to docket EPA-HQ-OAR-2016-0004.

come from E15 and E85 next year. Also, according to EPA's volume scenarios for advanced and total biodiesel and renewable diesel as illustrated by Table II.D-1 on page 34798 of the proposed rule, between 500 and 600 million ethanol-equivalent gallons of biomass-based biodiesel and renewable diesel could fill the conventional pool for 2017. Adding these volumes together (14.3 billion gallons of ethanol as E10, 300 million gallons [average] of ethanol demand from E15 and E85, and between 500 and 600 million ethanol-equivalent gallons of biodiesel and renewable diesel as conventional biofuel for 2017) the total conventional biofuel target for 2017 could reach 15.1 to 15.2 billion gallons [EPA-HQ-OAR-2016-0004-1679-A2 p.4-5]

American Farm Bureau Federation

EPA's 2017 proposal fails to break the so-called "blend wall" or spur greater infrastructure investment and meaningful marketplace change. [EPA-HQ-OAR-2016-0004-1660-A1 p.1]

By proposing to set the 2017 conventional renewable fuel RVO at a level that is relatively easy for obligated parties to achieve, pressure is taken off of RINs and they fail to drive greater investment in E15 and E85 infrastructure. [EPA-HQ-OAR-2016-0004-1660-A1 p.4]

DENCO II, LLC

Without Increasing the RVO's, E85 and higher level ethanol blend infrastructure investments will eventually stall and decline. [EPA-HQ-OAR-2016-0004-1693-A2 p.1]

Fort Washington Boating Association

The proposed Renewable Volume Obligations (RVO) for 2017 will force a greater amount of E15 and higher ethanol blends to be pushed on to the American public. [EPA-HQ-OAR-2016-0004-3364-A1 p.1]

Iowa Farm Bureau Federation (IFBF)

EPA's 2017 proposal fails to break the so-called "blend wall" or spur greater infrastructure investment and meaningful marketplace change. [EPA-HQ-OAR-2016-0004-1653-A1 p.2]

Kansas Ethanol

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.156]

The proposed total use of biofuels pushes past the fictitious 10 percent blend wall and removes another barrier to market access.

Mass Comment Campaign sponsored by Anonymous 15 (email) - (22)

But EPA's 2017 proposal fails to break the so-called "blend wall" or spur greater infrastructure investment and meaningful marketplace change. [EPA-HQ-OAR-2016-0004-1357-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 26 (Paper) - (26)

Failing to meet the statutory volumes intended by Congress will have an impact on agriculture and our rural economies, as well as investments in ethanol plants. [EPA-HQ-OAR-2016-0004-3553-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 5 (Web) - (355)

The 2017 renewable volume obligation (RVO) proposal issued by the EPA fails to reflect consumer demand and market realities by recommending biofuel standards that are not workable, beneficial or safe for consumers. Before final volumes are issued in November, the agency should revise and lower its proposed biofuel obligations in recognition that the current marketplace cannot accommodate the quantities of corn ethanol and biofuels prescribed by the draft rule. [EPA-HQ-OAR-2016-0004-0114 p.1]

Mass Comment Campaign sponsored by Anonymous 6 (Web) - (345)

It is imperative for consumers that the EPA lower the 2017 RFS biofuel volumes in the final rule it publishes later this year. Unless such action is taken, the burden of this policy on consumers will only continue to grow. [EPA-HQ-OAR-2016-0004-0115 p.1]

Mass Comment Campaign sponsored by Anonymous 7 (Web) - (47)

I'm writing to encourage the EPA to extend the blend for biofuels in 2017. [EPA-HQ-OAR-2016-0004-0399 p.1]

Mass Comment Campaign sponsored by Anonymous 9 (email) - (931)

I strongly urge you to reconsider your proposed reduction in the baseline renewable volume obligations. [EPA-HQ-OAR-2016-0004-1165-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 15 (email) - (22)

The RFS is intended to change the way oil companies do business and spur investment in cleaner, lower carbon, domestic fuels like ethanol and the infrastructure necessary to accommodate higher biofuel blends. The RFS was designed to give American consumers more choices at the pump and lower gas prices, and to utilize ethanol as more than just a gasoline additive with octane boosting value. But EPA's 2017 proposal fails to break the so-called "blend wall" or spur greater infrastructure investment and meaningful marketplace change. [EPA-HQ-OAR-2016-0004-1357-A1 p.1]

Mass Comment Campaign sponsored by DENCO II, investors (Paper) - (12)

We need these volume requirements to stay in place if we want to decrease our dependence on oil based fuels as well as offer consumers renewable, less expensive, and locally produced options at the pump in blends such as E15, E30, and E85. [EPA-HQ-OAR-2016-0004-1967-A1 p.2]

Mass Comment Campaign sponsored by Prairie Horizon (Paper) - (74)

Failing to meet the statutory volumes intended by Congress will have an impact on agriculture and our rural economies, as well as investments in ethanol plants. [EPA-HQ-OAR-2016-0004-1969-A1 p.1]

Monroe Energy, LLC

scenarios positing 400 million gallons of E85 in 2017 are not “illustrative” of reasonable compliance paths; to the contrary, EPA’s own analysis shows they are well beyond the realm of possibility, [EPA-HQ-OAR-2016-0004-1869-A1 p.13]

EPA posits compliance scenarios that would require advanced biodiesel to exceed 2.4 billion gallons. It also ignores limitations on ramp-up time to bring additional advanced domestic production capacity online, as well as the reasonableness of further pushing biodiesel consumption capacity given the B5 blendwall, a factor that the NPRM recognizes will slow growth in the supply in 2017 and beyond. [EPA-HQ-OAR-2016-0004-1869-A1, pp.31-32]

Renew Kansas

The proposed rule on the RFS would reduce the availability of higher-blend ethanol fuel to consumers, leading to higher fuel prices. [EPA-HQ-OAR-2016-0004-1668-A1 p.3]

This proposed target would weaken domestic corn demand for renewable fuel use, [EPA-HQ-OAR-2016-0004-1668-A1 p.3]

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.E-1 in the NPRM. In describing these scenarios, the NPRM said:

"The scenarios in the table above are not the only ways that the market could choose to meet the total renewable fuel and advanced biofuel volume requirements that we are proposing. Indeed, other combinations are possible, with volumes higher than the highest levels we have shown above or, in some cases, lower than the lowest levels we have shown. The scenarios above cannot be treated as EPA’s views on the only, or even most likely, ways that the market may respond to the proposed volume requirements. Instead, the scenarios are merely illustrative of the various ways that it could play out. Our

purpose in generating the list of scenarios above is only to illustrate a range of possibilities which demonstrate that the standards we are proposing in this action can reasonably be satisfied." (81 FR 34800)

The purpose of the scenarios in Table II.E-1 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. 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. 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. 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, 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. However, significant increases above historical volumes are 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. Furthermore, the final rule does not require use of any particular volume of E85 or BBD - the market is largely free to determine the appropriate fuel mix to satisfy the requirements.

One stakeholder said that the largest volume of E85 shown in the volume scenarios table (Table II.E-1 in the NPRM), which was 400 million gallons, was beyond the realm of possibility. While we continue to believe that such a level is possible under highly favorable conditions, we have updated our analysis of both the number of retail stations that are likely to offer E85 in 2017 and the relationship between E85 sales volumes and E85 price discount. Based on these updated analyses, we have changed the largest volume of E85 shown in the volume scenarios table (Table V.C-1 in the final rule) to 330 million gallons.

The same stakeholder also said that the largest volume of advanced biodiesel shown in the NPRM's volume scenarios table, which was 2.43 billion gallons, was also beyond the realm of possibility. We disagree, and in fact based on further consideration of comments received, we believe that volumes of advanced biodiesel and renewable diesel as high as 2.5 billion gallons are possible in 2017. While this stakeholder said that we had not considered the ramp-up time needed to bring additional production capacity online, in fact as noted in Section V.B.2.ii of the

final rule, the capacity for all domestic biodiesel and renewable diesel production facilities that generated RINs in 2015 or 2016 is approximately 3.1 billion gallons, considerably higher than the highest level we have included in the final scenarios table. This stakeholder also said that we had ignored the constraints associated with the "B5 blendwall." However, as discussed in Section V.B.2.vi of the final rule, we do not believe that the so-called "B5 blendwall" will be a constraint in 2017, and indeed we believe the market will be capable of consuming considerably more than 2.5 billion gallons of biodiesel and renewable diesel in 2017.

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 the RFS program standards are able to affect the supply of renewable fuels is not without limits or constraints.

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 cannot be achieved, rather than the growth in renewable fuel volumes relative to previous years. The 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 as compared to past years, and with it opportunities for growth in the renewable fuel market.

A number of stakeholders expressed a concern that the proposed volume requirement 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 2017 can be somewhat higher than the proposed level while still being reasonably attainable and appropriate. The result is substantial growth in advanced biofuels in 2017 that can only be achieved if the market responds as expected with increased production and makes progress with respect to the various supply constraints.

Similarly, some stakeholders said that failure to meet the statutory targets would negatively impact investment in ethanol plants. We disagree. As described in Section 2.3.3, total domestic ethanol production capacity already exceeds the volume of ethanol use for qualifying RFS purposes that we have determined is reasonably attainable in 2017. More importantly, we are finalizing volume requirements for 2017 that include an implied volume of 15.0 billion gallons of conventional renewable fuel, equal to the level implied by the statutory targets for 2017. Even if the entire implied volume of conventional renewable fuel were met with ethanol, it would still be below the total domestic ethanol production capacity. Therefore, neither the proposed

volumes nor the final volumes are likely to have a material impact on investment in ethanol plants in 2017.

Several stakeholders expressed disappointment that the proposed standards did not break the E10 blendwall and would provide no incentive for greater volumes of E15 and/or E85 in 2017 compared to 2016, nor any incentive for increased investment in the infrastructure that supports these higher ethanol blends. These stakeholders appear to misunderstand the proposed standards, and/or are concerned about standards set in previous rulemakings. The maximum volume of ethanol that could be blended into gasoline in 2017 as E10 based on EIA's October Short Term Energy Outlook would be 14.36 billion gallons. In comparison, the final 2017 total renewable fuel volume obligation is 19.28 billion gallons, roughly 5 billion gallons higher. Even accounting for the final BBD standard in 2017 of 2 billion gallons (3.0 billion ethanol equivalent gallons), the final total renewable fuel standard provides the opportunity for 16.28 billion gallons of ethanol to be used to meet the standards – nearly 2 billion gallons beyond the E10 blendwall. In fact, as described in detail in Section V.B.1.iv of the preamble, we believe that more than one billion gallons of E15 and E85 use in 2017 is reasonably attainable. Additional discussion of this issue can be found in Section V.C of the final rule.

Several stakeholders expressed disappointment that the proposed standards did not break the E10 blendwall and would provide no incentive for greater volumes of E15 and/or E85 in 2017 compared to 2016, nor any incentive for increased investment in the infrastructure that supports these higher ethanol blends. These stakeholders appear to misunderstand the proposed standards, and/or are concerned about standards set in previous rulemakings. The maximum volume of ethanol that could be blended into gasoline in 2017 based on EIA's October short term energy outlook would be 14.36 billion gallons. In comparison, the final 2017 total renewable fuel volume obligation is 19.28 billion gallons, roughly 5 billion gallons higher. Even accounting for the final BBD standard in 2017 of 2 billion gallons (3.0 billion ethanol equivalent gallons), the final total renewable fuel standard provides the opportunity for 16.29 billion gallons of ethanol to be used to meet the standards – nearly 2 billion gallons beyond the E10 blendwall. In fact, as described in detail in Section V.B.1.iv of the preamble, we anticipate the use more than one billion gallons of E15 and E85 in 2017. Additional discussion of this issue can be found in Section V.C of the final rule.

One stakeholder representing conventional ethanol interests said that the volume scenarios in the NPRM demonstrated that 15 billion gallons of non-advanced renewable fuel were possible in 2017. To do this, the stakeholder pointed to the highest volumes in each category to construct a new scenario higher than the proposed volume requirements. This comment is addressed in Section V.C of the final rule

One stakeholder said that the proposed volumes could not be accommodated by the current marketplace. Not only do we disagree, but we believe that higher volumes than we proposed can be accommodated by the marketplace in 2017. Our assessment of the capabilities of the market for ethanol is discussed in Section V.B.1 of the final rule, while our assessment of the capabilities of the market for biodiesel and renewable diesel is discussed in Section V.B.2.

3. Other considerations in determining the volume requirements

3.1 Economic impacts and considerations

3.1.1 Illustrative costs of the program

Comment:

American Petroleum Institute (API)

Cost Impacts of Proposed Standards

In EPA's "Illustrative Costs" memo, EPA has conducted a woefully inadequate assessment of the cost impacts of its proposed standards for 2017. [EPA-HQ-OAR-2016-0004-3512-A2 p.37]

First, EPA presents only three illustrative scenarios, but leaves out another important scenario. EPA should include the scenario where biodiesel / renewable diesel is used to cover both the advanced and remaining conventional renewable beyond E10 and the de minimus volumes of E10+. EPA should evaluate this scenario based on EMTS data in 2014 and 2015. The ethanol blendwall constraints that exist have resulted in increasing volumes of biodiesel/renewable diesel D6 and D4 RINs and declining D5 RINs. [EPA-HQ-OAR-2016-0004-3512-A2 p.37]

Secondly, EPA's illustrative cost analysis stops at the point of producing and delivering renewable fuel to the blender, as EPA focuses on the wholesale level. As analyzed, this approach is meaningless and falls short of actually measuring the costs and economic impacts of achieving objectives of the RFS. This approach is inconsistent with EPA's justification for using general waiver authority in setting renewable fuel standards for 2014-2016. As EPA discussed in RFS 2014-2016 final rule making, renewable fuel must be "used to replace or reduce the quantity of fossil fuel" to be part of the supply. Biofuel availability by itself (i.e. at the wholesale level) is not considered as renewable fuel if it is not consumed. EPA's illustrative approach focuses on wholesale level and ignores significant cost factors (i.e. infrastructure, energy density penalty, and other constraints) required for actual consumption of renewable fuels. It is important to take these cost factors and economic impacts into consideration because, unless actually consumed, renewable fuels do not achieve objectives of the RFS. [EPA-HQ-OAR-2016-0004-3512-A2 p.37]

Bradley, Hal

E-85 as an automotive fuel has been a total failure. The cost to produce the fuel makes no economical sense. Corn has been over produced by the farmers, and the only way to produce high yields continuously on the same ground is to use more fertilizer. [EPA-HQ-OAR-2016-0004-3554-A1 p.53]

George Washington University, Regulatory Study Center

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 and 2010. 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 current proposal. [EPA-HQ-OAR-2016-0004-2687-A1 p.5]

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). [EPA-HQ-OAR-2016-0004-2687-A1 p.5]

National Biodiesel Board

EPA references its “illustrative cost estimates” to contend that the cost benefits associated with biomass-based diesel would occur whether EPA increases the biomass-based diesel volume mandate or EPA allows the market to choose biomass-based diesel volumes over competing products. EPA-HQ-OAR-2016-0004-0020 at 9. In so doing, EPA again finds insufficient reason to increase the biomass-based diesel volume requirement under this factor. But, the scenarios relate to an “illustrative” cost of the program, not costs to consumers or users of fuel. [EPA-HQ-OAR-2016-0004-2904-A2 p.105]

Instead, biomass-based diesel can and does reduce the cost on consumers and the cost to transport good. It has increased competition with diesel fuel, and the RIN allows parties to sell the fuel at a lower cost to consumers, which EPA admits. *See* 81 Fed. Reg. at 34,794. A strong mandate allows these costs savings to continue to be passed onto consumers. [EPA-HQ-OAR-2016-0004-2904-A2 p.105]

National Corn Growers Association

NCGA recognizes the Agency is statutorily required to estimate the illustrative costs of biofuels, however your approach and underlying assumption are in error. The approach attempts to analyze ethanol on an energy value basis, but the petroleum industry utilizes ethanol for its octane content—not an on-par energy component substitute. This analysis gives a misperception that using or increasing ethanol use in gasoline is a cost to the public. [EPA-HQ-OAR-2016-0004-1809-A1 p.8]

Response:

EPA received several comments on its illustrative cost analysis of the rule. One commenter had two separate parts to their comments. First, the commenter suggested that EPA consider an additional illustrative cost scenario where biodiesel/renewable diesel is used to cover both the advanced and remaining conventional renewable fuel beyond E10. Second, the commenter suggested that since EPA's analysis focuses on the wholesale level, the analysis ignores significant cost factors (i.e., infrastructure, energy density penalty, and other constraints)

required for the actual consumption of renewable fuels. The commenter suggested that it is important to take these cost factors and economic impacts into consideration because, unless actually consumed, renewable fuels do not achieve the objectives of the RFS.

EPA does not believe that an additional illustrative cost scenario is necessary given that it is unclear what pattern of renewable fuel volumes would be utilized to comply with the 2017 RFS annual rule. EPA does not contend that the illustrative cost scenarios are the actual costs that are expected to be realized by society but rather an illustration of possible costs for complying with the volumes under the regulation. In EPA's illustrative cost analysis, we evaluate the societal cost to consumers by considering the difference in wholesale costs of biofuels against their petroleum alternatives per energy equivalent gallon, using current and projected market prices. We focus on the wholesale level and acknowledge that this comparison does not consider taxes, retail margins, additional infrastructure, or transfer payments within the market. We did not estimate infrastructure costs, but believe our use of wholesale costs provides enough information for "illustrating" the cost of the program. The illustrative cost analysis does factor in the energy density of both renewable fuels and their petroleum alternatives.

One commenter noted that while EPA provides costs for the 2017 RFS rule, it does not account for the benefits in this rulemaking. EPA continues to believe that while costs can be associated with the impacts of the rule on an annual basis, the long-term nature of the benefits of the RFS program are not well suited for being analyzed on a piecemeal basis and are better addressed with the full maturity of the program in 2022. EPA estimated GHG, energy security, and air quality impacts and benefits in the 2010 RFS2 final rule assuming full implementation of the statutory volumes in 2022.

One commenter suggested that EPA's illustrative cost analysis is inaccurate since it analyzes ethanol on an energy equivalent basis but does not factor in the octane value of ethanol. The commenter suggested that if the octane value of ethanol is factored into the illustrative cost analysis that the estimated costs of the RFS program would be lower. EPA agrees that blending ethanol into gasoline has value in increasing blended fuels octane level for E10/E0. However, in our illustrative cost analysis, EPA developed a bottom-up cost analysis for each of the scenarios reflecting the increase in required volumes from 2016 to 2017. The value of octane would not be part of this type of cost analysis, though its octane value would be reflected in the price that blenders would be willing to pay for the ethanol. For much of the increase in the volume of renewable fuels required by this annual rule from 2016 to 2017, ethanol would be consumed as mid or higher level ethanol blends (e.g., E15 or E85 blends). The value of the ethanol's octane in mid and higher level ethanol blends is generally not realized since most vehicle engines are not optimized to benefit from the higher octane levels of these fuel blends.

One commenter believed that illustrative cost analysis is inaccurate since it focuses on the societal costs of the program, and not the costs to consumers of using the blended fuels. The commenter suggested that biomass-based diesel (BBD) reduces the costs to consumers through increased competition with diesel fuel. In addition, the commenter believes that the RIN associated with BBD allows parties to sell the BBD fuel at a lower cost to consumers, providing costs savings to the consumers of blended fuels. While the value of the RIN could lower the apparent price of biodiesel in the market, which can then be used to lower the price of biodiesel

blends to consumers, this lower biodiesel price does not represent the entire cost to consumers. The value of the RIN could be passed on to consumers through higher diesel fuel prices (unblended diesel fuel). In addition, the biodiesel blenders tax credit must also be paid for by taxpayers, many of whom are also consumers. The illustrative cost analysis that EPA undertakes is thus appropriately based upon the total societal cost to consumers by considering the difference in wholesale costs of renewable fuels against their petroleum alternative per energy equivalent gallon given current and projected market prices.

3.1.2 Energy security

Comment:

25x'25 Alliance

Not proposing the statutory levels as set by Congress could damage our nation's energy security as biofuels have helped to reduce our nation's dependence on foreign sources of oil. [EPA-HQ-OAR-2016-0004-0473-A1 p.4]

American Petroleum Institute (API)

Energy Security: The U.S. is less reliant on imported oil now than when EISA was enacted and the RFS has "played only a small part in reducing projected net import dependence" according to the Deputy Administrator of the EIA, who also said reliance on oil imports is "significantly lower" and reductions in net imports are primarily driven by increased domestic petroleum production and reduced petroleum demand. [EPA-HQ-OAR-2016-0004-3512-A2 p.36]

Anonymous 2

biofuel reduces our dependency on foreign interests [EPA-HQ-OAR-2016-0004-1468 p.1]

Anonymous 6

Ethanol would lessen our dependence on foreign oil.

Anonymous 8

Why should we chose to allow the OPEC consortium to dictate future US policy, and maintain a stranglehold on our economy? The fuel crisis of the late 70's should not be so quickly forgotten. Only the short sighted fail to see the looming threat, when OPEC has driven out marginal suppliers, and raised its price to recoup its lost profits. We have a chance to avoid this future and move toward self-sufficiency [EPA-HQ-OAR-2016-0004-2405-A1 p.1]

Bell, Megan

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.131.]

We want energy security for future generations, and the ethanol industry is a key solution to that objective

Birr, Adam

it has provided energy security as was originally intended. [EPA-HQ-OAR-2016-0004-3146-A1 p.2]

Bricks, Wayne

Ethanol helps reduce our dependence upon foreign oil by providing a domestically-produced fuel source [EPA-HQ-OAR-2016-0004-1613-A1 p.1]

Couser Cattle Company

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.50]

we built these ethanol plants, and we became energy independent or we came on the way to energy independent.

Dickman, Ben

Every gallon of clean-burning ethanol decreases our dependence on oil [EPA-HQ-OAR-2016-0004-0533 p.1]

Hay, Steve

Ethanol is an important way to decrease our dependence on foreign oil and decrease greenhouse emissions [EPA-HQ-OAR-2016-0004-1618-A1 p.1]

Indiana Corn Growers Association

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. [EPA-HQ-OAR-2016-0004-1786-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. [EPA-HQ-OAR-2016-0004-1786-A1 p.1]

Iowa Farm Bureau Federation (IFBF)

Reducing the RFS will increase America's use of petroleum and cause a net harm to the environment. [EPA-HQ-OAR-2016-0004-1653-A1 p.1]

the proposed reduction of the RFS will slow advances made in producing more domestic energy. [EPA-HQ-OAR-2016-0004-1653-A1 p.1]

Jung, Jerry

We have gained more energy independence through new oil drilling techniques, than the false market created for corn through the renewable fuel standard (RFS). [EPA-HQ-OAR-2016-0004-1833-A1 p.1]

Lakeview Energy

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.180]

continue with the RFS and give rural America a chance to do what we set out to do, and that was create independence from foreign oil

Liebrecht Manufacturing

If these volumes are not increased, it will simply continue our dangerous dependence on foreign oil and ensure that dirty fossil fuels continue to pollute our environment. [EPA-HQ-OAR-2016-0004-2756-A1 p.1]

Lippold Strategies, LLC

The Proposed Rule Fails to Assess Current National Security Benefits [EPA-HQ-OAR-2016-0004-1739-A1 p.2]

EPA has failed to provide any specific or credible analysis to confirm or validate the current security case for the continued existence of the RFS. The EPA's omission not only applies to energy security but also to the national security benefits accrued by the Proposed Rule. [EPA-HQ-OAR-2016-0004-1739-A1 p.2]

the U.S. should carefully consider whether the RFS should continue to be hailed as a keystone American energy policy. While the RFS had good intentions at its inception, with the current energy production status in the U.S., serious consideration to terminate the program must be considered if it no longer confers the intended national security benefits to the American consumers or our economy. [EPA-HQ-OAR-2016-0004-1739-A1 p.2]

The Proposed Rule Harms Domestic Refining [EPA-HQ-OAR-2016-0004-1739-A1 p.3]

The Proposed Rule Increases Risks to the Military

By helping to "offset" the higher cost of renewable fuels compared to conventional fuels, the RFS drives the military to adopt ever increasing volumes of renewable fuels to the detriment of national security. [EPA-HQ-OAR-2016-0004-1739-A1 p.6]

Mass Comment Campaign sponsored by Absolute Energy (Paper) - (60)

I am proud to have a job that helps contribute to America's energy and national security. [EPA-HQ-OAR-2016-0004-1359-A1 p.1]

Mass Comment Campaign sponsored by Absolute Energy LLC (Paper) - (196)

I am proud to invest in technologies that further America's national and energy security goals. [EPA-HQ-OAR-2016-0004-1361-A1 p.1]

The renewable fuel production at my plant saves consumer's 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 my community that cannot be outsourced. [EPA-HQ-OAR-2016-0004-1361-A1 p.1]

Mass Comment Campaign sponsored by American Ethanol (Paper) - (22)

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-2016-0004-3348-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 10 (email) - (771)

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. [EPA-HQ-OAR-2016-0004-1166-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 14 (email) - (406)

The RFS has improved the economic well-being of my community and my state. [EPA-HQ-OAR-2016-0004-1171-A1 p.1]

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-2016-0004-1171-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 16 (paper) - (34)

The RFS has improved the economic well-being of the nation. [EPA-HQ-OAR-2016-0004-1360-A1 p.1]

- Ethanol production accounts for nearly 400,000 American jobs that cannot be outsourced, saves consumers money at the pump and reduces our dependence on foreign oil. [EPA-HQ-OAR-2016-0004-1360-A1 p.1]

- 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-2016-0004-1360-A1 p.1]

Every gallon of clean-burning ethanol decreases our dependence on oil — one truckload of American ethanol displaces more than 5000 gallons of gasoline made from crude oil. We have cut our imports by more than half since the RFS was enacted. We must incentivize and encourage this innovation, not disrupt it. [EPA-HQ-OAR-2016-0004-1360-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 7 (Web) - (47)

and every truckload of American ethanol displaces more than 60 barrels of imported oil. [EPA-HQ-OAR-2016-0004-0399 p.1]

Mass Comment Campaign sponsored by Denco II (investors) (Paper) - (12)

I am proud to invest in technologies that further America's national and energy security goals. [EPA-HQ-OAR-2016-0004-1967-A1 p.1]

Mass Comment Campaign sponsored by Growth Energy (Paper) - (110)

We need to maintain the policy's ambitious goals so we can reduce our dangerous dependence on foreign oil and put an end to shipping billions of dollars overseas. Now is the time to invest in American energy security. [EPA-HQ-OAR-2016-0004-1501-A1 p.1]

The RFS and biofuels have created jobs that cannot be outsourced, revitalized rural America, and reduced our dependence of foreign oil. [EPA-HQ-OAR-2016-0004-1501-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-2016-0004-1501-A1 p.1]

Mass Comment Campaign Sponsored by Novozymes (web) - (8)

Reduce U.S. consumption of imported, expensive, polluting, non-renewable fuel: In 2015, the U.S. consumed an average of 19 million barrels of oil per day. Almost 1/3 of the oil we consume is still imported from other countries. We are at the lowest level since 1985, thanks in part to the RFS, but are still reliant on foreign sources. In addition, people are driving more, not less. In May 2016, the Energy Information Administration (EIA) found that motor gasoline consumption increased in 2015 to its 9.2 million barrels per day, just shy of the all-time high of 9.3 million barrels per day in 2007 when the RFS was expanded. In this report, EIA went a step further, predicting that 2016 gasoline consumption would surpass 2007 levels, reaching the

highest annual average gasoline consumption on record. [EPA-HQ-OAR-2016-0004-0717-A1 p.2]

Mass Comment Campaign sponsored by Plymouth Energy (paper) - (83)

I am proud to have a job that helps contribute to America's energy and national security. [EPA-HQ-OAR-2016-0004-1704-A1 p.1]

Mass Comment Campaign sponsored by POET Biorefining 6 (Paper) - (60)

The ethanol industry has made great progress in replacing a large percentage of the oil we import, cleaning up our air, improving market prices for farmers and creating jobs that can't be exported. This hasn't been cheap to do. [EPA-HQ-OAR-2016-0004-2428-A1 p.1]

Mass Comment Campaign sponsored by residents of Central Ohio (Paper) - (37)

The RFS has improved the economic well-being of my community and my state.

“ Ethanol production accounts for nearly 400,000 American jobs, saves consumers money at the pump and reduces our dangerous dependence on foreign oil and fossil fuels. [EPA-HQ-OAR-2016-0004-1971-A1 p.1]

“ 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-2016-0004-1971-A1 p.1]

Mass Comment Campaign sponsored by U.S. Veterans (email) - (51)

It is time to stop shipping billions of dollars overseas to build up nations such as Saudi Arabia and Venezuela, when we should be focusing our efforts on investing in domestic energy independence. [EPA-HQ-OAR-2016-0004-1358-A1 p.1]

Mass Comment Campaign sponsored by Vets4Energy (Web) - (3)

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-2016-0004-1707-A1 p.1]

Mobley, Kevin

Over 14 billion gallons of ethanol are being produced per year and has allowed the U.S. to become less dependent on foreign oil. [EPA-HQ-OAR-2016-0004-0186 p.1]

National Association of Wheat Growers

The RFS has...increased production of domestic renewable energy and energy security [EPA-HQ-OAR-2016-0004-2697-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-2016-0004-0020 at 6. 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 7. 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-2016-0004-2904-A2 p.103]

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. (“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-2016-0004-2904-A2 p.103]

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.’” [EPA-HQ-OAR-2016-0004-2904-A2 p.119]

National Farmers Union (NFU)

EPA should fully utilize this popular program to advance climate resilience while bolstering the domestic energy economy. [EPA-HQ-OAR-2016-0004-1651-A1 p.2]

National Latino Farmers & Ranchers Trade Association (NLFRTA)

We strongly support the Renewable Fuel Standard Program and reducing the reliance on fossil fuel. [EPA-HQ-OAR-2016-0004-2102 p.1]

National Restaurant Association

there's little evidence the RFS has delivered on its promises to help move the U.S. toward energy independence and lower fuel emissions. [EPA-HQ-OAR-2016-0004-2696-A1 p.2]

National Women involved in Farm Economics (WIFE)

There is now a reduced need for fuel as hydraulic fracturing to get oil helps lessen the need to import foreign oil plus current lower fuel prices, less traveling, and cars that use less gas. [EPA-HQ-OAR-2016-0004-2540 p.2]

Novozymes

Reducing U.S. consumption of imported, expensive, polluting, non-renewable fuel

In 2015, the U.S. consumed an average of 19 million barrels of oil per day. Almost a third of that oil is still imported from other countries. We are at the lowest level since 1985, thanks in part to the RFS, but are still reliant on foreign sources. [EPA-HQ-OAR-2016-0004-1734-A1 p.4]

Parrent, Kenneth

accomplishes the goals set forth when the Renewable Fuel Standard was created—reduced reliance on foreign oil imports [EPA-HQ-OAR-2016-0004-0243-A1 p.1]

Platt, Paul

As the US is, and will be for some decades, the largest producer of oil and gas in the world, well ahead of Russia and Saudi Arabia, any EISA mandated ethanol production is hardly needed for energy security reasons. [EPA-HQ-OAR-2016-0004-3003-A1 p.1]

Prairie Feed & Trucking, LLC

There is no doubt that ethanol provides America with a more secure energy future and contributes significantly to environmental improvement. [EPA-HQ-OAR-2016-0004-1643-A1 p.1]

Schnell, Rolland

I believe that the level of ethanol production is directly related to our dependency on foreign oil, the less biofuel we use, the more dependent on foreign oil we become. [EPA-HQ-OAR-2016-0004-2214-A1 p.1]

Show Me Ethanol

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.176]

good with regards to helping the United States gain independence from foreign oil.

Small Refinery Owners Ad Hoc Coalition

Imports from places like Argentina, Singapore and South Korea ballooned to a record 538 million gallons last year from just 7 million in 2009, while the U.S. has idled half of its 3 billion gallons of production capacity, industry data show. Foreign suppliers are accelerating shipments this year and next, capitalizing on new incentives and an expanded federal mandate for usage, as well as tougher emission rules in California, the most-populous state. [EPA-HQ-OAR-2016-0004-2364-A1 p.32]

“We’re being squeezed out by these foreign imports,” said Wayne Presby, a managing principle at White Mountain Biodiesel LLC, which runs a plant in North Haverhill, New Hampshire, capable of producing 3 million gallons a year from waste cooking oil. It’s operating at 71 percent of capacity. “It’s really sort of a strange situation,” he said. “The whole point of the Renewable Fuel Standard was to improve national security by not relying on foreign fuel sources.” [EPA-HQ-OAR-2016-0004-2364-A1 p.32-33]

South Dakota Corn Growers Association

The RFS has played a vital role in the...reductions of greenhouse gas and a reduced dependence on petroleum imports. [EPA-HQ-OAR-2016-0004-2132 p.2]

Village Hardware, Inc.

As America moves away from it’s foreign oil dependency Ethenol becomes even more important in the fight to break our nations addiction to foreign oil. In the process of reducing our addiction we are having a positive effect on our air quality and environment. [EPA-HQ-OAR-2016-0004-2761-A1 p.1]

VoteVets

As veterans, military families and VoteVets supporters, we know the cost of America's dependence on foreign oil. We cannot afford to become complacent about shielding our country against the next spike in oil prices or crisis in the Middle East. [EPA-HQ-OAR-2016-0004-2685 p.1]

Wesley K Clark & Associates, LLC

Over the 45 years since America has been a net oil importer we have fought three wars attributable to our oil-dependence, lost over 7,000 American service members, and spent more than \$2 trillion on forces, ammunition, and post-conflict medical treatment.; all of this driven by our dependence on imported oil [EPA-HQ-OAR-2016-0004-3508-A1 p.1]

it has worked...reducing substantially the scale of American oil imports [EPA-HQ-OAR-2016-0004-3508-A1 p.1]

Response:

Numerous commenters lauded the energy security benefits associated with the RFS program and the renewable fuels increases required with this rule. Alternatively, other commenters argued that the energy security benefits of this rule are quite limited, or even detrimental to the extent that the rule causes a reduction in U.S. refining capacity. One commenter cited the U.S. as currently being less reliant on imported oil given increases in domestic production of liquid fuels. Less imported oil reduces the need for increases in renewable fuels as a result of the RFS from an energy security standpoint, according to the commenter. EPA believes that the production of renewable fuels 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 renewable fuels that displace petroleum are less likely to be subject to periodic supply disruptions or “oil shocks.” Additional details on the energy security benefits associated with the full implemented of the RFS program are included in the March 2010 final rulemaking. This final rule increases the advanced and total renewable fuel standards for 2017 and the biomass-based diesel standard for 2018. By increasing the amount of renewable fuels, this final rule improves the energy security position of the U.S.

A number of commenters suggested that EPA should set the RFS standards at the statutory volumes to further improve the U.S.’s energy security position. The same stakeholders warn that reductions from RFS statutory volumes will lower the U.S.’s energy security position. These comments failed to acknowledge that the proposed RFS volumes represented (and the final RFS volumes represent) considerable increases in renewable fuel volumes above previous levels, not decreases. Since EPA does not consider the statutory volumes of cellulosic biofuel, advanced biofuel and total renewable fuel to be attainable, we do not believe it is appropriate to attribute any perceived negative impact on the U.S.’s energy security position associated with levels of renewable fuel production below the statutory volumes to EPA’s decisions.

3.1.3 Impacts of standards on retail fuel prices

Comment:**ABATE of Pennsylvania**

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-2016-0004-2200-A1 p.2]

Advanced Biofuels Business Council (ABBC)

Renewable fuels reduce gas prices in two ways: (1) the predominant fuel used to date to meet the RFS is ethanol, which has been \$.60 to \$1.00 cheaper per gallon than wholesale gasoline for the bulk of the time that the RFS has been in place; and, (2) by adding supply to very tight oil

markets, which reduces the impact of both perceived and real disruptions to supply and curtails speculative engagement by the markets. [EPA-HQ-OAR-2016-0004-1733-A1 p.32]

There are numerous other examples of detailed analysis of the effect of RIN prices on gas prices:

- Irwin & Good of the University of Illinois examined 2012-2013 prices for CBOB, ethanol and D6 RINs to determine the impact of rising RIN prices on retail gasoline prices. They found that “the basic zero sum nature of relationships in the supply chain and recent price trends for CBOB blendstock and ethanol suggests that the impact, if any, has likely been small, at most a few cents.” [EPA-HQ-OAR-2016-0004-1733-A1 p.38]
- In a May 2015 update to a 2014 study, Informa Economics (Attachment 4) concluded that, “Changes in prices of renewable identification numbers (RINs) did not cause changes in retail gasoline prices from 2013 through the first quarter of 2015.” [EPA-HQ-OAR-2016-0004-1733-A1 p.38]
- Analysis by economists at Iowa State University found that “the most likely outcome from increasing ethanol mandates is a drop in pump prices, not an increase.” Further, they concluded, “Many in the oil industry have used the specter of higher pump prices to argue against increased mandates. ... These findings show that concern about the consumer price of fuel do not justify a reduction in feasible ethanol mandates.” [EPA-HQ-OAR-2016-0004-1733-A1 p.39]
- Retired Yale and Calgary professor Philip Verleger conducted an economic study that concluded the “RIN price impact on retail prices is small and transient.” He found that competition in the gasoline supply chain tends to diminish any price increases when refiners or blenders tried to embed the RIN price into E10 prices. [EPA-HQ-OAR-2016-0004-1733-A1 p.39]
- EIA confirmed the absence of any connection between RIN prices and retail gasoline prices, stating: “To date, there is no evidence that retail gasoline prices have been affected by high RIN prices. While the cost of refined gasoline blendstock can be affected by high RIN prices, the increased cost to gasoline blenders is almost exactly offset in 2013 by their increased revenue generated from the sales of RINs separated when they blend ethanol into gasoline.” [EPA-HQ-OAR-2016-0004-1733-A1 p.39]
- A former member of President Obama’s Council of Economic Advisers, who took part in the interagency review of the original 2014 RVO proposal, recently found that “...the price of E10 does not vary with RIN prices...” and that RIN prices actually serve to “...decreas[e] the price of fuels with high renewable content (like E85).” [EPA-HQ-OAR-2016-0004-1733-A1 p.39]

American Highway Users Alliance

Second, if EPA proceeds with mandates that breach the blend wall, we expect that the cost impact to highway users will represent a significant hidden tax on the purchase of both gasoline and diesel fuels. The use of tradable RIN credits, could artificially spike the price of fuels. This hidden tax is not well understood by consumers. We do not believe that Congress intended to create a hidden tax on fuel when it authorized the RFS program. [EPA-HQ-OAR-2016-0004-1810-A1 p.2]

American Fuel and Petrochemical Manufacturers (AFPM)

Biomass-Based Diesel for 2018

EPA should understand that biodiesel is significantly more expensive than petroleum diesel. EIA has recently documented this difference in Congressional testimony. See EIA's Figure 4: [EPA-HQ-OAR-2016-0004-1814-A1 p.35]

[Figure 4 can be found in on p.36 of this docket]

EIA concludes that biodiesel is significantly more expensive than petroleum-based diesel:

In its November 2015 final RFS rule, EPA set the renewable volume obligation for biomass-based diesel (biodiesel plus renewable diesel) at 1.9 billion gallons for 2016 and 2 billion gallons for 2017; this volume obligation is calculated in biodiesel gallon equivalents rather than ethanol gallon equivalents. As shown in Figure 4 [above], biodiesel is significantly more costly than petroleum-based diesel under recent market conditions. Between August 2015 and January 2016, the difference between the Gulf Coast spot market prices of biodiesel and petroleum-based diesel averaged \$1.25 per gallon. Despite this, a combination of biodiesel tax credits (BTC) and the implementation of the RFS itself enable the blending of the biodiesel volumes required by the RFS program. The most common raw material for biodiesel production in the U.S. is soybean oil. Soybean oil prices, along with costs of other inputs required and the value of byproducts from the biodiesel production process, can be used to estimate the cost of soy-based biodiesel production. [EPA-HQ-OAR-2016-0004-1814-A1 p.37]

American Petroleum Institute (API)

Impacts of renewable on cost to consumers: The Deputy Administrator of the EIA testified to congress that "biodiesel is significantly more costly than petroleum-based diesel under recent market conditions. Between August 2015 and January 2016, the difference between the Gulf Coast spot market prices of biodiesel and petroleum-based diesel averaged \$1.25 per gallon." EPA's own analysis as part of this rule-making concludes that fuel costs will increase as a result of the RFS. However, the EPA analysis is likely an underestimate of actual costs to the broader economy because EPA only focuses on the wholesale level. By EPA's own approach to inadequate domestic supply in using its waiver authority, this is an insufficient analysis because it does not measure the costs of actual renewable fuel consumption. [EPA-HQ-OAR-2016-0004-3512-A2 p.36-37]

Vehicle constraints and consumer preference

The relative pricing of B20 versus petroleum diesel also may continue to limit consumer acceptance of biodiesel and renewable diesel blends greater than B5. The chart below shows that, on an energy equivalent basis, the price of B99/B100 has historically always been higher than petroleum diesel. Consequently, the price of B20 also has generally been higher than petroleum diesel, albeit less so because of the use of biodiesel as a blendstock. [EPA-HQ-OAR-2016-0004-3512-A2 p.40]

While the price difference has been small on a percentage basis, it is important to note that the vast majority of the consumers of highway diesel fuel are commercial truck owners/operators for whom fuel costs are a significant component of overall operating costs. [EPA-HQ-OAR-2016-0004-3512-A2 p.41]

Anonymous 1

Reducing the RFS will punish consumers with higher gasoline prices. According to Fuels America, the RFS has saved consumers an average of \$1 per gallon on fuel [EPA-HQ-OAR-2016-0004-0531 p.1]

Anonymous 11

Advancing the Ethanol blend to a level of 15% will further the parasitic financial draw of lowered fuel economy. [EPA-HQ-OAR-2016-0004-0697 p.1]

Associated General Contractors of North Dakota

These higher ethanol blends, such as E15 and E85 could lead to negative economic consequences. [EPA-HQ-OAR-2016-0004-1754-A1 p.1]

The proposed mandate will result in higher costs to operate as the new fuel blend is unsuitable for many of the vehicles we use. [EPA-HQ-OAR-2016-0004-1754-A1 p.1]

the displacement of gasoline in the market has a negative effect on fuel tax revenues which fund our roads and highways. [EPA-HQ-OAR-2016-0004-1754-A1 p.1]

Bricks, Wayne

- Ethanol helps reduce gas prices when it's blended into our gasoline [EPA-HQ-OAR-2016-0004-1613-A1 p.1]

Carbon Green BioEnergy

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.178]

By cutting the volumes of ethanol and other biofuels, the EPA is ensuring higher prices at the pump for American consumers.

Carpenter, Judith

By cutting the Renewable Fuels Standard and reducing the volume of corn ethanol in our fuel supply by 200 million gallons you are contributing to a tougher rural economy and higher gas prices for consumers. [EPA-HQ-OAR-2016-0004-3283-A1 p.1]

CMB Performance Horses

a Congressional Budget Office study found that if the standards are implemented, it could breach the ethanol "blend wall," and increase the price of gasoline by up to 26 cents per gallon. [EPA-HQ-OAR-2016-0004-1631-A1 p.1]

Davis, James

By ignoring the blend wall of E10, we could see an additional 26 cents per gallon in gas prices. [EPA-HQ-OAR-2016-0004-2166-A1 p.1]

Delta Township

A Congressional Budget Office study found that breaching the ethanol "blend wall" (the point where required ethanol in the fuel supply exceeds the safe level of 10 percent) could boost the price of gasoline by up to 26 cents per gallon. [EPA-HQ-OAR-2016-0004-1685-A1 p.1]

Dickman, Ben

Ethanol is the cheapest octane available to the consumer and limiting its availability to the consumer is costing us every time we fill up. [EPA-HQ-OAR-2016-0004-0533 p.1]

Florida Petroleum Marketers and Convenience Store Association (FPMA)

consumers would see an additional cost increase in fuel by up to 26 cents per gallon with these suggested RFS requirements in a market that is currently unbalanced. [EPA-HQ-OAR-2016-0004-0472-A1 p.1]

Florida State Hispanic Chamber of Commerce

A congressional budget office study found that breaching the ethanol "blend wall" could boost the price of gasoline by up to 26 cents per gallon. [EPA-HQ-OAR-2016-0004-0247-A1 p.1]

Florida Transportation Builders' Association, Inc. (FTBA)

If RFS mandates are allowed to continue, Americans could face higher taxes and gasoline prices. [EPA-HQ-OAR-2016-0004-1640-A1 p.1]

Greenwood Christian Church

Higher costs to consumers.

.. A Congressional Budget Office study found that breaching the ethanol "blend wall" (the point where required ethanol in the fuel supply exceeds the safe level of 10 percent) could boost the price of gasoline by up to 26 cents per gallon. [EPA-HQ-OAR-2016-0004-1719-A1 p.1]

Independent Fuel Terminal Operators Association (IFTOA)

VI. Biomass-Based Diesel/Advanced Biofuel Mandates

EPA should recognize that a high mandate, in a market with possible lower than expected production and imports, would raise the price of biodiesel RINs. In turn, increased RIN prices would raise the cost of fuel for commercial and industrial entities. [EPA-HQ-OAR-2016-0004-1823-A1 p.5]

Indiana Manufactured Housing Association (IMHA) and Recreation Vehicle Indiana Council, Inc. (RVIC)

Another concern is the higher cost to consumers. A Congressional Budget Office study found that breaching the ethanol "blend wall" of 10% ethanol could boost the price of gasoline by up to 26 cents per gallon. This would be detrimental to our nations RV industry as the cost of fuel is indeed a factor in a decision to purchase an RV. [EPA-HQ-OAR-2016-0004-1673-A1 p.1]

I truly believe the best solution is for Congress to fix the RFS through legislation, but until that happens, I respectfully request that the EPA lower the renewable fuel blending requirements and set the final ethanol mandate sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-1673-A1 p.1]

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 have risen 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-2016-0004-1726-A1 p.4]

Jung, Jerry

Lower price per gallon for E-15 and E-85 at the pump confuses consumers because ethanol contains less energy than regular gasoline.⁸ As a result more gallons are required to travel the same distance as the more common E-10 mix. Ultimately, this is another fuel cost that hits consumers in the pocketbook. [EPA-HQ-OAR-2016-0004-1833-A1 p.2-3]

⁸ <http://www.eia.gov/tools/faqs/faq.cfm?id=27&t=4>

Kansas Ethanol

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.158-159]

Consumers also benefit greatly from the RFS since it provides market access to biofuels that are cheaper and better for the environment. At the pump, consumers save at least 25 cents per gallon when filling with E10 and could save an additional 5 to 10 cents per gallon with greater availability of E15 once the RVP 1-pound waiver is granted.

LS Commercial Real Estate

Critical to our tenant base is affordable and accessible fuel sources - predominately diesel fuel. Our ever growing e-commerce economy could be stifled with increases in fuel costs driven by a change in the RFS causing an increase in diesel prices. All around our country, companies use transportation and logistics services to reach multiple plants and customers in a day, access far-off markets, and increase efficiency and global competitiveness. If an increase were to occur it would have a direct and negative impact on our tenant serving as fulfillment centers and correspondingly drive up costs to the consumer through increases in package delivery costs. [EPA-HQ-OAR-2016-0004-0202-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 28 (paper) - (5)

The Renewable Fuel Standard (RFS) has positively impacted the country by:

- Reducing fuel prices overall [EPA-HQ-OAR-2016-0004-2408-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 29 (paper) - (67)

The expense comes in the form of higher gasoline prices [EPA-HQ-OAR-2016-0004-2604-A1 p.1]

Mass Comment Campaign sponsored by Energy Citizens (Paper) - (37,706)

By ignoring the blend wall of E10, we could see an additional 26 cents per gallon in gas prices. This estimate comes from the nonpartisan Congressional Budget Office. [EPA-HQ-OAR-2016-0004-1966-A1 p.1]

Mass Comment Campaign sponsored by National Corn Growers Association 5 (Web) - (11,047)

As result of the RFS, ethanol is now blended in 97 percent of our gas supply and has helped to reduce gasoline prices by as much as \$.50 to \$1.50 a gallon. [EPA-HQ-OAR-2016-0004-2888-A2 p.1]

Mass Comment Campaign sponsored by North Dakota Energy Forum (Paper) - (41)

Additionally, the Congressional Budget Office projects that the price of gasoline could go up as high as 26 cents if the ethanol blend wall is breached. [EPA-HQ-OAR-2016-0004-1789-A1 p.1]

**Mass Comment Campaign sponsored by Southwest Iowa Renewable Energy LLC (SIRE)
(paper) - (27)**

Low fuel prices have spurred increased driving habits and record fuel demand. We have been experiencing record sales of E15 and E85 so please do not ignore current market conditions and the reality that motorists are embracing and demanding higher ethanol blends. [EPA-HQ-OAR-2016-0004-1703-A1 p.1]

Michelle Toohey Enterprises

Neither Alaska companies doing business outside our state, nor businesses in the lower 48 that depend on both the stability and the cost of the nation's fuel supply to do business can afford an arbitrary fuel standard that is both unachievable and unnecessary. [EPA-HQ-OAR-2016-0004-2355 p.2-3]

Mobley, Kevin

ethanol has contributed to lower prices at the pump [EPA-HQ-OAR-2016-0004-0186 p.1]

National Women involved in Farm Economics (WIFE)

The addition of ethanol has helped reduce the price of gas per gallon. [EPA-HQ-OAR-2016-0004-2540 p.1]

Near, Cheryl Worth

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.72]

With higher ethanol blends, you're getting higher octane for less money.

New Mexico Federal Lands Council

Fuel blended with ethanol contains 33 percent less energy than regular gasoline, causing lower fuel economy and increased fuel costs for consumers. [EPA-HQ-OAR-2016-0004-1682-A1 p.1-2]

Ohio Council of Retail Merchants

Initially, the RFS policy was intended to decrease costs and increase clean fuel production, but a congressional budget office study found that breaching the ethanol "blend wall" could boost the price of gasoline by up to 26 cents per gallon. [EPA-HQ-OAR-2016-0004-2893 p.2]

Ohio Grocers Association

The RFS policy was originally intended to decrease costs and increase clean fuel production, but a congressional budget office study found that breaching the ethanol "blend wall" could boost the price of gasoline by up to 26 cents per gallon. [EPA-HQ-OAR-2016-0004-2079 p.1]

Ohio Licensed Beverage Association

A Congressional Budget Office study found that breaching the ethanol "blend wall" could boost the price of gasoline by up to 26 cents per gallon. [EPA-HQ-OAR-2016-0004-2206 p.2]

Ohio Spirits Association

A congressional budget office study found that breaching the ethanol "blend wall" could boost the price of gasoline by up to 26 cents per gallon even though originally the RFS policy was intended to decrease costs and increase clean fuel production. [EPA-HQ-OAR-2016-0004-2252 p.2]

Ohio Veterans United

It is my understanding that originally the RFS policy was intended to decrease costs and increase clean fuel production, but a congressional budget office study found that breaching the ethanol "blend wall" could boost the price of gasoline by up to 26 cents per gallon. [EPA-HQ-OAR-2016-0004-1941 p.2]

Quad County Corn Processors (QCCP), employees

Ethanol is also shown to reduce fuel prices by \$1.00 to \$1.50 per gallon for American consumers without costing the US Treasury anything. To quantify this, the consumer savings are \$140-210 billion annually. Please continue to allow consumers access to higher ethanol blends to reap the savings. [EPA-HQ-OAR-2016-0004-1323-A2 p.2]

Scott, Dean

The EPA proposal for 2017 seeking to increase ethanol concentrations above the current E 10 level will:

1. Economically burden American consumers, as reported by the Congressional Budget Office, which estimates that fuels with blends exceeding E 10 will cost upwards of 26 cents more per gallon. [EPA-HQ-OAR-2016-0004-3460-A1 p.1]

Show Me Ethanol

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.176-177]

It helps reduce gas prices by anywhere from 50 cents to \$1.50 a gallon. By cutting the volumes of ethanol and other biofuels, the EPA is ensuring higher prices at the pump

Society of Independent Gasoline Marketers of America (SIGMA) & National Association of Convenience Stores (NACS)

Hitting the blend wall would lead to a significant increase in the price of fuel and would inflict substantial harm on the United States' economy. This damage would be caused by a shortage of Renewable Identification Numbers ("RINs") [EPA-HQ-OAR-2016-0004-1808-A1 p.7]

South Carolina African American Chamber of Commerce

Published CBO studies have documented that if ethanol levels are pushed past the "blend wall" the price of gas could rise .26 per gallon. These cost increases disproportionately impact many of our minority owned businesses in transportation and maintenance sectors. [EPA-HQ-OAR-2016-0004-1711-A1 p.1]

Southeastern Meat Association

Fuel blended with ethanol has less energy content than regular gasoline, causing lower fuel economy and increased fuel costs for consumers. [EPA-HQ-OAR-2016-0004-0475-A1 p.1]

Spears, James J.

Just how much does that 10% Ethanol in your gasoline actually costs? The same as the 90% of gasoline produced from petroleum you say? Well, that's not exactly true! The real cost is much more. How can that be you ask? Here is how:

Price of gasoline at the pump: \$2.19

Government (Taxpayer) direct subsidy: 0.51

Sub-total: \$2.70

Adjustment for Lower Combustion Value: \$1.35 (Note 1) Actual cost per gallon: \$4.05 an 85% increase.

Note 1: Upon combustion ethanol produces only 2/3 as much energy as gasoline derived from petroleum. Consequently 1 gallon of petroleum based gasoline will propel an automobile as far as 1.5 gallons of ethanol. [EPA-HQ-OAR-2016-0004-2675-A1 p.1]

State of West Virginia, Office of State Treasurer

A Congressional Budget Office study found that breaching the ethanol blend wall could boost the price of gasoline by up to 26 cents per gallon. [EPA-HQ-OAR-2016-0004-1752-A1 p.1]

I request that the EPA lower the renewable fuel blending requirements and to set the final ethanol mandate sufficiently below 10 percent. [EPA-HQ-OAR-2016-0004-1752-A1 p.1]

Vets4Energy

In addition to these disastrous environmental results, the Renewable Fuel Standard also poses a threat to the livelihood of the average consumer. Studies have shown that exceeding the ethanol "blend wall" of 10 percent could boost the price of gasoline by up to 26 cents per gallon. [EPA-HQ-OAR-2016-0004-1837-A1 p.1]

Wesley K Clark & Associates, LLC

Ethanol is now blended in 97 percent of our gas supply and keeps the price at the pump low. [EPA-HQ-OAR-2016-0004-3508-A1 p.1]

Wisconsin Corn Growers Association

Ethanol helps reduce gasoline prices by at least 10%. [EPA-HQ-OAR-2016-0004-1637-A1 p.1]

Response:

Some commenters requested that EPA lower the mandated ethanol blend rate, or set the standards in such a way as to not require the use of E15 or E85 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.

The cost of renewable fuels to consumers varies over time with market conditions and involves many different factors, making it difficult to quantify. For the final rulemaking we have performed an illustrative cost analysis to provide some context for understanding the cost of the RFS standards (See Section V.D of the preamble for a discussion of the illustrative costs of the 2017 RFS standards).

Many commenters provided their own assessments that ethanol, biodiesel, and/or other renewable fuels were decreasing the prices of transportation fuels. Some commenters stated that because ethanol is cheaper than gasoline on a per gallon basis increasing ethanol use will reduce the retail fuel price of E10. Some commenters noted that ethanol is a high octane fuel, and that ethanol adds additional value to fuel blends by increasing the octane of these fuel blends. Still other commenters claimed that renewable fuels have resulted in lower retail fuel prices by increasing the supply of transportation fuel globally, and thus reducing the price of crude oil and petroleum derived transportation fuels.

Many other commenters provided their assessments that ethanol, biodiesel, and/or renewable fuels in general were increasing the cost of transportation fuels. Some noted that renewable fuels are often costlier than petroleum based fuels. Others highlighted the tax incentives they receive and the lower energy content of the fuels which hide the true cost of the fuel to consumers.

EPA acknowledges that these are all factors that contribute to an assessment of the cost of renewable fuels in comparison to that to the petroleum fuels they displace and their impact on retail prices. The costs vary over time as crude oil and agricultural commodity prices change. The costs vary depending on the renewable fuel blend ratios (e.g., the octane value of ethanol is more valuable when blended as E10 than as E85). The impacts on prices will also change depending on the global energy supply situation. The RFS standards can reduce fuel prices by increasing world energy supply. However, we do not believe that the total volume of renewable fuel required by the standards we are finalizing in this rule will have a significant impact on the global price of crude oil or petroleum derived transportation fuel. We note that the total renewable fuel requirement in this final rule (19.29 billion gallons) is approximately 1% of the global consumption of petroleum and other liquids projected by EIA in 2017 and the increase in total renewable fuel volumes from 2016 to 2017 of 1.2 billion gallons just a small fraction of global supply of transportation fuel.³⁹

We also acknowledge that the true cost of the renewable fuels to consumers is not necessarily reflected in the retail price due to factors such as the energy content, federal and state tax incentives, and the value of the RIN. These all lower the apparent price to consumers or renewable fuel blends relative to fuels that do not contain renewable fuels despite the fact that the renewable fuels may cost still be costing consumers more overall. Conversely, various taxes can increase the retail price of fuels to differing degrees, depending on the type of fuel. Ultimately, the goal of the RFS program is to offset the economic and other barriers to the growth in the use of renewable fuels to allow them to continue to be used to reduce the GHG emissions associated with transportation fuels and enhance energy security. The RIN is the mechanism in the marketplace by which the RFS is able to accomplish this. The RIN can be used in the market to reduce the apparent price of renewable fuels and renewable fuel blends while still imposing an overall cost on transportation fuel (cost shift from renewable fuel to petroleum derived fuels).

EPA is not decreasing the required volume of renewable fuel in this final rule, as some commenters have claimed, but rather increasing the required volume of renewable fuel by approximately 1.2 billion gallons from 2016 to 2017. We do not believe that higher RFS standards than we are finalizing in this rule, such as the statutory volumes for 2017, would likely result in significantly higher volumes of ethanol being blended into transportation fuel in the United States. We also do not believe that our standards are limiting the availability of ethanol, nor would higher standards lead to significantly lower retail gasoline prices for consumers due to increased ethanol blending. See Section V.B.1 of the preamble for a further discussion on EPA's assessment of volume of ethanol that can be consumed in the United States in 2017.

³⁹ EIA's International Energy Outlook 2016 projects the use of 195.4 quadrillion BTU of liquid fuels in the transportation sector in 2017. Using a conversion factor of 5.5 million BTU per barrel of liquid transportation fuel this is approximately equal to 35.5 billion barrels, or 1.49 trillion gallons of liquid fuels.

Some commenters claimed that if EPA set standards that exceeded the blendwall higher RIN prices could result, and these higher RIN prices (sometimes referred to as “taxes” by commenters) could in turn lead to higher retail fuel prices. One commenter cited several studies that concluded that higher RIN prices are not expected to result in higher gasoline fuel prices. While we generally agree with these findings for E10, we believe that the impact of higher RIN prices on retail fuel prices will likely vary depending on the level of renewable fuel content of the fuel relative to the total renewable fuel standard. For fuels such as E10, where the level of renewable fuel is approximately equal to the total renewable fuel percentage standard, we do not expect that RIN prices will significantly impact the retail price of these fuels.⁴⁰ Studies by other parties have reached similar conclusions.⁴¹ However, for fuels with lower renewable fuel content than the total renewable fuel percentage standard, such as E0 or diesel fuel (B0) we believe higher RIN prices are likely to result in higher retail fuel prices. Conversely, for fuels with higher renewable fuel content than the total renewable fuel percentage standard, such as B20 or E85, we believe that higher RIN prices would likely result in lower retail fuel prices, assuming sufficient competition at the wholesale and retail levels. Importantly, however, comparing the expected retail fuel prices under various RIN price scenarios is not the same as determining expected impact the RFS program will have on the cost of transportation fuel to consumers. This is because there are many factors, such as the energy content of renewable fuels relative to petroleum based fuels tax credits and other incentives, and the degree to which the RIN values are passed through to consumers, that must be considered when evaluating the impact that the RFS program has on the cost to of transportation fuels and cost to transport goods.

A commenter noted that many vehicles cannot use higher level ethanol blends, such as E15 or E85, and that because of this, higher RFS standards would lead to higher costs for consumers. We acknowledge that not all vehicles in the current fleet can operate on higher level ethanol blends such as E15 and E85, however we believe our final rule has appropriately considered these limitations (see Section V.B.1 of the preamble for further detail on EPA’s assessment of the ability of the current fleet to consume ethanol in 2017).

A commenter stated that by reducing the implied volume of conventional biofuel by 200 million gallons in our proposed rule EPA was harming the rural economy. In this final rule we are increasing the total renewable fuel standard by 1.2 billion gallons relative to 2016. We further are not using our general waiver authority, as we had proposed, in a way that would reduce the implied conventional biofuel volume from 15 billion gallons.

Commenters referenced a study by the Congressional Budget Office that found that if the full EISA standards are implemented (or in the words of one commenter, if EPA ignored the blendwall) gasoline prices would increase by 26 cents per gallon. We do not believe these comments are relevant to this final rule, as the required volume of total renewable fuel in 2017 is approximately 4.7 billion gallons less than the volume analyzed by the Congressional Budget

⁴⁰ "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.

⁴¹ See Knittel, Christopher R., Ben S. Meiselman, and James H. Stock. The Passthrough of RIN Prices to Wholesale and Retail Fuels Under the Renewable Fuel Standard. Working Paper 21343. NBER Working Paper Series. Available at <http://www.nber.org/papers/w21343.pdf>

Office. We also note that there is no longer a tax credit for ethanol producers, as claimed by one commenter.

Once commenter claimed that the displacement of gasoline in the market had a negative effect on fuel tax revenues. This comment is beyond the scope of this rule.

3.1.4 Cost to consumers of transportation fuel and cost to transport goods

Comment:

American Petroleum Institute (API)

Impacts of renewable on cost to consumers: The Deputy Administrator of the EIA testified to congress that “biodiesel is significantly more costly than petroleum-based diesel under recent market conditions. Between August 2015 and January 2016, the difference between the Gulf Coast spot market prices of biodiesel and petroleum-based diesel averaged \$1.25 per gallon.” EPA’s own analysis as part of this rule-making concludes that fuel costs will increase as a result of the RFS. However, the EPA analysis is likely an underestimate of actual costs to the broader economy because EPA only focuses on the wholesale level. By EPA’s own approach to inadequate domestic supply in using its waiver authority, this is an insufficient analysis because it does not measure the costs of actual renewable fuel consumption. [EPA-HQ-OAR-2016-0004-3512-A2 p.36-37]

Vehicle constraints and consumer preference

The relative pricing of B20 versus petroleum diesel also may continue to limit consumer acceptance of biodiesel and renewable diesel blends greater than B5. The chart below shows that, on an energy equivalent basis, the price of B99/B100 has historically always been higher than petroleum diesel. Consequently, the price of B20 also has generally been higher than petroleum diesel, albeit less so because of the use of biodiesel as a blendstock. [EPA-HQ-OAR-2016-0004-3512-A2 p.40]

While the price difference has been small on a percentage basis, it is important to note that the vast majority of the consumers of highway diesel fuel are commercial truck owners/operators for whom fuel costs are a significant component of overall operating costs. [EPA-HQ-OAR-2016-0004-3512-A2 p.41]

Association of Equipment Manufacturers (AEM)

Given that, on average, ethanol is cheaper to produce than gasoline, EPA's proposed rule to increase gasoline consumption will create upward pressure on the price consumers pay at the pump. [EPA-HQ-OAR-2016-0004-0723-A1 p.4]

Belluardo, John

Corrosive ethanol on the other hand cannot use the existing transport infrastructure and must be transported in small inefficient quantities by diesel burning tankers to the end distribution point for final blending before delivery to local stations. [EPA-HQ-OAR-2016-0004-2571-A1 p.1]

Florida Retail Federation (FRF)

the 2017 plan would exacerbate the problems with these requirements and further increase transportation costs and the costs of goods. [EPA-HQ-OAR-2016-0004-0478-A1 p.1]

Florida Transportation Builders' Association, Inc. (FTBA)

The RFS must remain well under E 1 0 to ensure that the transportation industry and consumers do not face increased costs. [EPA-HQ-OAR-2016-0004-1640-A1 p.2]

Florida State Hispanic Chamber of Commerce

Implementing the RFS Program standards for 2017 would result in higher costs to consumers, vehicle engine damage, voided vehicle warranties, further damage to the environment and a major overhaul on underground gas tanks here in the state. [EPA-HQ-OAR-2016-0004-0247-A1 p.1]

Florida Trucking Association (FTA)

Increased fuel costs incurred by the trucking industry due to the inefficiency of ethanol blended fuels trickles down to businesses and their consumers [EPA-HQ-OAR-2016-0004-0479-A1 p.1]

Independent Fuel Terminal Operators Association (IFTOA)

Implementation of the RFS proposed standards for 2017 will increase the risk of higher cost/prices for transportation fuels paid by consumers and for the economy as a whole. [EPA-HQ-OAR-2016-0004-1823-A1 p.2]

Indiana Manufactured Housing Association (IMHA) and Recreation Vehicle Indiana Council, Inc. (RVIC)

Based on my knowledge of vehicles, especially older vehicles that consumers use to tow our products, this proposed mandate would be highly damaging. [EPA-HQ-OAR-2016-0004-1673-A1 p.1]

The major concern is roughly 90% of vehicles now in use were not designed for E15, and manufacturers warn that using E15 could result in a voided new vehicle warranty. [EPA-HQ-OAR-2016-0004-1673-A1 p.1]

Iowa Farm Bureau Federation (IFBF)

The RFS has also been effective at creating high paying jobs and providing lower costs at the gas station. These added benefits have been a boon to rural communities across the country. [EPA-HQ-OAR-2016-0004-1653-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 13 (email) - (3333)

As an environmentally conscious consumer, I want to ensure that I have access to ethanol, and E15 specifically, and I hope EPA will protect my choice by guaranteeing those blends have access to the marketplace. [EPA-HQ-OAR-2016-0004-1169-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 17 (email) - (86)

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-2016-0004-1363-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 5 (Web) - (355)

In the long run, many consumers are paying more than they otherwise would since ethanol-blend fuels have lower fuel economy than gasoline. [EPA-HQ-OAR-2016-0004-0114 p.1]

Mass Comment Campaign sponsored by Anonymous 6 (Web) - (345)

Furthermore, because fuels with higher ethanol blends are less energy dense than pure gasoline, consumers have to burn more fuel and fill up more frequently to drive the same distance. [EPA-HQ-OAR-2016-0004-0115 p.1]

Mass Comment Campaign sponsored by Anonymous 7 (Web) - (47)

biofuels saved American consumers anywhere from \$0.50 to \$1.50 per gallon on fuel during the last surge in gasoline prices, [EPA-HQ-OAR-2016-0004-0399 p.1]

National Biodiesel Board

EPA references its “illustrative cost estimates” to contend that the cost benefits associated with biomass-based diesel would occur whether EPA increases the biomass-based diesel volume mandate or EPA allows the market to choose biomass-based diesel volumes over competing products. EPA-HQ-OAR-2016-0004-0020 at 9. In so doing, EPA again finds insufficient reason to increase the biomass-based diesel volume requirement under this factor. But, the scenarios relate to an “illustrative” cost of the program, not costs to consumers or users of fuel. [EPA-HQ-OAR-2016-0004-2904-A2 p.105]

Instead, biomass-based diesel can and does reduce the cost on consumers and the cost to transport good. It has increased competition with diesel fuel, and the RIN allows parties to sell the fuel at a lower cost to consumers, which EPA admits. *See* 81 Fed. Reg. at 34,794. A strong mandate allows these costs savings to continue to be passed onto consumers. [EPA-HQ-OAR-2016-0004-2904-A2 p.105]

National Farmers Union (NFU)

consumers receive value while engaging in climate change mitigation through the RFS. The RFS has saved consumers money at the gas pump. Implementing volume requirements that match those in the EISA would save consumers more money, and opening the transportation fuels market to competition would save consumers even more. [EPA-HQ-OAR-2016-0004-1651-A1 p.8]

Having consumers understand that they have saved money due to the RFS will make future climate-related policies more acceptable to them. [EPA-HQ-OAR-2016-0004-1651-A1 p.8]

If EPA does not implement a final rule including the statutory volume requirements, the Agency will forgo an opportunity to guard consumers from price increases at a time when prices are already high. [EPA-HQ-OAR-2016-0004-1651-A1 p.8]

Implementing volume requirements in line with the EISA presents an excellent opportunity to establish trust and dialogue that will facilitate future action on climate. [EPA-HQ-OAR-2016-0004-1651-A1 p.9]

the RFS is an important opportunity to establish trust regarding climate resilience among a population that is prone to regard federal policy with skepticism and may be vulnerable to a variety of intentionally confusing climate messages. [EPA-HQ-OAR-2016-0004-1651-A1 p.9]

In this proposed rule, EPA pays lip service to the importance of certainty while failing to take the action that would create the most certainty: consistent enactment of the volume requirements Congress set in the EISA. This action would allow farmers, renewable fuel producers, investors and the obligated parties to know what is required of them with sufficient notice to meet requirements and achieve the attendant environmental benefits with as little disruption as possible. Allowing farmers and stakeholders to detrimentally rely on the assurances of the EISA, as EPA proposes to do, will make these parties wary of engagement in increased biofuel production. [EPA-HQ-OAR-2016-0004-1651-A1 p.9]

12 Environmental and Energy Study Institute, “Research Finds Widespread Use of E15 Would Reduce CO2 Emissions.” “GREET analyses estimate that corn ethanol greenhouse gas emissions are on average 34 percent lower than those of regular gasoline.”

<http://www.eesi.org/articles/view/research-finds-widespread-use-of-e15-would-reduce-co2-emissions>

National Taxpayers Union (NTU)

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-2016-0004-1874-A1 p.2]

Over the past year, Americans have saved about \$20 billion on gasoline, almost \$200 per household. [EPA-HQ-OAR-2016-0004-1874-A1 p.2]

if the EPA proceeds along the plan outlined in the rule these savings could be eliminated. Higher prices at the pump are only one immediate source of increased costs for consumers as greater transportation costs flow throughout the economy; raising the price of food and other goods that travel long distances. [EPA-HQ-OAR-2016-0004-1874-A1 p.3]

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 a rocky economic recovery. [EPA-HQ-OAR-2016-0004-1874-A1 p.3]

Nevada Trucking Association

Putting additional burdens on our members will result in an increase in cost to the consumer- all without and credible scientific evidence that increasing the ethanol content beyond the 10% (actually 9.7%) blend wall will help the environment. [EPA-HQ-OAR-2016-0004-1639-A1 p.1]

New Mexico Cattle Growers' Association

Rising requirements and demand will increase prices and vehicle maintenance costs caused by the blended fuel. [EPA-HQ-OAR-2016-0004-1677-A1 p.1]

the RFS will also harm those who work on the distribution side of the beef industry. Ethanol in fuel contributes to soaring prices in vehicle maintenance and transportation, increasing operating costs for trucking businesses and creating a negative impact on agricultural industries that depend on the trucking industry. [EPA-HQ-OAR-2016-0004-1677-A1 p.1]

Fuel blended with ethanol contains 33 percent less energy than regular gasoline, causing lower fuel economy and increased fuel costs for consumers. [EPA-HQ-OAR-2016-0004-1677-A1 p.1-2]

New Mexico Federal Lands Council

This increases transportation costs for truckers and distributors who rely heavily on efficient shipping and delivery methods, which in turn increase the cost of doing business for agriculture industries who depend on distributors and transporters. [EPA-HQ-OAR-2016-0004-1682-A1 p.2]

This will eventually also trickle down to consumers [EPA-HQ-OAR-2016-0004-1682-A1 p.2]

New Mexico Wool Growers, Inc. (NMWGI)

Rising requirements and demand will increase prices and vehicle maintenance costs caused by the blended fuel. [EPA-HQ-OAR-2016-0004-1683-A1 p.1]

Ethanol in fuel contributes to soaring prices in vehicle maintenance and transportation, increasing operating costs for trucking businesses and creating a negative impact on agricultural industries that depend on the trucking industry. [EPA-HQ-OAR-2016-0004-1683-A1 p.2]

Fuel blended with ethanol contains 33 percent less energy than regular gasoline, causing lower fuel economy and increased fuel costs for consumers. [EPA-HQ-OAR-2016-0004-1683-A1 p.2]

Ohio Coin Machine Association

EPA's proposed mandates under the Renewable Fuel Standards will drive higher ethanol blends such as E85 and E15 into the marketplace, which will in turn increase the cost of doing business for our members and force us to pass these costs on to our customers. [EPA-HQ-OAR-2016-0004-2719 p.1]

Ohio Grocers Association

These standards will drive higher ethanol blends such as E85 and E15 into the marketplace, which will in turn increase the cost of doing business for our members and force us to pass these costs on to our customers. [EPA-HQ-OAR-2016-0004-2079 p.1]

Ohio Licensed Beverage Association

These mandates will increase the price of doing business and force us to pass those prices on to our customers who eat and drink in our establishments. [EPA-HQ-OAR-2016-0004-2206 p.2]

Ohio Spirits Association

These mandates will force ethanol blends such as E85 and E15 into the marketplace and we will be left with no choice other than passing these costs on to our customers. [EPA-HQ-OAR-2016-0004-2252 p.2]

Ohio Veterans United

These mandates will drive higher ethanol blends such as E85 and E15 into the marketplace, and will increase costs for all Americans. [EPA-HQ-OAR-2016-0004-1941 p.1]

Pennsylvania House of Representatives

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-2016-0004-1751-A1 p.2]

Pennsylvania Motorcycle Dealers Association

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-2016-0004-2868-A1 p.2]

Pennsylvania Off Highway Vehicle Association

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-2016-0004-1757-A1 p.2]

Pennsylvania State Senate, 50th District

Under the proposed standards, the public will be unfairly forced to accept the financial hardship caused by the use of ethanol products. [EPA-HQ-OAR-2016-0004-2202-A1 p.1]

Pennsylvania State Snowmobile Association (PSSA)

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-2016-0004-2869-A1 p.2]

Quad County Corn Processors (QCCP), employees

Ethanol is also shown to reduce fuel prices by \$1.00 to \$1.50 per gallon for American consumers without costing the US Treasury anything. To quantify this, the consumer savings are \$140-210 billion annually. Please continue to allow consumers access to higher ethanol blends to reap the savings. [EPA-HQ-OAR-2016-0004-1323-A2 p.2]

S2 Yachts, Inc.

The engines warranties are at risk, and product resale values are negatively impacted making the consumer bear all of the financial burden. [EPA-HQ-OAR-2016-0004-1748-A1 p.1]

Schnitker Law office, P. A.

Prices for many products have increased due to RFS. [EPA-HQ-OAR-2016-0004-1802-A1 p.1]

Response:

We believe the most appropriate way to evaluate the cost of increasing the use of renewable fuels is to compare the cost of production of the renewable fuels to the petroleum fuels they displace on an energy-equivalent basis. We have used this method in our illustrative cost estimates in Section V.D of the preamble. We acknowledge that currently renewable fuels are generally more expensive than the petroleum fuels they displace on an energy equivalent basis, and therefore increasing renewable fuel use is expected to result in an increase in the cost of transportation fuel and cost to transport goods in 2017. This is true even in situations where renewable fuel blends

have a lower retail price than petroleum fuels with little or no renewable content due to the impacts of tax credits and the RIN value. Despite the higher expected costs of renewable fuels in 2017, which are expected to lead to a higher cost of transporting goods, we believe the standards in this final rule are appropriate in light of the environmental benefits of renewable fuels and the statutory direction in EISA.

One commenter noted that ethanol is cheaper than gasoline on a volumetric basis. We acknowledge this has generally been the case in recent years, however we note that a gallon of ethanol contains approximately two-thirds the energy of a gallon of gasoline, and is therefore more expensive than gasoline on an energy-equivalent basis. More generally, EPA acknowledges that there are many factors that contribute to an assessment of the cost of renewable fuels in comparison to that of the petroleum fuels they displace. The costs vary over time as crude oil and agricultural commodity prices change. The impacts on prices will also change depending on the global energy supply situation. In theory the RFS standards can reduce fuel prices by increasing world energy supply. However, we do not believe that the total volume of renewable fuel required by the standards we are finalizing in this rule will have a significant impact on the global price of crude oil or petroleum derived transportation fuel. We note that the total renewable fuel requirement in this final rule (19.29 billion gallons) is approximately 1% of the global consumption of petroleum and other liquids projected by EIA in 2017 and the increase in total renewable fuel volumes from 2016 to 2017 of 1.2 billion gallons just a small fraction of global supply of transportation fuel.⁴²

We also note that we are not decreasing the required volume of renewable fuel in this final rule from past years, but rather increasing the required volume of renewable fuel by approximately 1.2 billion gallons from 2016 to 2017. We do not believe that higher RFS standards than we are finalizing in this rule, such as the statutory volumes for 2017, would likely result in significantly higher volumes of ethanol being blended into transportation fuel in the United States due to a variety of constraints on the volume of renewable fuel that can be produced, distributed, and used in the United States in 2017. These constraints are discussed in further detail in Section V of the preamble.

A commenter stated that ethanol cannot be transported in the existing pipeline infrastructure and instead must be transported in small quantities. It is true that ethanol is generally transported by truck, rail, or barge to terminals or other blending locations, and that these transportation methods are generally more expensive than transportation via pipeline. We do not believe, however, that these higher distribution costs for ethanol provide sufficient justification for lower standards than we are finalizing in this rule.

A commenter raised concerns that our standards would be problematic for the vehicles that are not designed to use E15. Similarly, a commenter raised concerns that higher RFS requirements would result in higher vehicle maintenance costs. While the use of E15 may cause engine damage if used in engines that are not compatible with this fuel, the standards we are finalizing in this rule would not require the use of E15 these engines. With the exception of biomass-based

⁴² EIA's International Energy Outlook 2016 projects the use of 195.4 quadrillion BTU of liquid fuels in the transportation sector in 2017. Using a conversion factor of 5.5 million BTU per barrel of liquid transportation fuel this is approximately equal to 35.5 billion barrels, or 1.49 trillion gallons of liquid fuels.

diesel, none of the RFS standards require the use of a particular fuel type (and even for biomass-based diesel, both renewable diesel and biodiesel qualify). Further, none of the illustrative volume scenarios demonstrating various ways the required volumes of renewable fuel for 2017 could be met presented in Section V.C of the preamble require or assume the use of a fuel in a vehicle of engine for which it is not approved. For example, in determining the total renewable fuel standard we are projecting that only a small number of retail stations (relative to the total number of retail stations in the United States) will offer E15, and that all these stations will continue to offer E10 for those vehicles and engines that are not compatible with E15. Furthermore, it should be highlighted that the RFS standards only mandate the use of renewable fuels, and not the use of any particular renewable fuel or blend concentrations. It is up to the marketplace to decide the degree to which it relies on the use of ethanol and any particular blends of ethanol.

A commenter requested that EPA help to ensure access to E15 for consumers that desire to purchase this fuel. We believe the standards we are finalizing in this rule provide appropriate incentives for the expansion of the number of stations offering E15 and other higher level ethanol blends and are consistent with our statutory authorities.

Commenters stated that EPA's proposed standards would drive higher ethanol blends, such as E85 and E15 into the marketplace, which would increase fuel costs. As discussed in Section V of the preamble, we expect that this will be the case but it is not a required outcome. Increasing the availability and use of renewable fuels, including higher level ethanol blends is the purpose of the RFS program. We do not believe that the anticipated higher costs of renewable fuels in 2017, discussed briefly above as well as in Section V.D of the preamble, are sufficient to justify lower required volumes of renewable fuel that are being finalized in this rule.

For comments on the expected impacts of RIN prices and/or our 2017 standards on retail fuel prices see Section 3.1.3 of the RTC.

3.1.5 Price and supply of agricultural commodities and farm income

Comment:

25x'25 Alliance

The levels proposed by EPA will have an impact on farm and rural economies by keeping down the price American farmers receive for some of their commodities to below the cost of production. [EPA-HQ-OAR-2016-0004-0473-A1 p.4]

ABATE of Pennsylvania

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-2016-0004-2200-A1 p.2]

American Council for Capital Formation (ACCF)

the study found that consumers would have saved approximately \$12.9 billion annually in lower food prices. [EPA-HQ-OAR-2016-0004-1713 p.2] [Similar comments can also be found in Docket Number EPA-HQ-OAR-2016-0004-3558, pp.200-201.]

Alle, Peter

- 40% of the US corn crop is used for ethanol. According to a recent Forbes article, this could feed 500 Million people.¹ [EPA-HQ-OAR-2016-0004-3518 p.1]
- Our insistence on using ethanol causes global disruption in food prices and has contributed to food insufficiency around the globe and has also contributed to political instability in food scarce regions of the world. The contemplated EPA mandate to increase ethanol use will aggravate this situation.^{2, 3} [EPA-HQ-OAR-2016-0004-3518 p.1]
- There is compelling evidence that suggests that the ethanol policy decisions made here contribute to increased deaths around the world.⁴ [EPA-HQ-OAR-2016-0004-3518 p.1]
- The EPA, USDA have ignored the findings of a large group of eminently qualified researchers in establishing policy decisions. This is reflected by the filing by Competitive Enterprise Institute and Action Aid USA of a request to correct data regarding biofuel mandates on global hunger and mortality. This petition cites 37 different sources that are from respected, knowledgeable professionals.⁵ [EPA-HQ-OAR-2016-0004-3518 p.1]

¹ James Conca, “It’s Final – Corn Ethanol is of No Use”, Forbes Magazine, April 20, 2014 [see document number EPA-HQ-OAR-2016-0004-3518-A2]

² David J. Tenenbaum, “Food vs. Fuel, Diversion of Crops Could Cause More Hunger”, Environmental Health Perspectives, Volume 116, Number 6, June 2008 [see document number EPA-HQ-OAR-2016-0004-3518-A3]

³ Marco Lagi, et. al. “Economics of Food Prices and Crises”, New England Complex Systems Institute, January 31, 2012 [see document number EPA-HQ-OAR-2016-0004-3518-A4]

⁴ Indur M. Goklany, Ph.D., “Could Biofuel Policies Increase Death and Disease in Developing Countries?”, Journal of American Physicians and Surgeons, Volume 16, Number 1, Spring 2011 [see document number EPA-HQ-OAR-2016-0004-3518-A5]

⁵ Sam Kazman, General Counsel, Competitive Enterprise Institute, Marie Brill, Senior Policy Analyst Action Aid USA, Letter to US EPA, “Re: Information Quality Act Request for Correction Regarding Impacts of Biofuel Mandates on Global Hunger and Mortality”, October 13, 2011. This letter can be viewed at <http://cei.org/sites/default/files/Data%20Quality%20Request%20Oct%20%2013.pdf> [see document number EPA-HQ-OAR-2016-0004-3518-A6]

American Petroleum Institute (API)

Impacts of renewable on other factors (i.e. agricultural commodities, rural economic development): In the U.S., soybean oil is the single largest feedstock input to biodiesel production. The implications of increasing BBD requirements and impacts on direct land use and soybeans should be considered. For example, adjusted for energy density, soybean based biodiesel energy production (Btu per acre) is less than ¼ of corn based ethanol Btu production. So in terms of land use requirements, the biodiesel volume mandate is relatively large when compared to renewable fuel produced from corn starch ethanol. [EPA-HQ-OAR-2016-0004-3512-A2 p.37]

Anonymous 1

According to USDA, the value of agricultural products has increased nearly \$100 billion in the U.S. since RFS2 was enacted in 2007. [EPA-HQ-OAR-2016-0004-0531 p.1]

Anonymous 9

As far as the commerce portion of this is concerned; the implementation of an increased use of Ethanol via corn is a waste of resources. if corn is not a valued commodity then the market will regulate to such an extent that the supply meets the demands of the consumer. [EPA-HQ-OAR-2016-0004-2895 p.1]

Anonymous 10

3. Diverting our food supply to our gas tanks will inevitably result in higher food prices. This hurts every American, and the poor disproportionately. [EPA-HQ-OAR-2016-0004-2151 p.1]

Anonymous 6

The ethanol industry has significantly increased the farmer's income by delivering their grain and corn stover to our ethanol plants. [EPA-HQ-OAR-2016-0004-2281 p.1]

Anonymous 7

the majority of biofuels consumed today are ultimately creating pressure for incremental deforestation and competition for basic commodity foods like corn. [EPA-HQ-OAR-2016-0004-2457 p.1]

Association of Equipment Manufacturers (AEM)

The proposed rule if unchecked has the potential to further harm agricultural equipment sales because of its downward pressure on corn prices. [EPA-HQ-OAR-2016-0004-0723-A1 p.2]

Birr, Adam

Bi-products from the ethanol process such as Distillers Grains, Gluten Feed, Gluten Meal, Corn Oil, Carbon Dioxide and Green Chemicals add \$1.5 billion to the Minnesota corn crop each year. [EPA-HQ-OAR-2016-0004-3146-A1 p.1]

Carlson, Terry

— The average American family now pays about \$2,000 more for food because of the RFS.

— Higher food costs, driven by the RFS, are hurting families across the country. [EPA-HQ-OAR-2016-0004-2163-A1 p.1]

Clean Air Task Force (CATF)

Finally, further reduction in the implied corn ethanol mandate would also alleviate some of the pressure that RFS-driven corn ethanol production has put on global food markets. Currently, 40% of U.S. corn production is sent to ethanol facilities. As the portion of the corn crop dedicated to ethanol increased after 2007 and the number of corn acres increased to record levels, acres of other food and feed crops decreased resulting in increased food and feed prices. A 2011 National Academies of Sciences report on the RFS found that 20-40% of the increase in commodity prices during 2007 was a result of biofuels expansion around the world, which increases food prices in the United States and globally. Acres of corn and soybeans in particular expanded after 2007 in response to record crop prices during the 2008-13 timeframe that were the result of several factors, including the 2012 drought and increased ethanol production. While prices of crops such as corn have dropped from record highs, the demand for corn dedicated to ethanol still requires a large portion of the crop. This increased and inflexible demand creates volatility in food and feed markets and pushes food prices upward particularly during supply shocks such as droughts or floods. [EPA-HQ-OAR-2016-0004-1804-A1 p.5-6]

County Line Co-op., Inc.

Please reduce our nations over production of ethanol and the exporting of 25% of that produced because we can't use all the gallons we are required to produce. [EPA-HQ-OAR-2016-0004-2754-A1 p.1]

Davis, James

ethanol mandates also increase the demand for corn for fuel, which negatively impacts food supplies and drives up food costs [EPA-HQ-OAR-2016-0004-2166-A1 p.1]

Delta Township

The RFS impacts the cost of corn which is not only used in a wide variety of food (e.g. corn starch, corn syrup, etc.), but is also used as feeds tock. According to the House Energy and Commerce Committee," [c]orn prices, which averaged \$2.15 per bushel from 1997 to 2006, have since risen along with the targets in the RFS ". Additionally, "[i]n 2010, the EPA projected that

the RFS would raise annual food costs by \$ 10 per capita by 2022." We must reverse these cost increases and stop any further increases. [EPA-HQ-OAR-2016-0004-1685-A1 p.1]

Elgin Service Center-Gilboa LLC

We... have negatively felt the sharply falling corn, soybean and wheat commodity prices. The use of corn in making ethanol has had a positive effect on the farm economy, and raising the RFS to the mandated level would further this positive effect on our local rural area and the whole farm economy. [EPA-HQ-OAR-2016-0004-2760-A1 p.1]

Food Bank Council of Michigan

The RFS impacts the cost of corn which is not only used in a wide variety of food (e.g., corn starch, corn syrup), but is also used as a feedstock for livestock (e.g., cattle, dairy, poultry hogs). According to the House Energy and Commerce Committee: "Corn prices, which averaged \$2.15 per bushel from 1997 to 2006, have since risen along with the targets in the RFS." And "In 2010, EPA projected that the RFS would raise annual food costs by \$10 per capita by 2022."ⁱ We must reverse these cost increases because they negatively impact organizations like ours who are trying to feed and assist the poor. [EPA-HQ-OAR-2016-0004-1663-A1 p.1]

i <http://energycommerce.house.gov/sites/republicans.energycommerce.house.gov/files/analysis/20130418RFSWhitePaper2.pdf>

George Washington University, Regulatory Study Center

Notably, this proposed rule does not include the projected impact of increased biomass-based diesel production on soybean and soybean oil prices. [EPA-HQ-OAR-2016-0004-2687-A1 p.6]

This omission is particularly notable for two reasons: 1) because EPA is statutorily required to analyze such effects, and 2) because the proposed biodiesel production surpasses the statutory threshold by over 1 billion gallons annually. As EPA notes in its proposal, statute requires the agency to determine any biodiesel volume above the statutory threshold based on a review which includes the impact on "the price and supply of agricultural commodities, rural economic development, and food prices."¹⁶ [EPA-HQ-OAR-2016-0004-2687-A1 p.6]

16 81 FR 34807

Glenn Davis, Virginia House of Delegates

Economic theory and history has shown the dramatic decrease in small business growth and employment when costly new government regulations are levied on them. [EPA-HQ-OAR-2016-0004-2543 p.1]

Finally, an increase in food and gas prices to families with little or no disposable income causes reductions in other areas of their family budget including medical care. This would cause many Americans to forgo their preventive medical and dental visits, leading to higher medical bills in the long run. [EPA-HQ-OAR-2016-0004-2543 p.1]

Heath, Mark

we're still going to pay a hefty premium on the price on the beef we consume, because the cost of the ranchers' corn feed doubled [EPA-HQ-OAR-2016-0004-2671-A1 p.1]

Illinois Corn Growers Association and Illinois Renewable Fuels Association (ILRFA)

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. 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-2016-0004-1745-A2 p.4]

[Figure 1 can be found on p.4 of this docket]

University of Illinois economists are reporting that for the 2016-2017 crop year corn prices will continue to average \$3.50 or below due to the increased acres, high yields, and more world competition in corn production. The last thing the American farmer needs is for USEPA to roll back 200 million gallons of corn starch ethanol demand. The ethanol industry continues to improve their yield efficiencies and many are now producing 2.9 to 3 gallons of ethanol per bushel of corn instead of the 2.75 and 2.8 gallons per bushel that was assumed previously. USEPA owes the farmers of the U.S. a projection in their lost revenues due to rolling back the volumes of corn starch ethanol from the statutory requirement of 15 billion gallons in 2017. [EPA-HQ-OAR-2016-0004-1745-A2 p.5]

Illinois Corn Marketing Board

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.53]

The price of corn has slipped. Since your announcement last year that you weren't going to obey the 15 billion gallon standard and stay on track, the prices have slipped.

Indiana Grocery and Convenience Store Association (IGSCA)

The higher price of corn causes the price of nearly every food product to increase. [EPA-HQ-OAR-2016-0004-1661-A1 p.1]

Indiana Retail Council

Our major concern is the higher price of corn causes the price of nearly every food product to increase. [EPA-HQ-OAR-2016-0004-2066 p.1]

Iowa Corn Growers Association/National Corn Growers Association

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.136]

The 2017 RVO standard proposed by the EPA effectively cuts corn usage by 71.4 million bushels, which is the equivalent of \$271 million in revenue.

Iowa Corn Growers Association (ICGA)

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 2014-2016 rule. [EPA-HQ-OAR-2016-0004-1726-A1 p.6]

Iowa Farm Bureau Federation (IFBF)

Since the RFS was put in place, the U.S. has seen tremendous growth within the agricultural sector: agricultural exports, livestock output, and crop output has increased substantially. [EPA-HQ-OAR-2016-0004-1653-A1 p.1] [These comments can also be found in Document number EPA-HQ-OAR-2016-0004-3559 p.220.]

Jones, R.

Corn is a FOOD GRADE and FEED GRADE commodity and as such should be first considered for Food - NOT FUEL. Understand that we can obtain Ethanol from Sugar Cane, Sugar Cane Husks as well as Beans and other commodities, leaving corn ethanol for food and animals consumption. [EPA-HQ-OAR-2016-0004-2013 p.1]

Jung, Jerry

Between 2005 and 2011, U.S. ethanol production nearly quadrupled from 3.9 billion gallons per year to 13.9 billion gallons per year and the number and capacity of U.S. ethanol plants more than doubled.¹ [EPA-HQ-OAR-2016-0004-1833-A1 p.1]

Because the RFS requires an increasing amount of ethanol be produced year over year, the federal government not only creates an artificial growing market, but also puts more strain on a system that may not always produce high corn yields. Droughts and other catastrophic events could affect corn growth – as happened in 2012. This would mean that instead of ensuring corn crops were used for food when shortages happen, there is a statutory requirement that crops be used for fuel in the case of shortages.² [EPA-HQ-OAR-2016-0004-1833-A1 p.1-2]

Corn ethanol displaces corn that would normally be used as a food source and uses it instead to create fuel. As of 2011, roughly 40 percent of corn raised in the U.S. today goes to the production of biofuels.³ Since the U.S. supplies most of the world's corn supply, this offset can be attributed to approximately 15 percent of the shortage of corn on the total global market.⁴ From 2006 – 2011, U.S. ethanol expansion cost corn-importing countries \$11.6 billion in higher corn prices. [EPA-HQ-OAR-2016-0004-1833-A1 p.2]

¹ <http://www.ourenergypolicy.org/wp-content/uploads/2013/07/The-Effect-oftheUS-Ethanol-Mandate-on->

² Id

³ <https://www.extension.iastate.edu/agdm/crops/outlook/cornbalancesheet.pdf>

⁴ <http://www.ase.tufts.edu/gdae/Pubs/wp/12-02WiseGlobalBiofuels.pdf>

Kane Ranch

The existing standard has already had the unintentional result of raising the cost to agricultural businesses, such as mine, which rely on corn for feed, and I am concerned that the proposed standards may only continue to raise costs. [EPA-HQ-OAR-2016-0004-1636-A1 p.1]

Liebrecht Manufacturing

A drastic cut such as that proposed here will have a devastating impact on agriculture and our rural economies. [EPA-HQ-OAR-2016-0004-2756-A1 p.1]

Lippold Strategies, LLC

The Proposed Rule Impacts Food Security [EPA-HQ-OAR-2016-0004-1739-A1 p.7]

Mass Comment Campaign sponsored by Anonymous 18 (email) - (45)

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. [EPA-HQ-OAR-2016-0004-1364-A1 p.1]

In addition, limited market demand also impacted the utilization of my farmland. The impact that the RFS has had on agriculture cannot be overstated. I have witnessed firsthand the positive impact the RFS has had on my local economy since its original enactment in 2005. In fact, it is directly due to the RFS that my farming operation has become so successful. [EPA-HQ-OAR-2016-0004-1364-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 1 (Web) - (5,185)

The use of ethanol in fuels also drives up the price of grains, puts unnecessary stress on water resources and overall is more damaging to the environment than conventional fossil fuels---it comes at a higher cost across the board. [EPA-HQ-OAR-2016-0004-0073 p.1]

Mass Comment Campaign sponsored by Anonymous 11 (238)

The impact that the RFS has had on agriculture cannot be overstated. I have witnessed firsthand the positive impact the RFS has had on my local economy since its original enactment in 2005. In fact, it is directly due to the RFS that my farming operation has become so successful. [EPA-HQ-OAR-2016-0004-1167-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 5 (Web) - (355)

An increasing share of domestic corn production-as much as 45 percent-is diverted to ethanol mandates rather than food, driving significant crop conversion and creating price volatility in global commodities markets. [EPA-HQ-OAR-2016-0004-0114 p.1]

Mass Comment Campaign sponsored by Anonymous 6 (Web) - (345)

In spite of promises that the RFS would function as an environmental boon, the policy has driven land and crop conversion, volatility in domestic and global food production and commodity prices and misfueling risks, all at the expense of American consumers. [EPA-HQ-OAR-2016-0004-0115 p.1]

Mass Comment Campaign sponsored by Anonymous 8 (email) - (629)

American corn growers responded to the demands of our country and have produced more than enough corn to meet all of our needs: food, feed, fuel and fiber. With corn prices teetering below the cost of production [EPA-HQ-OAR-2016-0004-0556-A1] p.1

Mass Comment Campaign sponsored by Anonymous 25 (USB) - (500,291)

The Renewable Fuel Standard has contributed to higher food and grocery costs, puts our economy at risk, and could lead to damage in vehicles and small engines. [EPA-HQ-OAR-2016-0004-3347-A1 p.1]

Mass Comment Campaign sponsored by Energy Citizens (Paper) - (37,706)

ethanol mandates also increase the demand for corn for fuel, which negatively impacts food supplies and drives up food costs by much as \$2,000 per year for a family of four. [EPA-HQ-OAR-2016-0004-1966-A1 p.1]

Mass Comment Campaign sponsored by Missouri Corn Growers Association (paper) - (233)

Reducing the 2017 Renewable Volume Obligation (RVO) by 200 million gallons less than the federal statute represents: 425,000 acres of harvested corn and \$271 million dollars in revenue lost. American corn growers responded to the demands of our country and have produced more than enough corn to meet all of our needs: food, feed, fuel and fiber. With corn prices teetering below the cost of production, EPA's reckless decision affects my livelihood and the economic future of rural America. [EPA-HQ-OAR-2016-0004-1705-A1 p.1]

Mass Comment Campaign sponsored by National Corn Growers Association (paper) - (387)

With corn prices teetering below the cost of production, the EPA's decision affects my livelihood and the economic future of rural America. [EPA-HQ-OAR-2016-0004-3596-A1 p.1]

Mass Comment Campaign sponsored by National Corn Growers Association 4 (Paper) - (5,719)

Reducing the 2017 Renewable Volume Obligation {RVO) by 200 million gallons from the federal statute represents:

.. 424,000 acres of harvested corn;

.. \$271 million dollars in revenue lost. [EPA-HQ-OAR-2016-0004-2883-A1 p.2]

Mass Comment Campaign sponsored by National Corn Growers Association 5 (Web) - (11,047)

The RFS drives billions of dollars of economic activity across the U.S., starting with farmers and rural communities. The ethanol industry supports nearly 400,000 jobs and contributes nearly \$52 billion to our Gross Domestic Product. [EPA-HQ-OAR-2016-0004-2888-A2 p.1]

Mass Comment Campaign Sponsored by Novozymes (web) - (8)

The price of corn today is lower as it was when the RFS was adopted. Food prices are driven by oil prices, not the RFS. [EPA-HQ-OAR-2016-0004-0717-A1 p.2]

While ethanol production has increased to nearly 15 billion gallons since the RFS was expanded in 2007, the price of corn today is nearly the same, or lower, than it was then. The average price of corn in 2007 was \$4.20. On April 12, 2016, USDA released its projection that the average price in the 2015-2016 crop year will be \$3.55. In 2013, the price of corn fell 39%; and in 2014 the corn industry produced a record harvest, with corn futures dropping to a five-year low. [EPA-HQ-OAR-2016-0004-0717-A1 p.2]

Between 1980 and 2014, the size of the American corn crop doubled by increasing yields on existing land and planting just 3% more corn acres. Even during the drought of 2012, America's farmers produced the 8th largest corn crop in history, and in 2014 we saw a record corn harvest. Between 1980 and 2011, the amount of land required to produce one bushel of corn fell by 30%, soil loss fell by 67%, water for irrigation fell by 53%, and energy use fell by 44%. [EPA-HQ-OAR-2016-0004-0717-A1 p.2]

Mass Comment Campaign sponsored by POET Biorefining (Paper) - (60)

Farmers and others have made huge investments in their farms, support business and the ethanol plants. [EPA-HQ-OAR-2016-0004-2428-A1 p.1]

Mass Comment Campaign sponsored by Southwest Iowa Renewable Energy LLC (SIRE) (paper) - (27)

The USDA is projecting a historic excess supply of corn. The number of stations offering fuel blends above E10 will increase dramatically as a result of USDA's Biofuels Infrastructure Partnership. [EPA-HQ-OAR-2016-0004-1703-A1 p.1]

Michelle Toohey Enterprises

I am aware that the standard has contributed to the increase in prices on vegetables, meats, dairy products and grains, which has increased food costs as much as 10 percent overall for America's small business owners. While it is difficult for me to quantify the estimate of impacts to my quick serve restaurants from the ethanol requirement, the difficulty it presents is obvious. [EPA-HQ-OAR-2016-0004-2358 p.2]

National Chicken Council (NCC)

Impacts of Required Volume Obligations under the RFS

The required volume obligations for ethanol under the RFS have the force of a federal mandate which requires obligated parties (e.g., refiners, importers, and blenders) to utilize a minimum amount of corn based ethanol regardless of price or supply. [EPA-HQ-OAR-2016-0004-1676-A1 p.5]

NCC requests that EPA consider the differences in the industry structure between ethanol mills and broiler producers when setting the conventional biofuel mandate. [EPA-HQ-OAR-2016-0004-1676-A1 p.6]

National Corn Growers Association

In addition, this cut in required volumes will have a significant effect on farmers and rural communities across the country at a time when corn is in abundant supply and corn prices are hovering at or below the cost of production. The loss of 200 million gallons of ethanol is significant – equivalent in magnitude to losing all of our corn exports to Taiwan at one time, as an example. According to USDA, American farmers produced a near record 13.6 billion bushels last year, and another large crop is emerging across the nation. As a result, corn prices are near break-even levels. In such precarious times we can ill afford to derail a market for 71.4 million bushels of demand equivalent to nearly \$271 million in revenue. [EPA-HQ-OAR-2016-0004-1809-A1 p.6-7]

National Council of Chain Restaurants (NCCR)

the Agency proposes for 2017 to raise the conventional biofuel mandate – filled almost exclusively by corn – by another 300 million gallons over the 2016 requirement. It is difficult to see how this requirement can be met without consuming an even greater proportion of U.S. corn output [EPA-HQ-OAR-2016-0004-2891-A1 p.4]

corn prices have dropped from their highs of 2011, 2012 and 2013 and, although still nearly double what they were prior to enactment of the original RFS in 2005, some have claimed that current prices are now below many farmers' costs of production. We believe that the RFS is at least partly at fault for this phenomenon [EPA-HQ-OAR-2016-0004-2891-A1 p.4]

We believe the RFS contributed to vast inflation in land prices in corn-growing regions soon after its original enactment. [EPA-HQ-OAR-2016-0004-2891-A1 p.4]

the RFS has distorted food commodity markets and led to a general upward trend in wholesale food prices, in particular for businesses in the food chain which have not been able to pass on the cost increases to consumers due to competitive pressures. [EPA-HQ-OAR-2016-0004-2891-A1 p.5]

National Farmers Union (NFU)

The RFS, when implemented properly, offers farmers and consumers a way to reduce GHG emissions by producing and utilizing transportation fuels with lower lifetime emissions than transportation fuels derived from fossil sources.¹² [EPA-HQ-OAR-2016-0004-1651-A1 p.6]

Farmers and Rural Communities

Depending on land management decisions, this sector of the economy has the potential to become a net GHG emitter rather than a sink. [EPA-HQ-OAR-2016-0004-1651-A1 p.7]

While ownership is dispersed, 40 percent of the total US land mass is farmland, according to the 2012 Census of Agriculture. Offering farmers a way to achieve value for participating in climate change, as a properly implemented RFS would, gives policymakers an opening to have a conversation about other actions that could be taken to build climate resilience on 40 percent of total US acreage. [EPA-HQ-OAR-2016-0004-1651-A1 p.8]

the RFS is an important opportunity to establish trust regarding climate resilience among a population that is prone to regard federal policy with skepticism and may be vulnerable to a variety of intentionally confusing climate messages. [EPA-HQ-OAR-2016-0004-1651-A1 p.9]

In this proposed rule, EPA pays lip service to the importance of certainty while failing to take the action that would create the most certainty: consistent enactment of the volume requirements Congress set in the EISA. This action would allow farmers, renewable fuel producers, investors and the obligated parties to know what is required of them with sufficient notice to meet requirements and achieve the attendant environmental benefits with as little disruption as possible. Allowing farmers and stakeholders to detrimentally rely on the assurances of the EISA,

as EPA proposes to do, will make these parties wary of engagement in increased biofuel production. [EPA-HQ-OAR-2016-0004-1651-A1 p.9]

Farmers and rural communities have made business decisions and invested significant assets based on the reasonable expectation that, in the absence of severe economic harm or inadequate supply, EPA would fulfill its responsibility to enact annual volume requirements matching those Congress set in the EISA. Should the EPA finalize the rule as proposed, farmers and rural communities will almost certainly hold any future attempts to enlist their assistance in future climate resilience endeavors with a degree of skepticism that will prove difficult to overcome and could have been avoided. [EPA-HQ-OAR-2016-0004-1651-A1 p.10]

Proper implementation of the RFS grants EPA an opportunity to correct anti-competitive trends in this market. More competition in transportation fuels would provide motivation for obligated parties, farmers and renewable fuel producers to achieve greater efficiencies in producing and distributing renewable fuel, leading to more options for consumers and better environmental results. [EPA-HQ-OAR-2016-0004-1651-A1 p.10]

12 Environmental and Energy Study Institute, “Research Finds Widespread Use of E15 Would Reduce CO2 Emissions.” “GREET analyses estimate that corn ethanol greenhouse gas emissions are on average 34 percent lower than those of regular gasoline.” <http://www.eesi.org/articles/view/research-finds-widespread-use-of-e15-would-reduce-co2-emissions>

National Restaurant Association

In recent years, approximately 40 percent of the domestic corn crop has been processed into ethanol and away from food or livestock feed. This diversion has driven up food costs across the board for many food groups and restaurateurs. [EPA-HQ-OAR-2016-0004-2696-A1 p.1]

Since the RFS's inception, the price of corn has fluctuated dramatically and commodity and wholesale food prices have been steadily increasing. [EPA-HQ-OAR-2016-0004-2696-A1 p.2]

National Women involved in Farm Economics (WIFE)

The program has helped farmers when grain prices are low, such as this year [EPA-HQ-OAR-2016-0004-2540 p.1]

Nebraska Farm Bureau Federation

It is also important to note that the livestock industry could also be negatively affected by EPA's proposed 2017 RVOs. [EPA-HQ-OAR-2016-0004-2693-A1 p.2]

Nelson, Taylor

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.69]

The RFS has played a vital role in the establishment of our plant and the rippling effect of stronger markets for local grain, job creation, small community revitalization.

Nestle Corporate Affairs

Environmental Issues

We reiterate the concerns we expressed in our July 27, 2015, comment letter with respect to the diversion of food and feed crops to fuel, as well commodity price impacts. [EPA-HQ-OAR-2016-0004-1868-A1 p.3]

New Mexico Cattle Growers' Association

the RFS will also harm those who work on the distribution side of the beef industry. Ethanol in fuel contributes to soaring prices in vehicle maintenance and transportation, increasing operating costs for trucking businesses and creating a negative impact on agricultural industries that depend on the trucking industry. [EPA-HQ-OAR-2016-0004-1677-A1 p.1]

New Mexico Wool Growers, Inc. (NMWGI)

Ethanol in fuel contributes to soaring prices in vehicle maintenance and transportation, increasing operating costs for trucking businesses and creating a negative impact on agricultural industries that depend on the trucking industry. [EPA-HQ-OAR-2016-0004-1683-A1 p.2]

North Dakota Ethanol Council (NDEC)

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-2016-0004-1671-A1 p.1]

Novozymes

Strengthening the U.S. agricultural economy and increasing productivity

The price of corn today is lower than it was when the RFS was adopted. [EPA-HQ-OAR-2016-0004-1734-A1 p.4]

While ethanol production has increased to nearly 15 billion gallons since the RFS was expanded in 2007, the price of corn today is lower than it was then. [EPA-HQ-OAR-2016-0004-1734-A1 p.4]

Between 1980 and 2014, the size of the American corn crop doubled by increasing yields on existing land and planting just 3 percent more corn acres. [EPA-HQ-OAR-2016-0004-1734-A1 p.4]

Ohio Licensed Beverage Association

Increased ethanol mandates have already driven up food prices and dedicated crops and/or land to generate energy instead of food. [EPA-HQ-OAR-2016-0004-2206 p.2]

Parrent, Kenneth

With the newly created demand from the ethanol plants, corn prices finally allowed Indiana corn growers to break free from reliance on government subsidies and produce corn at a profit [EPA-HQ-OAR-2016-0004-0243-A1 p.1]

Pennsylvania House of Representatives

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-2016-0004-1751-A1 p.2]

Pennsylvania Motorcycle Dealers Association

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-2016-0004-2868-A1 p.2]

Pennsylvania Off Highway Vehicle Association

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-2016-0004-1757-A1 p.2]

Pennsylvania State Snowmobile Association (PSSA)

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-2016-0004-2869-A1 p.2]

Platt, Paul

Diversion of Resources From Food Production: In foreign lands, the corn-to ethanol program is seen as an expensive, ineffective, inefficient folly that, besides increasing food prices, also diverts food from animals and people, especially from the world's hungry people. [EPA-HQ-OAR-2016-0004-3003-A1 p.2]

Porter, Gary

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.209]

Ethanol is important to corn growers, providing an essential market for our grain.

Prairie Feed & Trucking, LLC

American agriculture, the nation and thousands of rural families including my own are directly impacted by the Renewable Fuel Standard, and will be negatively impacted by any decrease in the RFS [EPA-HQ-OAR-2016-0004-1643-A1 p.1]

Principia, LLC

The Renewable Fuel Standard (RFS), passed by Congress in 2007 has, in spite of its goals to provide greater energy independence and security, raised serious concerns for its overall value to the country based on the unintended impact it may be having on Americans living in poverty. [EPA-HQ-OAR-2016-0004-1724-A1 p.1]

My concern is that this growth will be driven by considerable increases in corn-produced ethanol. That means that healthy foods produced from corn OR from foods (e.g. wheat, rice, oats, and barley) whose crop production is diminished as a result of increased corn production will become scarce commodities in communities that can least afford it. [EPA-HQ-OAR-2016-0004-1724-A1 p.1]

For example, if corn production is low due, perhaps, to drought or flooding, ethanol will become an RFS mandated priority. That means corn for ethanol will take precedence over corn for food. [EPA-HQ-OAR-2016-0004-1724-A1 p.2]

- o \$160 Billion was added to the nation's healthcare costs (for 2014 alone) because of hunger and food insecurity, and that
- o Access to healthy food is a critical step in breaking the cycle of poverty especially for children because it supports a child's overall development, driving better long-term education, job readiness, and work related outcomes. [EPA-HQ-OAR-2016-0004-1724-A1 p.2]

Reaka, Chris

It is a terrible market distorting idea which increases the cost of energy to consumers, while rewarding large corporate entities for producing a mere 25% increase in energy at a very high cost to the environment and to the taxpayer, all for the benefit of a few already wealthy individuals. [EPA-HQ-OAR-2016-0004-3554-A1 p.17]

Remlinger Manufacturing Company

Ethanol gives farmers a steady market for their grain. It has saved taxpayers billions of dollars in farm program payments. When farmers are making a fair return on their investments everyone benefits. [EPA-HQ-OAR-2016-0004-2758-A1 p.1]

Renew Kansas

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. [EPA-HQ-OAR-2016-0004-1668-A1 p.3]

Scanlon Excavating & Trucking

The proposed standard could drive up the price of food and feed costs, creating economic hardship for veterans and their families especially those on a limited income. [EPA-HQ-OAR-2016-0004-2413-A1 p.1]

Schnitker Law office, P. A.

RFS mandates have driven up grain prices and this has had many adverse impacts. [EPA-HQ-OAR-2016-0004-1802-A1 p.1]

Scott, Dean

The EPA proposal for 2017 seeking to increase ethanol concentrations above the current E10 level will:

- Economically burden American consumers due to the increased demand, and thus cost, for ethanol-from-corn, which is currently negatively impacting food supplies and driving up food costs [EPA-HQ-OAR-2016-0004-3460-A1 p.1]

South Carolina Association of Taxpayers (SCAT)

Let's call RFS what it really is - a hidden tax on food that harms our economy and our working American families. Corn and corn related byproducts can be found in three out of four packaged foods in the average grocery store. Falsely and needlessly inflated corn demand from ethanol increases the price of all corn, which is then passed along to consumers when they fill up their shopping cart. [EPA-HQ-OAR-2016-0004-1691-A1 p.1]

South Carolina Poultry Federation

Further tying our nation's food supply to energy and transportation will have a real impact on our businesses, employees and all consumers. [EPA-HQ-OAR-2016-0004-1728-A1 p.1]

South Dakota Corn Growers Association

In today's current agricultural markets, farmers' profit margins are slim. When farm income declines, that trickles down to communities' main streets. Implement dealers, car dealers and other local businesses suffer a drop in sales. These economic slides offset gains that were made over the years [EPA-HQ-OAR-2016-0004-2132 p.1]

Spears, James J.

Forty percent (40%) of corn produced now goes into gasoline as ethanol thereby taking a basic food crop for humans and livestock and burning it in an internal combustion engine. For 15% ethanol in gasoline the percent of "ethanol" corn would increase to 60% of the current crop: additional acreage would be converted from other food crops to "ethanol corn"; OR marginal farmland would go back into cultivation with even more fertilizer required and a second negative of increased erosion.

The adverse economic effect goes even farther. Fields that historically grew soybeans, rice, numerous beans, peas, potatoes and other basic food crops for human consumption now grow corn. The cost of those basic foods has increased by 70-75 % in the last 8-10 or so years except for rice, which has nearly tripled. [EPA-HQ-OAR-2016-0004-2675-A1 p.1]

State of West Virginia, Office of State Treasurer

increased ethanol mandates have already driven up food prices and dedicated crops and/or land to generate energy instead of food. [EPA-HQ-OAR-2016-0004-1752-A1 p.1]

Sweeney, Annette

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.59]

First, the RFS isn't causing higher food prices. There is no correlation between expanded ethanol production and retail food prices, and only 2 cents of every dollar spent on retail food are related to corn.

Second, the RFS is not diverting grain away from feed markets. We have more than enough corn available today to feed and fuel. In fact, after all the demands are made, we still have nearly 2 billion bushels of corn left over.

Syngenta

If finalized, the rule could have the following effects:

- Destabilized farm economy. Corn prices in some locations have fallen below the cost of production. With another large corn harvest expected in 2016, 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-2016-0004-1832-A1 p.4]

Union Bank Co.

I believe that the RFS has been critical to our nation's agriculture and rural economy. Ethanol production has provided an essential market for our grain farmers and has helped revitalize our rural communities. [EPA-HQ-OAR-2016-0004-2757-A1 p.1]

Unverferth Manufacturing Company

The rural economies continue in a fragile state due to precipitously falling prices of corn, soybeans and other agricultural commodities. The additional use of corn in making ethanol has historically had a positive price effect on these commodities. Raising the RFS to the mandated 20% level would further this positive effect on pricing and help our rural communities. [EPA-HQ-OAR-2016-0004-2762-A1 p.1]

WAEES

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.203-204]

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 2.5 billion gallons in 2018.

Under this scenario, the WAEES model simulates soybean oil prices in the low 30 cent per pound range for 2016-17 marketing years and 2017-18 marketing years. By comparison, soybean oil prices exceeded 50 cents per pound in 2011 and 2012 marketing years.

Yinger, Alexander

In face of exponentially increasing population it is downright negligent to use food sources for vehicle fuel. [EPA-HQ-OAR-2016-0004-3340-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) 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 was from representatives of agricultural producers and the second was agricultural input suppliers. These commenters argued for higher renewable fuels volumes associated with the RFS annual standard in order to boost agricultural commodity demand and, thereby, raise agricultural commodity prices and farm income.

For example, one commenter cited a study by the University of Illinois economists that suggests that the 2016/2017 crop year corn prices will average \$3.50/bushel or less due to increased planted acres of corn, high corn yields, and more world competition in corn crop production.

Currently, December, 2016 corn prices are \$3.34/bushel (Chicago Board of Trade, Corn Futures Price, September 26th, 2016) with corn prices anticipated to modestly rebound to the \$3.40-\$3.75/bushel range in 2017 (Chicago Board of Trade, Corn Futures Price, September 26th, 2016). This commenter suggested that with corn prices hovering at or below breakeven prices, corn farmers will face economic hardship in the 2017 timeframe of this rule. Given the relatively large corn crop and generally low commodity prices, numerous commenters argued that now is not the time to reduce the demand for corn with lower RFS RVOs.

One commenter suggested that EPA should provide estimates of impacts of the proposed rule on soybean and soybean oil prices related to increases in biomass-based biodiesel. EPA currently assesses the impacts of the RFS standards on soy oil prices. Estimating how increases in the demand for soy oil increases soybean prices is difficult since the overall impact is a combination of increases in soy oil prices and decreases in soybean meal prices. As a result, we have not attempted to estimate the impact of this rule on soybean prices.

The 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 in rural areas (e.g., restaurants, local banks, retailers). Numerous commenters that are part of the supply chain for agricultural commodities or local businesses in rural areas supported higher RFS RVOs. Although EPA has not done an analysis of the overall impact on rural economies of the 2017 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 previous analysis conducted in 2010, we would expect that the volumes being finalized in this RFS rule would also have a directionally positive impact on net farm income in the U.S.

Numerous stakeholders advocated that EPA set RFS RVOs at statutory volumes to sustain and increase commodity prices and spur increases in farm income. The same stakeholders warned that reductions from RFS statutory volumes will have a depressing effect on farm incomes and, in turn, their communities. These commenters failed to acknowledge that the proposed RFS volumes represented (and the final RFS volumes represent) considerable increases in renewable fuel volumes above previous levels, not decreases. Since EPA does not consider the statutory volumes for cellulosic biofuel, advanced biofuel and total renewable fuel to be attainable, 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, for example, livestock and poultry associations. For example, one commenter suggested that higher vehicle fuel costs from the wider use of renewable fuels will increase the costs of raising cattle and have a negative impact on their industry by raising input costs (e.g., increase shipping costs).

EPA recognizes that increasing renewable fuel production from traditional feedstocks (e.g., corn, soybeans) 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 used to make renewable fuels, alternative 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 renewable fuels is feed co-products. For every extra bushel of corn demanded for food or ethanol use, distiller dry grains (DDGS) are 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. Greater production of biodiesel leads to greater volumes of soy meal, which can benefit some livestock producers.

Several commenters, including grocery, convenience stores, an environmental group and a private citizen raised concerns that higher RFS RVOs will place an upward pressure on food prices. These commenters asserted that increasing renewable fuel volumes have driven up, and will continue to drive up, food input prices and the price of food. One commenter noted that the RFS creates a new source of demand for basic agricultural commodities such as corn and soybeans which is insensitive to price. Inflexible demand for agricultural commodities from the RFS will result in more volatility in food prices. Another commenter argued that using ethanol as a result of the RFS causes global disruption in food prices and has contributed to food insufficiency around the globe and has also contributed to political instability in food scarce regions of the world. This commenter claimed that the EPA and USDA have ignored the findings of a large group of eminently qualified researchers in establishing policy decisions. This is reflected, according to the commenter, by the filing by Competitive Enterprise Institute and Action Aid USA, of a request to correct data regarding renewable fuel requirements on global hunger and mortality. Alternatively, other commenters suggested that the proposed RFS renewable fuel volumes would have little impact on food prices. EPA has not undertaken a formal analysis of the food cost impacts of the annual RFS 2017. However, based on the analysis we did for the March 2010 final RFS rule, we believe that increases in renewable fuels as a result of the RFS are likely having a modest impact on the price of agricultural commodities such as corn. We believe such impacts are a likely consequence of the program adopted by Congress, and do not suggest waivers below volumes in the final rule.

One commenter was concerned that the proposed standards would allow food-based advanced biofuels to backfill some of the shortfall in cellulosic biofuel. Cellulosic biofuels are by definition not produced from feedstocks that could be used for food, whereas some other advanced biofuels can be produced from feedstocks that could also be used for food. Biodiesel and renewable diesel, for instance, can be produced from food-based crops such as soybean oil, but they can also be produced from non-food based feedstocks such as waste grease and fats. Insofar as other advanced biofuels are allowed to partially backfill the shortfall in cellulosic biofuel through the use of the cellulosic waiver authority by reducing the advanced and total standards by less than the full amount of the reduction in the cellulosic volume, it is possible that the total advanced biofuel volume would be composed of a greater proportion of food-based biofuels than would have been the case under the statutory volume targets. The production of food-based biofuels was likely contemplated in the statute, as reflected by the inclusion of

planted crops among the categories of renewable biomass that may be used to make qualifying renewable fuel, and references in the statute to ethanol made from corn starch. We note also that under the statutory tables the volume of non-cellulosic advanced biofuel envisioned for 2017 is 3.5 billion gallons, and increases to 5 billion gallons by 2022. The approximately 4 billion gallon volume of non-cellulosic advanced biofuel that we have specified for 2017 is somewhat higher than the level envisioned for this year, but well below the level of such fuels Congress expected would be used by 2022. This somewhat higher interim volume reflects our assessment that it is appropriate in exercising the cellulosic waiver authority to allow non-cellulosic advanced fuels to partially backfill for missing cellulosic volumes in light of the associated GHG and energy security benefits. Given the relatively small incremental volume involved, we consider it unlikely that our action in marginally advancing the statutory schedule for deployment of non-cellulosic advanced biofuels will have a meaningful impact on food availability.

3.1.6 Rural economies

Comment:

25x'25 Alliance

2016, the rate of growth threatens the economic stability and resiliency of rural communities. [EPA-HQ-OAR-2016-0004-0473-A1 p.4]

The levels proposed by EPA will have an impact on farm and rural economies by keeping down the price American farmers receive for some of their commodities to below the cost of production. [EPA-HQ-OAR-2016-0004-0473-A1 p.4]

Advanced Biofuels Association (ABFA)

We disagree with the NBB's recent study entitled "The Economic Impact of the Biodiesel Industry on the U.S. Economy."⁴ The study is overly zealous in several regards. First, it continues to assume that the U.S. has more production than currently demonstrated since the inception of the RFS2 program. Second, it is impossible to separate the jobs associated with the distribution of imported biodiesel and renewable diesel as this report suggest. Third, it does not include how many U.S. produced gallons were exported. Fourth, it overstates the actual number of imports in 2015 (670 million gallons).⁵ Lastly, the representation that 2.5 billion gallons of U.S. production is currently economically competitive has been unsubstantiated in terms of recent performance, as last year's contribution was 1.43 billion. [EPA-HQ-OAR-2016-0004-1831-A1 p.4]

⁴ National Biodiesel Board. "The Economic Impact of the Biodiesel Industry on the U.S. Economy." LMC International. Nov 2013.

5 U.S. Energy Information Administration. "Today in Energy." Apr. 11, 2016.
<http://www.eia.gov/todayinenergy/detail.cfm?id=25752>.

American Soybean Association (ASA)

The jobs and economic impact of the biodiesel industry should also not be overlooked. A recent study conducted by LMC International on behalf of the National Biodiesel Board found that the U.S. biodiesel industry supported nearly 48,000 jobs nationwide in 2015 while supporting \$8.4 billion in economic impact across a wide variety of economic sectors and \$1.9 billion in wages paid. These impacts grow if production is expanded. [EPA-HQ-OAR-2016-0004-1722-A1 p.4]

Anonymous 8

the effect that restoring RVO's would have on the economy of small local communities [EPA-HQ-OAR-2016-0004-2405-A1 p.1]

Anonymous 11

Changing "blend wall" criteria to increase use of Ethanol in motor fuels would further negative impacts to the national economy and lower consumer spending. [EPA-HQ-OAR-2016-0004-0697 p.1]

Association of Equipment Manufacturers (AEM)

EPA's reduction of biofuels use in 2017 will continue to stall the construction of new advanced biofuels facilities, handing rural areas a real economic loss. [EPA-HQ-OAR-2016-0004-0723-A1 p.3]

Birr, Adam

It also has strengthened rural America providing good jobs and prosperous communities. [EPA-HQ-OAR-2016-0004-3146-A1 p.2]

Calease, Jerry

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.124]

I believe it is better to grow our renewable fuels economy here at home and have those dollars turn over several times within our community.

Carpenter, Judith

By cutting the Renewable Fuels Standard and reducing the volume of corn ethanol in our fuel supply by 200 million gallons you are contributing to a tougher rural economy and higher gas prices for consumers. [EPA-HQ-OAR-2016-0004-3283-A1 p.1]

Couser Cattle Company

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.50-51]

And also those dollars stayed home in our Main Street, America. I look what's happened in our small community and the businesses that have grown.

Fremont Industries

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.165]

what ethanol has brought is high-value jobs back to rural America.

It's really vibrant.

Hoxie Implement Co. Inc.

Failing to meet the statutory volumes intended by Congress will have an impact on agriculture and our rural economies, as well as investments in ethanol plants. [EPA-HQ-OAR-2016-0004-3509-A1 p.1]

Illinois Farm Bureau

The RFS2 has reduced our nation'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-2016-0004-2770-A1 p.1]

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. [EPA-HQ-OAR-2016-0004-1726-A1 p.4]

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-2016-0004-1726-A1 p.4]

For years, no one wanted to come back to farming, and we encouraged our kids to leave our rural communities for better jobs and opportunities. The RFS has consistently provided thousands of American jobs and created a vibrant future for agriculture, but just as some opportunities for agricultural careers began to open, those prospects are narrowing quickly due to artificial barriers that aren't encouraging the growth of ethanol used to fuel our country. As corn prices continue to hover near break-even we are feeling increased pressure on the farm economy. By not following the original RFS requirements the EPA is allowing the petroleum industry to continue its stranglehold on not only the fuel system in our country, but the environment, and the economic stability of America. [EPA-HQ-OAR-2016-0004-1726-A1 p.4]

The EPA is failing to recognize the implications that choosing to disregard the annual target numbers will bring. This issue expands much farther beyond the corn industry – with it touching not only the quality of fuel at the pump and the quality of air we breathe, but the quality of life in rural communities. 73,000 jobs in the state of Iowa can be attributed to a robust ethanol industry which the Renewable Fuel Standard supports. For example, in a town in Western Iowa, a local factory is closing its doors which will result in residents without jobs and steady incomes. This would be far more devastating if an ethanol plant didn't exist within the same town. The jobs provided by that plant are now even more important and valuable than before. The RFS is demonstrably keeping rural America working and thriving. [EPA-HQ-OAR-2016-0004-1726-A1 p.4]

Iowa Farm Bureau Federation (IFBF)

The RFS has been extremely effective in promoting America's rural economy. [EPA-HQ-OAR-2016-0004-1653-A1 p.1]

The RFS has also been effective at creating high paying jobs and providing lower costs at the gas station. These added benefits have been a boon to rural communities across the country. [EPA-HQ-OAR-2016-0004-1653-A1 p.1]

Iowa Office of the Governor

Frankly, federal policy uncertainty and indecision has jeopardized the health of the economy in rural America. The EPA's uncertainty disproportionately impacts rural America. [EPA-HQ-OAR-2016-0004-1747-A1 p.4]

Kansas Soybean Association

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.222]

biodiesel has been a boon and created tens of thousands of jobs and stimulated economies all over the Great Plains and, you know, even the places like New York, where they're requiring biodiesel in certain areas.

Kimberley, Grant

grow the production and use of renewable fuels and revitalize the economy in rural America. [EPA-HQ-OAR-2016-0004-3018-A1 p.1]

Lakeview Energy

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.179]

What biofuels have done in the U.S., it has reinvigorated the rural community.

Liebrecht Manufacturing

A drastic cut such as that proposed here will have a devastating impact on agriculture and our rural economies. [EPA-HQ-OAR-2016-0004-2756-A1 p.1]

Maryland Grain Producers Association

With corn prices teetering below the cost of production, EPA's decision affects my livelihood and the economic future of rural America. A newly operational ethanol plant in Virginia has created an alternative market for Maryland grain farmers corn and changing the RVO may threaten this plant's viability and therefore our farmers. [EPA-HQ-OAR-2016-0004-0845-A1 p.1]

Mass Comment Campaign sponsored by Absolute Energy LLC (Paper) - (196)

My investments have helped my local community grow and thrive, showing the nation and the world that rural America is a leading area of innovation and investment in future energy technologies. [EPA-HQ-OAR-2016-0004-1361-A1 p.1]

Failing to meet the statutory volumes intended by Congress will have an impact on agriculture and our rural economies, as well as investments in ethanol plants. [EPA-HQ-OAR-2016-0004-1361-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 26 (Paper) - (26)

Failing to meet the statutory volumes intended by Congress will have an impact on agriculture and our rural economies, as well as investments in ethanol plants. [EPA-HQ-OAR-2016-0004-3553-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 18 (email) - (45)

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. [EPA-HQ-OAR-2016-0004-1364-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 10 (email) - (771)

We all know that the RFS and biofuels have created jobs that cannot be outsourced, which have helped revitalize rural America. [EPA-HQ-OAR-2016-0004-1166-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 14 (email) - (406)

These proposed cuts will almost certainly impact jobs in many rural areas of the country – all to benefit some of the world's largest oil companies. [EPA-HQ-OAR-2016-0004-1171-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 15 (email) - (22)

These negative effects can radiate throughout rural communities, whose vitality is closely linked to the ethanol and agriculture industries. [EPA-HQ-OAR-2016-0004-1357-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 18 (email) - (45)

After years of success in expanding the ethanol industry under the RFS, we must not turn back the clock on the progress we have made. We must capitalize on the current momentum and continue to invest in the future development and commercial scale production of next-generation biofuels. This proposal, as written, 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-2016-0004-1364-A1 p.,1]

Mass Comment Campaign sponsored by Anonymous 28 (paper) - (5)

The Renewable Fuel Standard (RFS) has positively impacted the country by:

- Increasing Farm incomes [EPA-HQ-OAR-2016-0004-2408-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 8 (email) - (629)

EPA's reckless decision affects my livelihood and the economic future of rural America. [EPA-HQ-OAR-2016-0004-0556-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 9 (email) - (931)

Your decision to reduce conventional ethanol levels harm both the rural economy and the environment which it is your mission to protect. [EPA-HQ-OAR-2016-0004-1165-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 17 (email) - (86)

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. And higher ethanol blends in our vehicles helps provide cleaner air and reduces our country's dependence on toxic crude oil. [EPA-HQ-OAR-2016-0004-1363-A1 p.1]

Mass Comment Campaign sponsored by Central Indiana Ethanol (CIE) (email) - (60)

I am concerned that needlessly cutting the conventional renewable fuel volume as proposed will breed uncertainty and undermine further innovations and investments in ethanol production and distribution. These negative effects can radiate throughout rural communities, whose vitality is closely linked to the ethanol and agriculture industries. [EPA-HQ-OAR-2016-0004-1701-A2 p.3]

Mass Comment Campaign sponsored by DENCO II (employees) - (17)

Since its original enactment in 2005, I have witnessed firsthand the positive impact it has had on my local economy. In fact, it was directly due to the RFS that I have a job at the local 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 right here in my hometown for a good, solid wage, doing honorable work that helps me support myself, my family, my community and my country's growing energy needs. [EPA-HQ-OAR-2016-0004-1362-A1 p.1]

Mass Comment Campaign sponsored by DENCO II, investors (Paper) - (12)

The renewable fuel production I have invested in at DENCO II saves consumers money at the pump, reduces our dangerous dependence on foreign oil, and improves the quality of the air we all breathe, as well as creating over 30 direct well-paying local jobs. [EPA-HQ-OAR-2016-0004-1967-A1 p.1]

A drastic cut such as the initial EPA proposal will have a devastating impact on agriculture and our rural economies, as well as investments in ethanol plants throughout the nation. [EPA-HQ-OAR-2016-0004-1967-A1 p.1]

Mass Comment Campaign sponsored by investors in ethanol plants (email) - (67)

My investments have helped my local community grow and thrive, showing the nation and the world that rural America is a leading area of innovation and investment in future energy technologies. [EPA-HQ-OAR-2016-0004-1164-A1 p.1]

The renewable fuel production at my plant 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 my community that cannot be outsourced. [EPA-HQ-OAR-2016-0004-1164-A1 p.1]

Failing to meet the statutory volumes intended by Congress will have an impact on agriculture and our rural economies, as well as investments in ethanol plants. This proposed rule signals that the government no longer places priority on the production of biofuels. This uncertainty puts the future of investment, growth and innovation in renewable fuels at risk. [EPA-HQ-OAR-2016-0004-1164-A1 p.1]

Mass Comment Campaign sponsored by National Corn Growers Association (Paper) - (459)

Your proposed reduction of corn ethanol and biodiesel is hindering the success of rural America and preventing use of cleaner burning fuels. [EPA-HQ-OAR-2016-0004-1973-A1 p.1]

Mass Comment Campaign Sponsored by Novozymes (web) - (8)

Strengthen the U.S. agricultural economy and increase productivity [EPA-HQ-OAR-2016-0004-0717-A1 p.2]

Mass Comment Campaign sponsored by residents of Central Ohio (Paper) - (37)

These proposed cuts will almost certainly impact jobs in many rural areas of the country - all to benefit some of the world's largest oil companies. [EPA-HQ-OAR-2016-0004-1971-A1 p.1]

Mass Comment Campaign sponsored by Michigan Corn Growers Association (Web) - (43)

Reducing the 2017 Renewable Volume Obligation (RVO) by 200 million gallons less than the federal statute represents:

• 425,000 acres of harvested corn;

• \$271 million dollars in revenue lost. [EPA-HQ-OAR-2016-0004-2021-A1 p.1]

Mass Comment Campaign sponsored by Southwest Iowa Renewable Energy LLC (SIRE) (paper) - (27)

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-2016-0004-1703-A1 p.1]

Here in Council Bluffs, we provide over 60 high quality, high paying jobs, and create and additional estimated 2500 jobs in our area communities of Omaha, NE, and other southwest Iowa communities. We have a profound positive impact on our surrounding communities. [EPA-HQ-OAR-2016-0004-1703-A1 p.1]

Mid-Missouri Energy

Renewable fuel plants typically provide stable employment, attractive wages, and good benefits. They also create an additional tax base for local and state governments. [EPA-HQ-OAR-2016-0004-0074-A1 p.2]

From my perspective, the RFS has been the single most effective program for revitalizing rural America. [EPA-HQ-OAR-2016-0004-0074-A1 p.2]

Minnesota Corn Research and Promotion Council

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.128]

I've also been proud to see the role ethanol has played in revitalizing many of our rural communities.

Missouri Corn Growers Association (MCGA)

The RFS and Agriculture

If the proposed volumes are enacted, the major advancements in agriculture spurred by the RFS will be lost and have a devastating impact to the U.S. agricultural economy. [EPA-HQ-OAR-2016-0004-1782-A1 p.9]

Mobley, Kevin

It has created jobs, reversed the economic trend of another suffering small town in rural America, and generated income for local farm families [EPA-HQ-OAR-2016-0004-0186 p.1]

National Association of Wheat Growers

The RFS strengthened the domestic renewable fuels industry; supports jobs in rural America, strengthens the agriculture economy and is advancing new technology. [EPA-HQ-OAR-2016-0004-2697-A1 p.1]

The proposed 2017 RVO changes will adversely impact rural economies due to the reduction in renewable fuel production and impact on associated jobs. [EPA-HQ-OAR-2016-0004-2697-A1 p.2]

National Biodiesel Board

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-2016-0004-2904-A2 p.108-109]

National Corn Growers Association

The benefits accruing to agriculture have not just stopped at the farm gate. A number of industries provide inputs and services to production agriculture and in the utilization of crops. A recent evaluation of farm income and impact on the broader agricultural sector found that jobs in industries and businesses related to production and use of crops (i.e., agriculturally-related industries) increased 5.4 percent, from 2,947,458 in 2005 to 3,116,369 in 2012.⁵ The economies of many communities in the U.S. are tied to agriculture in profound ways. This data only captures a piece of the broader story of the importance of agriculture to local economies and the national economy. [EPA-HQ-OAR-2016-0004-1809-A1 p.10]

According to the USDA, total net agricultural income has risen since the passage of the RFS. In 2006, average farm income was \$57.4 billion. In 2012, farm income was \$112.8 billion, a 97 percent increase. In addition to net farm income increases, both crop and livestock receipts have increased over this time period. Coincidentally, as the Agency has deviated from statutory levels, demand for agricultural commodities has stagnated, and farm profitability has waned. [EPA-HQ-OAR-2016-0004-1809-A1 p.11]

In the decade prior to RFS passage, row crop production in the U.S. routinely hovered at or below the cost of production. These low market prices required significant transfer of taxpayer dollars to producers under existing farm programs to maintain growers’ solvency. Average support payments per year were \$10-15 billion in program support. These payments were a band aid for solvency, not an infusion of profits. [EPA-HQ-OAR-2016-0004-1809-A1 p.11]

Conversely, the RFS created market-based solutions to a stagnate agriculture economy. Increased market demand lead to increased profitability. One analysis estimates the row crop sector saw a \$144 billion wealth build within agriculture. However, this wealth build did not stay just within the producers pockets. Farmers used this infusion of profitability to recapitalize operations, attract the next generation of farmers, and revitalize rural America. [EPA-HQ-OAR-2016-0004-1809-A1 p.11]

Despite the false claims made by RFS’s detractors, this was not a wealth transfer from one sector to another. In addition to benefiting farmers, granting agriculture access to U.S. oligopolistic energy markets led to reduced fuel prices for consumers, and fewer taxpayer dollars going to support U.S. agriculture. The energy sector still managed to make record profits over this timeframe while allowing competition in an otherwise monopolistic market. [EPA-HQ-OAR-2016-0004-1809-A1 p.11]

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-2016-0004-1809-A1 p.11]

5 Bureau of Labor Statistics Quarterly Census of Employment and Wages. These figures exclude farm operations themselves.

National Farmers Union (NFU)

Farmers and rural communities have made business decisions and invested significant assets based on the reasonable expectation that, in the absence of severe economic harm or inadequate supply, EPA would fulfill its responsibility to enact annual volume requirements matching those Congress set in the EISA. Should the EPA finalize the rule as proposed, farmers and rural communities will almost certainly hold any future attempts to enlist their assistance in future climate resilience endeavors with a degree of skepticism that will prove difficult to overcome and could have been avoided. [EPA-HQ-OAR-2016-0004-1651-A1 p.10]

Nebraska Corn Board (NCB)

Nebraska’s ethanol industry has been a solid economic driver for the state [EPA-HQ-OAR-2016-0004-1694-A2 p.2]

Nelson, Taylor

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.69]

The RFS has played a vital role in the establishment of our plant and the rippling effect of stronger markets for local grain, job creation, small community revitalization.

Platt, Paul

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. [EPA-HQ-OAR-2016-0004-3003-A1 p.1]

Based on NUMEROUS STUDIES AND DATA, the subsidy-laden, corn-to-ethanol program, beneficial to farmers and their suppliers, ethanol plant builders and owners, and politicians, appears to degenerate into a multi-billion net loss for the rest of society [EPA-HQ-OAR-2016-0004-3003-A1 p.1]

Corn-to-Ethanol Harms US Economy: The US economy is beset with a vast array of such wasteful, marginally-effective programs, which, collectively, act as a wet blanket on the economy, preventing it from growing more rapidly and raising living standards, except of the few million well-connected, catered-to, households at the top. [EPA-HQ-OAR-2016-0004-3003-A1 p.2]

POET Biorefining

In addition to the direct employment, the ability of local farmers to sell their corn to a local end-user and a marketplace that is not greatly over-supplied has restored farming as a viable business, without the need for government subsidies. I've witnessed many of our local farmers comment that it has offered their children an opportunity to make farming a career and become America's future farmers. [EPA-HQ-OAR-2016-0004-2755-A1 p.1]

Porter, Gary

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.210]

reducing demand for ethanol will hurt our farms and our rural communities.

Porter, Lori

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.201]

expanding the availability of ethanol is helping rural communities.

Prairie Feed & Trucking, LLC

American agriculture, the nation and thousands of rural families including my own are directly impacted by the Renewable Fuel Standard, and will be negatively impacted by any decrease in the RFS [EPA-HQ-OAR-2016-0004-1643-A1 p.1]

Renew Kansas

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. [EPA-HQ-OAR-2016-0004-1668-A1 p.3]

Samp, Dale

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.225]

I know firsthand the impact that biofuels has had on our rural communities.

Schutte, Jay

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.135]

homegrown renewable fuels have not just helped the agricultural economy, but given us a new sense of prosperity.

Show Me Ethanol

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.177]

The RFS has been critical to our nation's agriculture and rural economy.

South Dakota Corn Growers Association

energy production, ethanol plants and wind farms took on an increasingly important role for the rural economy. [EPA-HQ-OAR-2016-0004-2132 p.1-2]

Farm families invested heavily in ethanol plants, precision farm equipment and seed technology to deliver the results we have today to meet growing global demands for food, feed, fuel and fiber. A reduction of corn ethanol volumes would pull the rug out from under the core of rural American. [EPA-HQ-OAR-2016-0004-2132 p.2]

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.144]

the revitalization that the RFS and ethanol have created in small towns across South Dakota.

Union Bank Co.

I believe that the RFS has been critical to our nation's agriculture and rural economy. Ethanol production has provided an essential market for our grain farmers and has helped revitalize our rural communities. [EPA-HQ-OAR-2016-0004-2757-A1 p.1]

Unverferth Manufacturing Company

The rural economies continue in a fragile state due to precipitously falling prices of corn, soybeans and other agricultural commodities. The additional use of corn in making ethanol has historically had a positive price effect on these commodities. Raising the RFS to the mandated 20% level would further this positive effect on pricing and help our rural communities. [EPA-HQ-OAR-2016-0004-2762-A1 p.1]

Wesley K Clark & Associates, LLC

[Ample supply and production of homegrown biofuel] allows us to invest financial resources back into our local communities instead of abroad. [EPA-HQ-OAR-2016-0004-3508-A1 p.1]

Wisconsin Biofuels Association (WBA)

Ethanol production has provided an essential market for our nation's grain farmers and revitalized rural communities around the country while saving taxpayers billions of dollars in farm program payments. [EPA-HQ-OAR-2016-0004-1638-A1 p.1]

Wisconsin Corn Growers Association

The RFS has been critical to our nation's agricultural and rural economy. [EPA-HQ-OAR-2016-0004-1637-A1 p.2]

Response:

Numerous commenters asserted that increases in RFS renewable fuel requirements raise farm incomes and spur rural development in the U.S. For example, one commenter stated that the RFS has restored farming as a viable business and revitalized small communities across the U.S. Similarly, another commenter asserted that ethanol production has provided an essential market for U.S. grain farmers and this has helped revitalize rural communities.

Numerous commenters suggested that the benefits of the RFS program extend beyond the individual farmer to the broader agriculture sector. Commenters asserted that impacts on the agriculture sector from the RFS extend to a number of industries that provide inputs and services to agricultural production (e.g., farm equipment manufacturers and services). Numerous commenters stated that the economies of many rural communities in the U.S. are closely tied to the agriculture sector and these communities are likely to benefit when the Required Fuel Obligations (RVOs) of the RFS are increased.

According to one commenter, using USDA data, total net agricultural income has risen since the passage of the RFS. In 2006, the commenter asserted average farm income was \$57.4 billion. In 2012, farm income was \$112.8 billion, a 97 percent increase, not accounting for inflation. In addition to net farm income increases, both crop and livestock receipts have increased over this time period. The commenter contended that as the Agency has deviated from statutory levels, demand for agricultural commodities and rural economies has stagnated and in addition points

out that in the decade prior to RFS passage, row crop production in the U.S. routinely hovered at or below the cost of production. The low market prices for farm commodities required significant transfer of taxpayer dollars to producers under existing farm programs to maintain growers' solvency. Average support payments per year were \$10-15 billion in program support.

EPA also received comments that raised concerns about the costs associated with supporting the RFS program. These commenters stated that the benefits of the program were specifically targeted at certain stakeholder groups and that the program has led to net losses to society. EPA believes that the higher renewable fuel standards for 2017 will result in increases in income and employment for many people throughout the country. While the RFS program may have direct impacts on agricultural income, two of the main goals of the RFS program are to increase energy security and to decrease GHG emissions. Those benefits are shared by everyone in the country.

Numerous commenters advocated that EPA set RFS RVOs at statutory volumes to spur increases in farm income and promote rural economic development. The same commenters warn that reductions from RFS statutory volumes will have a depressing effect on farm incomes and, in turn, rural communities. These comments fail to acknowledge that the proposed RFS volumes represented (and the final RFS volumes represent) considerable increases in renewable fuel volumes above previous levels, not decreases. Since EPA does not consider the statutory volumes of cellulosic biofuel, advanced biofuel and total renewable fuel to be attainable we do not believe it is appropriate to attribute any perceived negative impact on farm incomes and rural economies to EPA's decisions to lower the statutory volumes for these fuel types. Furthermore, most of these comments were specifically addressing the situation in the proposal where in addition to using our cellulosic waiver authority to reduce the advanced and total volumes, we would further reduce the total renewable fuel volume by an additional 200 million gallons using our general waiver authority. For the final rule, we are no longer using our general waiver authority to further reduce the total renewable fuel volumes. As a result, the implied volume for conventional renewable fuel (total minus advanced) is maintained at the full volume of 15 billion gallons provided for in the statute.

3.1.7 Refiner's ability to comply

Comment:

American Fuel and Petrochemical Manufacturers (AFPM)

RINs operate like permits to sell specific quantities of gasoline and diesel for U.S. consumption. The number of RINs available for compliance depends on the consumption of renewable fuels in U.S. transportation fuels. Therefore, as the statutory renewable fuel volumes in the RFS exceed the ability of the underlying fuel supply and vehicle and infrastructure compatibility to accommodate additional amounts of renewable fuels, there will be a shortage of RINs for compliance. This will in turn limit supplies of gasoline and diesel for U.S. consumption, harming consumers and the overall economy. [EPA-HQ-OAR-2016-0004-1814-A1 p.6]

Lippold Strategies, LLC

The RFS Needlessly Facilitates the Export of Gasoline

Another central problem with the Proposed Rule is that it encourages greater gasoline exports and a corresponding increase in imports. As a means of reducing its obligation, a refiner may decide to reduce its production of fuel or simply export fuel. By ensuring greater reliance on oil imports, domestic crude exports threaten American energy independence and national security. [EPA-HQ-OAR-2016-0004-1739-A1 p.10]

Response:

Some stakeholders said that refiners could respond to the applicable standard 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 2017 or any future year if there is evidence that the standards will cause severe economic harm.

3.1.8 Jobs and profitability of biofuel producers

Comment:

Advanced Biofuels Business Council (ABBC)

The RFS is in the eighth year of a fifteen-year commitment and there are multiple studies showing a range of economic impacts. For example, a recent state-by-state analysis conducted by Cardno ENTRIX concluded that the ethanol industry alone supports roughly 383,000 direct and indirect jobs across all sectors, and contributed \$43.3 billion to GDP and \$30.2 billion in household income. A recent article published by several analysts from the Oak Ridge National Laboratory found that the RFS is producing significant positive economic effects ("the net global economic effects of the RFS2 policy are positive with an increase of 0.8% in U.S. gross domestic product (GDP) in 2022...[well in excess of \$100 billion]" stemming from the fact that the RFS is reducing crude oil prices, decreasing crude oil imports, increasing gross domestic product (GDP), and having only minimal impacts on global food markets and land use. As discussed in the Oak Ridge report, producing domestic renewable fuels has increased economic output in and of itself, but especially when taken against the alternative of petroleum. Petroleum dependence

results in a net exportation of jobs and capital on an industry-wide, per gallon basis given the inherently foreign characteristics of the industry. [EPA-HQ-OAR-2016-0004-1733-A1 p.34]

The economic opportunity, with specific regard to advanced biofuel production, is robust. First, roughly half of the economic benefits discussed in the Oak Ridge paper above are from advanced biofuels. According to the Sandia National Laboratory, the U.S. could produce 75 billion gallons per year of cellulosic biofuels without displacing food and feed crops. This would be enough cellulosic biofuel alone to displace more than half of gasoline demand. An RFS study by Bio-Economic Research Associates concluded that compliance with the advanced biofuels requirement of the RFS will create roughly 800,000 direct and indirect jobs. The RFS is the global gold standard for advanced biofuels policy that works to ensure that the commercialization of the advanced biofuels industry occurs predominantly in the United States. The proposed rule would transform the RFS at a fundamental level. [EPA-HQ-OAR-2016-0004-1733-A1 p.34-35]

Anonymous 2

this industry helps employ American citizens [EPA-HQ-OAR-2016-0004-1468 p.1]

Birr, Adam

There are 21 ethanol plants in Minnesota that support more than 18,000 jobs. Minnesota's ethanol industry contributes \$2.13 billion to the states gross domestic product and \$7.37 in gross sales. [EPA-HQ-OAR-2016-0004-3146-A1 p.1]

Bricks, Wayne

- Ethanol creates hundreds of thousands of jobs [EPA-HQ-OAR-2016-0004-1613-A1 p.1]

Bunker Hill Farms, Inc.

Biofuels supported nearly 400,000 jobs in 2015. These are good paying jobs, essential to the economies of many rural communities in America's heartland. [EPA-HQ-OAR-2016-0004-2766-A1 p.1]

Calease, Jerry

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.124]

The RFS has helped to support jobs throughout the United States of America.

CHS, Inc.

As a refiner, renewable fuels producer and fuel retailer, CHS supports the RFS because it is setting the biofuels industry on the path to economic viability. The production of ethanol and other biofuels provides CHS more market opportunities to add domestic and global value for our farmer-owners. [EPA-HQ-OAR-2016-0004-1612-A1 p.1]

Dickman, Ben

Ethanol production accounts for nearly 400,000 American jobs [EPA-HQ-OAR-2016-0004-0533 p.1]

Highwater Ethanol

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. [EPA-HQ-OAR-2016-0004-1662-A1 p.1]

Iowa Farm Bureau Federation (IFBF)

The RFS has also been effective at creating high paying jobs and providing lower costs at the gas station. These added benefits have been a boon to rural communities across the country. [EPA-HQ-OAR-2016-0004-1653-A1 p.1]

Liebrecht Manufacturing

Ethanol production accounts for some 400,000 American jobs, saves consumers money at the pump [EPA-HQ-OAR-2016-0004-2756-A1 p.1]

These drastic proposed cuts will almost certainly idle ethanol production and cause lost jobs in many rural areas of the country [EPA-HQ-OAR-2016-0004-2756-A1 p.1]

Maryland Grain Producers Association

Reducing the 2017 Renewable Volume Obligation (RVO) by 200 million gallons less than the federal statute represents:

- * 425,000 acres of harvested corn;
- * \$271 million dollars in revenue lost. [EPA-HQ-OAR-2016-0004-0845-A1 p.1]

Mass Comment Campaign sponsored by Absolute Energy (Paper) - (60)

This proposal will have a significant 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, hospitals and local municipal services will suffer. [EPA-HQ-OAR-2016-0004-1359-A1 p.1]

Mass Comment Campaign sponsored by Absolute Energy (Paper) - (60)

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 local 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 right here in my hometown for a good, solid wage, doing honorable work that helps me support myself, my family, my community and my country's growing energy needs. [EPA-HQ-OAR-2016-0004-1359-A1 p.1]

By capping production, you are sending a signal that the government no longer puts priority on the production of biofuels. This uncertainty puts my job and my fellow co-workers' jobs at risk. [EPA-HQ-OAR-2016-0004-1359-A1 p.1]

This proposal will have a significant 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, hospitals and local municipal services will suffer. [EPA-HQ-OAR-2016-0004-1359-A1 p.1]

Mass Comment Campaign sponsored by Absolute Energy LLC (Paper) - (196)

The impact that the RFS has had on ethanol plants and production cannot be overstated. I have witnessed firsthand, since its original enactment in 2005, the positive impact the RFS has had on my local economy and how it stimulates investment from domestic and international sources. [EPA-HQ-OAR-2016-0004-1361-A1 p.1]

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. [EPA-HQ-OAR-2016-0004-1361-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 10 (email) - (771)

Ethanol production accounts for nearly 400,000 American jobs that cannot be outsourced, saves consumers money at the pump and reduces our dependence on foreign oil. [EPA-HQ-OAR-2016-0004-1166-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 17 (email) - (86)

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. [EPA-HQ-OAR-2016-0004-1363-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 28 (paper) - (5)

The Renewable Fuel Standard (RFS) has positively impacted the country by:

- Providing for nearly 400,000 jobs nationwide [EPA-HQ-OAR-2016-0004-2408-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 8 (email) - (629)

Not only are we growing the corn to produce our fuel, but we are also partnering with the agriculture and biofuels industry to bolster a \$100 million USDA grant to increase the number of fuel tanks, service stations and E15 pumps around the country. [EPA-HQ-OAR-2016-0004-0556-A1 p.1]

Mass Comment Campaign sponsored by DENCO II (investors) (Paper) - (12)

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 our local economy. [EPA-HQ-OAR-2016-0004-1967-A1 p.1]

Since DENCO II, LLC was formed we have re-invested over \$5 million in process and efficiency upgrades. Furthermore, we have committed a substantial investment in the production of renewable fuels to further drive innovation and help make next generation fuels a reality, such as advanced ethanol from food waste. We are already producing advanced biofuels at the facility in Morris but proposed reductions in the RVO's will put this investments at risk thus reduce future progress at our facility. [EPA-HQ-OAR-2016-0004-1967-A1 p.1]

As you move forward in putting together a final rule, I hope you will consider the fallout if a rule, such as the one proposed would have on investors and the workers who count on their jobs at the ethanol production facilities around the country. [EPA-HQ-OAR-2016-0004-1967-A1 p.2]

Mass Comment Campaign sponsored by ethanol producers (email) - (444)

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 local 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 right here in my hometown for a good, solid wage, doing honorable work that helps me support myself, my family, my community and my country's growing energy needs. [EPA-HQ-OAR-2016-0004-0555-A1 p.1]

Mass Comment Campaign sponsored by ethanol producers (email) - (87)

By failing to acknowledge the full potential of the cellulosic industry, you are sending a signal that the government no longer places priority on the production of biofuels. This uncertainty, puts not only future investment at risk, but the entire American-made, American-built biofuels industry at risk. [EPA-HQ-OAR-2016-0004-1170-A1 p.1]

Mass Comment Campaign sponsored by ethanol producers 1 (email) - (444)

This proposal will have a significant 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, hospitals and local municipal services will suffer. [EPA-HQ-OAR-2016-0004-0555-A1 p.1]

Mass Comment Campaign sponsored by investors in ethanol plants (email) - (67)

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. [EPA-HQ-OAR-2016-0004-1164-A1 p.1]

Mass Comment Campaign sponsored by Plymouth Energy (paper) - (83)

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 local 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 right here in my hometown for a good, solid wage, doing honorable work that helps me support myself, my family, my community and my country's growing energy needs. [EPA-HQ-OAR-2016-0004-1704-A1 p.1]

By capping production, you are sending a signal that the government no longer puts priority on the production of biofuels. This uncertainty puts my job and my fellow co-workers' jobs at risk. [EPA-HQ-OAR-2016-0004-1704-A1 p.1]

Mass Comment Campaign sponsored by Plymouth Energy (paper) - (83)

This proposal will have a significant 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, hospitals and local municipal services will suffer. [EPA-HQ-OAR-2016-0004-1704-A1 p.1]

Mass Comment Campaign sponsored by POET Biorefining (Paper) - (60)

We need your help to keep the ethanol market strong so this investment will continue and all of the jobs created will continue. [EPA-HQ-OAR-2016-0004-2428-A1 p.1]

Mass Comment Campaign sponsored by POET Biorefining (Paper) - (80)

Biofuels supported nearly 400,000 jobs in 2015 [EPA-HQ-OAR-2016-0004-2881-A1 p.1]

Mass Comment Campaign sponsored by Southwest Iowa Renewable Energy LLC (SIRE) (paper) - (27)

The ethanol industry also supports jobs for more than 271,000 Americans, including nearly 40,000 jobs here in Iowa. [EPA-HQ-OAR-2016-0004-1703-A1 p.1]

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-2016-0004-1703-A1 p.1]

Mass Comment Campaign sponsored by Three Rivers Energy (Paper) - (28)

This proposal will have a significant ripple effect on ethanol plants, their production and the jobs they support - as well as the surrounding communities. [EPA-HQ-OAR-2016-0004-1968-A1 p.1]

Minnesota Bio-Fuels Association, Inc. (MBA)

Economic Benefits

The following information is offered to illustrate the effect the RFS is having on the economic balance in Minnesota. [EPA-HQ-OAR-2016-0004-1871-A1 p.14]

MINNEAPOLIS, March 7 - Minnesota's ethanol industry contributed \$2.13 billion to the state's gross domestic product in 2015, according to a new study by ABF Economics. [EPA-HQ-OAR-2016-0004-1871-A1 p.14]

The study, commissioned by the Minnesota Bio-Fuels Association, said the industry generated \$7.37 billion in gross sales in 2015 for Minnesota businesses. [EPA-HQ-OAR-2016-0004-1871-A1 p.15]

This, in turn, generated \$1.6 billion worth of income for Minnesota households, supported 18,116 full-time jobs in the state and contributed \$93 million to state and local taxes last year. [EPA-HQ-OAR-2016-0004-1871-A1 p.15]

"The ethanol industry continues to be a significant contributor to Minnesota's economy and is vital to continued economic growth in the state," said Tim Rudnicki, executive director of the Minnesota Bio-Fuels Association. [EPA-HQ-OAR-2016-0004-1871-A1 p.15]

For the study, ABF Economics used the Impact Analysis for Planning (IMPLAN) economic model to construct a model of the Minnesota economy including the sectors that support the ethanol industry, the links between them and the level of economic activity. [EPA-HQ-OAR-2016-0004-1871-A1 p.15]

"Ethanol plants provide jobs and income not only for people who work at the plants, but also for businesses that sell ethanol plant supplies including Minnesota farmers who produce most of the corn used by Minnesota's biofuel industry," noted John Urbanchuk, managing partner of ABF Economics. [EPA-HQ-OAR-2016-0004-1871-A1 p.15]

Jobs induced by the ethanol industry in Minnesota, the study said, included jobs in retail trade, health care, natural gas distributors, banking and finance. [EPA-HQ-OAR-2016-0004-1871-A1 p.15]

The study said Minnesota's 21 ethanol plants spent \$2.05 billion in 2015 to produce 1.2 billion gallons of ethanol, 3.6 million tons of dried distiller's grains (DDGs) - which is a high-protein animal feed - and 198 million lbs of corn oil. [EPA-HQ-OAR-2016-0004-1871-A1 p.15]

The volume of ethanol produced last year, the study said, was 11percent higher than 2014. [EPA-HQ-OAR-2016-0004-1871-A1 p.15]

The study said the 3.6 million tons of DDGs produced by the ethanol industry last year was sufficient to meet the annual feed requirements of the entire inventory of cattle and calves in Minnesota or more than 2.7 million beef and dairy cattle. [EPA-HQ-OAR-2016-0004-1871-A1 p.15]

This, it said, was because one ton of DDGs replaces 1.22 tons of feed consisting of corn and soybean meal. As such, the study said the livestock and poultry industry in Minnesota required less corn and soybean meal. [EPA-HQ-OAR-2016-0004-1871-A1 p.15]

In addition, ABF Economics said the ethanol industry's output of 198 million lbs of corn oil is used to produce biodiesel. [EPA-HQ-OAR-2016-0004-1871-A1 p.15]

National Biodiesel Board

The biomass-based diesel industry has provided benefits to the overall economy, including adding 3,200 jobs for every 100-million-gallon increase. See LMC International, The Economic Impact of the Biodiesel Industry on the U.S. Economy, June 2016 ("LMC Economic Study") [EPA-HQ-OAR-2016-0004-2904-A2 p.18]

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-2016-0004-2904-A2 p.108-109]

National Corn-to-Ethanol Research Center at SIUE

With these proposed levels of RVO's, these trainees will not receive job opportunities in the bioeconomy, because there will be no bioeconomy, which will ultimately leave many people without jobs. [EPA-HQ-OAR-2016-0004-1714-A1 p.1]

National Women involved in Farm Economics (WIFE)

Ethanol was directly responsible for 87,000 jobs in 2012 and indirectly supported more than 295,000. More than \$43.4 billion in U.S. gross domestic products was generated that year. [EPA-HQ-OAR-2016-0004-2540 p.1-2]

North Dakota Ethanol Council (NDEC)

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-2016-0004-1671-A1 p.1]

Novozymes

The RFS was meant to lower fossil fuel use and increase renewable fuel use by providing market access for biofuel producers, eliminating the current oil sector monopoly. It is working. [EPA-HQ-OAR-2016-0004-1734-A1 p.2]

A 2014 footprint analysis conducted for Fuels America found that the RFS creates \$184.5 billion of economic output, 852,056 jobs, and \$46.2 billion in wages and \$14.5 billion in taxes each year in the United States¹. Renewable fuel now accounts for about 10 percent of our gasoline supply. [EPA-HQ-OAR-2016-0004-1734-A1 p.2]

Policy instability and delays in EPA rulemakings are responsible for the majority of an estimated \$22.4 billion shortfall in advanced biofuels according to a study by The Biotechnology Innovation Organization (BIO)³. [EPA-HQ-OAR-2016-0004-1734-A1 p.3-4]

Stability and predictability around the RFS disappeared in 2013 with the introduction of the distribution waiver. EPA's 2017 RFS proposal continues to put all of this innovation, investment and economic development at risk. [EPA-HQ-OAR-2016-0004-1734-A1 p.4]

1 Fuels America, The RFS Drives Economy Wide Growth, available at http://www.fuelsamerica.org/pages/fuels_america_releases_new_footprint_anaylsis; see also <http://fuelsamerica.guerrillaeconomics.net/assets/site/res/2014%20Fuels%20America%20Metho dology.pdf> (Apr. 15, 2014) (providing detailed description of study results, data sources, and methodology).

3 https://www.bio.org/sites/default/files/Estimating_Another_Year_of_Chilled_Investment.pdf

POET Biorefining

In support of the request I'd like to share with you our impact on jobs in Leipsic, Ohio for first-time employees. Our operation provides summer work opportunities for young prospective college workers to help support their tuition and living costs for college. As we are all aware, college is not for everyone, especially right after high school graduation. Like so many thousands of similar youth, we have had three local teens come to that conclusion and find themselves looking for honest, honorable work that provides decent wages, benefits and career opportunity. [EPA-HQ-OAR-2016-0004-2755-A1 p.1]

POET Biorefining-Leipsic, located in Leipsic, Ohio, has provided these three with the type of job that our elected leaders so often lament the shortage of. A job that offers them \$16+ starting wages, good benefits that are able to not only get them by, but also support them as they start a family, along with training and career opportunities to greatly grow their wages and personal market value. [EPA-HQ-OAR-2016-0004-2755-A1 p.1]

We have also recently retained a newly degreed engineer seeking his first employment. This opportunity will provide him with exposure to a highly technical industry with mature processes and systems in order to permit him to build his skills and develop his engineering acumen. [EPA-HQ-OAR-2016-0004-2755-A1 p.1]

It is this small sampling of job creation that is so hard to come by, especially in rural regions, that permits rural Americans the option of remaining local, without sacrificing opportunity and a career. The biofuels industry in America supports hundreds of thousands of similar jobs throughout the Midwest. These jobs do not accompany the barrels of oil that we as a nation import from foreign sources. [EPA-HQ-OAR-2016-0004-2755-A1 p.1]

Quad County Corn Processors (QCCP), employees

The ethanol industry also supports jobs for more than 271,000 Americans, including nearly 40,000 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-2016-0004-1323-A2 p.2]

Schutte, Jay

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.136]

The corn and ethanol industry of my State employs 67,000 people.

South Dakota Corn Growers Association

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.145]

the ethanol industry in South Dakota has an annual economic impact of \$3.8 billion, employs directly 1,900 people who average salary of \$60,000.

Syngenta

If finalized, the rule could have the following effects:

- Increased risk of declining investment in advanced and cellulosic biofuels. EPA's proposal sends a 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 threatened by EPA's proposal. [EPA-HQ-OAR-2016-0004-1832-A1 p.4]

Response:

EPA received numerous comments related to the impact of the RFS required fuel volume obligations (RVOs) on employment and the profitability of firms producing renewable fuels. For example, commenters cited several studies estimating the economic benefits and employment impacts of the RFS program at the state and national levels.

EPA believes that the higher renewable fuel standards for 2017 will result in increases in income and employment for 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 RFS RVOs standards on the whole U.S. economy. 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 increases in the RFS RVOs.

Numerous commenters advocated that EPA set RFS RVOs at statutory volumes to spur increases in employment and income in the U.S. farm economy. The same commenters warned that reductions from RFS statutory volumes will have a depressing effect on employment and, in turn, rural communities. These commenters failed to acknowledge that the proposed RFS volumes represented (and the final RFS volumes represent) considerable increases in renewable fuel volumes above previous levels, not decreases. Since EPA does not consider the statutory volumes attainable for cellulosic biofuel, advanced biofuel and total renewable fuel, we do not

believe it is appropriate to attribute any perceived negative impact on employment and income associated with levels of renewable fuel production below the statutory volumes to EPA's decisions regarding these fuel types.

3.2 Environmental impacts and considerations

3.2.1 GHG impacts

Comment:

25x'25 Alliance

EPA's current proposal is at odds with the administration's much-publicized stated goal of reducing GHG emissions. Biofuels can and should be a valued tool to achieve the GHG reductions targets in the fight against climate change. [EPA-HQ-OAR-2016-0004-0473-A1 p.4]

ABATE of Pennsylvania

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. [EPA-HQ-OAR-2016-0004-2200-A1 p.2]

Action Aid et al.

Corn ethanol expansion would only exacerbate negative impacts on the environment, public health, wildlife habitat, and food security that have occurred since the RFS was greatly expanded in 2007 (see Section II for more information on environmental impacts): [EPA-HQ-OAR-2016-0004-1801-A1 p.2]

- Millions of acres of native grasslands, forests, and wetlands have been converted to intensive row crop and biofuel feedstock production since 2007, including land use conversion that is prohibited by law, with negative impacts on the climate, wildlife habitat, water and air quality, and other environmental indicators.
- Increased corn acreage (to meet a larger corn ethanol mandate) has resulted in increased nitrogen fertilizer applications, which leach into water supplies, pollute drinking water, and result in worse health, particularly for residents in the Corn Belt.
- Wildlife habitat has shrunk significantly since 2007 with the large loss of grasslands and wetlands acres, not to mention pasture, stream buffers, forests, and other sensitive land.
- Instead of decreasing greenhouse gas (GHG) emissions, current corn ethanol production may actually increase carbon emissions.
- Food security risks due to higher commodity prices related to increased demand for corn ethanol and substitute crops. [EPA-HQ-OAR-2016-0004-1801-A1 p.2]

Current Corn Ethanol Production Increases GHG Emissions

According to EPA's own data, current corn ethanol production increases – not decreases – GHG emissions even though the law requires emissions to be reduced by at least 20% for conventional biofuels (corn ethanol). Several independent researchers and environmental groups have questioned corn ethanol's ability to reduce GHG emissions, including: [EPA-HQ-OAR-2016-0004-1801-A1 p.6-7]

- As the 2011 National Academies of Science report on the RFS concluded, the “RFS may be an ineffective policy for reducing global greenhouse-gas emissions.”³⁰ [EPA-HQ-OAR-2016-0004-1801-A1 p.7]
- The Congressional Budget Office (CBO) concluded in a 2014 report that, “available evidence suggests that using corn ethanol in place of gasoline has only limited potential to reduce greenhouse gas emissions (and some researchers estimate that it could actually increase emissions).”³¹ [EPA-HQ-OAR-2016-0004-1801-A1 p.7]
- In 2011, the Clean Air Task Force found, “If EPA had analyzed corn ethanol produced during 2010-2015 (when production capacity was still ramping up) rather than corn ethanol produced in 2022 (seven years after EPA expects production to level off), the Agency would have found that corn ethanol's net emissions over 30 years are approximately 28% higher than the emissions that would result from the use of gasoline over that same period.”³² [EPA-HQ-OAR-2016-0004-1801-A1 p.7]

30 Lester Lave, et al. 2011. Renewable Fuel Standard: Potential Economic and Environmental Effects of U.S. Biofuel Policy 221 (Report by the National Research Council Committee on Economic and Environmental Impacts of Increasing Biofuels Production) (internal citations omitted). (http://www.nap.edu/openbook.php?record_id=13105).

31 Congressional Budget Office. 2014. The Renewable Fuel Standard: Issues for 2014 and Beyond (internal citations omitted). (<https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/45477-Biofuels2.pdf>).

32 A fuller description of CATF's analysis of EPA's lifecycle GHG emissions data can be found in a 2013 white paper titled “Corn Ethanol GHG Emissions Under Various RFS Implementation Scenarios,” as well as in CATF's “Comments on Environmental Protection Agency Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards – Proposed Rule.”

(<http://www.catf.us/resources/whitepapers/files/20130405KCATF%20White%20PaperKCorn%20GHG%20Emissions%20Under%20Various%20RFS%20Scenarios.pdf>).

Advanced Biofuels Business Council (ABBC)

The latest peer-reviewed analysis coming out of the U.S. Argonne National Laboratory shows that all types of ethanol have significantly lower lifecycle greenhouse gas emissions than petroleum. Advanced ethanol, in particular, is: (a) vastly more carbon reductive than petroleum; (b) vastly more carbon reductive than the baseline used to analyze the RFS – 2005 gasoline; and, (c) significantly more carbon reductive than technologies often regarded to be the most innovative (electric drive, hydrogen). [EPA-HQ-OAR-2016-0004-1733-A1 p.33]

Latest Well-to-Wheels Greenhouse Gas Emissions Reduction Relative to Average Petroleum Gasoline [Table can be found on p.33 of this docket] Source: Argonne National Laboratory⁴⁹

The carbon benefits of increasing the use of renewable fuels are actually even greater when you take into account the fact that renewable fuels replace marginal (rather than average) gallons of petroleum. To illustrate, Petrobras chief Jose Sergio Gabrielli has declared that “the era of cheap oil is over.” This means that oil companies are shifting very quickly to increasing reliance on more expensive and riskier “unconventional” fuels – including tight oil (e.g. the Bakken), deep water (e.g. Gulf of Mexico, Deep Water Horizon) and Canadian tar sands (e.g. Keystone) – to meet the global demand for fuel energy. These fuels are far more carbon intensive than the “2005 average petroleum” legislated by Congress in 2007, and replacing RFS gallons with marginal petroleum gallons will result in backsliding with regard to both raw GHG emissions and the Obama Administration’s commitment to cut carbon emissions to “protect the health of our children and move our economy toward American-made clean energy sources that will create good jobs and lower home energy bills.” [EPA-HQ-OAR-2016-0004-1733-A1 p.33]

49 See http://iopscience.iop.org/1748-9326/7/4/045905/pdf/1748-9326_7_4_045905.pdf

American Coalition for Ethanol (ACE)

Transportation is now the leading emitter of greenhouse gases (GHGs) in the U.S. EPA has a responsibility to update its lifecycle modeling to keep up with the latest science, which will better enable the RFS to play a role in reducing GHGs. [EPA-HQ-OAR-2016-0004-1679-A2 p.11]

The latest modeling indicates that the lifecycle GHG carbon intensity (CI) of corn ethanol production is 47 percent lower than gasoline. According to 2015 GREET modeling and the California Air Resources Board (CARB), gasoline has a CI of 99.78 grams of CO₂ per MJ. According to GREET “average Midwest corn ethanol” with a land use change penalty has a CI of 52 grams of CO₂ per MJ. [EPA-HQ-OAR-2016-0004-1679-A2 p.11]

Since the RFS was enacted in 2005, the lifecycle carbon intensity of average Midwest corn ethanol has shrunk by nearly 40 percent. In that same time, the carbon intensity of gasoline has increased by nearly 7 percent and will continue to get worse because it is energy-intensive to extract unconventional fossil fuels. [EPA-HQ-OAR-2016-0004-1679-A2 p.11]

[Figure can be found on p.12 of this docket]

Corn farmers respond to market signals and have rapidly adopted precision agriculture technology and employed enhanced efficiency fertilizers in order to reduce N application rates and efficiency, reducing N losses to the air and water. [EPA-HQ-OAR-2016-0004-1679-A2 p.12-13]

American Council for Capital Formation (ACCF)

The study found that the RFS continues to fall short of meeting its primary environmental objectives, including its promise to reduce U.S. greenhouse gas (GHG) emissions. Last year, greenhouse gas emissions from agricultural production and input use would have been 3.4 million metric tons lower in the "no RFS" scenario and 6.2 million metric tons lower under the "cellulosic replacement" scenario. [EPA-HQ-OAR-2016-0004-1713 p.2]

American Fuel and Petrochemical Manufacturers (AFPM)

Greenhouse Gas Implications

“According to EPA’s own estimates, corn grain ethanol produced in 2011 is a higher emitter of GHG than gasoline.” Therefore, more corn ethanol will increase lifecycle greenhouse gas emissions. This is an additional factor that the EPA should consider when projecting the level of ethanol use in the RFS and establishing RFS requirements. [EPA-HQ-OAR-2016-0004-1814-A1 p.40]

American Petroleum Institute (API)

Environment: EISA does not require EPA to rely on initial rule-making for subsequent assessments. In fact, the purpose is to review information that may become available. Science has evolved since EPA’s 2010 RIA and additional studies are available on the environmental impacts of biodiesel (GHGs, air quality, etc.) including the 2016 European Commission study referenced earlier. EPA should take into consideration constraints and limitations of other advanced renewable fuels and new environmental information related to biomass-based diesel and compare with findings from 2010, not just rely on 2010 findings. [EPA-HQ-OAR-2016-0004-3512-A2 p.36]

American Soybean Association (ASA)

As demonstrated and detailed by the National Biodiesel Board in their comments, the U.S. biomass-based diesel industry has reduced fossil fuel use, which in turn reduces this country’s dependence on foreign oil and the environmental impacts of fossil fuel production. In particular, biodiesel has reduced carbon emissions from the transportation fuel sector. Based on the mix of feedstocks utilized and the most updated life-cycle analysis, biodiesel now reduces CO2 emissions by 81% relative to petroleum diesel and every 100 gallons of biodiesel that is substituted for an equivalent amount of petroleum diesel reduces CO2 emissions by 1 metric ton. [EPA-HQ-OAR-2016-0004-1722-A1 p.2]

Anonymous 10

1. It takes more energy to produce corn based ethanol than you get when you burn it in engines. This results in an increase in emissions and greenhouse gases, not a reduction. [EPA-HQ-OAR-2016-0004-2151 p.1]

Anonymous 7

Currently biofuels do not achieve meaningful GHG reduction. [EPA-HQ-OAR-2016-0004-2457 p.1]

Association of Equipment Manufacturers (AEM)

If EPA moves forward with its proposed rule it will directly lead to the burning of hundreds of millions of additional gallons of gasoline, emitting tons of GHG into the atmosphere. [EPA-HQ-OAR-2016-0004-0723-A1 p.3]

Belluardo, John

The production and transportation of ethanol spews unhealthy diesel exhaust including carbon particulate into our atmosphere. To make matters worse the burning of ethanol as a fuel further pollutes our atmosphere with ozone. [EPA-HQ-OAR-2016-0004-2571-A1 p.2]

Biotechnology Innovation Organization (BIO)

EPA must make process improvements for RFS pathway approvals – not only to clear backlogs of pending approval petitions, but to speed new approval decisions. [EPA-HQ-OAR-2016-0004-2721-A1 p.28]

If adopted in a final rule, EPA's proposal would forego attainable reductions in greenhouse gas emissions from the transportation sector. [EPA-HQ-OAR-2016-0004-2721-A1 p.41]

By foregoing use of the general waiver to reduce overall volumes and limiting use of the cellulosic waiver to reduce advanced and overall volumes, EPA could in fact minimize growth in greenhouse gas emissions for 2017. [EPA-HQ-OAR-2016-0004-2721-A1 p.44]

Bricks, Wayne

- Ethanol is clean-burning and produces fewer greenhouse emissions than regular gas
- Ethanol has the highest octane of any available additive, leading to better fuel efficiency and fewer emissions [EPA-HQ-OAR-2016-0004-1613-A1 p.1]
- Ethanol is more energy-efficient to produce than conventional gas [EPA-HQ-OAR-2016-0004-1613-A1 p.1]

Bunker Hill Farms, Inc.

Ethanol is an earth friendly biofuel that makes significant reductions in greenhouse gas emissions. [EPA-HQ-OAR-2016-0004-2766-A1 p.1]

Carbon Green BioEnergy

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.179]

the RFS will help reduce greenhouse gas emissions by 138 million metric tons, which is the equivalent of taking 27 million cars off the road. By failing to implement the volume obligations as required, efforts to reduce greenhouse gas emissions will be set back.

Carpenter, Judith

we cannot forget the important environmental benefits of ethanol, which provides up to a fifty percent reduction in greenhouse gas emissions, compared to gasoline. [EPA-HQ-OAR-2016-0004-3283-A1 p.1 [EPA-HQ-OAR-2016-0004-3283-A1]]

Clean Air Task Force (CATF)

Setting the 2017 RVO implied volume for corn ethanol higher than the blend wall in addition to the 2016 volume would only increase incentives to expand corn ethanol production, with negative impacts on the climate, water quality, air quality, soil quality, wildlife habitat, and food security. Current corn ethanol production increases – not decreases – GHG emissions. In its 2010 Renewable Fuel Standard Implementation Rule, EPA concluded that corn ethanol produced during 2010-2015 (when production capacity was still ramping up) rather than corn ethanol produced in 2022 (seven years after EPA expects production to level off), corn ethanol's net emissions over 30 years would be 28% higher than the emissions from gasoline over the same period. Reports by the Congressional Budget Office and National Academies of Science have also questioned the GHG reduction potential of corn ethanol. [EPA-HQ-OAR-2016-0004-1804-A1 p.3]

Moreover, the 2010 analysis conducted by EPA ignores much of the land use change impacts from current ethanol production. Increased demand for corn since the 2007 mandate was enacted has increased incentives for farmers not only in the U.S. but also around the world to drain wetlands, cut down trees, and tear up grasslands to plant biofuel feedstocks such as corn and soybeans, again with negative impacts on the climate as more carbon is released into the atmosphere when these sensitive acres are converted into agricultural production. A 2015 study by researchers at the University of Wisconsin found that over seven million acres of uncultivated land (since at least 2001) were converted to agricultural production between 2008 and 2012. Other studies have documented similar large land use changes since the 2007 mandate went into effect. As EPA's own 2011 Triennial Report to Congress showed, this direct and indirect land conversion also negatively impacts wildlife habitat and water quality with more soil erosion and increased use of synthetic fertilizers for corn production (which is the most input-intensive crop in the United States). For more information on land use change and other environmental impacts, please see CATF's comments on the proposed rule for the 2014-16 RVOs and the joint comments that CATF is submitting with other NGOs for the 2017 RVOs. [EPA-HQ-OAR-2016-0004-1804-A1 p.3-4]

However, a 2015 study for the European Commission by Hugo Valin and colleagues suggests that the net GHG emissions associated with soybean oil—the feedstock for more than half of the biodiesel produced in the United States last year—are much higher than EPA determined. Valin et al. (2015) finds that the net GHG emissions rate from the land use change associated with soybean oil production is 150gCO₂e/MJ, which is over 50% higher than the lifecycle GHG

emissions rate for petroleum diesel. Importantly, about 20% of soybean oil's LUC GHG emissions are linked to peatland oxidation. In other words, the use of soybean oil for biofuel production is indirectly but significantly contributing to the expansion of new palm oil plantations onto peatlands. [EPA-HQ-OAR-2016-0004-1804-A1 p.10]

For the same basic structural reasons, EPA's proposal to increase the biomass-based diesel RVO for 2018 would also exacerbate the social harms connected to palm oil production. By increasing the demand for both biodiesel and vegetable oil, EPA's proposal would incentivize palm oil producers to expand production and, presumably, the incidence of land grabs and other socially-damaging production practices. [EPA-HQ-OAR-2016-0004-1804-A1 p.11]

Coburn & Associates, LLC

Plowing pristine land releases carbon dioxide locked in the soil; and new fertilizer plants and the ethanol factories also increase GHG emissions. [EPA-HQ-OAR-2016-0004-1749-A1 p.1]

DeCicco, John M.

- The latest scientific evidence indicates that the RFS has been harmful to the environment to date and that increases in the volumetric requirements will cause further increases in net greenhouse gas (GHG) emissions compared to either leaving the standards unchanged or reducing them. [EPA-HQ-OAR-2016-0004-1828-A1 p.1]
- mounting evidence warrants that EPA thoroughly evaluate the effect of the RFS using methods different than lifecycle analysis (LCA), which is scientifically problematic and has proven to be misleading. The RFS program's impact on net GHG emissions, both cumulatively to date and prospectively under recent and proposed standards, is best examined using empirical (data-driven) methods that assess the additionality of carbon uptake in renewable feedstocks as actually produced at commercial scale. [EPA-HQ-OAR-2016-0004-1828-A1 p.1]

Others have pointed out, using EPA's own analysis of the RFS, how existing corn and soy based biofuels result in higher net GHG emissions than those from the production and use of petroleum fuels over the years of the RFS to date; net reductions are not projected until the future (e.g., as in the agency's analysis for 2022) and even then depend on technological assumptions that have yet to prove true. [EPA-HQ-OAR-2016-0004-1828-A1 p.2]

My own studies takes a deeper look at the issue based on biogeochemical fundamentals. Such analysis indicates that a significant, measurable gain in the rate of net carbon uptake on the land from which biofuel feedstocks are sourced is a prerequisite for biofuels to offer any climate mitigation benefit. This condition is formally stated as the need for an increase in net ecosystem production (NEP) during feedstock production.¹ It means that an additionality test is needed for the carbon contained in the feedstocks used to make RFS-compliant fuels. [EPA-HQ-OAR-2016-0004-1828-A1 p.2]

Based on research described in my recent Congressional testimony,² including an analysis of a modern corn ethanol production facility,³ the gain in carbon uptake on cropland is not sufficient

to balance end-use, processing and land-use change GHG emissions from biofuel use to date. In fact, these emissions exceed the gains in carbon uptake to such a degree that it is clear that RFS-driven biofuel use is increasing net GHG emissions compared to ongoing use of petroleum fuels. [EPA-HQ-OAR-2016-0004-1828-A1 p.2]

¹ DeCicco, J.M. 2013. Biofuel's carbon balance: doubts, certainties and implications. *Climatic Change* 121(4): 801-814. <http://dx.doi.org/10.1007/s10584-013-0927-9> (attached)

² DeCicco, J.M. 2016. Testimony on the Renewable Fuel Standard. Before the Committee on Oversight, March 16, 2016. Washington, DC: U.S. House of Representatives (attached).

³ DeCicco, J., and R. Krishnan. 2015. Annual Basis Carbon (ABC) Analysis of Biofuel Production at the Facility Level. Report. Ann Arbor, MI: University of Michigan Energy Institute, August. <http://dx.doi.org/10.2139/ssrn.2643155>

Dickman, Ben

By failing to embrace the full potential of the RFS, our nation will not see the dramatic decrease in greenhouse gas (GHG) emissions attainable under the RFS. [EPA-HQ-OAR-2016-0004-0533 p.1]

DuPont Industrial Biosciences

If adopted in a final rule, EPA's proposed biofuel volumes will continue to increase U.S. greenhouse gas emissions [EPA-HQ-OAR-2016-0004-1827-A1 p.13]

By foregoing use of the general waiver to reduce overall volumes and limiting use of the cellulosic waiver to reduce advanced and overall volumes, EPA could in fact minimize growth in greenhouse gas emissions for 2017. [EPA-HQ-OAR-2016-0004-1827-A1 p.15]

Energy Future Coalition et al.

EPA should correct its lifecycle analysis and include a comprehensive cost benefit analysis in the Final Rule. [EPA-HQ-OAR-2016-0004-2772-A1 p.3]

GREENHOUSE GAS EMISSIONS

New evidence shows that GHG emissions from ethanol are lower than EPA predicted in its 2010 Lifecycle Analysis, and much lower than the lifecycle emissions of gasoline. In particular, new evidence shows that: [EPA-HQ-OAR-2016-0004-2772-A1 p.3]

petroleum-based fuels are becoming increasingly carbon intensive. [EPA-HQ-OAR-2016-0004-2772-A1 p.3]

EPA should update its lifecycle analysis to reflect the best available science on the lifecycle emissions of ethanol and gasoline. [EPA-HQ-OAR-2016-0004-2772-A1 p.9]

THE PROPOSED RULE RELIES ON EPA’S ERRONEOUS AND OUTDATED 2010 LIFECYCLE ANALYSIS.

As EPA points out, the Proposed Rule is an “economically significant action” subject to regulatory review under the relevant Executive Orders. Therefore, “in deciding . . . how to regulate[,]” EPA “should assess all costs and benefits of available regulatory alternatives” and “select those approaches that maximize net benefits.” In assessing the costs and benefits of the Proposed Rule, EPA must “use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible.” Moreover, EPA must “ensure the objectivity of any scientific and technological information and processes used to support the agency’s regulatory actions.” In short, the Proposed Rule must be “based on the best available science.” [EPA-HQ-OAR-2016-0004-2772-A1 p.11-12]

But in the Proposed Rule, EPA “did not quantitatively assess [the] direct and indirect costs or benefits of [its proposed blending levels] such as . . . GHG reduction benefits [and] air quality impacts,” which EPA admits “are to some degree affected by the proposed rule.” [EPA-HQ-OAR-2016-0004-2772-A1 p.12]

GREENHOUSE GAS EMISSIONS

In its 2010 Lifecycle Analysis, EPA concluded that by 2022, corn ethanol would achieve on average annual lifecycle greenhouse gas (GHG) emissions savings of only 21% compared to EPA’s 2005 gasoline carbon intensity baseline of 93.01 grams of carbon dioxide equivalent per megajoule (g CO₂e/MJ).¹⁹ And EPA’s cumulative (as opposed to annualized) data on the GHG-effects of the RFS was even less favorable. [EPA-HQ-OAR-2016-0004-2772-A1 p.13]

While EPA’s findings were doubtful in 2010, they are now doubly so, given the wealth of newly available scientific and economic data that undermines EPA’s 2010 Lifecycle Analysis. [EPA-HQ-OAR-2016-0004-2772-A1 p.13]

Land-Use Change

New evidence has exposed significant flaws in EPA’s estimate of land-use change GHG emissions. Updated science on soil sequestration and empirical evidence of actual land-use patterns demonstrate that carbon emissions from landuse change are much lower than the estimate EPA continues to rely on. [EPA-HQ-OAR-2016-0004-2772-A1 p.16]

1. Soil Organic Carbon

a. Agricultural Management Practices

Since EPA’s 2010 Lifecycle Analysis, new evidence shows that improved agricultural practices have substantially increased soil carbon sequestration, reducing the carbon intensity of ethanol. In fact, recent soil analyses suggest that corn soils in certain areas of the Corn Belt are a net

carbon “sink,” sequestering more carbon than the amount of CO₂ release during the production of corn. [EPA-HQ-OAR-2016-0004-2772-A1 p.26]

Black Carbon

While EPA focused heavily on GHG emissions, it failed to consider the climate-forcing effects of black carbon [EPA-HQ-OAR-2016-0004-2772-A1 p.37]

2. Further GHG Reductions from Mid-level Ethanol Blends [EPA-HQ-OAR-2016-0004-2772-A1 p.40]

ExxonMobil

EPA's analysis relies on its six-year old regulatory impact analysis (RIA) from the original RFS2 rule rather than any new data. That RIA is based on a thirty percent lower volume of biomass based diesel than the current proposal. EPA's examination is vague, noting that the RIA found emissions increase for some criteria pollutants and decrease for others, but provides no updates or additional data. Furthermore, EPA's analysis of greenhouse gas emissions (GHG) from biofuels should be more robust, particularly in light of recent research in this area. For example, earlier this year, the European Commission published a report suggesting that biodiesel consumption in Europe leads to global expansion of agricultural land which, in turn, creates greater GHG emissions. While that particular research focused on European consumption, EPA should review U.S. biodiesel consumption and imports in the context of this and other research and consider these environmental effects in its analysis of the biomass based diesel standard. [EPA-HQ-OAR-2016-0004-1870-A1 p.2-3]

Florida Petroleum Marketers and Convenience Store Association (FPMA)

The initial intent of these RFS mandates were to decrease greenhouse gas emissions; however studies conducted by the Associated Press and Environmental Working Group show an increase in these emissions. [EPA-HQ-OAR-2016-0004-0472-A1 p.1]

Florida Retail Federation (FRF)

The unplanned consequence of this effort has been serious environmental repercussions in increased greenhouse gas emissions (GHG) [EPA-HQ-OAR-2016-0004-0478-A1 p.1]

George Washington University, Regulatory Study Center

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, it is not clear whether the increased production of biofuels has actually reduced emissions or benefitted the environment. [EPA-HQ-OAR-2016-0004-2687-A1 p.3]

There has been significant development in the relevant literature on the environmental impacts of renewable fuel production since Congress passed the EISA and EPA first analyzed the impacts

of the RFS program. Recent research indicates that the environmental benefit of the RFS is extremely modest¹⁷ at best and, at worst, could result in a significant increase in CO₂ emissions over gasoline.¹⁸ [EPA-HQ-OAR-2016-0004-2687-A1 p.7]

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 crops 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 CO₂ may, depending on tillage practices and land type, outweigh any potential CO₂ savings from combusting ethanol. [EPA-HQ-OAR-2016-0004-2687-A1 p.7]

In addition, these effects are not limited to the United States: changes 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. [EPA-HQ-OAR-2016-0004-2687-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.²⁶ However, EPA estimated that production of ethanol results in 34 grams of CO₂ per megajoule (MJ), which recent evidence suggests is on the very low-end of plausible values for carbon emissions.²⁷ Even if EPA's lower estimate is accurate, recent research finds that emissions as little as 27g/MJ are "enough to cancel out the benefits that corn ethanol has on global warming,"²⁸ meaning that EPA may have seriously underestimated the potential climate costs of implementing the RFS program. [EPA-HQ-OAR-2016-0004-2687-A1 p.8]

Second, fertilizer input for the production of crops used to produce biofuels results in emissions of N₂O, a greenhouse gas that contributes to climate change. [EPA-HQ-OAR-2016-0004-2687-A1 p.8]

Third, increased demand for and consumption of oil from across the globe 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, less imported crude oil 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.³¹ [EPA-HQ-OAR-2016-0004-2687-A1 p.9]

¹⁷ Chen et al. 2014. "Alternative transportation fuel standards: Welfare effects and climate benefits" *Journal of Environmental Economics and Management* 67: 241–257

18 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

26 Environmental Protection Agency. 2010. "Renewable Fuel Standard Program (RFS2) Regulatory Impact Analysis." §2.4.4 - §2.4.5.

27 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

28 Hertel, Golub, Jones, O'Hare, Plevin and Kammen. 2010. "Effects of US Maize Ethanol on Global Land Use and Greenhouse Gas Emissions: Estimating Market-mediated Responses." *BioScience* 60 (3): 223.

31 Bento, Antonio M., Richard Klotz, and Joel R. Landry. "Are there carbon savings from US biofuel policies? Accounting for leakage in land and fuel markets." *Presentation at the agricultural & applied economics association AAEA & NAREA joint annual meeting*. 2011. Forthcoming in *Energy Journal* 2015.

Governors' Biofuels Coalition

Part II. EPA Should Use Updated Lifecycle Greenhouse Gas Emission Studies

In the proposed rule, EPA continues to ignore new science concerning ethanol's lifecycle emissions of greenhouse gases (GHG) and other pollutants. [EPA-HQ-OAR-2016-0004-1729-A1 p.5]

Greenhouse Gas Emissions

New evidence shows that GHG emissions from ethanol are lower than EPA predicted in its 2010 Lifecycle Analysis, and much lower than the lifecycle emissions of gasoline. [EPA-HQ-OAR-2016-0004-1729-A1 p.5]

The Coalition urges EPA to correct its analysis of the comparative lifecycle pollution effects of ethanol and gasoline and conduct a new cost-benefit analysis in light of the best available science. [EPA-HQ-OAR-2016-0004-1729-A1 p.6]

HabitatMap

While biofuel proponents claim the use of biodiesel and high ethanol blends will reduce oil imports, improve air quality and reduce greenhouse gas emissions, this is not the case. In fact, recent studies have deemed biofuels "a greenhouse threat" stating "Converting rainforests, peat lands, savannas, or grasslands to produce food crop-based biofuels in Brazil, Southeast Asia, and the United States creates a 'biofuel carbon debt' by releasing 17 to 420 times more CO₂ than the annual greenhouse gas (GHG) reductions that these biofuels would provide by displacing fossil fuels". [EPA-HQ-OAR-2016-0004-2683-A1 p.1]

Hay, Steve

Ethanol is an important way to decrease our dependence on foreign oil and decrease greenhouse emissions [EPA-HQ-OAR-2016-0004-1618-A1 p.1]

Hehmeyer, Owen

Is the purpose reduction in greenhouse gas emissions? I have not read all the studies that show it does not reduce GHG emissions, but it makes sense intuitively that it does not, or does not by much. Industrial agriculture is energy intensive and made possible with natural gas derived fertilizer. The incompatible nature of ethanol and petroleum fuels adds more energy costs. An energy unit (calorie) of human food is generally more costly than a calorie of fuel -- those costs reflect the energy intensive nature of agriculture. Displacing human food for machine food (fuel) will cause humans to seek that unit of human energy elsewhere. Finally, and most obviously, just allowing the fields to return to nature would capture more carbon than plowing them under every year. [EPA-HQ-OAR-2016-0004-2670-A1 p.1]

If the purpose is about GHG emissions, Congress should just tax carbon upstream instead it would be cheaper per unit of carbon dioxide avoided, and less costly to administrate. [EPA-HQ-OAR-2016-0004-2670-A1 p.1]

Highwater Ethanol

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.” [EPA-HQ-OAR-2016-0004-1662-A1 p.2]

maximize the current opportunity to use conventional biofuels to immediately drive down GHG emissions in the transportation sector. [EPA-HQ-OAR-2016-0004-1662-A1 p.2]

Illinois Corn Growers Association and Illinois Renewable Fuels Association (ILRFA)

What is the cost to the environment and human health when USEPA forgoes significant emissions reductions through reducing the statutory volumes required in the RFS II for biofuels?

We are very disappointed that USEPA does not consider the real lost opportunities for CO₂ reductions related to corn starch ethanol when the RVO volume numbers are reduced. The first step is to update the Co₂ emissions reduction numbers for corn ethanol that have been provided to USEPA through peer reviewed studies, revised models and updated data. Below is an example of the lost opportunities. [EPA-HQ-OAR-2016-0004-1745-A2 p.5]

Update the greenhouse gas emissions reductions realized with corn starch ethanol based on the recent body of science and new publications

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 CO₂ 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. [EPA-HQ-OAR-2016-0004-1745-A2 p.8]

Steffen Mueller, Principal Economist with the Energy Resources Center at the University of Illinois at Chicago would like to recommend to the United States Environmental Protection Agency (EPA) to update information concerning ethanol's greenhouse gas life cycle emissions. [EPA-HQ-OAR-2016-0004-1745-A3 p.2]

Model updates with the latest scientific findings and technological advances must be encouraged in order to document the continuous potential of selected biofuels including corn ethanol to reduce greenhouse gas emissions and to ensure the availability of export markets for this fuel. [EPA-HQ-OAR-2016-0004-1745-A3 p.2]

Results from the last three surveys (Figure 3) of the ethanol industry produced a close to linear trend in energy efficiency improvements at plants. [EPA-HQ-OAR-2016-0004-1745-A3 p.12]

Efficiency improvements during the corn production phase have also been documented. These include more accurate and targeted delivery of chemicals and agricultural inputs as well as modern high-yielding corn hybrids. [EPA-HQ-OAR-2016-0004-1745-A3 p.12]

the latest version of GREET shows life cycle emissions for average US produced corn ethanol in the range of 63.5–66.4 gCO₂e/MJ, which is over 30% less than the 94 gCO₂e/MJ value for gasoline. [EPA-HQ-OAR-2016-0004-1745-A3 p.14]

Illinois Farm Bureau

It still 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. [EPA-HQ-OAR-2016-0004-2770-A1 p.3]

Indiana Grocery and Convenience Store Association (IGSCA)

increasing corn ethanol consumption could actually lead to higher greenhouse gas emissions, which defeats the very objective this rule is designed to achieve. [EPA-HQ-OAR-2016-0004-1661-A1 p.1]

Iowa Corn Growers Association (ICGA)

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. [EPA-HQ-OAR-2016-0004-1726-A1 p.5]

Jung, Jerry

The farming, refining, and transportation of corn-based ethanol create more emissions than the production and use of regular gasoline.¹¹ [EPA-HQ-OAR-2016-0004-1833-A1 p.3]

¹¹ <http://www.pnas.org/content/111/52/18490.full.pdf>

K Coe Isom

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.106]

Today, ethanol plants use about 35 percent less energy than they did 15 years ago. They've nearly doubled the energy balance. For every BTU consumed in producing a gallon of ethanol, the net BTU production now is approaching 2.5. That number was about 1.4 15 years ago.

Kansas Soybean Association

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.222]

biodiesel is 57 to 90 percent reduction in the carbon footprint.

Kimberley, Grant

By the EPA's own analysis, biodiesel reduces greenhouse gas emissions by 57-86 percent. [EPA-HQ-OAR-2016-0004-3018-A1 p.1]

Liebrecht Manufacturing

With these cuts, our nation will not see the dramatic decrease in greenhouse gas emissions assumed under the RFS [EPA-HQ-OAR-2016-0004-2756-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 10 (email) - (771)

By failing to embrace the full potential of the RFS, our nation will not see the dramatic decrease in greenhouse gas (GHG) emissions attainable 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-2016-0004-1166-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 12 (email) - (106)

In a sport predicated on driving and burning a large amount of fuel, the fact that ethanol reduces greenhouse gas emissions by an average of 34 percent compared to conventional gasoline cannot and should not be understated. [EPA-HQ-OAR-2016-0004-1168-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 14 (email) - (406)

Under this proposal, our nation will not see the dramatic decrease in greenhouse gas (GHG) emissions attainable 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-2016-0004-1171-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 16 (paper) - (34)

By failing to embrace the full potential of the RFS, our nation will not see the dramatic decrease in greenhouse gas (GHG) emissions attainable 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-2016-0004-1360-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 24 (Paper) - (3,299)

If you want to control the EPA-presumed negative environmental externalities such as climate warming due to CO2 emissions, then tax those emissions fairly across the spectrum of CO2 emitters. The free market will determine the best way to economically reduce those emissions, without the EPA being proscriptive about the way it is done. [EPA-HQ-OAR-2016-0004-1972-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 27 (web) - (6)

decisive action to reduce greenhouse gas emissions, sequester atmospheric carbon and adapt to climate change is needed to mitigate the consequences of climate change, many of which will pose serious challenges to our ability to ensure global food security. The RFS is the most successful effort to date involving rural America in climate resilience [EPA-HQ-OAR-2016-0004-0420]

Mass Comment Campaign sponsored by Anonymous 29 (paper) - (67)

Many studies have shown ethanol can actually result in higher overall greenhouse gas emissions [EPA-HQ-OAR-2016-0004-2604-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 7 (Web) - (47)

Ethanol can reduce average greenhouse gas emissions by anywhere from 34 to 100 percent or more compared to gasoline, according to Department of Energy research. [EPA-HQ-OAR-2016-0004-0399 p.1]

Mass Comment Campaign sponsored by Anonymous 9 (email) - (931)

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-2016-0004-1165-A1 p.1]

Mass Comment Campaign sponsored by Biodiesel.org (email) - (397)

According to the EPA's own analysis, which was recently corroborated by similar findings by the California Air Resources Board, biodiesel reduces greenhouse gas emissions by 57 percent to 86 percent compared with petroleum diesel. No other fuel with a nationwide, commercial-scale footprint delivers better results. [EPA-HQ-OAR-2016-0004-0554-A1 p.1]

Mass Comment Campaign sponsored by ethanol producers 2 (email) - (87)

Ethanol is an earth-friendly biofuel that can reduce greenhouse gas emissions by as much as 90 percent – and this percentage continues to increase with ongoing innovations in advanced biofuels, the very fuels I have invested in. [EPA-HQ-OAR-2016-0004-1170-A1 p.1]

Mass Comment Campaign sponsored by National Corn Growers Association 6 (Web) - (41,744)

On average, corn ethanol reduces CO2 emissions by 34 percent and advanced biofuels can reduce emissions by 100 percent or more over gasoline. Globally, ethanol has reduced greenhouse gas emissions by 110 million metric tons - the equivalent of taking more than 20 million vehicles off the road. [EPA-HQ-OAR-2016-0004-0400 p.1]

Mass Comment Campaign sponsored by North Dakota Energy Forum (Paper) - (41)

We support sound policies that reduce our oil imports and reduce our greenhouse gas emissions, as the RFS was originally designed to do. [EPA-HQ-OAR-2016-0004-1789-A1 p.1]

Mass Comment Campaign Sponsored by Novozymes (web) - (8)

Reduce GHG emissions: Power plants are not America's only big carbon emitter. An equal offender is now the transportation sector. Power plants and transportation each contribute one-third of America's CO2 emissions. We have a solution at our finger tips for transportation but we aren't using it to its fullest capacity. One of the most powerful tools in the climate fight is American-grown and made renewable fuels. According to a white paper from The Biotechnology Innovation Organization (BIO), due to the reduction in volume obligations in 2013 and 2014, GHG emissions would increase and be equal to putting an additional 4.4 million cars on the road, or having current cars drive an additional 50 billion miles, or opening 5.5 new coal-fired power plants. [EPA-HQ-OAR-2016-0004-0717-A1 p.2]

Mass Comment Campaign sponsored by Plymouth Energy (paper) - (83)

Ethanol is a clean-burning fuel that emits 40-90 percent less carbon than the toxic additives it replaces in gasoline. It reduces greenhouse gas emissions and other harmful toxic emissions that have been linked to cancer, improving our environment and the quality of the air we all breathe. [EPA-HQ-OAR-2016-0004-1704-A1 p.1]

Mass Comment Campaign sponsored by POET Biorefining 5 (Paper) - (80)

- Global ethanol production and use is estimated to reduce GHG emissions by 110 million metric tons every year- that's the equivalent of taking nearly 20 million vehicles off the road each year. [EPA-HQ-OAR-2016-0004-2881-A1 p.1]
- The RFS helps to significantly reduce tailpipe emissions. [EPA-HQ-OAR-2016-0004-2881-A1 p.1]

Mass Comment Campaign sponsored by residents of Central Ohio (Paper) - (37)

Under this proposal, our nation will not see the dramatic decrease in greenhouse gas (GHG) emissions attainable 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-2016-0004-1971-A1 p.1]

Michelle Toohey Enterprises

the rule does not achieve its goal of reducing greenhouse gas emissions and the Administration's Paris climate talk commitments. [EPA-HQ-OAR-2016-0004-2355 p.2]

Minnesota Bio-Fuels Association, Inc. (MBA)

EPA does "not have a quantified estimate of the GHG impacts for a single year" among other quantified economic development, job creation and national security. [EPA-HQ-OAR-2016-0004-1871-A1 p.13]

Greenhouse gas benefits

E15 Would Reduce 358,000 Tons Of CO2 Emissions Annually In Minnesota Minneapolis, Feb 16 - Making E15 (gasoline with 15 percent ethanol) the new regular unleaded fuel in Minnesota would eliminate 358,000 tons of CO2 annually, according to a technical analysis by the University of Illinois at Chicago. [EPA-HQ-OAR-2016-0004-1871-A1 p.13]

In response to a query by the Minnesota Bio-Fuels Association, Dr Steffen Mueller, principal research economist at the University of Illinois at Chicago, said a gallon of E15 saves 1.26 g of CO2 equivalent (CO2e) per megajoule over regular E10 (gasoline that contains 10 percent ethanol). CO2e includes carbon dioxide, nitrous oxide and methane. [EPA-HQ-OAR-2016-0004-1871-A1 p.13]

Annual gasoline consumption in Minnesota averages 2.4 billion gallons. Should all 2.4 billion gallons be converted to E15 from E10, CO₂e savings in the state would total 358,000 metric tons annually, Mueller said. [EPA-HQ-OAR-2016-0004-1871-A1 p.13]

Using the U.S. Environmental Protection Agency's (EPA) greenhouse gas equivalencies calculator, this would amount to eliminating 75,368 passenger vehicles from Minnesota's roads annually. [EPA-HQ-OAR-2016-0004-1871-A1 p.13]

"Dr Mueller's technical analysis is a clear illustration of the benefits E15 has in reducing greenhouse gas emissions in Minnesota. [EPA-HQ-OAR-2016-0004-1871-A1 p.13]

"With the use of E15 approved for all light-duty vehicles model year 2001 and newer (which is over 80 percent of the vehicles on the road), it is clear that the best path towards reducing greenhouse gas emissions in Minnesota is by making E15 the new regular fuel" [EPA-HQ-OAR-2016-0004-1871-A1 p.13-14]

Missouri Corn Growers Association (MCGA)

The reduction will lead to increasing GHG emissions; it will further set back this country's commitment to the environment; and it will make us more dependent on dirtier petroleum sources than when the RFS was first enacted in 2005. [EPA-HQ-OAR-2016-0004-1782-A1 p.1]

National Association of Wheat Growers

The RFS has reduced greenhouse gas emissions [EPA-HQ-OAR-2016-0004-2697-A1 p.1]

National Biodiesel Board

While cellulosic biofuel must have 60% reduction in GHG emissions compared to baseline petroleum, the current mix of biomass-based diesel has an average of more than 80% reduction in GHG emissions. It has increasingly used waste products, and more than meets the goals Congress sought from cellulosic biofuels. [EPA-HQ-OAR-2016-0004-2904-A2 p.94]

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*. This can only occur, however, with a certain and growing market. [EPA-HQ-OAR-2016-0004-2904-A2 p.94-95]

Biomass-based diesel provides superior GHG emissions reductions. [EPA-HQ-OAR-2016-0004-2904-A2 p.99]

The weighted average GHG emission reduction for biomass-based diesel in the aggregate is 81%. This is based on EPA's own analysis of the lifecycle GHG emissions of waste grease,

canola oil, and updated analysis of soybean oil biodiesel published by USDA and the University of Idaho. [EPA-HQ-OAR-2016-0004-2904-A2 p.99]

[EPA] also ignores that increasing the biomass-based diesel volume requirement supports use of other feedstocks, including waste oils. [EPA-HQ-OAR-2016-0004-2904-A2 p.102]

In any event, biomass-based diesel is at least comparable to cellulosic biofuel, aside from the obvious better ability to produce. As noted above, CARB has found biodiesel and renewable diesel to be among the lowest carbon intensity fuels. Also, *EPA itself* has found waste grease biodiesel (which can be compared with that for DCO and recently qualified feedstocks for which EPA found minimal to no land use impacts) to have a *better* lifecycle greenhouse gas emission profile at 14 kg CO₂e/MMBTU than that of cellulosic diesel produced from switchgrass (29 kgCO₂e/MMBTU) and close to that of cellulosic diesel from corn residue (9 kgCO₂e/MMBTU). With increasing biomass-based diesel volumes, we anticipate further investment in waste oils and other feedstocks that provide additional environmental benefits. [EPA-HQ-OAR-2016-0004-2904-A2 p.106-107]

Since biodiesel has a GHG benefit compared to the petroleum-based diesel it is replacing, increasing the biomass-based diesel volume will lead to a displacement of petroleum diesel fuel, with corresponding GHG emissions reductions. This increased use of biomass-based diesel will contribute to lower climate change impacts. Additionally, as discussed above, the increased use of other feedstocks where EPA has found greater GHG emissions reductions, such as waste oils, provides greater climate change benefits. [EPA-HQ-OAR-2016-0004-2904-A2 p.110]

It also illustrates the significant reductions in GHG emissions that can be had by increasing the biomass-based diesel program. These benefits can only be realized, however, if the volumes under the program continue to increase substantially. [EPA-HQ-OAR-2016-0004-2904-A2 p.111]

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. [EPA-HQ-OAR-2016-0004-2904-A2 p.114]

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. [EPA-HQ-OAR-2016-0004-2904-A2 p.114]

National Corn Growers Association

The RFS has also helped reduce GHG emissions from petroleum through the use of renewable biofuels. [EPA-HQ-OAR-2016-0004-1809-A1 p.4]

NCGA continues to believe EPA misinterpreted the statute (for reasons outlined in legal briefs), however, it is important to note that EPA's 2017 proposed rule also fails to explain how decreasing RFS levels based on constraints in the marketplace will meet acknowledged

Congressional intent to overcome constraints in the marketplace. [EPA-HQ-OAR-2016-0004-1809-A1 p.5]

In the last 30 years, corn production has improved on all measures of resource efficiency, by decreasing per bushel basis the following:

- land use by 30 percent,
- soil erosion by 67 percent,
- irrigation by 53 percent,
- energy use by 43 percent, and,
- greenhouse gas emissions by 36 percent.³ [EPA-HQ-OAR-2016-0004-1809-A1 p.10]

3 “Environmental and Socioeconomic Indicators for Measuring Outcomes of On-Farm Agricultural Production in the United States” Field to Market: The Keystone Alliance for Sustainable Agriculture (July 2012).

National Farmers Union (NFU)

EPA should fully utilize this popular program to advance climate resilience while bolstering the domestic energy economy. [EPA-HQ-OAR-2016-0004-1651-A1 p.2]

Anticipated disruptions to agricultural production caused by climate include:

- rising temperatures;
- changes in precipitation;
- increasing frequency of extreme weather events;
- new pest, disease and weed pressures; and
- increases in heat stress on livestock.

These challenges will make it more difficult for American farmers to produce the food, fiber, and fuel upon which the U.S. and world rely. [EPA-HQ-OAR-2016-0004-1651-A1 p.6]

The RFS, when implemented properly, offers farmers and consumers a way to reduce GHG emissions by producing and utilizing transportation fuels with lower lifetime emissions than transportation fuels derived from fossil sources.¹² [EPA-HQ-OAR-2016-0004-1651-A1 p.6]

As of last summer, the RFS reduced carbon emissions by 589.33 million metric tons, or the equivalent of removing more than 124 million cars from the road.¹³ This is a starting point; once the policy succeeds in opening the transportation fuels market to competition, significantly greater GHG reductions should be expected. Conventional renewable fuels reduce GHG emissions by 34 percent compared to fossil fuels and advanced biofuels are achieving reductions above 80 percent. [EPA-HQ-OAR-2016-0004-1651-A1 p.7]

Lowering the total renewable fuel volume requirement, as EPA proposes, sacrifices the opportunity to mitigate climate disturbances to agriculture to the extent allowed by law and stymies the growth of markets for cellulosic and advanced biofuels by allowing the obligated

parties to continue to avoid the investments in distribution the EISA requires of them. [EPA-HQ-OAR-2016-0004-1651-A1 p.7]

Farmers and Rural Communities

Depending on land management decisions, this sector of the economy has the potential to become a net GHG emitter rather than a sink. [EPA-HQ-OAR-2016-0004-1651-A1 p.7]

While ownership is dispersed, 40 percent of the total US land mass is farmland, according to the 2012 Census of Agriculture. Offering farmers a way to achieve value for participating in climate change, as a properly implemented RFS would, gives policymakers an opening to have a conversation about other actions that could be taken to build climate resilience on 40 percent of total US acreage. [EPA-HQ-OAR-2016-0004-1651-A1 p.8]

consumers receive value while engaging in climate change mitigation through the RFS. The RFS has saved consumers money at the gas pump. Implementing volume requirements that match those in the EISA would save consumers more money, and opening the transportation fuels market to competition would save consumers even more. [EPA-HQ-OAR-2016-0004-1651-A1 p.8]

Having consumers understand that they have saved money due to the RFS will make future climate-related policies more acceptable to them. [EPA-HQ-OAR-2016-0004-1651-A1 p.8]

If EPA does not implement a final rule including the statutory volume requirements, the Agency will forgo an opportunity to guard consumers from price increases at a time when prices are already high. [EPA-HQ-OAR-2016-0004-1651-A1 p.8]

Implementing volume requirements in line with the EISA presents an excellent opportunity to establish trust and dialogue that will facilitate future action on climate. [EPA-HQ-OAR-2016-0004-1651-A1 p.9]

the RFS is an important opportunity to establish trust regarding climate resilience among a population that is prone to regard federal policy with skepticism and may be vulnerable to a variety of intentionally confusing climate messages. [EPA-HQ-OAR-2016-0004-1651-A1 p.9]

In this proposed rule, EPA pays lip service to the importance of certainty while failing to take the action that would create the most certainty: consistent enactment of the volume requirements Congress set in the EISA. This action would allow farmers, renewable fuel producers, investors and the obligated parties to know what is required of them with sufficient notice to meet requirements and achieve the attendant environmental benefits with as little disruption as possible. Allowing farmers and stakeholders to detrimentally rely on the assurances of the EISA, as EPA proposes to do, will make these parties wary of engagement in increased biofuel production. [EPA-HQ-OAR-2016-0004-1651-A1 p.9]

Farmers and rural communities have made business decisions and invested significant assets based on the reasonable expectation that, in the absence of severe economic harm or inadequate

supply, EPA would fulfill its responsibility to enact annual volume requirements matching those Congress set in the EISA. Should the EPA finalize the rule as proposed, farmers and rural communities will almost certainly hold any future attempts to enlist their assistance in future climate resilience endeavors with a degree of skepticism that will prove difficult to overcome and could have been avoided. [EPA-HQ-OAR-2016-0004-1651-A1 p.10]

Proper implementation of the RFS grants EPA an opportunity to correct anti-competitive trends in this market. More competition in transportation fuels would provide motivation for obligated parties, farmers and renewable fuel producers to achieve greater efficiencies in producing and distributing renewable fuel, leading to more options for consumers and better environmental results. [EPA-HQ-OAR-2016-0004-1651-A1 p.10]

12 Environmental and Energy Study Institute, “Research Finds Widespread Use of E15 Would Reduce CO2 Emissions.” “GREET analyses estimate that corn ethanol greenhouse gas emissions are on average 34 percent lower than those of regular gasoline.”
<http://www.eesi.org/articles/view/research-finds-widespread-use-of-e15-would-reduce-co2-emissions>

13 “The Renewable Fuel Standard: A Decade’s Worth of Carbon Reductions.” Biotechnology Industry Organization, 11 August 2015.
www.bio.org/sites/default/files/RFS%2010%20GHG%20Reductions.pdf

National Renderers Association (NRA)

Rendering, apart from its role as a supplier of biomass-based diesel feedstocks, generates a significant reduction in carbon dioxide equivalent (CO₂e) GHG emissions. The process of rendering animal by-products sequesters about four times as much CO₂ as it emits, creating a significant net carbon credit. CO₂, methane and other GHG emissions from natural decomposition in a compost pile or landfill are avoided [EPA-HQ-OAR-2016-0004-2694-A1 p.4]

Biodiesel currently reduces GHG emissions by 81% compared with petroleum diesel due to the increased ability to use low carbon-footprint feedstocks such as rendered used cooking oils, grease, animal fats and other feedstocks. [EPA-HQ-OAR-2016-0004-2694-A1 p.4]

National Restaurant Association

there's little evidence the RFS has delivered on its promises to help move the U.S. toward energy independence and lower fuel emissions. [EPA-HQ-OAR-2016-0004-2696-A1 p.2]

National Wildlife Federation (NWF)

All of this cropland expansion has grave potential impacts, particularly for native grasslands, which are hot beds of biodiversity, huge sinks of carbon storage (in extensive underground root systems), and are also rapidly disappearing. [EPA-HQ-OAR-2016-0004-1700-A2 p.4]

Grasslands are perhaps our nation's most endangered ecosystems, even prior to the RFS era, with less than one percent of historic tall-grass prairies and 30 percent of mixed grass prairies remaining. With such precious little undisturbed prairie remaining, even small losses to agriculture have an outsized importance in terms of biodiversity. [EPA-HQ-OAR-2016-0004-1700-A2 p.4]

With such precious little undisturbed prairie remaining, even small losses to agriculture have an outsized importance in terms of carbon release. [EPA-HQ-OAR-2016-0004-1700-A2 p.4]

National Women involved in Farm Economics (WIFE)

The RFS is one of the important tools in our nation's effort to achieve cleaner fuels. Since the enactment of the Standard, corn and corn ethanol production have increased in efficiencies and reduced greenhouse gas (GHG) emissions faster than expected. [EPA-HQ-OAR-2016-0004-2540 p.1]

Nebraska Corn Board (NCB)

According to a 2012 Argonne GREET life cycle emissions analyses corn ethanol greenhouse gas emissions are 19-48% lower than conventional gasoline. [EPA-HQ-OAR-2016-0004-1694-A2 p.2]

Nebraska Corn Growers Association

corn ethanol greenhouse gas emissions are 19-48% lower than conventional gasoline. [EPA-HQ-OAR-2016-0004-1730-A1 p.2]

with more ethanol in our fuel we all have cleaner air to breathe and a reduction in greenhouse gas emissions from several sources. [EPA-HQ-OAR-2016-0004-1730-A1 p.2]

Nebraska Governor

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.61-62]

And the RFS is cutting greenhouse gas emissions. Today's average conventional ethanol reduces greenhouse gas emissions by over a third, compared to gasoline.

Recently, the Governors' Biofuel Coalition joined with other organizations calling on the EPA to correct your 2010 lifecycle analysis for the RFS to reflect the overwhelming body of evidence

demonstrating that ethanol can provide more than 350 million metric tons of carbon reductions annually. At every stage, corn ethanol nets less greenhouse gas and air pollutants than gasoline.

We are producing more corn on less land with fewer inputs, resulting in food and fuel. The lifecycle emissions of corn ethanol is on average 24 percent less carbon intensive than gasoline.

The EPA's assessment of information on ethanol's lifecycle emissions is inaccurate and outdated, and I urge you to consider updating your information and data. The analysis needs to be revised to reflect the technological revolutions that are occurring in agricultural production and biorefining.

Novozymes

The RFS was meant to lower fossil fuel use and increase renewable fuel use by providing market access for biofuel producers, eliminating the current oil sector monopoly. It is working. [EPA-HQ-OAR-2016-0004-1734-A1 p.2]

According to BIO, over the first ten years of the RFS, greenhouse gas emissions fell by 589.33 million metric tons, displacing nearly 1.9 billion barrels of foreign oil by replacing fossil fuels with homegrown biofuels². [EPA-HQ-OAR-2016-0004-1734-A1 p.2]

meeting global climate goals and commitments

EPA's recent rulemakings have stifled the RFS's ability to help America meet its emissions goals. [EPA-HQ-OAR-2016-0004-1734-A1 p.3]

The RFS is the global gold standard for climate policy. But if the EPA finalizes the current version of its 2017 proposal, it will be very difficult for all of us to meet our climate commitments. We will send a signal to the world that we are less than serious about slowing the destructive effects of a warming world. [EPA-HQ-OAR-2016-0004-1734-A1 p.3]

According to BIO, due to the reduction in volume obligations in 2013 and 2014 alone, GHG emissions would increase and be equal to putting an additional 4.4 million cars on the road or opening 5.5 new coal fired power plants⁴. [EPA-HQ-OAR-2016-0004-1734-A1 p.4]

2 BIO, New Study: Biofuel Use Saved 589.3 Million Tons of Carbon Emissions Over the Past Decade (Aug. 2015), available at: <https://www.bio.org/media/press-release/new-study-biofuel-use-saved-5893-million-tons-carbon-emissions-over-pastdecade>.

4 <https://www.bio.org/media/press-release/new-study-epa-inaction-rfs-rule-causing-increase-ghg-emissions>

Not only will increasing corn ethanol consumption take away precious grasslands, wetlands and wildlife habitats and lead to higher greenhouse gas emissions [EPA-HQ-OAR-2016-0004-2719 p.1]

Ohio Council of Retail Merchants

increasing corn ethanol consumption could take away precious grasslands, wetlands and wildlife habitats and lead to higher greenhouse gas emissions. [EPA-HQ-OAR-2016-0004-2893 p.2]

Ohio Licensed Beverage Association

Finally, increasing corn ethanol consumption could take away precious grasslands, wetlands and wildlife habitats and lead to higher greenhouse gas emissions. [EPA-HQ-OAR-2016-0004-2206 p.2]

Ohio Spirits Association

Increasing corn ethanol consumption will take away precious grasslands, wetlands and wildlife habitats and lead to higher greenhouse gas emissions [EPA-HQ-OAR-2016-0004-2252 p.2]

Ohio Veterans United

Not only will increasing corn ethanol consumption take away precious grasslands, wetlands and wildlife habitats and lead to higher greenhouse gas emissions [EPA-HQ-OAR-2016-0004-1941 p.1]

Pacific Ethanol

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.148-149]

I'm here today to encourage you to update your lifecycle analysis on carbon in California, where they have continually updated the carbon analysis.

Parrent, Kenneth

American farmers are able to produce a cleaner burner, renewable fuel [EPA-HQ-OAR-2016-0004-0243-A1 p.1]

Pennsylvania House of Representatives

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. [EPA-HQ-OAR-2016-0004-1751-A1 p.2]

Pennsylvania Motorcycle Dealers Association

Corn-based ethanol raises GHG emissions. [EPA-HQ-OAR-2016-0004-2868-A1 p.2]

Pennsylvania Off Highway Vehicle Association

Com-based ethanol raises GHG emissions. [EPA-HQ-OAR-2016-0004-1757-A1 p.2]

Pennsylvania State Snowmobile Association (PSSA)

Corn-based ethanol raises GHG emissions. [EPA-HQ-OAR-2016-0004-2869-A1 p.2]

Platt, Paul

Summary: During the preparation of the article, I found USDA reports, and those of most other pro-ethanol entities:

- Ignore upstream and downstream energy and CO2 emissions
- Ignore embedded CO2 emissions [EPA-HQ-OAR-2016-0004-3003-A1 p.1]

Publisher Render Magazine Placerville

Rendering sequesters about five times the amount of greenhouse gases as it emits. Removing renderable products from the waste stream also has the same effect on greenhouse gases as taking over 12 million cars from the road each year, according to the National Renderers Association. [EPA-HQ-OAR-2016-0004-2052 p.2]

Renewable Biofuels LLC (RBF)

Increasing the annual volumes of both biomass-based diesel and advanced biofuels will increase the emissions benefit and help the Administration reach its ambitious emission reduction targets. [EPA-HQ-OAR-2016-0004-1689-A1 p.2]

Rocky Mountain Farmers Union

This administration has embraced rules that will cut carbon and other greenhouse gas emissions to help reduce the advancing climate change worries. The RFS must be part of that plan and EPA should embrace the environmental benefits of renewable fuels. [EPA-HQ-OAR-2016-0004-1836-A2 p.1]

Show Me Ethanol

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.176]

Ethanol is a biofuel and is more energy efficient to produce than conventional gasoline and emits 40 to 90 percent less carbon emissions than the toxic carcinogens that it replaces.

South Dakota Corn Growers Association

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.145]

Updates to EPA's modeling recognizing improvements in farming and in ethanol plants is imperative to accurately show the environmental differences between energies.

The RFS has played a vital role in reductions of greenhouse gas [EPA-HQ-OAR-2016-0004-2132 p.2]

Spears, James J.

There is one final caveat: The total energy consumed to plant, fertilize, cultivate, harvest, transport, convert the corn to ethanol, and then distribute it consumes more energy than it creates, thereby making it an indirect "Greenhouse Gas" producer. [EPA-HQ-OAR-2016-0004-2675-A1 p.1]

Steitz, Jim

A full life-cycle analysis shows that, on average, substituting corn-based ethanol for conventional gasoline actually increases greenhouse gas pollution. [EPA-HQ-OAR-2016-0004-2058 p.1]

nitrous oxide emission from heavy fertilizer application contributes to global warming far more than previously appreciated. Also, the fuel-intensive organization of the agriculture industry ensures that every step of the process entails significant energy consumption, resulting in a large amount of "embedded emissions" [EPA-HQ-OAR-2016-0004-2058 p.2]

Syngenta

3. EPA's proposal will undermine investment in the biofuels industry, resulting in reduced innovation and economic and environmental benefit.

Ethanol producers are constantly investing in new technologies to make their plants more efficient and diversified. [EPA-HQ-OAR-2016-0004-1832-A1 p.3]

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. [EPA-HQ-OAR-2016-0004-1832-A1 p.4]

Thumb BioEnergy

biodiesel reduces greenhouse gas emissions by 57 percent to 86 percent compared with petroleum diesel. [EPA-HQ-OAR-2016-0004-1550-A1 p.1]

Treeby Farm Partnership

RFS reduces emissions. [EPA-HQ-OAR-2016-0004-2712-A1 p.1]

Trenton Agri Products

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.158]

why does the EPA continue to lower the RVO on conventional biofuels when your own modeling and in addition to the California and Oregon studies show that corn-based ethanol actually reduces greenhouse gases versus petroleum gasoline?

Union of Concerned Scientists (UCS)

there remain several important matters that EPA should resolve over the next year or so through rulemakings, including pathways for a variety of advanced and cellulosic fuels [EPA-HQ-OAR-2016-0004-1672-A1 p.2]

United States Canola Association

The EPA and the Administration are missing an easy opportunity to help the agriculture and rural economy while at the same time achieving greater greenhouse gas emissions reductions. By EPA's assessment, biodiesel achieves greenhouse gas emissions reductions ranging from 50% to 86% better than petroleum diesel. A case can be made that EPA's assessment are on the low-end of the universe of analyses on GHG benefits of biodiesel. However, even by EPA's measurement, 50-86% reductions are very significant. The significant GHG emission reductions achieved by biodiesel makes it hard to understand EPA's reluctance to embrace more aggressive biomass-based diesel RFS volumes. The Administration and EPA have repeatedly cited that reducing emissions is a priority and the energy sector has been a primary focal point in achieving this goal. [EPA-HQ-OAR-2016-0004-1723-A1 p.2]

Urban Air Initiative

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.228-230]

blending ethanol into gasoline has significantly reduced emissions of GHGs and other air pollutants and that displacing gasoline with higher concentrations of ethanol would reduce emissions even further.

EPA's lifecycle emissions estimates were inaccurate when they were published 6 years ago. And as ethanol production has become cleaner and gasoline has become dirtier, the inaccuracies have only compounded.

EPA should correct its 2010 lifecycle analysis to conform to the best-available science. This will impact programs beyond just the RFS and help achieve the most reductions possible.

Valley Proteins

Rendered animal fats and used cooking oils contribute approximately 30 percent of the feedstock for production of biodiesel. Rendered feedstocks provide exceptional performance qualities and greatly reduce emissions of greenhouse gases compared to petroleum-based fuel. [EPA-HQ-OAR-2016-0004-1632-A1 p.1]

Washington Policy Center

although ethanol's supporters claim burning corn is better for the environment, this is a dubious claim at best. Factoring in the energy necessary to grow, ship and process corn into ethanol one must seriously question the value of blending it into fuel. [EPA-HQ-OAR-2016-0004-1669-A1 p.1]

Wesley K Clark & Associates, LLC

They have notably contributed to the reduction of harmful greenhouse gas emissions. [EPA-HQ-OAR-2016-0004-3508-A1 p.1]

Wisconsin Biofuels Association (WBA)

When fully implemented, the RFS will help reduce greenhouse gas emissions by 138 million metric tons, which is equivalent to taking 27 million cars off the road. By failing to implement the RVO as required our efforts to reduce greenhouse gas emissions will be set back. [EPA-HQ-OAR-2016-0004-1638-A1 p.1]

Wisconsin Corn Growers Association

the RFS will help reduce greenhouse gas emissions [EPA-HQ-OAR-2016-0004-1637-A1 p.1]

Response:

Various commenters voiced their concerns about either positive or negative perceived climate impacts of biofuels. Many commenters pointed to GHG (and therefore climate) benefits of replacing petroleum-based fuel with renewable fuels. This is generally 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 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. For reasons explained elsewhere, final 2017 volumes were raised from those in the NPRM, although cellulosic volumes are still well below those originally outlined by EISA.

Multiple commenters stated concerns of renewable fuels having greater GHG impacts compared to petroleum, specifically citing corn ethanol. Also cited were increased direct transportation-related GHG emissions and impacts and potential impacts for indirect land use change emissions from native grassland conversion to cropland or international land use change resulting in increased GHG emissions. Accounting for the direct and indirect impacts of land use change on a lifecycle basis, EPA's current analysis finds that non-grandfathered renewable fuels have lower GHG emissions compared to their petroleum counterparts. Grandfathered facilities are able to generate RINs under the conventional fuel category without having to demonstrate GHG emission reductions.

Many commenters requested that EPA update its lifecycle analysis (LCA) modeling in order to reflect new data and information. Some comments 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 changes in petroleum sources since the Clean Air Act requires EPA to compare renewable fuel GHG emissions relative to the U.S. 2005 petroleum baseline fuel that it replaces.

Some commenters pointed to increased productivity on the farm and improvements in biofuel production technology over time. When EPA conducted the lifecycle GHG analysis for RFS2 in 2010, the analysis took into account projected improvements in both agriculture and conversion efficiencies. In addition, EPA allows facilities that have incorporated improvements in production technology to take credit for these energy efficiency improvements in our approvals of facility-specific petitions. For example, the Efficient Producer Petition Process allows certain ethanol facilities to demonstrate more efficient production and reductions in GHG emissions, and to receive expedited review and approval. EPA has approved over 60 Efficient Producer Petitions since this program was implemented in 2014, and has improved the petition review time by over 80%.

EPA's Inspector General (IG) recently completed a report that included the topic of whether the EPA lifecycle analysis needed to be updated. In that report, the IG acknowledged that an update to the lifecycle analysis would have a minimal regulatory impact, since the Clean Air Act excludes grandfathered production from having to meet any GHG reduction thresholds, and fuel production from existing facilities would not be subject to a revised determination if it was based on a change in analytical methodology.

EPA actively monitors the peer-reviewed and other literature associated with lifecycle GHG emissions of biofuels. The agency routinely meets with other experts across the Federal government, the State of California, industry, academia, and non-government organizations to

discuss new developments in LCA science. In addition, through the new pathways assessment process, EPA regularly receives input on lifecycle analysis methodology and assumptions. These inputs in and of themselves provide the agency with a continuous flow of data and other information necessary to inform consideration of the need for any re-evaluation of the GHG determinations. At this point in time, EPA does not currently think the science has changed enough to warrant revisiting the lifecycle analysis, and any requests for EPA to update our lifecycle analysis is outside the scope of this annual rulemaking.

Beyond the current processes in place, EPA received a comment that evaluation of the RFS program should be undertaken by methods other than LCA in order to avoid issues with the methodology. Again, EPA considers this comment outside the scope of the annual rulemaking. In addition, it is important to note that the CAA requires the agency to use a method that evaluates the direct and significant indirect lifecycle greenhouse gas emissions “related to the full fuel lifecycle, including all stages of fuel and feedstock production and distribution, from feedstock generation or extraction through the distribution and delivery and use of the finished fuel to the ultimate consumer”.⁴³ EPA believes that our LCA methodology meets the statutory requirements of the CAA.

On the measurement of GHG impacts, one comment accurately noted that EPA does not currently account for the climate-forcing effects of black carbon under the RFS. Black carbon is a light-absorbing component of particulate matter formed from the incomplete combustion of fossil fuels, biofuels, and biomass. Although this comment is beyond the scope of this rulemaking, we note that the majority (around 52%) of black carbon in the U.S. is believed to come from mobile source combustion, with around 93% of that amount resulting from incomplete diesel engine combustion.⁴⁴ The amount of radiative forcing and how this translates to a global warming potential (GWP) that can be used in EPA’s LCA is an area of active research both inside and outside of EPA but is not yet at a level where it can be incorporated into the analysis.

Comments regarding the air quality impacts of using biofuels are considered in section 3.2.2. Comments relating to the economic impacts of producing and using biofuels are considered in section 3.1. Comments regarding change in land use are addressed in section 3.2.4 of this document.

3.2.2 Air quality

Comment:

American Highway Users Alliance

Before undertaking the massive investments in blender pumps and E15 tanks at service stations, EPA should officially reassess the benefits and environmental costs of burning billions of gallons

⁴³ § 211(o)(1)(H)

⁴⁴ Learn more about EPA’s efforts to understand and mitigate black carbon at: <https://www3.epa.gov/blackcarbon/>

of ethanol, including the impact on smog and the social impacts of repurposing farmlands for fuels, rather than food. [EPA-HQ-OAR-2016-0004-1810-A1 p.2]

American Petroleum Institute (API)

Environment: EISA does not require EPA to rely on initial rule-making for subsequent assessments. In fact, the purpose is to review information that may become available. Science has evolved since EPA's 2010 RIA and additional studies are available on the environmental impacts of biodiesel (GHGs, air quality, etc.) including the 2016 European Commission study referenced earlier. EPA should take into consideration constraints and limitations of other advanced renewable fuels and new environmental information related to biomass-based diesel and compare with findings from 2010, not just rely on 2010 findings. [EPA-HQ-OAR-2016-0004-3512-A2 p.36]

Anonymous 2

Biofuels are clean burning, [EPA-HQ-OAR-2016-0004-1468 p.1]

Archer Daniels Midland Company (ADM)

The addition of ethanol not only reduces the toxic compounds directly, but also decreases engine combustion chamber deposits caused by the same toxic aromatic compounds. [EPA-HQ-OAR-2016-0004-1727-A1 p.3]

Ethanol increases octane and lowers sulfur, benzene and other toxics while saving the consumer money. [EPA-HQ-OAR-2016-0004-1727-A1 p.3] [This comment can also be found in Docket Number EPA-HQ-OAR-2016-0004-3559 p.33.]

Bell, Megan

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.130-131]

We want clean air and water for our children, and the ethanol industry can help make that happen.

CHS, Inc.

ethanol is a cleaner-burning fuel that benefits our environment and the quality of the air we all breathe. [EPA-HQ-OAR-2016-0004-1612-A1 p.1]

Dickman, Ben

Ethanol displaces chemicals in gasoline that form potent carcinogens when burned - the same carcinogens found in cigarette smoke [EPA-HQ-OAR-2016-0004-0533 p.1]

Energy Future Coalition et al.

CONVENTIONAL AIR POLLUTANTS

As with GHG emissions, new evidence shows that corn ethanol produces less air pollution over its lifecycle than previously estimated. But EPA continues to rely on its 2010 Lifecycle Analysis, which does not account for the latest innovations in corn ethanol production. Nor does EPA's analysis take into account the growing market share of "tight oil," which increases lifecycle emissions from gasoline. As a result, EPA's lifecycle analyses do not accurately model the conventional air pollution emissions attributable to ethanol and gasoline. [EPA-HQ-OAR-2016-0004-2772-A1 p.45]

New evidence from fuel emissions studies shows that blending ethanol into gasoline has already significantly reduced tailpipe emissions and that these reductions would be even more pronounced for mid-level ethanol blends. Because EPA has the authority to facilitate the switch to higher ethanol blends, the Agency should consider studies that show additional lifecycle reductions from transitioning to mid-level blends of ethanol. [EPA-HQ-OAR-2016-0004-2772-A1 p.45]

EPA's analysis of the RFS's air quality effects is methodologically flawed, incomplete, and out of date. At every stage in the fuel life cycle, corn ethanol is now cleaner, and gasoline dirtier than EPA estimated. [EPA-HQ-OAR-2016-0004-2772-A1 p.46]

A. Lifecycle Analysis of Conventional Pollutants

Few studies have comprehensively modeled the lifecycle impacts of ethanol and gasoline on non-GHG emissions. While some early studies focused on PM_{2.5} and its precursors, EPA's 2010 Lifecycle Analysis emphasized increases in ground level ozone, or "smog," from increased emissions of nitrogen oxides (NOX), volatile organic compounds (VOCs), and carbon monoxide (CO) from biofuel production under the RFS.¹⁷⁵ EPA estimated between 36 and 160 additional cases of adult mortality from exposure to ozone as a result of the RFS. [EPA-HQ-OAR-2016-0004-2772-A1 p.46-47]

Following the 2010 Lifecycle Analysis, EPA scientists led by Rich Cook published their lifecycle analysis of the RFS in a peer-reviewed journal, focusing on "criteria" pollutants and on certain species of "air toxics"—pollutants that cause cancer and other health effects. In its peer-reviewed study, EPA found "little net impact" on the overall cancer risk as a result of the RFS. Ozone concentrations, by contrast, would increase in some (but not all) areas by as much as 1 part per billion—mostly as a result of increased NOX and VOC emissions from agriculture, biorefineries, and fuel combustion. EPA scientists conceded that significant uncertainty remained in the modeling of ozone emissions, especially given limited data on the tailpipe effects of E10 in modern vehicles. [EPA-HQ-OAR-2016-0004-2772-A1 p.47]

Subsequent studies and technological innovations have demonstrated that the 2010 Lifecycle Analysis is not a reliable or useful measure of the current lifecycle emissions of either ethanol or gasoline. [EPA-HQ-OAR-2016-0004-2772-A1 p.48]

Blending ethanol into gasoline reduces air pollution from motor vehicles, improving the lifecycle health effects of ethanol. But EPA relied on outdated, flawed studies to support contrary conclusions in its 2010 Lifecycle Analysis. [EPA-HQ-OAR-2016-0004-2772-A1 p.57]

EPA's 2010 Lifecycle Analysis failed to fully account for the toxic effects of PM from aromatics, which ethanol reduces, and failed to account for the risk of aromatics when compared to other, less harmful toxics associated with ethanol. As discussed below, new evidence shows that blending ethanol into gasoline reduces or at least has no effect on most pollutants, with the exception of acetaldehyde, which is a relatively non-toxic irritant. Thus, the lifecycle air quality benefits of ethanol are much greater than EPA assumed in 2010. [EPA-HQ-OAR-2016-0004-2772-A1 p.58]

175 Ozone is known to cause asthma, pulmonary inflammation, and premature death. Studies have also associated ozone with heart problems and vascular disease. See National Ambient Air Quality Standards for Ozone, 80 Fed. Reg. 65292, 65302 (Oct. 26, 2015). It is the product of photochemical reactions of VOCs, NOX, and CO in the atmosphere. *Id.* at 65299. Ozone formation depends on heat and sunlight; prolonged high temperatures and sunlight with stagnant air can build up ozone in the atmosphere. *Id.* at 65300. The reactions are complex and non-linear. Proposed Revisions to the National Ambient Air Quality Standards for Ground-Level Ozone, Regulatory Impact Analysis, at 2-1 (2015). When VOCs levels are high relative to NOX, as in rural areas, NOX tends to increase ozone. By contrast, when VOC levels are low relative to NOX, as in many urban areas, increases in NOX may actually decrease ozone. *Id.*

Energy Vision, et al.

Ethanol is a clean-burning fuel that emits 40-90 percent less carbon than the toxic additives it replaces in gasoline. It reduces greenhouse gas emissions and other harmful, toxic emissions that have been linked to cancer, which improves our environment, and the quality of the air we all breathe. [EPA-HQ-OAR-2016-0004-2870-A1 p.1]

ERI Solutions

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.79]

When 100 percent or 200-proof ethanol is burned in any setting, it burns clean. Whereas 100 percent petroleum-based automotive fuel, as widely produced and utilized today, burns dirty.

George Washington University, Regulatory Study Center

Although the PM costs associated with biodiesel will continue to climb as production increases, EPA does not provide an estimate of projected PM emissions under the proposed standards (2.1 billion gallons in 2018). This omission is troubling because EPA is statutorily required to

analyze such effects and because the biodiesel is the only biofuel whose production continues to exceed its statutory minimum threshold. [EPA-HQ-OAR-2016-0004-2687-A1 p.11]

Mass Comment Campaign sponsored by Absolute Energy (Paper) - (60)

Ethanol is a clean-burning fuel that emits 40-90 percent less carbon than the toxic additives it replaces in gasoline. It reduces greenhouse gas emissions and other harmful toxic emissions that have been linked to cancer, improving our environment and the quality of the air we all breathe. [EPA-HQ-OAR-2016-0004-1359-A1 p.1]

Mass Comment Campaign sponsored by American Ethanol (Paper) - (22)

Additionally, renewable fuels have 40-90 percent less carbon than the toxic additives they replace in gasoline, so they are better for the environment and the air we all breathe. [EPA-HQ-OAR-2016-0004-3348-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 10 (email) - (771)

Ethanol displaces chemicals in gasoline that form potent carcinogens when burned – the same carcinogens found in cigarette smoke – making breathing a little easier for all of us. [EPA-HQ-OAR-2016-0004-1166-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 13 (email) - (3333)

Furthermore, ethanol is more energy efficient to produce than conventional gasoline and emits 40-90 percent less carbon emissions than the toxic additives it replaces in gasoline. Without it in the fuel supply, we are left with more toxic alternatives, which have been proven to cause cancer and smog. That is not a risk we can afford to take. We must remain committed to reducing the environmental impact of America's vehicles and continue to build on the innovation of greener fuels, like ethanol and other advanced biofuels. [EPA-HQ-OAR-2016-0004-1169-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 7 (Web) - (47)

Biofuels also displace cancer-causing gasoline additives like benzene, [EPA-HQ-OAR-2016-0004-0399 p.1]

Mass Comment Campaign sponsored by ethanol producers 1 (email) - (444)

Ethanol is a clean-burning fuel that emits 40-90 percent less carbon than the toxic additives it replaces in gasoline. It reduces greenhouse gas emissions and other harmful toxic emissions that have been linked to cancer, improving our environment and the quality of the air we all breathe. [EPA-HQ-OAR-2016-0004-0555-A1 p.1]

Mass Comment Campaign sponsored by ethanol producers 2 (email) - (87)

Cellulosic fuels will displace chemicals in gasoline that form potent carcinogens when burned – the same carcinogens found in cigarette smoke – making breathing a little easier for all of us. [EPA-HQ-OAR-2016-0004-1170-A1 p.1]

Mass Comment Campaign sponsored by Growth Energy (Paper) - (110)

Additionally, renewable fuels have 40-90 percent less carbon than the toxic additives they replace in gasoline, so they are better for the environment and the air we all breathe. [EPA-HQ-OAR-2016-0004-1501-A1 p.1]

Mass Comment Campaign sponsored by National Corn Growers Association 6 (Web) - (41,744)

Biofuels displace cancer-causing gasoline additives like benzene, the same chemicals found in cigarette smoke. These dangerous additives have also been linked to asthma and drinking water contamination. [EPA-HQ-OAR-2016-0004-0400 p.1]

Mass Comment Campaign sponsored by POET Biorefining 2 (Paper) - (214)

Let's clear the air starting with clean biofuels. [EPA-HQ-OAR-2016-0004-2882-A1 p.2]

Minnesota Corn Growers Association (MCGA)

The EPA should be working to reduce air pollution. We should not cut a renewable fuel source (corn starch ethanol) that provides an immediate solution to displace petroleum. [EPA-HQ-OAR-2016-0004-1818-A1 p.2]

Minnesota Corn Research and Promotion Council

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.127-128]

the air quality in our metro regions was poor. Ethanol fixed that.

Near, Cheryl Worth

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.72]

I purchased a flex-fuel vehicle so I can fill with E85. In doing this, I am exposing myself to less toxins and carcinogens when I'm fueling my car. I call E85 the healthier fuel choice.

Pennington-Peine, Nicholas

ethanol displaces aromatics in gasoline and provides a cleaner exhaust [EPA-HQ-OAR-2016-0004-3303-A1 p.1]

Urban Air Initiative

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.230]

Displacing gasoline's aromatic hydrocarbons with ethanol also reduces primary and secondary emissions of other toxic air pollutants, including particulate matter, polycyclic aromatic hydrocarbons, and volatile organic compounds. Greater pollution-reducing benefits are possible if ethanol were used to produce higher-octane fuel blends, replacing toxic and carbon intensive fuel additives and allowing car makers to increase vehicle fuel economy with next-generation engine designs.

Response:

The Agency received many comments on the non-CO₂ air quality impacts associated with ethanol, biodiesel, and the RFS standards in general with most claiming considerable air quality benefits and opportunities from renewable fuels, and others concerned that the Agency is pursuing a policy that results in negative air quality impacts. EPA did not conduct a new air quality impact assessment in assessing the volumes of renewable fuel that are expected to be available for this rulemaking.

However, as part of the RFS2 rulemaking in 2010, EPA conducted a detailed assessment of the emissions and air quality impacts associated with an increase in production, distribution, and use of the renewable fuels sufficient to meet the RFS2 volumes, including biodiesel and ethanol blends. 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 RFS2 RIA indicates that the impact of increased biofuels (as assumed to meet the RFS2 volumes) on PM and some air toxics emissions at the tailpipe is generally favorable compared to petroleum fuels, but the impact on VOCs, NO_x, and other air toxics is generally detrimental.⁴⁵ The impact of biodiesel specifically, on VOC, PM, and air toxics emissions at the tailpipe is generally favorable compared to petroleum diesel fuel, but the impact on NO_x is slightly detrimental.⁴⁶ The RFS2 RIA also indicates that the upstream impacts on emissions from production and distribution of biofuel (including biodiesel) are generally detrimental compared to petroleum fuel.⁴⁷ Taking tailpipe, upstream, and refueling emissions into account, the net

⁴⁵ U.S. EPA, 2010. Renewable Fuel Standard Program (RFS2) Regulatory Impact Analysis. EPA-420-R-10-006. Table 3.2-7 and 3.2-8.

⁴⁶ U.S. EPA, 2010. Renewable Fuel Standard Program (RFS2) Regulatory Impact Analysis. EPA-420-R-10-006. Table 3.2-9.

⁴⁷ U.S. EPA, 2010. Renewable Fuel Standard Program (RFS2) Regulatory Impact Analysis. EPA-420-R-10-006. Table 3.2-2 and 3.2-3.

impact on emissions from RFS2 volumes of renewable fuels is increases in the pollutants that contribute to both ambient concentrations of ozone and particulate matter as well as some air toxics. The air quality impacts, however, are highly variable from region to region and more detailed information is available in Section 3.4 of the RFS2 RIA.

The agency also received comments noting that the assessment of the air quality impacts for the RFS2 rulemaking in 2010 is out of date and that there is new data available on emissions associated with biodiesel and ethanol that would impact the assessment. EPA acknowledges that new data and information has become available since the time of the RFS2 assessment. However, 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 comprehensive estimate of the air quality impacts associated with the renewable fuel standards.

In addition, in response to the comment concerned about "massive investments in blender pumps and E15 tanks at service stations", Section 2.3.4 states that "The standards that we are establishing today reflect both the responsibility placed on obligated parties as well as their ability to undertake the short-term activities available to them. 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."

3.2.3 Water quality and quantity

Comment:

Action Aid et al.

Corn ethanol expansion would only exacerbate negative impacts on the environment, public health, wildlife habitat, and food security that have occurred since the RFS was greatly expanded in 2007 (see Section II for more information on environmental impacts): [EPA-HQ-OAR-2016-0004-1801-A1 p.2]

- Millions of acres of native grasslands, forests, and wetlands have been converted to intensive row crop and biofuel feedstock production since 2007, including land use conversion that is prohibited by law, with negative impacts on the climate, wildlife habitat, water and air quality, and other environmental indicators.
- Increased corn acreage (to meet a larger corn ethanol mandate) has resulted in increased nitrogen fertilizer applications, which leach into water supplies, pollute drinking water, and result in worse health, particularly for residents in the Corn Belt.
- Wildlife habitat has shrunk significantly since 2007 with the large loss of grasslands and wetlands acres, not to mention pasture, stream buffers, forests, and other sensitive land.
- Instead of decreasing greenhouse gas (GHG) emissions, current corn ethanol production may actually increase carbon emissions.

- Food security risks due to higher commodity prices related to increased demand for corn ethanol and substitute crops. [EPA-HQ-OAR-2016-0004-1801-A1 p.2]

Water Quality and Quantity and Impacts on Public Health

As U.S. corn acres increased after 2007, the amount of nitrogen fertilizer and pesticides applied to cropland increased¹⁷ (since corn is currently the most input-intensive crop) with negative impacts on water quality and quantity. Growing more corn to meet requirements set by the RFS has led farmers to switch from corn-soybean rotations to continuous corn. Changing from a corn-soy rotation to continuous corn will either reduce yields, or will result in much higher fertilizer use due to soil nitrogen depletion. In the U.S., farmers use about 29 times more fertilizer per acre for corn than soybeans.¹⁸ [EPA-HQ-OAR-2016-0004-1801-A1 p.5]

Greater runoff of fertilizer and pesticides has impaired both local waterways and major rivers such as the Mississippi. [EPA-HQ-OAR-2016-0004-1801-A1 p.5]

17 U.S. Department of Agriculture Economic Research Service, U.S. Plant Nutrient Use by Corn, Soybeans, Cotton, and Wheat, 1964-2012 (2011) (<http://www.ers.usda.gov/data-products/fertilizer-use-and-price.aspx#26720>).

18 Joseph Fargione, Richard Plevin, and Jason Hill. 2010. The Ecological Impact of Biofuels. Annual Review of Ecology, Evolution and Systematics 41: 351-77. DOI: 10.1146. (<http://www.annualreviews.org/doi/abs/10.1146/annurev-ecolsys-102209-144720?journalCode=ecolsys>).

Anonymous 8

From polluted water supplies, to increased seismic activity, it is, or should be obvious that fracking is doing unspeakable things to the citizenry, and environment [EPA-HQ-OAR-2016-0004-2405-A1 p.1]

Baker Commodities, Inc.

Importantly, the RFS has provided increased incentive to capture more used cooking oil and grease, avoiding serious damage to municipal water systems. [EPA-HQ-OAR-2016-0004-1656-A1 p.1]

Bell, Megan

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.130-131]

We want clean air and water for our children, and the ethanol industry can help make that happen.

Belluardo, John

consider the additional land use and the additional runoff of the fertilizer into our lakes and streams and the subsequent pollution of our ground water from additional land use. Our lakes are being decimated with toxic algae as a direct result of using additional land growing corn to produce fuel. [EPA-HQ-OAR-2016-0004-2571-A1 p.1]

Clean Air Task Force (CATF)

Setting the 2017 RVO implied volume for corn ethanol higher than the blend wall in addition to the 2016 volume would only increase incentives to expand corn ethanol production, with negative impacts on the climate, water quality, air quality, soil quality, wildlife habitat, and food security. Current corn ethanol production increases – not decreases – GHG emissions. In its 2010 Renewable Fuel Standard Implementation Rule, EPA concluded that corn ethanol produced during 2010-2015 (when production capacity was still ramping up) rather than corn ethanol produced in 2022 (seven years after EPA expects production to level off), corn ethanol's net emissions over 30 years would be 28% higher than the emissions from gasoline over the same period. Reports by the Congressional Budget Office and National Academies of Science have also questioned the GHG reduction potential of corn ethanol. [EPA-HQ-OAR-2016-0004-1804-A1 p.3]

Moreover, the 2010 analysis conducted by EPA ignores much of the land use change impacts from current ethanol production. Increased demand for corn since the 2007 mandate was enacted has increased incentives for farmers not only in the U.S. but also around the world to drain wetlands, cut down trees, and tear up grasslands to plant biofuel feedstocks such as corn and soybeans, again with negative impacts on the climate as more carbon is released into the atmosphere when these sensitive acres are converted into agricultural production. A 2015 study by researchers at the University of Wisconsin found that over seven million acres of uncultivated land (since at least 2001) were converted to agricultural production between 2008 and 2012. Other studies have documented similar large land use changes since the 2007 mandate went into effect. As EPA's own 2011 Triennial Report to Congress showed, this direct and indirect land conversion also negatively impacts wildlife habitat and water quality with more soil erosion and increased use of synthetic fertilizers for corn production (which is the most input-intensive crop in the United States). For more information on land use change and other environmental impacts, please see CATF's comments on the proposed rule for the 2014-16 RVOs and the joint comments that CATF is submitting with other NGOs for the 2017 RVOs. [EPA-HQ-OAR-2016-0004-1804-A1 p.3-4]

Coburn & Associates, LLC

Water Contamination. Billions of pounds of fertilizer are used each year to grow corn. Much of it ends up contaminating rivers, lakes and groundwater. Besides this huge local degradation of water quality, fertilizer runoff from croplands is the primary source of nitrogen that is responsible for the huge 'dead zone' in the Gulf of Mexico. Finally, the USDA estimates that it costs large drinking water utilities about \$1.7 billion each year to remove agriculture nitrate. [EPA-HQ-OAR-2016-0004-1749-A1 p.1]

Fitzgibbons, John

The State of Minnesota is planning on spending hundreds of millions of dollars to clean up impaired waters in our farm areas that have been polluted by mostly corn runoff.

...choked waterways full of algae blooms and a dead zone in the Gulf of Mexico the size of New England are all the legacy of the ethanol program. [EPA-HQ-OAR-2016-0004-2081 p.1]

Fremont Industries

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.167]

I had heard from different API-based factoids, if you will, made up, that it took thousands of gallons of water to produce a gallon of ethanol, which is a total fabrication. It's about 2.75 gallons of water.

George Washington University, Regulatory Study Center

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."³⁰ [EPA-HQ-OAR-2016-0004-2687-A1 p.9]

30 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 p. 6.

Heath, Mark

And we're still going to lose all the millions of gallons of additional water out of the Midwest aquifers, to grow all the additional corn to make the ethanol. [EPA-HQ-OAR-2016-0004-2671-A1 p.1]

Ethanol and Methanol work great in a country like Brazil, where the biomass grows for free, and the water is plentiful, but it's asinine in a country like the United States, where the input for the fuel has to be grown and irrigated in a semi-arid part of the country. [EPA-HQ-OAR-2016-0004-2671-A1 p.2]

Jung, Jerry

Ethanol Wastes and Pollutes Water

It was estimated that the amount of water needed to grow enough corn to meet the 2015 RFS goal for ethanol volumes would equal 2.9 trillion gallons. [EPA-HQ-OAR-2016-0004-1833-A1 p.4]

ethanol also affects the environmental dead zone in the Gulf of Mexico. It is estimated that an additional 2.39 million tons nitrogen fertilizer was needed to grow the 2015 corn crop for ethanol. This not only affects the Gulf. The nitrogen in the water runoff encourages algae blooms in lakes and streams. [EPA-HQ-OAR-2016-0004-1833-A1 p.4]

Illinois Corn Growers Association and Illinois Renewable Fuels Association (ILRFA)

Water Use

Figure 4 below shows the water use at ethanol plants (gallons of water per gallon of ethanol produced). Water use has decreased by half since the early dry grind plant installations^{39,40,41,42}. Cooling water recycling, reverse osmosis, and reuse of filter backwash water are cited as technologies that contribute to this trend.⁴³ [EPA-HQ-OAR-2016-0004-1745-A3 p.15]

39 University of Illinois Extension. March 2009. Water Use for Ethanol Production

40 Aden, Andy. September/October 2007. Water Usage for Current and Future Ethanol Production. Southwest Hydrology.

41 <http://ethanolrfa.org/page/-/PDFs/RFA%202013%20Ethanol%20Industry%20Outlook.pdf?nocdn=1>

42 Mueller, Steffen and Kwik, John. (2013). 2012 Corn Ethanol: Emerging Plant Energy and Environmental Technologies. University of Illinois – Chicago Energy Resources Center. Available online: http://www.erc.uic.edu/PDF/mueller/2012_corn_ethanol_draft4_10_2013.pdf.

43 Ethanol Producer Magazine (6/2012); Dropping Water Use - Ethanol producers balance cost and conservation when reducing consumption, <http://www.ethanolproducer.com/articles/8860/dropping-water-use>

Kane Ranch

Billions of pounds of fertilizer are used each year to grow corn. Much of it ends up contaminating rivers, lakes and groundwater. Since Energy Independence and Security Act (EISA) of 2007 was passed, there has been no progress in reducing corn and soybean soil erosion. It is troubling enough that industry statistics document that over 60 pounds of soil is lost for every bushel of corn, therefore, the current RFS may not be the ideal course of action. [EPA-HQ-OAR-2016-0004-1636-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 1 (Web) - (5,185)

The use of ethanol in fuels also drives up the price of grains, puts unnecessary stress on water resources and overall is more damaging to the environment than conventional fossil fuels---it comes at a higher cost across the board. [EPA-HQ-OAR-2016-0004-0073 p.1]

Mass Comment Campaign sponsored by Anonymous 17 (email) - (86)

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. [EPA-HQ-OAR-2016-0004-1363-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 29 (paper) - (67)

Many studies have shown ethanol can actually require greater quantities of water than gasoline. [EPA-HQ-OAR-2016-0004-2604-A1 p.1]

Minnesota Trout Association

Driftless area land use is now dominated by row crop production of corn and soybeans and suffers widespread groundwater contamination from nitrates and pesticides used for corn and soybeans and widespread surface water impairments due to nutrient and sediment runoff from row crops. In addition our nutrient rich surface waters contribute the Hypoxic Zone in the Gulf of Mexico. Every scientific and technical study of the problem cites nutrient loss from row-crop production, especially corn, as the source of our groundwater and surface water impairments, and most studies cite the fact that the pollution is getting worse due to the expansion of corn production. It is easy to draw the correlation with ethanol as in Minnesota 35-40% of the corn crop is used for ethanol. Corn produced for ethanol production is pollution to groundwater and our streams. [EPA-HQ-OAR-2016-0004-3513 p.2]

Reducing or eliminating the Renewable Fuel Standard would be one of the shortest paths to protecting our water supply and surface waters. [EPA-HQ-OAR-2016-0004-3513 p.2]

National Biodiesel Board

Water quality and quantity

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. [EPA-HQ-OAR-2016-0004-2904-A2 p.116]

National Corn Growers Association

In the last 30 years, corn production has improved on all measures of resource efficiency, by decreasing per bushel basis the following:

- land use by 30 percent,

- soil erosion by 67 percent,
- irrigation by 53 percent,
- energy use by 43 percent, and,
- greenhouse gas emissions by 36 percent.³ [EPA-HQ-OAR-2016-0004-1809-A1 p.10]

3 “Environmental and Socioeconomic Indicators for Measuring Outcomes of On-Farm Agricultural Production in the United States” Field to Market: The Keystone Alliance for Sustainable Agriculture (July 2012).

National Renderers Association (NRA)

Rendered Biodiesel Feedstocks Enhance Clean Water Act Compliance and Prevent Damage to Municipal Water Systems

Biomass-based diesel production contributes to enhanced water quality and compliance with the CWA. Increasing the value of used cooking oils and grease produced by food service establishments to a sufficient economic level encourages renderers to consistently collect and recycle these products. This reduces the volume of wasted used cooking oils and grease channeled into sewer systems and water treatment plants. If fats, oils and grease (FOG) are improperly disposed of by pouring down the drain, cities often face billions of dollars in costs to repair or replace damaged sewer lines and address waste water treatment issues. [EPA-HQ-OAR-2016-0004-2694-A1 p.5-6]

National Wildlife Federation (NWF)

there have been severe unintended consequences, including degradation of water quality. [EPA-HQ-OAR-2016-0004-1700-A2 p.2]

The expansions is also pushing cropping into more arid lands requiring heavy irrigation, while ethanol refineries consume very large volumes of water, adding additional stress to areas already burdened with declining aquifers and water storage and insufficient in-stream flows. [EPA-HQ-OAR-2016-0004-1700-A2 p.3]

Compared to other biofuel crops including soybean and perennial grasses, corn has the highest level of application of nutrients (fertilizer and pesticides) resulting in higher runoff from fields. [EPA-HQ-OAR-2016-0004-1700-A2 p.5]

National Women involved in Farm Economics (WIFE)

Plus, ethanol production requires less water than gasoline, by a three to one margin. [EPA-HQ-OAR-2016-0004-2540 p.1]

Nestle Corporate Affairs

Corn-based ethanol makes the problems of world freshwater supplies and water quality worse, not better. [EPA-HQ-OAR-2016-0004-1868-A1 p.3]

Publisher Render Magazine Placerville

Importantly, the RFS has provided increased incentive to capture more used cooking oil and grease from restaurants and foodservice establishment, avoiding serious damage to municipal water systems. [EPA-HQ-OAR-2016-0004-2052 p.2]

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, impacts on aquifers, as well as increasing number of algae blooms and costs to drinking water systems. For example, Action Aid noted their view that RFS has led to farming practice changes from regular corn-soy rotations to continuous corn plantings, which can lead to increased fertilizer use. The Minnesota Trout Association said that corn produced for RFS results in pollution in the nation's waterways, while the National Renderers Association believes that biodiesel production from waste oils helps keep these feedstocks out of the nation's water treatment systems, and the National Biodiesel Board highlighted water quality benefits from soybean farming and increased BBD production.

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, in our judgment the information and data available on these issues does not warrant our taking a different approach than is reflected in the final rule. EPA supports the growing adoption of mitigation techniques such as no till farming and better control of fertilizer usage, and notes that further technical information on this complicated set of issues would be helpful.

3.2.4 Ecosystems, wildlife habitat, and conversion of wetlands

Comment:

ABATE of Michigan

I am also concerned about the environmental impact this legislation will cause as in, loss of wildlife habitat, greenhouse gases, soil erosion, increased pesticide and fertilizer use, and other impacts. [EPA-HQ-OAR-2016-0004-1753-A1 p.1]

ABATE of Pennsylvania

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. [EPA-HQ-OAR-2016-0004-2200-A1 p.2]

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. [EPA-HQ-OAR-2016-0004-2200-A1 p.2]

Action Aid et al.

Corn ethanol expansion would only exacerbate negative impacts on the environment, public health, wildlife habitat, and food security that have occurred since the RFS was greatly expanded in 2007 (see Section II for more information on environmental impacts):

- Millions of acres of native grasslands, forests, and wetlands have been converted to intensive row crop and biofuel feedstock production since 2007, including land use conversion that is prohibited by law, with negative impacts on the climate, wildlife habitat, water and air quality, and other environmental indicators.
- Increased corn acreage (to meet a larger corn ethanol mandate) has resulted in increased nitrogen fertilizer applications, which leach into water supplies, pollute drinking water, and result in worse health, particularly for residents in the Corn Belt.
- Wildlife habitat has shrunk significantly since 2007 with the large loss of grasslands and wetlands acres, not to mention pasture, stream buffers, forests, and other sensitive land.
- Instead of decreasing greenhouse gas (GHG) emissions, current corn ethanol production may actually increase carbon emissions.
- Food security risks due to higher commodity prices related to increased demand for corn ethanol and substitute crops. [EPA-HQ-OAR-2016-0004-1801-A1 p.2]

Negative Impacts on Wildlife Habitat

Land use change (detailed above), coupled with water pollution and other negative environmental impacts of corn ethanol production, have further threatened already dwindling wildlife habitat in many parts of the Corn Belt and Prairie Pothole Region (Dakotas, Iowa, Nebraska, Iowa, and Minnesota). Habitat destruction has been particularly harmful to grassland nesting birds and waterfowl, since as much as 70% of the continent's population depends on the Prairie Pothole region for breeding and rearing their young. Native prairie ecosystems, which are hot beds of biodiversity, not only lose wildlife habitat when they are converted into biofuel feedstock production, but also large amounts of carbon.²⁶ [EPA-HQ-OAR-2016-0004-1801-A1 p.6]

26 F. B. Samson, F. L. Knopf, and W. R. Ostlie. 2004. Great Plains Ecosystems: Past, Present, and Future. Wildlife Society Bulletin 32, 6-15.

American Council for Capital Formation (ACCF)

Annual soil erosion between 2008 and 2016 would have decreased by 94 million and 204 million metric tons of soil under the "no RFS" and "cellulosic replacement" scenarios, respectively [EPA-HQ-OAR-2016-0004-1713 p.2] [This comment can also be found in Docket Number EPA-HQ-OAR-2016-0004-3558 p.201.]

American Petroleum Institute (API)

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.⁹⁶ [EPA-HQ-OAR-2016-0004-3512-A2 p.35]

⁹⁶ EISA requires that renewable fuels be produced from renewable biomass. The law further restricts the definition for crop-based renewable fuels to crops from land that was in agricultural use as of the date of enactment of EISA. However, in the original RFS2 rulemaking, EPA effectively exempted domestic crop-based biofuels from this requirement based on the assumption that there would be no new crop-land created. Recent reports including a University of Wisconsin study (<http://m.iopscience.iop.org/1748-9326/10/4/044003/article>) and an Associated Press investigation (<http://bigstory.ap.org/article/secret-dirty-cost-obamas-green-power-push-1>) indicate this was an invalid assumption.

Anonymous 3

the public is largely ignorant as to the real ecological science behind ethanol (also established scientific fact). If most knew how damaging the true ecological impact was of ethanol production and what the full ramifications to the environment and economy was, they would largely be against it too [EPA-HQ-OAR-2016-0004-1925 p.1]

Anonymous 6

Energy such as ethanol that is not harmful to the environment [EPA-HQ-OAR-2016-0004-2281 p.1]

Anonymous 7

the majority of biofuels consumed today are ultimately creating pressure for incremental deforestation and competition for basic commodity foods like corn. [EPA-HQ-OAR-2016-0004-2457 p.1]

Anonymous 9

As many studies have indicated, the addition of Ethanol actually harms the environment more than it does help. [EPA-HQ-OAR-2016-0004-2895 p.1]

Barney Bishop Consulting LLC

The unintended consequences of the RFS have resulted in the loss of conservation land, destroyed wildlife habitats, increased Green House Gas (GHG) emissions, caused water contamination and even soil erosion. [EPA-HQ-OAR-2016-0004-0476-A1 p.1]

Belluardo, John

Farming is a labor intensive process requiring diesel powered tractors and equipment consuming energy in the process. The land would be better used to grow food for national consumption or export for profit. [EPA-HQ-OAR-2016-0004-2571-A1 p.1]

Clean Air Task Force (CATF)

Setting the 2017 RVO implied volume for corn ethanol higher than the blend wall in addition to the 2016 volume would only increase incentives to expand corn ethanol production, with negative impacts on the climate, water quality, air quality, soil quality, wildlife habitat, and food security. Current corn ethanol production increases – not decreases – GHG emissions. In its 2010 Renewable Fuel Standard Implementation Rule, EPA concluded that corn ethanol produced during 2010-2015 (when production capacity was still ramping up) rather than corn ethanol produced in 2022 (seven years after EPA expects production to level off), corn ethanol's net emissions over 30 years would be 28% higher than the emissions from gasoline over the same period. Reports by the Congressional Budget Office and National Academies of Science have also questioned the GHG reduction potential of corn ethanol. [EPA-HQ-OAR-2016-0004-1804-A1 p.3]

Moreover, the 2010 analysis conducted by EPA ignores much of the land use change impacts from current ethanol production. Increased demand for corn since the 2007 mandate was enacted has increased incentives for farmers not only in the U.S. but also around the world to drain wetlands, cut down trees, and tear up grasslands to plant biofuel feedstocks such as corn and soybeans, again with negative impacts on the climate as more carbon is released into the atmosphere when these sensitive acres are converted into agricultural production. A 2015 study by researchers at the University of Wisconsin found that over seven million acres of uncultivated land (since at least 2001) were converted to agricultural production between 2008 and 2012. Other studies have documented similar large land use changes since the 2007 mandate went into effect. As EPA's own 2011 Triennial Report to Congress showed, this direct and indirect land conversion also negatively impacts wildlife habitat and water quality with more soil erosion and increased use of synthetic fertilizers for corn production (which is the most input-intensive crop in the United States). For more information on land use change and other environmental impacts, please see CATF's comments on the proposed rule for the 2014-16 RVOs and the joint comments that CATF is submitting with other NGOs for the 2017 RVOs. [EPA-HQ-OAR-2016-0004-1804-A1 p.3-4]

Coburn & Associates, LLC

The unintended consequences of this effort have been serious environmental repercussions in loss of conservation land, wildlife habitat, increased greenhouse gas emissions (GHG), soil erosion and contaminated water: [EPA-HQ-OAR-2016-0004-1749-A1 p.1]

Soil erosion. Since EISA was passed, there has been no progress in reducing corn and soybean soil erosion. It is troubling enough that industry statistics document that over 60 pounds of soil is lost for every bushel of corn, but soybeans are far worse. [EPA-HQ-OAR-2016-0004-1749-A1 p.1]

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 in order 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 have been converted to farmland to meet ethanol and biodiesel mandates. [EPA-HQ-OAR-2016-0004-1749-A1 p.1]

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 increasing use of pesticides. [EPA-HQ-OAR-2016-0004-1749-A1 p.1]

Eastman, John

Ethanol uses 6 times more energy to produce than gasoline. So there really is not any net environmental gains from the program. [EPA-HQ-OAR-2016-0004-0557 p.1]

Fitzgibbons, John

In addition, since the RFS came to fruition, millions of acres of prairie grassland have been turned into cropland just to meet the demands of the ethanol program. [EPA-HQ-OAR-2016-0004-2081 p.1]

Florida Petroleum Marketers and Convenience Store Association (FPMA)

we will see more large quantities of land being purchased, to grow corn that produces ethanol, removing precious grasslands, wetlands and wildlife habitats. [EPA-HQ-OAR-2016-0004-0472-A1 p.1]

Greenwood Christian Church

Damage to the Environment.

“ Increasing corn ethanol consumption could take away precious grasslands, wetlands and wildlife habitats, and lead to higher greenhouse gas emissions.”ⁱⁱⁱ [EPA-HQ-OAR-2016-0004-1719-A1 p.1]

iii Mark Green. The RFS and Climate. Energy Tomorrow. September 21, 2015.

Hay, Steve

developments in cellulosic make ethanol production even better for the environment because it cuts down on farm waste. [EPA-HQ-OAR-2016-0004-1618-A1 p.1]

Holmes, Steve

The report acknowledges that questions could remain regarding whether the RFS, which was "intended to address one problem," does not "actually make other environmental problems worse." [EPA-HQ-OAR-2016-0004-3600-A1 p.1]

Jung, Jerry

The EPA can improve the quality of our air, water, and land by accepting the reality that the national policy to promote corn-based ethanol is a failure. This policy, initially well intended, is devastating to our environment [EPA-HQ-OAR-2016-0004-1833-A1 p.1]

the need for land to grow corn eliminates biologically diverse habitats on 35 million acres. The acreage used has increased yearly – and in that increase acreage is lost that used to be a natural habitat for plant, insect and animal species.¹² [EPA-HQ-OAR-2016-0004-1833-A1 p.3]

Without crop rotation, increased insecticides, herbicides, and fertilizer are used more and more to grow corn. The insecticides and herbicides are used year-after-year and continue to kill off insect species that may be friendly to other plants. [EPA-HQ-OAR-2016-0004-1833-A1 p.3]

¹² <https://www.cbd.int/doc/publications/cbd-ts-65-en.pdf>

Kisiel, John

By essentially incentivizing greater ethanol production, there is an acute risk of overproduction of corn resulting in greater threats to environmentally sensitive areas like wetlands and small stand hardwood forests [EPA-HQ-OAR-2016-0004-1495-A1 p.1]

the future risk the loss of biodiversity, degradation of soil quality, and increase soil erosion caused by the types of intensive farm practices the proposed standards would promote. [EPA-HQ-OAR-2016-0004-1495-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 3 (Web) - (718)

In spite of promises that the Renewable Fuel Standard (RFS) would function as an environmental boon, respected research institutions and environmental authorities, from the National Academy of Sciences to the United Nations Intergovernmental Panel on Climate Change, have

documented the impact of corn ethanol on the environment - its contributions to higher greenhouse gas emissions and air pollutants, its contamination of water ecosystems and its role in the reduction of fragile grass and wetlands. [EPA-HQ-OAR-2016-0004-0112 p.1]

Leading environmental groups, like the National Wildlife Federation, have consistently raised concerns over how the RFS impacts natural habitats. Collin O'Mara, President and CEO of NWF, states that an estimated 1.6 million acres of native grassland habitat have already been depleted and converted to corn production to fulfill the RFS mandate. [EPA-HQ-OAR-2016-0004-0112 p.1]

Mass Comment Campaign sponsored by National Wildlife Federation Action Fund (Web) - (22,367)

National Wildlife Federation Action Fund supporters urging the U.S. Environmental Protection Agency to defend, not destroy monarch butterfly habitat. [EPA-HQ-OAR-2016-0004-1504 p.1]

"To protect vulnerable populations of monarchs and other wildlife that depend on native grasslands, I ask that your agency acknowledge the severe environmental impacts of corn ethanol production and adjust your final Renewable Fuel Standard (RFS) mandate downward. [EPA-HQ-OAR-2016-0004-1504 p.1]

Native grasslands are disappearing at an alarming rate, along with the monarch butterfly and other wildlife species that depend on them. Studies show the RFS increases demand for corn, contributing to the conversion of millions of acres. Please defend, don't destroy habitat for monarchs and many other species. Reduce the mandate for corn ethanol, don't increase it. [EPA-HQ-OAR-2016-0004-1504 p.1]

Additionally, I ask that EPA implement the land conversion protections contained in the law. [EPA-HQ-OAR-2016-0004-1504 p.1]

The RFS includes protections against converting untillied lands for biofuel production. Yet EPA has not implemented this provision as Congress intended. Given the threats to remaining grasslands and the steep declines of monarchs and other wildlife, the land-clearing provision must be enforced to fully protect these critically important habitats. [EPA-HQ-OAR-2016-0004-1504 p.2]

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. EPA-HQ-OAR-2016-0004-0020 at 5. EPA again 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. [EPA-HQ-OAR-2016-0004-2904-A2 p.101]

Wetlands, ecosystems and wildlife habitats

EPA also 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.¹⁰⁴ 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-2016-0004-2904-A2 p.113]

National Farmers Union (NFU)

there are concerns that the RFS may promote environmentally harmful land use decisions by encouraging farmers to bring acreage into corn production that may otherwise not been planted. [EPA-HQ-OAR-2016-0004-1651-A1 p.10]

the assertion that the RFS promotes additional planting does not consider the potential for mitigating this effect by greater funding for land retirement programs. [EPA-HQ-OAR-2016-0004-1651-A1 p.10]

this assertion fails to account for conservation improvements to working lands. Advances in both the popularity and efficacy of practices like nutrient stewardship, soil health, cover cropping, riparian buffer strips, precision conservation and a myriad of other practices, work against many of the expressed concerns over water quality or habitat regarding additional planting. [EPA-HQ-OAR-2016-0004-1651-A1 p.10]

Utilizing stover in the short term is a direct bridge to the habitat, soil health, water quality and climate benefits of establishing a market for dedicated perennial energy crops. [EPA-HQ-OAR-2016-0004-1651-A1 p.10]

National Wildlife Federation (NWF)

there have been severe unintended consequences, including large-scale loss of wildlife habitat (especially native grasslands) [EPA-HQ-OAR-2016-0004-1700-A2 p.2]

Increased demand for BBD carries the potential to drive additional land conversion in the United States through additional demand for soybean production, but also could drive international demand for palm oil produced in other parts of the world. [EPA-HQ-OAR-2016-0004-1700-A2 p.6]

This additional potential for environmental harm stemming from increased demand for BBD, at a minimum, further underscores the need for a lower Renewable Fuel mandate in 2017, and most likely also a lower BBD mandate in 2018. [EPA-HQ-OAR-2016-0004-1700-A2 p.7]

Move Away from Aggregate Compliance and Meaningfully Implement the Land Conversion Prohibition. [EPA-HQ-OAR-2016-0004-1700-A2 p.7]

fully implement the letter and the intent of the law by requiring obligated parties to verify that the fuels they use to meet the requirements under this and future rules comes from qualifying lands in cultivation prior to 2007. This change in approach is even more important now, as the mandate begins to shift focus to new sources of biofuel beyond conventional corn and soybean feedstocks. [EPA-HQ-OAR-2016-0004-1700-A2 p.7]

Nestle Corporate Affairs

Ethanol also has an impact on wildlife and biodiversity due to the incentives it creates for converting land to intensive crop uses. [EPA-HQ-OAR-2016-0004-1868-A1 p.3]

Ohio Veterans United

Not only will increasing corn ethanol consumption take away precious grasslands, wetlands and wildlife habitats and lead to higher greenhouse gas emissions [EPA-HQ-OAR-2016-0004-1941 p.1]

Pennsylvania House of Representatives

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 [EPA-HQ-OAR-2016-0004-1751-A1 p.2]

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. [EPA-HQ-OAR-2016-0004-1751-A1 p.2]

Pennsylvania Motorcycle Dealers Association

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. Additionally millions of acres of pristine land has been converted to farmland to meet ethanol and biodiesel mandates. [EPA-HQ-OAR-2016-0004-2868-A1 p.2]

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. [EPA-HQ-OAR-2016-0004-2868-A1 p.2]

Pennsylvania Off Highway Vehicle Association

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. Additionally millions of acres of pristine land has been converted to farmland to meet ethanol and biodiesel mandates. [EPA-HQ-OAR-2016-0004-1757-A1 p.2]

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. [EPA-HQ-OAR-2016-0004-1757-A1 p.2]

Pennsylvania State Snowmobile Association (PSSA)

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. Additionally millions of acres of pristine land has been converted to farmland to meet ethanol and biodiesel mandates. [EPA-HQ-OAR-2016-0004-2869-A1 p.2]

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. [EPA-HQ-OAR-2016-0004-2869-A1 p.2]

Rocky Mountain College

As I stated before I am a strong supporter of protecting the environment; however, the RFS is not the ideal policy to help us to achieve those goals. The intent of the Renewable Fuel Standard was to reduce greenhouse gas emissions, diminish America's dependence on foreign oil and promote development of advanced biofuels. The unintended consequence of this effort has been rapid expansion of corn ethanol production, serious environmental repercussions in loss of conservation land, wildlife habitat, increased greenhouse gas emissions (GHG), soil erosion and contaminated water and driving up the price of food and feed. [EPA-HQ-OAR-2016-0004-1629-A1 p.1]

Schnitker Law office, P. A.

RFS has resulted in massive conversion of highly erodible and marginal cropland that was good for the environment into cropland. [EPA-HQ-OAR-2016-0004-1802-A1 p.1]

Steitz, Jim

the volume mandate must not be set at a level 'that would severely harm the economy or environment.' The EPA's current ethanol program, consuming a third of America's corn crop and decimating the last vestiges of prairie and wetland ecosystems in the corn-growing regions, has blown through that prohibition. [EPA-HQ-OAR-2016-0004-2058 p.1]

the dramatic increase in global commodity demand catalyzes a ripple effect through the agricultural industries of other countries, including those on the bleeding edge of tropical rainforests. This prompts the destruction of rainforests and peatlands to grow commodities that

are largely fungible with American corn, particularly soybeans in South America and oil palm in Southeast Asia, releasing vast stores of biological carbon that dwarf any possible savings from displaced oil use. [EPA-HQ-OAR-2016-0004-2058 p.1]

Corn-based ethanol, which accounts for the vast majority of current ethanol production and will remain so for the foreseeable future, has been an ecological and agricultural disaster. [EPA-HQ-OAR-2016-0004-2058 p.1]

Such severe loss also implicates the EPA as jeopardizing the survival of every grassland-dependent plant and animal currently listed as Threatened or Endangered, making the 'conventional biofuel' fraction (i.e. the large majority) of the Renewable Fuel Standard a plenary violation of the Endangered Species Act. [EPA-HQ-OAR-2016-0004-2058 p.1]

Vets4Energy

The increased corn and soybean production that has resulted from this initiative has led to serious adverse effects on our environment. Since 2009, five million acres of land designated for conservation has been lost in order to meet ethanol and biodiesel mandates - more than Yellowstone, the Everglades and Yosemite National Park combined. This devastating loss has resulted in catastrophic negative impacts on wildlife habitats, a measurable increase in greenhouse gas emissions, water quality degradation and a dramatic increase in soil erosion. [EPA-HQ-OAR-2016-0004-1837-A1 p.1]

Virginia State Senate, 11th District

environmental impact is not only in costs, but in loss of conservation lands and wildlife habitat. [EPA-HQ-OAR-2016-0004-2259 p.1]

Washington Policy Center

The Department of Energy estimates that if corn ethanol replaced gasoline completely, we'd need to use all our current farmland plus an additional 20 percent. [EPA-HQ-OAR-2016-0004-1669-A1 p.1]

Corn is poor forage for bees and nationally respected bee scientists like Randy Oliver have argued that ethanol mandates are contributing to colony loss. [EPA-HQ-OAR-2016-0004-1669-A1 p.1]

Yinger, Alexander

Which brings me to the issue of ethanol as a renewable fuel. Although theoretically plants can just be grown again and again, there is a limit to the number of times plants can be grown in a given parcel of land when a portion of the plant is removed and not decomposed into the soil of that parcel of land. [EPA-HQ-OAR-2016-0004-3340-A1 p.1]

Response:

Several commenters focused on the reduction in acres covered by the Conservation Reserve Program (CRP). It appears the maximum number of acres eligible under the CRP has decreased over the past decade due to Congressional and administrative action by the U.S. Department of Agriculture, not due to the RFS program. See, e.g., 2014 Farm Bill, Pub.L. 113-79, 128 Stat. 649, codified as amended at 16 U.S.C. §3831. CATF cited a study saying 7 million acres of land were converted to cropland between 2008-2012. API claims that recent studies obligate EPA to revisit its assumption that the aggregate compliance provision of §80.1454(g) is sufficient to ensure that no new cropland would be created by the RFS. The National Wildlife Federation also supported a move away from the aggregate compliance system for planted crops and also noted its concern about increased demand for BBD on land conversion for palm oil production in other parts of the world. Other commenters noted their concerns about the impact of increasing biofuels production on wildlife habitat, including nesting birds and waterfowl.

We note that under the aggregate compliance requirements of the RFS program, total agricultural acres cannot exceed the baseline amount of agricultural land in 2007. In fact, based on data provided by USDA, 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 U.S., while some shifting in land use has likely occurred (e.g., moving from crops to pasture or pasture to crop production), there does not appear to have been a net increase in land devoted to agricultural production. More importantly, changes in the types of crops grown and the location of these crops is due to a host of factors such as new statutory provisions and market directions, not just the demand created by the RFS program. Further information and studies would be helpful in better understanding these types of impacts that may arise out of renewable fuel production.

The comments from the National Biodiesel Board note that farming practices continue to evolve, crop yields continue to improve, and cropland use is in decline, thus 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 may mitigate the potential adverse impacts on wetlands, ecosystems, and wildlife habitat for this rule. We have noted in the first triennial report to Congress that an increase in biofuel production could have adverse impacts on biodiversity due to monoculture production, and could result in runoff from croplands polluting wetlands. However, we have not quantified the incremental impact likely to result from the standards being established in this final rule, nor their impact on specific lands being brought into production for biofuel feedstocks.

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 the factors that we are required to consider in setting the BBD standard can be found in Section VI.C of the final rule and Section 4.4 of this document. Additional details can be found in the updated Memorandum to the Docket: "Final Statutory Factors Assessment for the 2018 Biomass-Based Diesel (BBD) Applicable Volumes" In this memorandum we note that certain advanced biofuels (e.g., ethanol from food waste or CNG/LNG from non-cellulosic feedstock) have significantly superior lifecycle GHG performance than soy biodiesel. In addition, they are not made directly from crops, and would

therefore also likely have significantly lower impacts on wetlands, ecosystems, and wildlife habitats as well as little or no impact on water quality and water supply than soy biodiesel. Therefore, finalizing a nested BBD volume requirement sufficiently below the advanced biofuel requirement, as we have done in the past annual rules and which we are doing for 2018, should provide a continuing incentive for the further development and marketing of such fuels, and may result in potentially increased GHG reductions, positive impacts on wetlands and water quality through RFS implementation over the long term.

3.3 Other impacts

3.3.1 Expected annual rate of future commercial production

Comment:

American Petroleum Institute (API)

Expected annual rate of future commercial production of renewable fuels: To date, corn-ethanol and biomass-based diesel have been the two primary fuels utilized for compliance with the RFS, and based on current state of technology, these two fuels will continue to be the primary fuels utilized for compliance with the RFS. However, both of these fuels face real world constraints as the fuel pool becomes saturated with volumes that are compatible with existing infrastructure (i.e. E10 and B5). This saturation could likely cause barriers that must be overcome by other renewable fuels. [EPA-HQ-OAR-2016-0004-3512-A2 p.36]

Implications of Biomass-Based Diesel Requirements within Nested Standards.

BBD production capacity and capacity utilization within the U.S. have remained relatively stagnant in recent years. According to the Energy Information Administration, annual biodiesel production capacity has averaged 2.1 billion gallons between 2011 and 2015. During the same time period, capacity utilization has been in a range of 20.1% to 72.6%. Domestic production of biodiesel reached a peak of nearly 1.4 billion gallons in 2013 and declined to less than 1.3 billion gallons in 2014 and 2015. During this same time period, the U.S. switched from being a net exporter to a net importer of biodiesel. EPA's approach of increasing BBD is most likely encouraging imported BBD, which does not necessarily lead "...toward greater energy independence and security...", a stated purpose of EISA. [EPA-HQ-OAR-2016-0004-3512-A2 p.38]

National Biodiesel Board

EPA also attempts to argue that its assessment is consistent with factors (I), (II) and (III) of the statute, since it believes its decision "can have a positive impact on the future development and marketing of other advanced biofuels." 81 Fed. Reg. at 34,811. This is a stretch. While it is true that these factors support increasing the biomass-based diesel volume, they are wholly unrelated to the "competition" EPA apparently contends was a goal of the statute. Increasing the biomass-

based diesel volume ensures that these additional available gallons of *advanced* biofuel are met, thereby ensuring the positive environmental benefits (Factor I) and the positive energy security benefits (Factor II). This is because it will ensure less petroleum use. [EPA-HQ-OAR-2016-0004-2904-A2 p.87]

Factor III relates to “expected annual rate of future commercial *production*.” 42 U.S.C. § 7545(o)(2)(B)(ii)(III) (emphasis added). Because EPA is setting the volumes only for biomass-based diesel at this time, it makes little sense that EPA was also supposed to consider the *potential* for other advanced biofuels to keep the volumes lower than what they could be. Comparing this to EPA’s approach for cellulosic biofuel, where EPA considers the capacity of facilities, future plans of facilities, and expected production, EPA here simply contends 100-million gallons is a sufficient increase, wholly divorced from any of these similar considerations.⁹¹ Thus, EPA’s approach is particularly troubling given that it wholly ignores the expected annual rate of production of biomass-based diesel, the category for which EPA is setting the volume. Recently announced expansion plans would eclipse the 100-million-gallon increase proposed by EPA. For example, a recent announcement of the reopening of a 90-million-gallon biodiesel plant in Texas would be able to meet 90% of the 100-million-gallon increase EPA provided from 2016 to 2017. *See* World Energy Press Release, *BIOX and World Energy Announce Joint Venture to Acquire and Operate 90 Million USG Biodiesel Facility in Houston*, June 28, 2016, <http://www.worldenergy.net/insights/biox-and-world-energy-announce-joint-venture-acquisition/>. In addition, an expansion project at Diamond Green’s renewable diesel facility in Louisiana that would increase the plant’s capacity from 160 million to 275 million – a 115-million-gallon difference – is expected to be completed in 2017, with production ramping up in early 2018. *See* Darling Ingredients, Inc., *Diamond Green Diesel to be Expanded to 275 Million Gallons Annually*, PR Newswire, Apr. 7, 2016, <http://www.prnewswire.com/news-releases/diamond-green-diesel-to-be-expanded-to-275-million-gallons-annually-300248085.html>. EPA has repeatedly stated that renewable diesel does not have similar “constraints” as biodiesel, and, thus, there is no reason why EPA should not recognize the industry’s investments. This is just two plants, and does not reflect the work being done across the industry to become more efficient and look into expanding. Congress wanted to grow the program, and EPA should fulfill Congress’s intent. [EPA-HQ-OAR-2016-0004-2904-A2 p.87-88]

Response:

API suggests that real world constraints limit use of BBD in the fuel pool- saturation occurring at B5 volumes compatible with existing infrastructure. They also contend that BBD production capacity and capacity utilization within the US has remained relatively stagnant in recent years averaging 2.1 B gall between 2011-2015 and capacity utilization ranging from 20-73% so that increasing BBD volumes is most likely encouraging imported BBD –which doesn’t lead to greater energy independency. Sections 2.31-2.34 of the RTC address the E10 issue raised by API. The response below addresses API’s comments with regard to B5.

We disagree with API’s comments regarding BBD infrastructure limitations. For example, during 2014, 2015 and 2016 we have seen the biodiesel distribution network continue to expand and it is becoming increasingly common for biodiesel blends of B10-B20 to be utilized. Sections

V.B.2. iv.-v. of the final rule preamble provides a discussion of the current state of the distribution infrastructure, including the retail distribution structure available for biodiesel and renewable diesel. With regard to API's comments on BBD production capacity and utilization rates remaining relatively stagnant in recent years, we discuss this issue in section V.B.2.ii of the final rule preamble. In summary, EPA believes that capacity for all registered domestic biodiesel production facilities is approximately 3.5 billion gallons. The capacity for all registered domestic renewable diesel production facilities is more than 0.7 billion gallons. Active production capacity is lower, however, as a number of registered facilities were idle in 2015 and 2016. The capacity for all domestic biodiesel and renewable diesel production facilities that generated RINs in 2015 or 2016 is approximately 3.1 billion gallons. While idled production facilities may be brought online, doing so would likely require sufficient time to re-staff the production facilities, make any necessary repairs or upgrades to the facility, and source the required feedstocks. EPA does not expect that production capacity at registered facilities will limit the supply of biodiesel for use as transportation fuel in the United States in 2017 or 2018. With regard to increasing level of imports, we note in section V. B.2.iii of the final rule preamble that we do believe that the standards in this final rule will result in a moderate increase in biodiesel and renewable diesel imports and have included a moderate increase in our projection of the supply of these fuels in 2017, consistent with the general trend observed in previous years. EPA disagrees with API's assessment that imports do not increase energy security. The wider use of any biofuels, including BBD diversify the U.S. liquid fuel mix and provide energy security benefits. This is true for both domestically produced and imported biofuels. Increased use of biofuels, including BBD, whether produced domestically or imported, will contribute, on the basis of energy petroleum displaced, to enhanced energy security.

With regard to NBB's comments challenging EPA's proposed BBD volume requirement of 2.1 billion gallons for 2018 based on their assessment of a much higher expected annual rate of future commercial production of renewable fuels (statutory factor III), EPA acknowledges that it does not expect the annual rate of future commercial production of renewable fuels to act as a constraint for setting the BBD volume requirement for 2018. As noted above, section V.B.2.ii of the final rule preamble discusses the available production capacity for all registered domestic biodiesel production facilities in 2017 and indicates that capacity currently exceeds 3 billion gallons while the production capacity for all registered domestic renewable diesel production facilities is more than 0.7 billion gallons.

NBB is primarily arguing that we should be setting the 2018 BBD requirement at the full volume of BBD that we believe is reasonably attainable for 2018, and then provide space for other advanced biofuels to compete in the space between the 2018 BBD volume requirement and the advanced biofuel requirement in 2018. We disagree. EPA has not yet determined what volumes of advanced biofuels might be reasonably attainable in 2018. These will be the subject of regulatory actions next year. But since the statute requires that we set the BBD standard volumes earlier, we have done so with this final rulemaking. The 2018 BBD volume requirement is being finalized in a manner consistent with how we set the 2017 BBD volume requirement, and is based on a review of the implementation of the program to date and all the factors required under the statute as detailed in section VI of the final rule preamble and in the *"Final Statutory Factors Assessment for the 2018 Biomass Based Diesel (BBD) Applicable Volume"* memorandum to the docket. Overall, we have determined that the assessment of all the statutory factors specified in

CAA section 211(o)(2)(B)(ii)(I)-(VI) for the 2018 BBD applicable volume, which includes statutory factor III, “expected annual rate of future commercial production...” does not provide significant support for proposing the BBD requirement at a level higher or lower than 2.1 billion gallons in 2018.

We believe that an increase of 100 million gallons above the level finalized for 2017 to 2.1 billion gallons in 2018 supports the overall goals of the RFS program while also maintaining the incentive for development and growth in production of other advanced biofuels as well as the continued growth in BBD and renewable diesel. 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.

Arguments in favor of increasing the required BBD volume must be balanced, against the benefits, 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. We continue to believe that 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. EPA is not arbitrarily keeping the 2018 BBD applicable volume low as NBB suggests in their comments, but rather for these reasons is not increasing it as much as might otherwise be possible were there no advanced biofuel standard. While competition with other advanced biofuels is not one of the explicit factors listed in the statute that EPA must take into consideration in establishing the BBD standard for years after 2013, EPA is not limited to just those factors listed in the statute, and furthermore costs are listed, and competition with other sources of supply is a key factor in the costs of the program. We do not believe it is either necessary or appropriate to set the BBD volume at a higher value closer to the full projected value of commercial production, but instead believe that it is appropriate to set the BBD mandate in a manner to provide space for other advanced biofuels to compete with BBD within the advanced biofuel volume requirement. See RTC section 4.0. for additional discussion of this issue.

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 2.1B gals being adopted for 2018. Based on comments received and further analysis, we believe that an increase in the BBD volume to 2.1 billion gallons in 2018 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.

3.3.2 Deliverability of materials, goods, and products other than renewable fuel

Comment:

National Biodiesel Board

Impact of Renewable Fuels on Infrastructure.

Deliverability of Materials, Goods, and Products Other Than Renewable Fuels.

While NBB agrees with EPA that biomass-based diesel does not have significant impacts on deliverability of materials other than renewable fuels, it continues to take issue with EPA phrasing regarding “devoting a larger or smaller portion of the advanced biofuel standard to BBD.” [EPA-HQ-OAR-2016-0004-2904-A2 p.104]

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. While EPA notes that the RIA only considered 1.82 billion gallons of biomass-based diesel, further increases in biomass-based diesel have been seen without a negative impact. We note that, based on the producer survey, plants are now, on average, much closer to terminals, which should reduce any impacts of increasing production. In fact, EPA has found that 2.7 billion gallons can be delivered in 2017, and EPA is considering the biomass-based diesel volume *for 2018*. 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-2016-0004-2904-A2 p.104]

Response:

NBB continues to take issue with EPA’s phrasing in the statutory factors analysis regarding “devoting a larger or smaller portion of the advanced biofuel standard to BBD” and believes that the analysis supports volume increases to the BBD standard beyond that proposed by EPA.

EPA believes it properly considered the statutory factors both in the NPRM and in the final rule. Sections V.B.1. - V.B.2 of the final rule provides a detailed discussion of the history of implementation of the RFS program including the BBD category to date. From this history, it is apparent that the advanced and/or total renewable fuel requirements were in fact helping grow the market for volumes of biodiesel and renewable diesel above the BBD standard. We also note that 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 V1.B.2 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. 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 2.1 billion gallons in 2018. See section 4.1-4.4 of this RTC document for additional discussion.

3.3.3 Sufficiency of infrastructure to deliver and use renewable fuel

Comment:

National Biodiesel Board

EPA estimates that the biodiesel and renewable diesel industry can contribute 2.5 billion gallons to the RFS in 2016 and, in fact, 2.7 billion gallons in 2017. If that's the case, then it would appear that none of the concerns raised by EPA regarding distribution will be present for these amounts in 2018, almost two years from now. Thus, it makes little sense for EPA to propose a volume of only 2.1 billion gallons, an amount that the biodiesel and renewable diesel industry met in 2015. [EPA-HQ-OAR-2016-0004-2904-A2 p.83]

Sufficiency of Infrastructure to Deliver and Use Renewable Fuels.

EPA again states that it believes up to 2.7 billion gallons of these fuels could be “supplied utilizing the currently available infrastructure to deliver and use renewable fuels,” finding no “constraint” in 2018. *Id.* Inexplicably, EPA then contends that this factor does not provide a good reason for proposing a higher or lower biomass-based diesel volume. As explained above, this factor indicates that a higher biomass-based diesel volume *can and should be higher*. Only in that way will further investment occur. EPA cannot recognize the advances made, which it attributes to the RFS program that requires increasing volumes, and then state that this factor does not support higher volumes. It is precisely because of the continued increased volume requirements that the industry has responded. [EPA-HQ-OAR-2016-0004-2904-A2 p.104-105]

United Parcel Service

the specific fuels that are mandated are not compatible with the nation's gasoline or diesel fuel infrastructure. [EPA-HQ-OAR-2016-0004-3603-A1 p.1]

As a consequence of the above infrastructure incompatibility, blending bio-diesel and ethanol into gasoline or diesel fuel must occur only at downstream terminals or even nearer to the point of use. [EPA-HQ-OAR-2016-0004-3603-A1 p.2]

Response:

NBB argues that because we state in our proposal our belief that up to 2.7 billion gallons of these fuels could be “supplied utilizing the currently available infrastructure to deliver and use renewable fuels,” in 2017. *Id.*, “it makes no sense to propose only a BBD volume of 2.1 billion gallons for 2018.”

We disagree with NBB's comment and believe our approach in setting the BBD volume requirement is reasonable. As described in the preamble and in our final memorandum to the docket, *Final Statutory Factors Assessment for the 2018 Biomass based Diesel (BBD) applicable Volume*, we have determined that both the primary assessment and the supplemental assessment of the statutory factors specified in CAA section 211(o)(2)(B)(ii)(I)-(VI) for the year 2018 do not

provide significant support for setting the BBD standard at a level higher or lower than 2.1 billion gallons in 2018.

While our final rule analysis indicates that there is sufficient infrastructure to support 2.9 billion gallons of biodiesel and renewable diesel for purposes of assessing the total renewable requirement for 2017, it does not follow that we must therefore mandate this higher BBD volume requirement in 2018. (See section 4.1 for discussion on this issue). In setting the BBD requirement for any given year, we are setting a floor for the minimum amount of biodiesel volume that is guaranteed to the industry. Additional levels of BBD volumes will be incentivized by the final advanced biofuel volume requirement for 2018. As we have done in past years, and most recently for 2017, we have determined that an incremental increase in the 2018 BBD volume requirement of 100 million gallons is appropriate to provide continued support to the BBD industry, acknowledging the important role the BBD industry thus far had played in providing advanced biofuels to the marketplace, and in furthering the GHG reduction objectives of the statute. However, we did not in 2017, and are not in this final rule, setting the BBD volume requirement at the highest reasonably attainable production volume of BBD.

Finally, section V.B.2. of the final rule preamble provides our most up-to-date assessment of the overall infrastructure and distribution capabilities in the U.S. including several factors that may, to varying degrees and at different times, limit the growth of biodiesel and renewable diesel in future years, including local feedstock availability, production and import capacity, and the ability to distribute, sell, and use increasing volumes of biodiesel and renewable diesel. We continue to believe that the supply of biodiesel and renewable diesel as transportation fuel in the United States, while growing, is not without limit in the near term.

The United Parcel Service commented that because certain mandated fuels are not compatible with the current gasoline and diesel fuel infrastructure, blending of bio-diesel and ethanol into gasoline or diesel fuel must occur only at downstream terminals or even nearer to the point of use. EPA acknowledges this concern. While constraints are still real, much has been done to address the various infrastructure issues associated with delivering and using renewable fuels. For biodiesel blends we expect that refueling infrastructure (e.g. refueling stations selling biodiesel blends) will not be a limiting factor in 2018. 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. Section V.B.2.ii.-vi of the final rule preamble provides a comprehensive discussion 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.

4. BBD standard for 2018

4.1 General

Comment:

Action Aid et al.

EPA's proposed RVOs would exacerbate the social and environmental problems linked to the production of palm oil. First, the proposed biomass-based diesel RVO for 2018 would increase the overall demand for both biodiesel and, more generally, vegetable oil (from which 60% of BBD was produced in 2015, according to the U.S. Energy Information Administration).³⁵ Because palm oil is the marginal product in the global vegetable oil market, those demand increases will cause an expansion of palm oil production. [EPA-HQ-OAR-2016-0004-1801-A1 p.8]

35 Jeremy Martin/Union of Concerned Scientists, Everything You Ever Wanted to Know About Biodiesel (June 22, 2016) (<http://blog.ucsusa.org/jeremy-martin/all-about-biodiesel>).

Ag Processing, Inc.

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.88]

the proposed biodiesel volumes for 2018 fail to adequately recognize the domestic biodiesel industry's production capacity and its ability to increase production.

American Fuel and Petrochemical Manufacturers (AFPM)

Implications of 2017 Biomass-based Diesel Requirement

EPA did not have the authority to promulgate a 2.0 billion gallons (actual) biomass-based diesel mandate for 2017. The statute requires EPA to establish biomass-based diesel volumes with a 14-month lead-time.²² For 2017, EPA only provided a 12.5-month lead-time (the RFS biomass-based volume for 2017 was promulgated on December 14, 2015). Therefore, EPA disregarded the plain statutory text. Instead, EPA should have promulgated a 1.28-billion-gallon requirement for biomass-based diesel for 2017 after missing the 14-month lead-time based on the most recent level for BBD contained in a final rule. [EPA-HQ-OAR-2016-0004-1814-A1 p.12]

Similarly, the Agency must promulgate the 2018 BBD volume on or before October 31, 2016. [EPA-HQ-OAR-2016-0004-1814-A1 p.12]

Biomass-Based Diesel for 2018

EPA does not have the authority to promulgate 2.1 billion gallons (physical) for biomass-based diesel for 2018 unless it promulgates that requirement by October 31, 2016 in accordance with CAA section 211(o)(2)(B)(ii). The statute requires EPA to establish biomass-based diesel volumes with a 14-month lead time. EPA cannot disregard this clear statutory provision. [EPA-HQ-OAR-2016-0004-1814-A1 p.35]

if the Agency promulgates the 2018 BBD volume after October 31, 2016 (violating the 14-month requirement), then EPA must promulgate no more than 1.28 billion gallons for 2018. [EPA-HQ-OAR-2016-0004-1814-A1 p.35]

American Petroleum Institute (API)

CAA section 211(o)(2)(B)(ii) expressly requires EPA to provide 14-months lead time when establishing such requirements. Specifically, under this provision: [EPA-HQ-OAR-2016-0004-3512-A2 p.34]

The Administrator shall promulgate rules establishing the applicable volumes under this clause no later than 14 months before the first year for which such applicable volume will apply. [EPA-HQ-OAR-2016-0004-3512-A2 p.34]

EPA can comply with the 14 month lead-time requirement by finalizing the proposed rule by October 31, 2016. If it fails to meet that deadline, it cannot increase the biomass-based diesel levels beyond the last year for which it met this deadline, which, as explained below, was the 2013 level of 1.28 billion gallons. [EPA-HQ-OAR-2016-0004-3512-A2 p.34]

Implications of Biomass-Based Diesel Requirements within Nested Standards.

Because the BBD standard is nested within the advanced and total renewable fuel standards (i.e. a sub-mandate), increasing the BBD standard above 1.28 billion gallons has a limited ability to help meet fundamental objectives of the RFS. EPA has previously acknowledged the BBD volumes responded to advanced and / or total renewable fuel requirements. EPA has previously stated that competition among market participants is good. In increasing BBD volume EPA attempts to strike a balance between supporting BBD volumes and other advanced biofuels. Increasing the BBD sub-mandate, above 1.28 billion gallons and within the nested structure is not irrelevant, and EPA should not increase the BBD above 1.28 billion gallons. [EPA-HQ-OAR-2016-0004-3512-A2 p.38]

The agency's proposal to increase the BBD sub-mandate potentially interferes with market competition. It is not a requirement for EPA, per statutory authority, to encourage production and consumption of any specific biofuel over another biofuel. [EPA-HQ-OAR-2016-0004-3512-A2 p.38]

American Soybean Association (ASA)

The ASA urges EPA to increase the volumes for biomass-based diesel to 2.5 billion gallons for 2018 – a 400 million gallon increase over the levels in the Proposed Rule. [EPA-HQ-OAR-2016-0004-1722-A1 p.1] [These comments can also be found in Document number EPA-HQ-OAR-2016-0004-3559 p.205.]

The U.S. biodiesel industry has provided these benefits without significant disruption or adverse impacts to consumers. There are no limitations on using biodiesel blends of 20% (B20) throughout the diesel and distillate fuel market and vehicles are not limited by increased volumes of biodiesel. U.S. farmers can produce more feedstock, U.S. biodiesel producers have unused capacity, there are no infrastructure impediments to modest volume increases and U.S. workers, consumers and the environment would benefit. [EPA-HQ-OAR-2016-0004-1722-A1 p.1]

An increase of biomass-based diesel volume requirements to 2.5 billion gallons in 2018 is achievable and warranted. There is idle domestic production capacity and ample, price competitive feedstock available to supply increased domestic biodiesel production. In addition, we are experiencing increasing levels of imported biomass-based diesel. Imports of biomass-based diesel have increased every year from 2012 through 2015, and EPA indicates that there were over 560 million gallons of biomass-based diesel imports in 2015. Furthermore, the U.S. Energy Information Administration's Short Term Energy Outlook issued in June 2016 estimates 629 million gallons of biomass-based diesel imports in 2016 and 721 million gallons in 2017. [EPA-HQ-OAR-2016-0004-1722-A1 p.3]

Baker Commodities, Inc.

EPA has the opportunity to reduce pollution from transportation, reduce dependence on petroleum diesel and improve air quality by encouraging increased development and use of biodiesel. I urge you to increase the 2017 RFS for advanced biofuel to at least 4.75 million gallons and the 2018 RFS for biomass-based diesel to 2.5 billion gallons. [EPA-HQ-OAR-2016-0004-1656-A1 p.2]

BHT Resources

I urge you to increase the 2017 RFS for advanced biofuel to at least 4.75 million gallons and the 2018 RFS for biomass-based diesel to 2.5 billion gallons. [EPA-HQ-OAR-2016-0004-1630-A1 p.1]

Biotechnology Innovation Organization (BIO)

In projecting future volumes of biomass-based diesel, EPA reviews implementation of the RFS program to date, as the RFS statute requires for this fuel for calendar years after 2012. In projecting 2018 biomass-based diesel volumes in the proposed rule, EPA overstates the number of RINs separated from exported volumes of biomass-based diesel in prior years, producing a systematic underestimate of available volumes for 2018. EPA should correct such errors in determining required biomass-based diesel volumes for 2018, which will ultimately be relevant to EPA's later decision on the proper level of advanced biofuel volumes for 2018. [EPA-HQ-OAR-2016-0004-2721-A1 p.19]

EPA overestimates export of biomass-based diesel by relying on Energy Information Administration data rather than EPA Moderated Transaction System data. For instance, the agency inaccurately states that “[i]n 2012 the available BBD RINs were slightly less than the BBD standard.” In fact, all available evidence suggests that available BBD RINs were more than sufficient to meet the 2012 RVO and, indeed, that they contributed to the creation of a carryover RIN bank for 2013. [EPA-HQ-OAR-2016-0004-2721-A1 p.19]

In its consideration of its proposed applicable biodiesel volume for 2018, EPA gives significant weight to what happened in 2012. It is therefore significant that EPA is demonstrably incorrect in enumerating various “factors beyond the RFS standards” as impacting BBD production in 2012.⁵⁷ The RFS standards for 2012, the existence of carryover RINs, and other compliance flexibilities fully account for 2012 production of biomass-based diesel in that year. [EPA-HQ-OAR-2016-0004-2721-A1 p.20]

EPA must correct its assessment of past implementation of the program to correctly estimate future production volumes. [EPA-HQ-OAR-2016-0004-2721-A1 p.20]

California Biodiesel Alliance (CBA)

The EPA’s initial proposal, while moving in the right direction, still underestimates the biodiesel industry’s ability to contribute to the Advanced Biofuel volumes for 2017 and to ramp up production in 2018. [EPA-HQ-OAR-2016-0004-1678-A1 p.1]

Darling Ingredients, Inc.

The Proposed Rule clearly establishes that for 2017 there are no limitations that would preclude the production of 2.3 billion gallons of Biomass Based Diesel for the Advanced Biofuel category and an additional 400 million gallons to help fulfill the Total Renewable Fuel mandate. That certainly means there can be no limitations preventing the EPA from substantially increasing the volume requirement well above the current proposed level of 2.1 billion gallons. [EPA-HQ-OAR-2016-0004-1721-A1 p.10]

The question, therefore, is why would the EPA not increase its mandates for 2018 to at least the level of Biomass Based Diesel it assumes will be produced in 2017 to fulfill the 2017 Advanced Mandate? By doing so the EPA would be fulfilling the clear intent of RFS2 legislation which is to incent the production of carbon reducing fuels AND the EPA would be establishing a base on which it could further increase the mandates for Advanced Biofuel and Total Renewable Biofuel in 2018 when those are promulgated next year. By starting with the successful history of Biomass Based Diesel as the foundation for increased Advanced Biofuel mandates, EPA does not contradict its stated goal of creating competition amongst various biofuels to fulfill the various mandates. The larger Biomass Based Diesel volumes can then simply be part of an increased Advanced Biofuel mandate that spurs incremental production of Cellulosic biofuels including the rapidly expanding Biogas segment. [EPA-HQ-OAR-2016-0004-1721-A1 p.10]

Darling requests that the EPA, for all of the reasons cited in this section of these comments, increase the Biomass Based Diesel 2018 volume requirements to 2.5 billion gallons, which

represents 200 million gallons less than the volume anticipated for 2017. [EPA-HQ-OAR-2016-0004-1721-A1 p.10]

Green Plains

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.185]

thank you for extending biomass-based diesel requirements for more than 18 months out. This has made a noticeable difference in our customers' ability to plan, commit to additional investments, and develop markets.

Heath, Mark

I am also opposed to raising Diesel biomass standards [EPA-HQ-OAR-2016-0004-2671-A1 p.1]

Illinois Soybean Growers (ISG)

Biodiesel has the highest energy balance of any fuel returning 5.54 units of energy for every unit of fossil fuel needed to produce it. And it's made right here in the U.S., supporting the intent Congress had when it established and expanded the RFS program to promote domestic energy production and independence. [EPA-HQ-OAR-2016-0004-1744-A1 p.1]

Biodiesel also is important for soybean meal supply. [EPA-HQ-OAR-2016-0004-1744-A1 p.1]

By creating demand for the soybean oil, biodiesel increases the availability of the protein-rich meal for livestock feed and consumer food products. [EPA-HQ-OAR-2016-0004-1744-A1 p.1]

Indiana Soybean Alliance (ISA)

ISA, along with ASA, urges EPA to increase the volumes for biomass-based diesel to 2.5 billion gallons for 2018 – a 400 million gallon increase over the levels in the Proposed Rule. [EPA-HQ-OAR-2016-0004-1834-A1 p.1]

Iowa Office of the Governor

Specifically, we urge the EPA to increase its biomass-based diesel targets to 2.5 billion gallons for 2018 in the final rule. [EPA-HQ-OAR-2016-0004-1747-A1 p.2]

A volume increase of just 100 million gallons two years from now – in 2018 – is insufficient to stimulate the level of investment, innovation, and economic activity that was envisioned under the biomass-based diesel category of the RFS. [EPA-HQ-OAR-2016-0004-1747-A1 p.2]

Iowa Renewable Fuels Association (IRFA)

set the biomass-based diesel requirement for 2018 at 2.5 billion gallons [EPA-HQ-OAR-2016-0004-1867-A1 p.1]

[The following comment was submitted as testimony at the Kansas City, Missouri public hearing on June 9, 2016. See Docket Number EPA-HQ-OAR-2016-0004-3559 p.47.]

Biodiesel, as an advanced biofuel that reduces greenhouse gas emissions by up to 86 percent, offers an amazing opportunity at improving air quality, but the proposal doesn't go far enough in spurring widespread change in the diesel market. We urge you to set the biomass-based diesel level at 2.5 billion gallons for 2018.

Iowa Soybean Association & Iowa Biodiesel Board

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.71]

Biodiesel achieves greenhouse gas emission reductions ranging from 57 to 86 percent better than petroleum diesel.

Kansas Farm Bureau

ask the agency to consider setting the volume standard at 2.5 billion gallons for 2018. [EPA-HQ-OAR-2016-0004-1718-A1 p.2]

Mahoney Environmental

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.212-213]

In reviewing the proposed standard for biomass-based diesel and advanced biofuels, we'll consider that the levels for the next 2 years are relatively conservative, especially with the expectations that have been set by collectors like myself, processors, and the producers themselves and the supporting transportation industry.

My company and those like us would like to support an increase in renewable fuel standard volumes for biomass-based diesel and specific goals that would stimulate more production of these fuels above the current proposed standards.

Mass Comment Campaign sponsored by Biodiesel.org (email) - (397)

Particularly as the Obama Administration strives to address climate change and improve air quality, the EPA should finalize biodiesel and Advanced Biofuel volumes under the RFS that better reflect the ability of the industry to respond to market demand and contribute to the RFS program and that paves the way for meaningful progress toward our shared goals for reducing

pollution and our dependence on petroleum, while benefiting the economy. [EPA-HQ-OAR-2016-0004-0554-A1 p.1]

Mass Comment Campaign sponsored by Iowa Renewable Fuels Association 2 (Paper) - (404)

EPA's latest RFS proposal for biodiesel continues to fall short of the levels we can achieve. I urge you to increase the 2018 biomass-based diesel target to at least 2.5 billion gallons. [EPA-HQ-OAR-2016-0004-1499-A1 p.1]

National Biodiesel Board

We are writing to urge you to revisit and increase the proposed 2018 Biomass-based Diesel volume under the Renewable Fuel Standard to at least 2.5 billion gallons and the 2017 Advanced Biofuel volume to at least 4.75 billion gallons. [EPA-HQ-OAR-2016-0004-2904-A1 p.1]

As demonstrated in the following chart, the biomass-based diesel industry has shown that it can respond positively to the RFS 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. [EPA-HQ-OAR-2016-0004-2904-A2 p.12]

The industry has shown a 30% increase in biomass-based diesel production over 2015 from January through May, 2016. Production tends to pick up substantially after the first quarter of the year, and EPA reported over 194 million gallons of biomass-based diesel in April and over 200 million gallons in May. As we've repeatedly pointed out to EPA, the U.S. biodiesel industry can produce over 200 million gallons a month, as previously evidenced by production in December of 2013 (about 220 million gallons) and December of 2014 (about 214 million gallons). The biomass based diesel industry, therefore, is well on its way to exceed the 2.1 billion gallons EPA projected for 2016, and even the 2.3 billion gallons EPA projected for biomass-based diesel in 2017. [EPA-HQ-OAR-2016-0004-2904-A2 p.15]

Biodiesel has long played an "important role" in the RFS program. 80 Fed. Reg. at 33,106. Congress recognized the important of increasing biodiesel production, in particular. *See* 42 U.S.C. §7545(o)(1)(A), (B), (D), (5); *see also* 153 Cong. Rec. S15421, S15429 (Dec. 13, 2007) (statement of Sen. Durbin) (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. 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,"). As EPA has found, "specifying the required volumes of biomass-based diesel for more than one compliance year would provide greater

certainty for both biofuel producers and obligated parties, stability for future investments and contracts, and could potentially reduce the need to waive a portion of the advanced biofuel requirement in future years.” 77 Fed. Reg. at 59,483. While NBB appreciates EPA’s move to get back on track, 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-2016-0004-2904-A2 p.80]

EPA cannot arbitrarily set the volume low with the anticipation that the advanced biofuel program it will set a year later will provide the same incentives if it provided for stronger biomass-based diesel volumes. EPA does not explain why it cannot provide greater increases in biomass-based diesel and further increase the advanced biofuel volume the next year to address its purported concerns about ensuring “other” advanced biofuels. [EPA-HQ-OAR-2016-0004-2904-A2 p.85]

The notion of “competition” among advanced biofuels, and compliance costs, are not specifically included in the listed statutory factors. While there are some references to certain costs (*e.g.*, consumers), this cost factor merely permits EPA to consider whether the proposed increase in volume is reasonable in light of the statute’s purpose. *See Ctr. for Biological Diversity*, 538 F.3d at 1195; *see also Entergy Corp.*, 556 U.S. at 224 (finding EPA had discretion to use cost-benefit analysis in promulgating regulations under Clean Water Act where “EPA sought only to avoid extreme disparities between costs and benefits”); *Nat’l Wildlife Fed’n v. EPA*, 286 F.3d 554, 571 (D.C. Cir. 2002) (upholding cost-benefit analysis where EPA found that rejected regulatory option “would cause severe economic disruption that could not be reasonably borne by the [regulated] industry”). Here, EPA purports to create a competitive market (which it is not) merely to provide *additional flexibility*. [EPA-HQ-OAR-2016-0004-2904-A2 p.93]

As explained, the minimal overall increases in advanced biofuel are insufficient to create the sustainable, profitable market that is needed to support investment, much less the aggressive targets Congress sought to have the industry reach. [EPA-HQ-OAR-2016-0004-2904-A2 p.96]

National Renderers Association (NRA)

The rendering industry recommends EPA adopt an RFS volume level of at least 4.75 billion gallons in 2017 for advanced biofuel and 2.5 billion gallons in 2018 for biomass-based diesel. [EPA-HQ-OAR-2016-0004-2694-A1 p.7]

National Wildlife Federation (NWF)

This additional potential for environmental harm stemming from increased demand for BBD, at a minimum, further underscores the need for a lower Renewable Fuel mandate in 2017, and most likely also a lower BBD mandate in 2018. [EPA-HQ-OAR-2016-0004-1700-A2 p.7]

Neste Oil

With respect to the 2018 biomass-based diesel standard, Neste suggests that the proposed 2018 biomass-based diesel standard at 2.1 billion gallons is too low. Specifically, the proposed rule acknowledges that 2.3 billion gallons of advanced biodiesel and renewable diesel represent the

basis to determine other nested standards for 2017. Similarly, the Agency assumes 2.7 billion gallons of advanced biodiesel and renewable diesel for 2018. [EPA-HQ-OAR-2016-0004-1821-A1 p.1]

Accordingly, Neste believes that there is sufficient support for a 2.5 billion gallon standard for the 2018 biomass-based diesel standard. [EPA-HQ-OAR-2016-0004-1821-A1 p.2]

In setting the standards, the Agency has failed to fully account for the impact of renewable diesel. Renewable diesel has an energy equivalence value of 1.7 - a 13% increase in the number of RINs over the same volume of first-generation, methyl-ester biodiesel. Focusing only on the supply of biodiesel in the RVO analysis eliminates the inclusion of this higher energy-density fuel and ignores and fails to include these additional RIN volumes in the analysis of the industry's ability to meet increasing standards for biomass-based diesel. As increasing volumes of renewable diesel continue to be realized in the US biomass-based diesel pool, the old proxy of using 1.5 RINs/gal for biomass-based diesel becomes antiquated and now longer fully accounts for the RIN contributions. [EPA-HQ-OAR-2016-0004-1821-A1 p.2]

Publisher Render Magazine Placerville

EPA has the opportunity to reduce pollution from transportation, reduce dependence on petroleum diesel, and improve air quality by encouraging increased development and use of biodiesel. I urge you to increase the 2017 RFS for advanced biofuel to at least 4.75 million gallons and the 2018 RFS for biomass-based diesel to 2.5 billion gallons. [EPA-HQ-OAR-2016-0004-2052 p.2]

Renewable Biofuels LLC (RBF)

We believe the 2018 proposed volumetric requirements fall far below where the EPA should set the biomass-based diesel volumes. [EPA-HQ-OAR-2016-0004-1689-A1 p.2]

Increase the 2018 biomass-based diesel volume to at least 2.5 billion gallons. [EPA-HQ-OAR-2016-0004-1689-A1 p.3]

Renewable Energy Group (REG)

Based on information provided here and previously in our comments, REG believes a 2.1-billion-gallon floor for biomass-based diesel is too conservative. [EPA-HQ-OAR-2016-0004-3477-A1 p.13]

Rock House Advisors LLC

Increase both the BBD and total advanced category to a more meaningful volume in the final rule. [EPA-HQ-OAR-2016-0004-1717-A1 p.4]

South Dakota Soybean Association (SDSA)

We urge the EPA to increase biomass-based diesel to 2.5 billion gallons for 2018 which would represent a 400-million-gallon increase from the currently proposed increase of 2.1 billion gallons. [EPA-HQ-OAR-2016-0004-1686-A1 p.1]

Given increased emissions standards, biodiesel represents a very realistic approach to attaining our goal of reduced emissions. With the significant potential benefits in air quality, the reluctance of the EPA to embrace this product through increased biodiesel volume requirements is difficult to understand. [EPA-HQ-OAR-2016-0004-1686-A1 p.1]

Energy independence is also one of the main benefits of taking a more aggressive stance with biodiesel production. [EPA-HQ-OAR-2016-0004-1686-A1 p.1]

With increased production we will also see additional production facilities and infrastructure established. This represents increased American jobs, as well as reduced payments for imports of oil that biodiesel will offset. [EPA-HQ-OAR-2016-0004-1686-A1 p.2]

Thumb BioEnergy

The EPA's initial proposal, while moving in the right direction, still underestimates the biodiesel industry's ability to contribute to the Advanced Biofuel volumes for 2017 and to ramp up production in 2018. [EPA-HQ-OAR-2016-0004-1550-A1 p.1]

Biodiesel producers are poised to increase production above 2.5 billion gallons and continue to expand and grow with the right policy signals, making Biomass-based Diesel volume of at least 2.5 billion gallons for 2018 more than reasonable and sustainable. [EPA-HQ-OAR-2016-0004-1550-A1 p.1]

United States Canola Association

The USCA urges EPA to increase the volumes for biomass-based diesel to 2.5 billion gallons for 2018. This represents a modest 400-million-gallon increase above the levels in the Proposed Rule. [EPA-HQ-OAR-2016-0004-1723-A1 p.1]

Valley Proteins

Please consider increasing the 2017 RFS for advanced biofuel to at least 4.75 million gallons and the 2018 RFS for biomass-based diesel to 2.5 billion gallons. [EPA-HQ-OAR-2016-0004-1632-A1 p.2]

Western Dubuque Biodiesel

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.120]

EPA's most recent proposal is a step in the right direction and provides some growth for biodiesel, but it does not go far enough. The proposed increase to 2 billion gallons is only slightly higher than the biodiesel industry's record production of 1.8 billion gallons in 2013.

I'm asking for additional growth to at least 2.5 billion gallons for 2018 and 2.8 billion gallons for 2019 to account for added imports.

Western Iowa Energy LLC

The EPA's initial proposal, while moving in the right direction, still underestimates the biodiesel industry's ability to contribute to the Advanced Biofuel volumes for 2017 and to ramp up production in 2018. [EPA-HQ-OAR-2016-0004-1696-A1 p.1]

[The following comment was submitted as testimony at the Kansas City Missouri Public hearing on June 9, 2016. See Docket Number EPA-HQ-OAR-2016-0004-3558 p.106.]

Please consider increasing the 2018 biomass-based diesel volume to a minimum of 2.5 billion gallons with the elimination of incentivized biodiesel imports

Response:

The EPA received numerous comments in favor of increasing the BBD volume requirements beyond the of 2.1 billion gallons proposed for 2018 to 2.3 or 2.5 billion gallons citing a number of reasons, including environmental and energy security benefits associated with greater use of BBD. NBB specifically argued that EPA should increase the BBD volume requirement to at least 2.5 billion gallons in 2018 because the industry is already producing high volumes of biodiesel in 2016, and is well on its way to exceeding the 2.1 billion gallons EPA projected for 2016, and even 2.3 billion gallons. NBB stated that there is available feedstock for higher BBD volumes and the ability to distribute these higher volumes in 2018. To support these claims NBB provided information on their assessment of available feedstocks and the current state of the distribution infrastructure. Further, NBB argued, EPA cannot arbitrarily set the volume low with the anticipation that the advanced biofuel program it will set a year later will provide the same incentives if it provided for stronger biomass-based diesel volumes. Finally, NBB argues that beyond the BBD volume of 2.1 billion gallons proposed for 2018, the minimal overall increases in advanced biofuel that EPA is proposing for 2017 are insufficient to create the sustainable, profitable market that is needed to support investment, much less the aggressive targets Congress sought to have the industry reach.

EPA disagrees with commenters who advocate a higher mandated level of BBD for 2018. In finalizing the 2018 requirement EPA, as required under the Clean Air Act, 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 differing views on what is the appropriate level for the biomass-based diesel applicable volume for 2018. EPA has endeavored to consider all comments and has weighed the statutory factors to reach a decision that is appropriate and reasonable. A final rule memorandum to the docket entitled, "Final Statutory Factors Assessment for the 2018 Biomass

Based Diesel (BBD) Applicable Volume” discuss our consideration of the statutory factors set forth in CAA section 211(o)(2)(B)(ii)(I)-(VI) in the context of deriving the final 2018 biomass-based diesel applicable volume.

Based on a review of the implementation of the program to-date and all the factors required under the statute, we are finalizing the BBD volume at 2.1 billion gallons for 2018. We believe that an increase of 100 million gallons above the level finalized for 2017 supports the overall goals of the program while also maintaining the incentive for development and growth in production of other advanced biofuels as well as the continued growth in BBD and renewable diesel.

EPA believes that raising the BBD volume requirement to 2.1 billion gallons for 2018 provides 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.

Arguments in favor of increasing the required volume must be balanced, however, against the benefits, 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. We continue to believe that 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. EPA is not arbitrarily keeping the 2018 BBD applicable volume low as NBB suggests in their comments, but rather for these reasons not increasing it as much as might otherwise be possible were there no advanced biofuel standard. While competition with other advanced biofuels is not one of the explicit factors listed in the statute that EPA must take into consideration in establishing the BBD standard for years after 2013, EPA is not limited to just those factors listed in the statute, and furthermore costs are listed, and competition with other sources of supply is a key factor in the costs of the program.

As discussed in the NPRM preamble sections I.B.2 and IV.B.2 and reiterated in this final rule preamble section V.B.2, given current and recent market conditions, the advanced biofuel volume requirement continues to drive the biodiesel and renewable diesel volumes, and we expect this to continue in 2018. Nevertheless, we believe that it is still appropriate in 2018 to set increasing BBD applicable volumes to continue providing a floor to support investment to enable increased production and use of BBD. In doing so we also believe in the importance of maintaining 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.

With regard to NBB’s comments concerning feedstock availability and infrastructure: after reviewing the information submitted by NBB concerning feedstock availability and continued development of the distribution infrastructure, especially the retail distribution structure associated with BBD, EPA believes that the projected supply of biodiesel and renewable diesel in 2017 is higher than estimated in our NPRM. We have therefore increased our projection of advanced biodiesel and renewable diesel in 2017 to 2.4 billion gallons and have increased our

projection of total biodiesel and renewable diesel in 2017 to 2.9 billion gallons. For a further discussion of the factors that EPA considered, see Sections IV.2, V.2, and VI of the preamble. However, even with the higher feedstock availability and increased infrastructure in place, EPA does not believe they provide a compelling rationale for increasing the mandated portion of the BBD volume beyond the 100-million-gallon increase for 2018 for the reasons articulated earlier including remaining fuel neutral with regard to advanced biofuels and leaving room for innovation and market competition to occur in the future.

NBB argued that we cannot set the 2018 BBD volume requirement based on an anticipated approach to setting the 2018 advanced biofuel requirement in the future. We disagree. With the exception of years for which we engaged in retroactive rulemaking (2014 and 2015), we have consistently sought to set the BBD applicable volume for years after volumes are specified in the statute significantly below the volume of BBD we anticipated would be supplied under the influence of the advanced and total renewable fuel standards, for the reasons described above. It is reasonable for us to assume that the advanced biofuel volume requirement will grow in 2018, as it has consistently in the past, and that the volume requirement for BBD that we are finalizing today will appropriately provide additional support for the BBD industry while allowing the opportunity for competition with other advanced biofuels to satisfy the apportioned advanced biofuel volumes under that future standard.

A number of commenters, including NBB, also promoted a higher BBD mandate by arguing that the proposed BBD volume for 2018 fails to recognize the existing production capacity and ability for industry to increase production. We disagree, EPA carefully considered the production capacity for biodiesel production in setting the total biodiesel and renewable diesel fuel advanced standards for 2017. There is more than sufficient capacity to meet the 2.1-billion-gallon BBD volume requirement for 2018 as discussed in section V.B.2.ii of the preamble as evidenced by the fact that the current total capacity of all registered biodiesel and renewable diesel production facilities in the United States is approximately 3.5 billion gallons. As we stated earlier, EPA believes that the BBD volume of 2.1 billion gallons being finalized for 2018 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 and the RFS program that are associated with increasing the BBD volume requirement. This approach does not limit additional BBD production and in fact in deriving the advanced biofuel requirement we determined that hat 2.4 billion gallons of BBD would be reasonably available.

Some commenters argued for a reduced BBD volume requirement for 2018. Both AFPM and API stated that unless EPA finalizes the proposed 2018 BBD volume requirement by October 31, 2016 EPA is prohibited from increasing the BBD requirement beyond the last year for which it met this deadline, which, was the 2013 level of 1.28 billion gallons. AFPM/API have raised this issue in our previous rulemaking (80 Federal Register 77420, 77491 December 14, 2015) and EPA continues to disagree with these commenters. We believe that obligated parties were on notice that the BBD volume requirement for 2014 and 2015 could be higher than the 1.28 billion gallons originally proposed through preamble statements in that NPRM, and they have had specific notice regarding the possibility of at least 2.1 billion gallons for 2018 since issuance of the NPRM for this final rule (May 2016). Moreover, the BBD volume requirements finalized for 2014-17 provided additional notice to obligated parties that BBD requirements could increase on

an annual basis. Finally, it is well settled that EPA does not lose its authority and obligation to issue renewable fuel standards if it misses a statutory deadline.

Another commenter indicated that the proposed BBD volume requirements should be reduced because it would exacerbate social/environmental problems associated with the expansion of palm oil production. We note that a significant portion of the global biodiesel production uses palm oil as a feedstock which is not a qualifying feedstock in the RFS Program (FRM footnote 106) except from grandfathered facilities. While we do not dispute the possibility that, as biodiesel volumes continue to grow in the future, there may be negative impacts leading to increasing competition for feedstock which could result in exacerbation of social/environmental problems associated with expansion of palm oil production, at this time, we do not believe that increasing the BBD volume requirement by 100 million gallons and finalizing a 2.1-billion-gallon BBD requirement for 2018 will lead to such a result. We also note that in exercising our broad discretion under the cellulosic waiver authority to establish the advanced biofuel volume requirement for 2017 we took into consideration the availability of increased volumes of advanced feedstocks to be used for additional advanced biofuel production, and refrained --due to the potential for the types of impacts noted by commenters to occur from too rapid and large a shift in demand for advanced biofuel, from requiring the use of all possible advanced biofuel volumes. We would expect to take a similar approach with respect to establishing the 2018 advanced biofuel volume requirement.

Finally, one commenter, promoting a higher volume for the 2018 BBD standard, also requested that we adjust the equivalence value used to determine the number of RINs generated for biodiesel and renewable diesel. We respond to this comment in section 2.4.6. of this RTC document.

4.2 Supporting the BBD industry

Comment:

American Soybean Association (ASA)

While EPA's Proposed Rule does move forward with biomass-based diesel volumes, increasing them from 2.0 to 2.1 billion gallons from 2017 to 2018, we can – and should – do more. Total utilization of biodiesel has already reached 2.1 billion gallons in 2015 and is on pace to exceed that amount in 2016. EPA's proposed volume requirements for biomass-based diesel represent zero growth for the most commercially viable advanced biofuel. In the Proposed Rule, EPA states that, "...we believe the standards we are proposing will drive growth in renewable fuels, particularly advanced biofuels, which achieve the lowest lifecycle GHG emissions." However, with regard to biomass-based diesel, the EPA has not proposed volume requirements that would most effectively drive growth of the most commercially viable advanced biofuel. [EPA-HQ-OAR-2016-0004-1722-A1 p.2]

Cargill Meat Solutions

I work for Cargill Meat Solution and am writing to strongly encourage you to increase the proposed RFS volumes for advanced biofuel in 2017 and biomass-based diesel in 2018. [EPA-HQ-OAR-2016-0004-3564 p.1]

I urge you to increase the 2017 RFS for advanced biofuel to at least 4.75 billion gallons and the 2018 RFS for biomass-based diesel to 2.5 billion gallons. [EPA-HQ-OAR-2016-0004-3564 p.1]

Darling Ingredients, Inc.

When the additional Renewable Diesel capacity coming on line from Alt Air and REG is added to the DGD expansion, the Biomass Based Diesel mandate for 2018 should be no lower than 2.335 billion gallons, which represents an increase of 235 million gallons over the Proposed Rule volume of 2.1 billion gallons. [EPA-HQ-OAR-2016-0004-1721-A1 p.9]

Iowa Soybean Association & Iowa Biodiesel Board

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.70-71]

set a final rule that is closer to the industry's request. Biodiesel producers stand ready to increase production above 2.5 billion gallons, and therefore, a biomass-based diesel volume of at least 2.5 billion gallons for 2018 is more than achievable and sustainable

Kansas Farm Bureau

we believe the industry has the capacity to increase production above and beyond the standards called for in the proposed rule [EPA-HQ-OAR-2016-0004-1718-A1 p.2]

Mass Comment Campaign sponsored by Anonymous 19 (email) - (12)

While biodiesel is now made from a diverse and growing volume of feedstocks, soybean oil remains the largest source of biodiesel feedstock. Soybean farmers are very proud of the leading role we have played in establishing and developing the U.S. biodiesel industry. It is a success story that should be celebrated considering how far we have come from the first investments by the U.S. soybean industry to this point, where we are discussing a U.S. biodiesel market exceeding 2 billion gallons. [EPA-HQ-OAR-2016-0004-1497-A1 p.1]

The U.S. biodiesel industry has provided these benefits without significant disruption or adverse impacts to consumers. We are proud that the biodiesel and soybean industry has always advocated for RFS volumes that are modest and achievable and we have met or exceeded the targets each and every year that the program has been in place. [EPA-HQ-OAR-2016-0004-1497-A1 p.1]

Given the economic and environmental benefits of biodiesel, I believe that the soybean industry and the EPA should be allies on RFS issues. We can do more than a slow crawl forward. The

U.S. soybean and biodiesel industry are not advocating overly-aggressive, disruptive, or unachievable targets for biomass-based diesel. [EPA-HQ-OAR-2016-0004-1497-A1 p.2]

Mass Comment Campaign sponsored by Biodiesel.org (email) - (397)

Like thousands of Americans, my family and surrounding community benefit greatly from increased biodiesel use. The industry is creating jobs and a stronger economy here, while reducing pollution and chipping away at our dependence on petroleum diesel. [EPA-HQ-OAR-2016-0004-0554-A1 p.1]

Mass Comment Campaign sponsored by Western Iowa Energy, LLC - (24)

We, the undersigned dedicated employees of Western Iowa Energy, LLC, respectfully request that the proposed biomass-based diesel volume under the federal Renewable Fuel Standard (RFS) for 2018 be increased to at least 2.5 billion gallons. [EPA-HQ-OAR-2016-0004-3563-A1 p.1]

While the EPA's proposal for biomass-based diesel volumes under the RFS does provide some much needed certainty for the biodiesel industry, the proposed levels for 2018 are roughly equal to what we'll use this year, and they still do not account for the massive amount of foreign imports that are currently flooding the U.S. market. The EPA's RVO's should be a formula for growth in advanced biofuels, not an enshrinement of the status quo. [EPA-HQ-OAR-2016-0004-3563-A1 p.1]

Missouri Soybean Association

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.223]

EPA can and should do better to help us continue to grow this young industry and support the environmental benefits of biodiesel than the proposed 100 million gallon increase.

National Biodiesel Board

It is inconceivable that Congress, in light of insufficient cellulosic biofuel volumes, would want the biomass-based diesel program to remain suppressed in the hopes that other advanced biofuels would develop. Rather, Congress wanted to move toward advanced biofuels generally. Thus, EPA is correct when it states that “continued appropriate increases in the BBD volume requirement will help provide stability to the BBD industry and encourage continued growth,” *id.*, but is incorrect in keeping the biomass based diesel volume low when it agrees more biomass-based diesel is available. [EPA-HQ-OAR-2016-0004-2904-A2 p.83]

Moreover, stronger increases in biomass-based diesel than what the industry is already expected to be doing is needed to support continued and increased investment to enable increased production and use of biomass-based diesel. 81 Fed. Reg. at 34,811. Thus, consideration of the

implementation of the statute requires EPA to set the biomass-based diesel volume for 2018 at least at 2.5 billion gallons, not to set volumes that render the biomass-based diesel category virtually meaningless. [EPA-HQ-OAR-2016-0004-2904-A2 p.83]

EPA has artificially kept the biomass-based diesel numbers low. It provides no support or explanation for why only 100 million gallon annual increases (about 8 million gallons a month) are appropriate given the ability of the industry to grow at much higher levels. Indeed, EPA previously found an almost 300-million-gallon increase appropriate based on the statutory factors. [EPA-HQ-OAR-2016-0004-2904-A2 p.85]

THE RECORD CONTINUES TO SUPPORT HIGHER VOLUMES OF BIOMASS-BASED DIESEL FOR 2018.

EPA Previously Found Statutory Factors Support Greater Annual Increases in the Biomass-Based Diesel Volume.

Based on its prior 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 to only provide for a 100-million-gallon increase from 2017 to 2018. As explained above, a 100-million-gallon increase is not ambitious. It can be met easily by increased imports, or simply producing a mere 8.3 million gallons more a month. The biomass-based diesel industry has already increased production by 30% in 2016, which would put it at about 2.3 billion gallons based on the same increase. History shows that the industry produces even more in the last half of the year, making 2.5 billion gallons an easy target. This would be an increase of almost 600 million gallons from 2015. This increase is consistent with prior years in which the industry grew (and EPA implemented the RFS). A 2.1-billion-gallon volume requirement, while an increase on paper, is not an increase at all, but another step backward in EPA’s implementation of the program, signaling that EPA lacks appetite for advancing the advanced biofuel category, reducing GHG emissions, and promoting U.S. energy security, all charges to EPA in the enabling legislation. [EPA-HQ-OAR-2016-0004-2904-A2 p.107]

Renewable Biofuels LLC (RBF)

Raising the required volumes to levels above those proposed will support and expand biomass-based diesel production in the US [EPA-HQ-OAR-2016-0004-1689-A1 p.1]

South Dakota Soybean Association (SDSA)

U.S. biodiesel producers are capable of producing much higher volumes and will do so given increased volume requirements under the RFS. [EPA-HQ-OAR-2016-0004-1686-A1 p.1]

United States Canola Association

While EPA’s Proposed Rule does increase biomass-based diesel volumes from 2.0 to 2.1 billion gallons from 2017 to 2018, the biodiesel industry can – and should – do more. Total utilization

of biodiesel has already reached nearly 2.1 billion gallons in 2015 and is on pace to exceed that amount in 2016. EPA's proposed volume requirements for biomass-based diesel represent zero growth for the most commercially viable advanced biofuel. EPA should embrace biodiesel, given the greenhouse gas emissions reductions it provides, the fact that all of the biodiesel feedstocks are co-products/by-products/waste products, and there are no infrastructure or compatibility issues with biodiesel. By increasing the biomass-based diesel and total Advanced Biofuel volume requirements, EPA can maximize the benefits provided by biodiesel while still creating opportunities and competition to spur other feedstocks and Advanced Biofuels. [EPA-HQ-OAR-2016-0004-1723-A1 p.2]

Valley Proteins

The biodiesel industry has the capacity to produce more fuel than the RFS levels recommended by EPA. [EPA-HQ-OAR-2016-0004-1632-A1 p.1]

Western Dubuque Biodiesel

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.121]

You can create a workable, responsible, and stable program for biodiesel that grows gradually without compromising the RFS. Place more gallons in the biomass-based category with less in the advanced. This will minimize the sugarcane and Argentinian imports and provide more market certainty for U.S. biodiesel producers.

Response:

EPA received a number of comments supporting the BBD industry and indicating that the industry had the capacity to produce more and requesting that EPA increase the 2018 volume requirement beyond 100 million gallons. Some commenters pointed to the fact that total utilization of biodiesel has already reach 2.1 billion gallons in 2015 and will exceed this amount in 2016, while others indicated that higher volumes were required to effectively drive growth of the most commercially viable advanced biofuel. One commenter argued that increasing the 2018 volume for BBD beyond 2.1 billion would still create opportunities and competition for other feedstocks while delivering real GHG emissions benefits. Finally, we received a number of comments as part of a mass email campaign stating the biodiesel industry was creating jobs and a stronger economy while reducing pollution and chipping away at our country's dependence on petroleum diesel.

EPA acknowledges comments submitted by various individuals, associations, and industries, supporting the BBD industry. EPA agrees with commenters that the BBD industry has been a critical success story of the RFS program delivering ever-increasing volumes of BBD while continuing to address constraints that impede BBD's future growth and diligently working to develop real world solutions to insure growth. Our decisions to establish increasing BBD volumes each year have been made in light of the fact that while cellulosic biofuel production

has fallen far short of the statutory volumes, the available supply of BBD in the United States has grown each year, exceeding the statutory BBD volumes. This growing supply of BBD allowed EPA to establish higher advanced biofuel standards, and to realize the GHG benefits associated with greater volumes of advanced biofuel, than would otherwise have been possible in light of the continued shortfall in the availability of cellulosic biofuel. It is in this context that we determined that steadily increasing the BBD requirements was appropriate to encourage continued investment and innovation in the BBD industry, providing necessary assurances to the industry to increase production, while also serving the long term goal of the RFS statute to increase volumes of advanced biofuels over time. Therefore, in recognizing the importance of the BBD industry to the success of the advanced biofuels program, EPA, in this rule, as in earlier years, is increasing the guaranteed floor for BBD volumes in 2018 to 2.1 billion gallons. We fully expect that additional BBD volumes will be produced to fulfill the overall advanced biofuel volume requirement.

A number of commenters expressed disappointment with the BBD volume proposed in the NPRM. 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 2018 volume requirements of BBD at 2.1 billion gallons. We believe that this type of continual year-to-year increase supports the overall goals of the RFS program while also maintaining the incentive for development and growth in production of other advanced biofuels. Within the statutory volumes of advanced biofuels for 2018, the statute specifies 5.5 billion gallons of cellulosic biofuel and at least 1.0 billion gallons of BBD, with the remainder left unspecified – providing an option (depending on EPA’s action in setting the BBD applicable volume requirement) for space for the market to develop technologies and advanced biofuels not envisioned at the time by Congress. As opposed to “suppressing” BBD volumes as NBB stated in their comments, due to the success of BBD industry since that time, we have raised the BBD standard to more than double the minimum required volume specified by Congress. We believe establishing this final 2018 volume to encourage BBD producers to manufacture higher volumes of fuel that will contribute to the advanced biofuel and total renewable fuel requirements, while also leaving 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.

4.3 Ensuring opportunities for other advanced

Comment:

Advanced Biofuels Association (ABFA)

ABFA is extremely supportive with the manner in which EPA is seeking to develop the advanced biofuels RVO number by seeking to leave sufficient volumes exclusively for other advanced biofuels outside the cellulosic and biomass-based diesel gallons. [EPA-HQ-OAR-2016-0004-1831-A1 p.5]

In addition, as we continue to develop and approve more feedstocks under the RFS, they too will provide a broader array of fuels and gallons with more significant CO2 reductions. Companies such as Algenol want to provide advanced ethanol going forward as well as other companies that plan to make fuels from biodigesters. We must balance the level of contribution from the D4 pool in order to allow for these fuels to develop under the current statutory structure. [EPA-HQ-OAR-2016-0004-1831-A1 p.7]

Ag Processing, Inc.

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.88]

The EPA's proposal should be a formula for growth in advanced fuels for domestic producers, and the intent was never to subsidize other countries.

American Cleaning Institute (ACI)

The BBD volume requirement is “nested” within both the advanced biofuel and total renewable fuel requirements, meaning that any volume of BBD produced beyond the mandated volume can be used to fulfill these two requirements. This flexibility creates a disincentive for the development of other advanced biofuels. [EPA-HQ-OAR-2016-0004-1735-A1 p.4]

Mass Comment Campaign sponsored by Biodiesel.org (email) - (397)

The EPA’s initial proposal, while moving in the right direction, still underestimates the biodiesel industry’s ability to contribute to the Advanced Biofuel volumes for 2017 and to ramp up production in 2018. Already in 2015, Americans used nearly 2.1 billion gallons of biodiesel and renewable diesel through the RFS, leaving much available production and distribution capacity unused. Biodiesel producers are poised to increase production above 2.5 billion gallons and continue to expand and grow with the right policy signals, making Biomass-based Diesel volume of at least 2.5 billion gallons for 2018 more than reasonable and sustainable. For 2017, EPA has estimated 2.7 billion gallons of biodiesel and renewable diesel use, which should promote Advanced Biofuels such as US biodiesel and could be more. As such, the overall Advanced Biofuel category for 2017 should be above 4 billion gallons as proposed and could easily be increased to at least 4.75 billion gallons. [EPA-HQ-OAR-2016-0004-0554-A1 p.1]

Minnesota Soybean Processors (MnSP)

We also disagree with EPA’s premise that EPA must “continue to allow the potential for some competition between BBD and other advanced biofuels to satisfy the advanced biofuel standard.” EPA fails to understand that Biomass-Based Diesel (and Renewable Diesel) can only be used in engines designed for compression ignition (diesel) not engines designed for spark ignition (gasoline). Biomass-Based Diesel and Renewable Diesel have different customers, different engines and different uses using a fuel entirely different than other existing biofuels. [EPA-HQ-OAR-2016-0004-1829-A1 p.3]

EPA needs to immediately rescind their philosophy of needing to create competition between Advanced Biofuels. [EPA-HQ-OAR-2016-0004-1829-A1 p.3]

National Biodiesel Board

A strong, robust advanced biofuel program is needed to spur additional investment, including investment in “other” advanced biofuels. EPA proposes “to continue to allow the potential for some competition between BBD and other advanced biofuels to satisfy the advanced biofuel volume standard.” 81 Fed. Reg. at 34,810. The problem with EPA’s approach is that biomass-based diesel, and other advanced biofuels, compete in different markets. They have different consumers, different purposes, and different factors that affect the markets. [EPA-HQ-OAR-2016-0004-2904-A2 p.67]

In addition, rather than effectuating the intent of Congress, EPA’s approach 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-2016-0004-2904-A2 p.67]

Another problem with EPA’s assumption is that ***the diesel fuel market is distinct from the gasoline market***. It is also distinct from electricity vehicles and natural gas vehicles. These are not the same markets. EPA contends that the other advanced biofuels that “could be affected” are sugarcane ethanol; ethanol from grain sorghum or food waste; renewable naphtha from food waste or cover crops; CNG/LNG from non-cellulosic sources; renewable diesel co-processed with petroleum diesel fuel; and cellulosic biofuel. EPA-HQ-OAR-2016-0004-0020 at 2. But, 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. Like ethanol, Naphtha is also largely used in the gasoline market. The gasoline market is also larger than the diesel fuel market, while the diesel fuel market services a broader category of uses. 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. CNG/LNG 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. [EPA-HQ-OAR-2016-0004-2904-A2 p.95]

Neste Oil

The Agency justifies setting the biomass-based diesel standard lower than volume projections to bolster the nested advanced biofuels pool. Neste believes that setting the biomass-based diesel standard in this way serves as both a disincentive to production and consumption of biomass-based diesel and unfairly seeks to cannibalize other growth opportunities for alternative fuels in the advanced biofuels pool. If the D5 pool is consumed by excess D4 volumes, then the market drivers for other, non-diesel advanced fuels are depressed. [EPA-HQ-OAR-2016-0004-1821-A1 p.2]

Response:

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. Within the statutory volumes of advanced biofuels for 2018, the statute specifies 7.0 billion gallons of cellulosic biofuel and a minimum volume requirement of 1.0 billion gallons of BBD, with the remainder left unspecified – providing space for the market to develop technologies and advanced biofuels not envisioned at the time by Congress, or for EPA to mandate increases in the required volume of BBD. Due to the success of BBD industry, and to provide continued support, we have raised the BBD standard to more than double the minimum specified by Congress to 2.1 billion gallons for 2018.

When viewed in this 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. 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 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. While we have not yet determined the applicable volume of total advanced biofuel for 2018, 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 potentially 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.

At least one commenter raised a concern that our proposed BBD requirement was supporting imported advanced fuels at the expense of domestic advanced biofuels which was not Congressional intent. EPA disagrees with this comment and believes the statute as a whole does not support this view. 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. RTC Chapter 2, section 2.5 provides additional comments and responses on the import issue and Congressional intent.

A few commenters restate claims made in the 2017 BBD final rule that EPA improperly based our consideration of the statutory factors on a comparison of BBD to other advanced biofuels, rather than to diesel fuel. They continued to suggest 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 in its statutory factors analysis. We continue to disagree. In setting the advanced biofuel volume requirement, we have assumed reasonably attainable and appropriate volumes in BBD and other advanced biofuels. After determining that it is in the interest of the program, as described in Section VI.B.2 to set the BBD volume requirement at a level below anticipated BBD production and imports, so as to provide continued incentives for research and development 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.

4.4 General comments on consideration of statutory factors

Comment:

25x'25 Alliance

The volume of biomass-based diesel was previously set at 2 billion gallons. However, the capacity for all registered biodiesel production facilities is currently at least 2.7 billion gallons. [EPA-HQ-OAR-2016-0004-0473-A1 p.3]

Action Aid USA & The Hunger Project

We urge the Agency to revise its 2017 and biomass-based diesel 2018 rules to freeze any growth in food-based biofuels, and to begin phasing out food-based biofuel mandates. [EPA-HQ-OAR-2016-0004-1817-A1 p.2-3]

American Fuel and Petrochemical Manufacturers (AFPM)

Biomass-Based Diesel for 2018

EPA placed a memo in this docket to summarize its assessment. EPA's analysis is an inadequate assessment of the required six statutory factors. [EPA-HQ-OAR-2016-0004-1814-A1 p.35]

American Petroleum Institute (API)

B. Six Factor Analyses

Even if EPA were to meet the deadline, it has not undertaken an adequate analysis of the six factors specified in CAA section 211(o)(2)(B)(ii) for 2018. Consideration of these factors is a statutory prerequisite to revising the applicable volume of biomass-based diesel for years after 2012. When EPA increased the BBD volume to 1.28 billion gallons for 2013, it concluded review of actual implementation, at the time, was of "limited value" because the RFS had a short history. Now, with a longer history of the RFS, EPA is in a better position to conduct a more rigorous analysis. [EPA-HQ-OAR-2016-0004-3512-A2 p.35]

Although EPA has attempted an analysis of the six specified factors, EPA's analysis is woefully inadequate and ignores information relevant to implementation and impacts of the RFS. Instead, EPA relies on the approach that the 2018 advanced biofuel volume requirement will determine the level of BBD production and import regardless of where the BBD volume requirement is set. Therefore, before EPA conducts the six factor analysis, EPA's approach marginalizes BBD volume increases and, because EPA continues to rely on final rulemaking from 2010, EPA does not uncover negative impacts of increasing the BBD volume. It should be noted that the RFS RIA in 2010 was based on 1.5 billion gallons of biomass based diesel, a 31% lower volume than the proposed 2018 standard of 2.1 billion gallons. [EPA-HQ-OAR-2016-0004-3512-A2 p.35]

ExxonMobil

ExxonMobil believes that EPA must more thoroughly analyze the six factors specified in the Clean Air Act when promulgating standards for years not specified by the Act. The law requires EPA to analyze environmental impact, energy security impact, rate of future production, impact of renewables on infrastructure, cost to consumers, and impact on other factors including job creation. Yet, the agency's recent analysis of these factors contains minimal new data. [EPA-HQ-OAR-2016-0004-1870-A1 p.2]

Illinois Soybean Growers (ISG)

urges the EPA to establish higher Renewable Fuel Standard (RFS) volume targets for biomass-based diesel for 2018. Setting the volume target for 2.1 billion gallons in 2018 when U.S.

production rates are expected to hit that number this year is irresponsible and limits valuable industry growth. [EPA-HQ-OAR-2016-0004-1744-A1 p.1]

Increase the 2018 RFS volume target for biomass-based diesel from 2.1 billion gallons to 2.5 billion gallons. [EPA-HQ-OAR-2016-0004-1744-A1 p.2]

Marathon Petroleum Corporation (MPC)

We do not believe that EPA has satisfied the requirements to increase the volume of biomass based diesel in 2018. The statute clearly lays out the six factors that EPA must analyze when establishing the biomass based diesel volumes. The documents in the docket are not sufficient to allow impacted parties to determine EPA's six factor analysis and comment on what the agency is proposing. [EPA-HQ-OAR-2016-0004-1806-A1 p.7]

Mass Comment Campaign sponsored by Anonymous 19 (email) - (12)

I urge EPA to increase the volumes for biomass-based diesel to 2.5 billion gallons for 2018 - a 400 million gallon increase over the levels in the Proposed Rule. [EPA-HQ-OAR-2016-0004-1497-A1 p.1]

Biodiesel provides multiple energy, economic, and environmental benefits. It provides increasing volumes of a domestically produced, renewable energy source. It provides significant reductions in greenhouse gas emissions resulting in improved air quality. It has expanded markets for farmers and livestock producers and created new jobs and economic growth, particularly in rural America. [EPA-HQ-OAR-2016-0004-1497-A1 p.1]

While EPA's Proposed Rule does move forward with biomass-based diesel volumes, increasing them from 2.0 to 2.1 billion gallons from 2017 to 2018, we can - and should - do more. Our differences with EPA's proposed volumes are relatively small, but they are important. The EPA and the Administration is missing an easy opportunity to help the ag and rural economy while at the same time achieving greater greenhouse gas emissions reductions - a high priority for EPA and this Administration. [EPA-HQ-OAR-2016-0004-1497-A1 p.1]

By EPA's assessment, biodiesel achieves greenhouse gas emissions reductions ranging from 50% to 86% better than petroleum diesel. A case can be made that EPA's assessment are on the low-end of the universe of analyses on GHG benefits of biodiesel. However, even by EPA's measurement, 50-86% reductions are very significant. These significant GHG emission reductions achieved by biodiesel makes it hard to understand EPA's reluctance to embrace more aggressive biomass-based diesel RFS volumes. [EPA-HQ-OAR-2016-0004-1497-A1 p.2]

An increase of biomass-based diesel volume requirements to 2.5 billion gallons in 2018 is achievable and warranted. There is idle domestic production capacity and ample, price competitive feedstock available to supply increased domestic biodiesel production. In addition, we are experiencing increasing levels of imported biodiesel. In 2015 there were approximately 670 million gallons of biomass-based diesel imports and that number is expected to grow. [EPA-HQ-OAR-2016-0004-1497-A1 p.2]

Given the many benefits that biodiesel provides, I think EPA should enthusiastically support more aggressive, but easily achievable, volume targets for biodiesel. I see no reason why EPA should not, at a minimum, support biomass-based diesel volumes of 2.5 billion gallons for 2018. [EPA-HQ-OAR-2016-0004-1497-A1 p.2]

From a soybean industry perspective, expanding biodiesel markets are vitally important. Soybeans are a protein crop. A soybean is 80% protein meal and 20% oil. The protein meal goes into feed, primarily for pork and poultry. Soybean production is driven by this demand for livestock feed and the oil is a co-product. Without a market outlet for the co-product, production of the protein meal is restrained. Biodiesel provides a market outlet for the surplus soybean oil. Biodiesel production in the United States and the soybean oil co-product that it utilizes, causes more soybeans to be processed in the United States, generating greater supply of protein-rich soybean meal needed by the U.S. livestock industry. [EPA-HQ-OAR-2016-0004-1497-A1 p.2]

We are only advocating that the volumes for biomass-based diesel be increased to 2.5 billion gallons for 2018 instead of the 2.1 billion gallons proposed by EPA. [EPA-HQ-OAR-2016-0004-1497-A1 p.2]

Minnesota Soybean Processors (MnSP)

we are also asking that the Biomass-Based Diesel Program be increased for 2018 to a minimum of 2.5 billion gallons. [EPA-HQ-OAR-2016-0004-1829-A1 p.1]

National Association of Wheat Growers

The growth of biodiesel production should also be fully calculated into EPA's volume requirements. [EPA-HQ-OAR-2016-0004-2697-A1 p.2]

National Biodiesel Board

Biodiesel has long played an "important role" in the RFS program. 80 Fed. Reg. at 33,106. Congress recognized the important of increasing biodiesel production, in particular. *See* 42 U.S.C. §7545(o)(1)(A), (B), (D), (5); *see also* 153 Cong. Rec. S15421, S15429 (Dec. 13, 2007) (statement of Sen. Durbin) (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. 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,"). As EPA has found, "specifying the required volumes of biomass-based diesel for more than one compliance year would provide greater certainty for both biofuel producers and obligated parties, stability for future investments and contracts, and could potentially reduce the need to waive a portion of the advanced biofuel requirement in future years." 77 Fed. Reg. at 59,483. While NBB appreciates EPA's move to get

back on track, 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-2016-0004-2904-A2 p.80]

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-2016-0004-2904-A2 p.80]

Congress chose this approach over another approach that would have merely maintained the volumes at an amount that reflected the same ratio as in the final statutory year, which merely allowed "increase at the growth in gasoline consumption thereafter." H.R. Rep. No. 109-215, at 220 (2005). The final bill turned this into a "*minimum* applicable volume," and gave EPA authority to set the volumes based on the listed statutory factors, indicating Congress expected *increased* volumes based on consideration of *all* the listed factors. EISA takes a similar approach, except that it is even clearer that the volumes set by EPA are not tied to expected gasoline or diesel fuel use.⁸³ Rather, it was related to the aggressive volume increases provided for advanced biofuels and total renewable fuels. [EPA-HQ-OAR-2016-0004-2904-A2 p.81]

Instead of following its prior precedent and increasing the biomass-based diesel program to better *ensure* the advanced biofuel volumes are met, EPA improperly focuses on advanced biofuels as driving biomass-based diesel. In so doing, it has arbitrarily lowered the total advanced biofuels that could be used under the statute. Indeed, the fact that the biomass-based diesel industry has substantially exceeded the biomass-based diesel volume each year only indicates that the volumes that have been set were too low. Moreover, the fact that the advanced biofuel and total renewable fuel standards can provide a strong incentive should be irrelevant to setting the minimum applicable volumes for biomass-based diesel, when EPA is required to set those volumes over one year ahead of setting those standards. [EPA-HQ-OAR-2016-0004-2904-A2 p.82-83]

While recognizing the statutory factors Congress required EPA to consider, its approach essentially writes those factors out of the statute, as further described below. It also ignores EPA's own projections of how much biodiesel and renewable diesel could be used, the continued lack of cellulosic biofuels, and EPA's purported need to reduce the advanced biofuel volumes significantly for 2016 and 2017. A proper application of the factors, and statutory requirements, would support a much higher volume requirement. Thus, if EPA affirms its prior approach for 2018, EPA's failure to meet its obligations under the statute remains judicially reviewable. [EPA-HQ-OAR-2016-0004-2904-A2 p.83-84]

B. 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's approach with respect to biomass-based diesel is mostly predicated on EPA's contention that, due to the nested nature of the standards, the advanced biofuel program is doing all the work. As such, EPA proposes only a 100-million-gallon increase for 2018, presumably expecting that the 2018 advanced biofuel volume will provide for additional increases. But, 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%) from the required 2012 volume for 2013. 77 Fed. Reg. at 59,461. 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. [EPA-HQ-OAR-2016-0004-2904-A2 p.84]

1. EPA's proposed approach essentially writes the factors out of the statute.

EPA tries to support its flawed approach by referring to the requirement that EPA review implementation of the program as "[o]ne of the primary considerations in determining the proposed biomass-based diesel volume." 81 Fed. Reg. at 34,807. While a consideration, the requirement to review implementation of the program shows that the biomass-based diesel production can grow substantially in a short-amount of time, as described above. EPA attempts to ignore this fact by arguing the higher volumes were driven by the advanced biofuel program. This is irrelevant. Moreover, EPA's approach essentially renders the statutory factors meaningless. This EPA cannot do. [EPA-HQ-OAR-2016-0004-2904-A2 p.84]

EPA relying on the advanced biofuels program to grow the biomass-based diesel industry essentially renders the biomass-based diesel volume immaterial, which it is not. EPA admits that its proposal for the biomass-based diesel volume in 2018 is basically meaningless. [EPA-HQ-OAR-2016-0004-2904-A2 p.84]

Asserting that biomass-based diesel is "nested" within advanced biofuel, EPA also 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. [EPA-HQ-OAR-2016-0004-2904-A2 p.85]

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. Indeed, 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. EPA cannot circumvent the requirements of Congress in this manner. Thus, its approach essentially renders the list of statutory factors, carefully crafted by Congress, meaningless. [EPA-HQ-OAR-2016-0004-2904-A2 p.87]

EPA further fails to put this assessment of its own artificial “advanced biofuel” market in context of its proposed *reduction* in the overall advanced biofuel volumes. Indeed, EPA previously stated that this approach “can also be seen as sending a supportive *or non-supportive* signal to potential investors in BBD.” 80 Fed. Reg. at 33,137 (emphasis added). Under EPA’s own explanation, therefore, its new approach ignores the directives of Congress and undermines the purpose of the statute. It makes little sense that Congress intended the waiver authority under Section 211(o)(7) to override the statutory factors when such waiver decisions occur much later. In so doing, EPA is sending a market signal to the industry that it is setting a “ceiling” for biomass-based diesel in future years, undermining the investments Congress sought and slowing down the progress of the program that EPA recognizes could exceed those numbers but for EPA’s unreasonable reductions in the program. EPA then is not only keeping biomass-based diesel from reaching its true potential but it is also perpetuating a self-fulfilling prophecy for advanced biofuels by keeping the numbers below what otherwise investment and further innovation could achieve. [EPA-HQ-OAR-2016-0004-2904-A2 p.88]

EPA’s proposal impermissibly attempts to place costs above all other considerations.

As described above, EPA has admitted that increasing the biomass-based diesel program best effectuates the statute and the purposes of the RFS program. 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. EPA does not contend that this would better ensure the volumes are met. Rather, EPA appears most concerned about compliance costs, stating: “A variety of different types of advanced biofuels, rather than a single type such as BBD, would positively impact energy security (e.g. by increasing the diversity of feedstock sources used to make biofuels, thereby reducing the impacts associated with a shortfall in a particular type of feedstock) and increase the likelihood of the development of *lower cost* advanced biofuels that meet the same GHG reduction threshold as BBD.” 81 Fed. Reg. at 34,810 (emphasis added). Biomass-based diesel is one category, but not one fuel, as it includes biodiesel, renewable diesel, heating oil, jet fuel, and cellulosic diesel. Since biomass-based diesel has numerous feedstocks, a shortfall in any particular type could be made up by several alternatives. Thus, this would not be a concern for biomass-based diesel. As such, rather than ensuring the most volumes it can, EPA appears to be most concerned about “costs.” But, the statutory factors do not include consideration of lower costs of compliance. 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-2016-0004-2904-A2 p.91]

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. The Supreme Court has explained that “[w]hen Congress has intended that an agency engage in a cost-benefit analysis, it has clearly indicated such intent on the face of the statute.” *Am. Textile Mfrs. Inst. v. Donovan*, 452 U.S. 490, 510 (1981). There is no such language here, and EPA makes no effort to weigh the benefits of a higher biomass-based diesel volume.⁹⁶ In denying petitions for reconsideration of EPA’s final rule setting the 1.28-billion-gallon requirement for 2013, which was not challenged, EPA confirmed that “there is no criterion in 211(o)(B)(2)(ii) which indicates that an ‘increase in diesel fuel costs’ should prevent increases in the 1.0 bill gal biomass-based diesel requirement.” Denial of API/AFPM Reconsideration Petitions at 3. In so doing, EPA rejected claims “that cost should be the only, or overriding consideration in EPA’s evaluation of the appropriate volume of biomass-based diesel.” *Id.* at 5; *see also id.* at 20 (“Substantively, since the statute provides a list of factors we must consider, only one of which is cost, we disagree with any suggestion that a consideration of costs alone should drive the conclusion, or that cost considerations must necessarily take precedence over other considerations.”). EPA affirmed this view in *Monroe Energy v. EPA*: [EPA-HQ-OAR-2016-0004-2904-A2 p.91-92]

More importantly, while Petitioners are correct that Congress intended to provide compliance flexibility to obligated parties, this is an implementation goal. The overall substantive purpose of the statute is to promote the production and use of renewable fuels. While the RFS program maintains a degree of compliance flexibility that is consistent with the achievement of these larger statutory purposes, ***Petitioners’ suggestions would make compliance flexibility the overriding consideration while sacrificing actual renewable fuel use. This cannot possibly be what Congress intended.*** [EPA-HQ-OAR-2016-0004-2904-A2 p.92]

EPA *Monroe Energy Br.* at 24. Yet, EPA’s proposal does elevate the *potential* for increased compliance costs over all other concerns, including available fuel production and use. As EPA succinctly stated, “This cannot possibly be what Congress intended.” [EPA-HQ-OAR-2016-0004-2904-A2 p.92]

Where Congress anticipated incurrence of compliance costs and provided other mechanisms to assist in reducing those costs (*e.g.*, credit program), such costs cannot be relevant to EPA’s consideration of the statutory factors. Although EPA is to analyze “the impact of the use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods,” 42 U.S.C. § 7545(o)(2)(B)(ii)(V), EPA provides no analysis of how this purported “competition” relates to these costs. EPA cannot because it is only addressing purported compliance costs for *obligated parties* and, as described further below, the price to consumers has been reduced with increased required volumes of biomass-based diesel. 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-2016-0004-2904-A2 p.92]

Supporting Competition Among Advanced Biofuels Does Not Advance EPA's Purported Objectives and, In Fact, Undermines the Purposes of the Statute to Promote Production of Advanced Biofuels, Including, and in Particular, Biomass-Based Diesel.

EPA's entire supplementary analysis is based 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 2018.*" EPA-HQ-OAR-2016-0004-0020 at 2. This is a ludicrous assumption. There is no defined market for advanced biofuels, and, even if the *minimum* required volumes under the statute are somehow viewed as a cap (which they are not), EPA has already indicated it will likely reduce the advanced biofuel volume for 2018, but it will not make that decision until next year. [EPA-HQ-OAR-2016-0004-2904-A2 p.94]

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-2016-0004-2904-A2 p.94]

EPA Improperly Bases its Consideration of the Factors Required as Compared to Other Advanced Biofuels, Rather Than Diesel Fuel.

Although the statute requires EPA consider the listed factors, EPA merely provides a "supplementary assessment," where it purports to consider the potential impacts of selecting an applicable volume of biomass-based diesel other than 2.1 billion gallons in 2018. As an initial matter, this analysis does not, in fact, consider the *actual* impacts of setting different levels. Instead, it is "based on the assumption that in guaranteeing the BBD volume at any given level there could be greater use of BBD and a corresponding decrease in the use of other types of advanced biofuels." EPA-HQ-OAR-2016-0004-0020 at 3. This assumption makes little sense. Moreover, the supplementary analysis is based on EPA's determination "that it is in the interest of the goals of the program to propose a BBD volume requirement at a level below anticipated BBD production and imports, so as to provide continued incentives for research and development of alternative advanced biofuels, it is apparent that excess BBD above the BBD volume requirement will compete with other advanced biofuels, rather than petroleum based diesel." 81 Fed. Reg. at 34,812. EPA further states that "[t]he only way for our proposed 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." *Id.* Apparently, Congress meant nothing by creating a biomass-based diesel program that would allow renewable fuels to compete in the diesel market. [EPA-HQ-OAR-2016-0004-2904-A2 p.96]

Similar to EPA's purported "primary" analysis, this supplementary assessment is counter to the Act and arbitrary and capricious. This supplementary assessment is faulty from the start by comparing increases in biomass-based diesel to other advanced biofuels. In so doing, it is hard to fathom any other conclusion that EPA's statement that the supplemental assessment "does not provide significant support for proposing the BBD requirement at a level higher or lower than 2.1 billion gallons in 2018." EPA-HQ-OAR-2016-0004-0020 at 2. [EPA-HQ-OAR-2016-0004-2904-A2 p.97]

As noted above, 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). 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). To even be eligible as an advanced biofuel, EPA must make a determination as to the lifecycle GHG emissions compared to the baseline fuel, that is, gasoline or diesel “whichever is being replaced by the renewable fuel.” *Id.* § 7545(o)(1)(B), (C), (D). EPA provides no rational explanation for why it has chosen a different analysis than it used for setting the 1.28 billion for 2013. Although EPA used a similar approach for 2017, EPA has considered and proposed to act similarly, and it doesn’t explain why that approach is more appropriate today, when EPA has been able to issue the volume requirements for 2016 and 2017 with enough time to push the industry back into action. [EPA-HQ-OAR-2016-0004-2904-A2 p.97]

Again, EPA is trying to use its waiver authority to trump the statutory requirements under Section 211(o)(2)(B)(ii). But, even if the use of waiver authority is warranted for advanced biofuels in any given year, it is clear that the statute intended the maximum production and use. Congress used the term “at least.” 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-2016-0004-2904-A2 p.97]

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. Although EPA followed a similar approach for 2017, it did not provide an explanation then, and still 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. Moreover, the circumstances were different given EPA’s decision to reduce the volumes, and its delay in issuing the 2014 and 2015 requirements. Now, EPA will have been on track, and there is no reason for EPA to follow the same approach it did for 2017. EPA recognizes that “the market is capable of responding to ambitious standards by expanding all segments of the market needed to increase renewable fuel supply.” 81 Fed. Reg. at 34,784. EPA has not, and 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. [EPA-HQ-OAR-2016-0004-2904-A2 p.109]

96 Several of the factors listed are difficult, if not impossible, to quantify, making it even more suspect that Congress's silence equates to allowing a cost-benefit analysis. See *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 238 (2009) (Stevens, J., dissenting) ("Because benefits can be more accurately monetized in some industries than in others, Congress typically decides whether it is appropriate for an agency to use cost-benefit analysis in crafting regulations. ... Accordingly, we should not treat a provision's silence as an implicit source of cost-benefit authority, particularly when such authority is elsewhere expressly granted and it has the potential to fundamentally alter an agency's approach to regulation."). Here, EPA is using compliance costs to "fundamentally alter [its] approach to regulation."

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 Chapter 3). Each of these commenters claims 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. EPA has endeavored to consider all comments and has weighed the statutory factors to reach a decision that is appropriate and reasonable. A final rule memorandum to the docket entitled, "Final Statutory Factors Assessment for the 2018 Biomass Based Diesel (BBD) Applicable Volume" discusses our consideration of the statutory factors set forth in CAA section 211(o)(2)(B)(ii)(I)-(VI) in the context of deriving the final 2018 biomass-based diesel applicable volume. Based on a review of the implementation of the program to date and all the factors required under the statute, we are finalizing the BBD volume at 2.1 billion gallons for 2018. We believe that an increase of 100 million gallons above the level finalized for 2017 supports the overall goals of the program while also maintaining the incentive for development and growth in production of other advanced biofuels as well as the continued growth in BBD and renewable diesel.

Consistent with our 2017 approach in setting the final BBD volume requirement, EPA's primary assessment of the statutory factors for the final 2018 BBD applicable volume is that because the BBD requirement is nested within the advanced biofuel volume requirement, we expect that the final 2018 advanced volume requirement, when set next year, will largely determine the level of BBD production and imports that occur in 2018. Therefore, EPA continues to believe that the same overall volume of BBD would likely be supplied in 2018 regardless of the BBD volume we mandate for 2018 in this final rule. This assessment is based, in part, on our review of the RFS program implementation to date, as discussed above in Section VI.B.1 - VI.B-2 of the final rule preamble. RTC section 4.1 provides additional discussion on this topic.

Responding to specific NBB comments on statutory factors analysis:

As in the 2014-2017 rule, 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 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 VI.B.1–B.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. 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. Despite the fact that Congress only required that the BBD volumes grow to 1.0 billion gallons, EPA, after evaluating the factors Congress specified, and taking into account other considerations, such as the success of the BBD industry to date, has raised the BBD standard to more than double the minimum specified by Congress.

NBB 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, and that is precisely how EPA has used the authority in this final rule. EPA acts in accordance with Section 211(o)(2)(B)(ii) to set the BBD standard independently of the total advanced standard. Also, since the CAA calls for a minimum of 1 billion gallon of BBD, our final BBD standard for 2018 is more than twice that so not only have we not reduced the BBD volume, but we have increased it.

Finally, NBB restates, as it did in its 2014-2017 annual rule comments, that the EPA previously found statutory factors supported greater annual increases in BBD volume requirement for 2013 and that the statutory factors analysis developed to justify the 2016, 2017, and now the 2018 BBD volume requirements contradicts the analysis EPA put forward in 2013. We disagree. As in 2013, we have determined that incremental increases in the 2018 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.

At least one commenter pointed to the positive impacts an increasing BBD requirement can have on the soybean industry. Noting that expanding biodiesel markets are vitally important since soybean production is driven by demand for livestock feed and the oil is a co-product. Without a market outlet for the co-product, production of the protein meal is restrained. Biodiesel provides a market outlet for the surplus soybean oil. EPA has taken into account this concern as well as opposing concerns that the biodiesel market is negative impacts in other industries that also compete for this oil co-product. In finalizing this annual rule EPA believes that there will be sufficient feedstocks available to produce the 2.4 billion gallons of advanced biodiesel and renewable diesel and the 2.9 billion gallons of total biodiesel and renewable diesel we are

projecting will be supplied in 2017 in this final rule. In our assessment of the availability of feedstocks we focused on the expected growth in the feedstocks that can be used to produce biodiesel and renewable diesel for which advanced and/or biomass-based diesel RINs can be generated. In doing so, we believe that we are minimizing the likelihood for many of the negative impacts mentioned by commenters. See Section IV.2 for a further discussion of this assessment. See Section 3.2 of the RTC for a discussion of the environmental impacts and considerations associated with the final rule.

5. Cellulosic biofuel standard

5.1 General comments on cellulosic biofuels

Comment:

Adler's Antique Autos

We note the high cost of processing cellulosic feedstocks (e.g. enzymes) limits or eliminates their competitiveness in an open market. Subsidies for R&D are appropriate, but subsidies should decline as commercial production ramps up. [EPA-HQ-OAR-2016-0004-2523 p.1]

American Biogas Council (ABC)

We also request that EPA continue to make clear and regular statements about its intent not to strand available cellulosic biofuel produced in compliance with the RFS, especially where total biofuel available is well under the statutory limits. [EPA-HQ-OAR-2016-0004-1692-A1 p.4]

Association of Equipment Manufacturers (AEM)

Congress wisely encouraged the creation of an advanced biofuels industry, namely cellulosic ethanol. [EPA-HQ-OAR-2016-0004-0723-A1 p.1]

Coalition for Renewable Natural Gas et al.

We agree that EPA is correct in its determination that “projected volume available,” and not the statutory tables, is appropriate for setting cellulosic biofuel obligations in 2017. While the renewable natural gas industry is experiencing unprecedented growth in transportation fuel production, total capabilities for production have not yet reached statutory table levels. Given market realities, we do not believe it is proper or prudent for EPA to set obligations at the statutory level. Doing so would destabilize the RFS, the RIN market, and the cellulosic biofuel industries since we would be unable to meet such high demand. The RVO process reflected in the proposed rule is preferred and proper. [EPA-HQ-OAR-2016-0004-1732-A1 p.3]

Additionally, we request that EPA continue to make clear and regular statements about its intent not to strand available cellulosic biofuel produced in compliance with the RFS, especially where total biofuel available is well under the statutory limits. [EPA-HQ-OAR-2016-0004-1732-A1 p.6]

DeCicco, John M.

- The promotion of cellulosic biofuels must be considered a failed undertaking. The proposed rule again, and rightly, sets a cellulosic biofuels standard far lower than the ill-considered targets in EISA. The nation will be well served if EPA zeros out the cellulosic requirements based on inadequate credible supply, the implausibility of such fuels becoming commercially viable anytime soon and the fact that cellulosic biofuels are now

and will for many years be a poor way to mitigate CO2 emissions. [EPA-HQ-OAR-2016-0004-1828-A1 p.1]

Illinois Corn Growers Association and Illinois Renewable Fuels Association (ILRFA)

The signal sent to the corn based ethanol industry that the volumes of conventional ethanol is significantly being reduced will be even more chilling to the advanced biofuels and cellulose ethanol industry because the statutory increase in demand for biofuels by the obligated parties is not being enforced. Therefore the cellulose ethanol industry cannot grow. As USEPA know, right now it is the same industry. The corn based ethanol industry has invested in plants that can convert corn stover and/or corn fiber to ethanol. Weakening this existing industry will set cellulose ethanol again back several years if it can recover at all. [EPA-HQ-OAR-2016-0004-1745-A2 p.6]

Mass Comment Campaign sponsored by Absolute Energy (Paper) - (60)

Furthermore, 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-2016-0004-1359-A1 p.1]

Mass Comment Campaign sponsored by Absolute Energy LLC (Paper) - (196)

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-2016-0004-1361-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 26 (Paper) - (26)

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-2016-0004-3553-A1 p.1]

Mass Comment Campaign sponsored by ethanol producers 1 (email) - (444)

Furthermore, 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-2016-0004-0555-A1 p.1]

Mass Comment Campaign sponsored by investors in ethanol plants (email) - (67)

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-2016-0004-1164-A1 p.1]

Mass Comment Campaign sponsored by Prairie Horizon (Paper) - (74)

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. [EPA-HQ-OAR-2016-0004-1969-A1 p.1]

Mass Comment Campaign sponsored by Three Rivers Energy (Paper) - (28)

Furthermore, 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-2016-0004-1968-A1 p.1]

Michigan Farm Bureau (MFB)

This proposal would halt new investments in cellulosic biofuels and introduce detrimental ambiguity in a market that is still developing. [EPA-HQ-OAR-2016-0004-1822-A1 p.2]

Wesley K Clark & Associates, LLC

the first commercial scale cellulosic ethanol technologies are now successfully entering the mainstream. [EPA-HQ-OAR-2016-0004-3508-A1 p.1]

Response:

EPA received several comments supporting our determination that the statutory cellulosic volume for 2017 could not be met, and our decision to establish the cellulosic biofuel standard for 2017 at the projected volume available in this year.

Several parties noted the congressional intent in EISA to support a growing cellulosic biofuel industry. We believe this annual rule is consistent with this intent, as well as EPA's charge to establish cellulosic biofuel standards consistent with the projected production of cellulosic biofuels, using a "neutral aim at accuracy". By establishing cellulosic biofuel requirements equal to our projection of cellulosic biofuel production we believe we are providing the appropriate incentives for the purchase of cellulosic biofuels and are appropriately addressing concerns that available cellulosic biofuel will be "stranded" (i.e. not purchased).

Multiple commenters stated that EPA's proposed reduction of the implied conventional biofuel volume would negatively impact the development of the advanced and cellulosic biofuel markets. We do not believe this to be the case. We believe that the advanced and cellulosic biofuel requirements can provide an effective means by which to support the development of advanced and cellulosic biofuels even in situations where the implied conventional biofuel

volume does not increase. In fact, the statutory implied conventional biofuel volumes do not increase after 2015, while the advanced and cellulosic volumes continue to increase. In any event EPA's final action does not result in a reduction in the implied volumes of conventional biofuel in comparison to the implied volumes in the statutory volume tables.

One party stated that subsidies for cellulosic biofuels should decrease as commercial production ramps up. The RFS program is based on mandated volumes for various types of renewable fuels, including cellulosic biofuel. It does not provide direct financial subsidies for cellulosic biofuel production, but rather relies on mandated volumes, in combination with the market based RIN system, to provide the appropriate incentives for cellulosic biofuels. To the extent the commenter is referring to subsidies or grants provided by other governmental agencies, the comments should be addressed to the agency or agencies involved.

Another commenter suggested that EPA set the required cellulosic biofuel volume at zero on the basis of inadequate credible supply of these fuels and the "implausibility of such fuels becoming commercially viable anytime soon". We do not believe this would be appropriate, nor would it be consistent with EPA's statutory authority, as significant volumes of cellulosic biofuel are projected to be produced in 2017. Moreover, the commenter is demonstrably incorrect in stating that the fuels cannot become commercially available anytime soon, since substantial commercial volumes have been produced in both 2015 and 2016. See Section III of the preamble for further discussion.

5.2 Cellulosic biofuel volume assessment

5.2.1 Potential domestic producers

Comment:

Biomass Power Association

EPA continues to ignore the role of electricity in meeting the goals of the RFS in the same way it ignored electricity for 2015 and 2016 RVOs. [EPA-HQ-OAR-2016-0004-1803-A1 p.1]

EPA compiled a Table summarizing projected producers of cellulosic biofuel by company name, location, feedstock, fuel, capacity, construction date, and when in first operation. This table (Table III.B.3-1) does not include any reference to producers of renewable electricity. The backup data that EPA uses to compile this Table is equally devoid of any recognition of renewable electricity as transportation fuel. [EPA-HQ-OAR-2016-0004-1803-A1 p.2]

Darling Ingredients, Inc.

The Proposed Rule in Table III.C-3 identifies an additional 167 million ethanol-equivalent gallons, which could be in production in 2017 and assumes in Table III.C-4 that only 50% of that will actually be in production. Indeed, the Proposed Rule only assumes that 75% of the estimated

current production will be operating in 2017. Darling operates digesters as part of its international operations and understands this technology is well-established, which is different from the technology required by the other categories of Cellulosic biofuels. EPA estimates the volume from CNG/LNG alone could be 100 million gallons higher than the volume requirement established in the Proposed Rule. Given the established nature of the technology, Darling believes the Final Rule should contain a more aggressive target. [EPA-HQ-OAR-2016-0004-1721-A1 p.5]

Governors' Biofuels Coalition

DuPont announced 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-2016-0004-1729-A1 p.4]

Any of the existing ethanol plants in the U.S. could be retrofitted with equipment and processes that produce cellulosic ethanol from a non-food feedstock which already exists in the plants. Cellulosic ethanol can add tens of billions of gallons of homegrown fuel, with agriculture residue feedstocks alone producing up to two billion gallons of our nation's energy supply. [EPA-HQ-OAR-2016-0004-1729-A1 p.4]

Mass Comment Campaign Sponsored by Novozymes (web) - (8)

Invest in renewable energy in the U.S.: The RFS works. There are now three commercial scale cellulosic biofuel refineries in operation, and the industry is poised to grow. [EPA-HQ-OAR-2016-0004-0717-A1 p.3]

Samp, Dale

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.226]

we are just waiting for the right opportunity that makes sense for our investors to get onboard with cellulosic. Right now, it sounds like there is a great deal of uncertainty, thanks in part to confusion over the past few years around this rulemaking. But let me be clear, if you provide the certainty, we will move forward.

Response:

EPA received comments suggesting that the RFS program is working to promote cellulosic biofuel production. These comments noted that there are currently cellulosic biofuel production facilities in operation. We continue to believe that the RFS program can provide significant support for the development and growth of the cellulosic biofuel industry in the United States.

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. These issues were discussed in the recently proposed Renewables Enhancement and Growth Support Rule.⁴⁸ EPA believes that regulatory changes will be necessary to address these issues, and we think it is unlikely that these complex issues will be resolved in time for cellulosic RINs generated from electricity to contribute appreciably to the supply of cellulosic biofuel in 2017. 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.

A commenter objected to EPA's use of the 50th and 75th percentile values respectively to project production from producers of CNG/LNG derived from biogas that have not previously generated RINs and those that have. They claim that because this technology is well established higher values should be used, and that by using these values EPA underestimates likely RIN generation from CNG/LNG derived from biogas. EPA acknowledges the established nature of the technologies used to produce CNG/LNG derived from biogas, however we note that in order to generate RINs for CNG/LNG derived from biogas, the RIN generator must demonstrate both biogas production and that contracts exist for the use of associated CNG/LNG as transportation fuel. There remains uncertainty associated with production and RIN generation from these facilities, as several are generating RINs at rates significantly below their registered production volumes. Past projections EPA has received from the RNG industry (which we discounted in establishing past standards) 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. Cellulosic RIN generation data in 2016 also suggests that the industry is unlikely to meet the CRNG projections for 2016 (257 million RINs).⁴⁹ We also note that the commenter mischaracterizes EPA's approach to projecting RIN generation from facilities that are currently generating RINs. Rather than assuming 75% of the current production will be operating in 2017, EPA uses a 75th percentile value to project RIN generation from these facilities from a potential range where the actual production in the previous 12 months is the low end of the range, and the combined RIN generation projections for these facilities received from the Coalition for Renewable Natural Gas is the high end of the range.⁵⁰

Two commenters suggested that 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 2017. We believe that use of the same projection methodology used in deriving the 2016 cellulosic standard in this final rule will add to the sense of program stability the commenters describe as 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

⁴⁸ 81 FR 80828, November 16, 2016

⁴⁹ See "Assessment of the Accuracy of Cellulosic Biofuel Production Projections in 2015 and 2016", memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2016-0004.

⁵⁰ See "October 2016 Assessment of Cellulosic Biofuel Production from Biogas (2017)", memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2016-0004 for additional detail.

progress of the cellulosic biofuel industry and will adjust our projection methodology as appropriate.

We also recognize the potential for existing corn ethanol plants to be retrofitted to enable the production of cellulosic biofuel from feedstock already present in the plants. Two of the companies included in our cellulosic biofuel projections for 2017, Quad County Corn Processors and Edeniq, use such a technology. We believe there is significant potential for this type of technology to contribute additional volumes of cellulosic biofuel in future years.

5.2.2 Potential foreign sources of cellulosic biofuel

Comment:

Biotechnology Innovation Organization (BIO)

Second, the 2017 cellulosic volumes will be incorrect if EPA does not work to take into account the capacities of several overseas cellulosic biofuel companies, which have completed the lengthy and costly Part 80 registration process to qualify to generate D3 or D7 RINs. [EPA-HQ-OAR-2016-0004-2721-A1 p.17]

Enerkem

Enerkem strongly supports the increase of the proposed cellulosic biofuel volumes for 2017. As our Edmonton facility will begin producing cellulosic ethanol in commercial volumes in the coming year, we look forward to contributing to the proposed increases in D3 RIN category. [EPA-HQ-OAR-2016-0004-1820-A1 p.1]

Minnesota Soybean Processors (MnSP)

there is no logical reason for EPA to exclude imports from determining available supply. [EPA-HQ-OAR-2016-0004-1829-A1 p.2]

Response:

In the final rule, as well as in the proposed rule, EPA considered the potential for imported volumes of cellulosic biofuel to contribute to the overall supply of cellulosic biofuel in the United States in 2017. Our final rule projects imports of cellulosic biofuel from as many as three different facilities. We believe our approach, in which we contact all foreign facilities that are registered to produce cellulosic biofuels and include volumes from those facilities that are currently producing cellulosic biofuel and indicate that they intend to export cellulosic biofuels to the United States in 2017, is both reasonable and appropriate. We believe this approach appropriately considers the potential for registered foreign cellulosic biofuel producers to export to the United States, while acknowledging that there is also strong demand for cellulosic biofuels in other global markets.

5.2.3 Methodology for projecting volumes

Comment:

Advanced Biofuels Business Council (ABBC)

Some stakeholders have expressed concern about EPA's methodology of applying discount rates (e.g. -25%) to aggregate volumes to account for uncertainty, and have raised the possibility of reopening the docket when necessary to allow for updated information as the rulemaking proceeds. We agree that: (a) it does not make sense to discount a proven cellulosic biofuel producer that will clearly continue to engage in fuel markets; and, (b) aggregate discounts are sub-optimal when it comes to predicting likely market outcomes. We believe there are better ways to account for uncertainty. [EPA-HQ-OAR-2016-0004-1733-A1 p.9]

EPA acknowledges the purpose of the RFS to "drive" volumes of renewable fuel, with a particular focus on advanced, low carbon renewable fuels like cellulosic ethanol. And yet, EPA is proposing a D3 standard that could underestimate the number of D3 RINs produced with proven technology, without providing guidance for what the Agency plans to do in the event of a serious underestimation as our industry deploys at commercial scale. This uncertainty is already chilling investment and the failure to cure it violates CAA Sec. 211(o)(7)(D)(iii). [EPA-HQ-OAR-2016-0004-1733-A1 p.10]

There is no better way to align the regulation with "what will actually happen" than to make a good faith projection of what will actually happen to provide guidance to obligated parties – as the agency does now – with a "true up" at the end of the year to ensure that the agency does not overestimate or underestimate the number of gallons available for compliance. This approach would ensure that EPA is always right when it comes to the eventual standard. Oil companies would have certainty and know that they would never be required to blend unavailable fuel. Obligated parties would also have certainty and not face the risk of stranded gallons in the event of underestimations by EPA. [EPA-HQ-OAR-2016-0004-1733-A1 p.22]

A "true up" methodology would alleviate EPA of the pressures of forecasting unknown markets; but most importantly, it would drive obligated parties into off-take agreements for any available, reasonably priced cellulosic biofuels. This market dynamic, in turn, would catalyze project finance in the industry and drive much larger commercial quantities of low carbon, cellulosic ethanol and advanced biofuels into U.S. markets. In addition, if EPA adopts a "true up" or "roll over" approach to administering the D3 pool, volumetric accuracy is assured and EPA has more regulatory wiggle room to offer CWCs more conditionally (e.g. in limited number, in cases of high prices, upon affidavit for good faith bid, etc.). In simple terms, if obligated parties make a good faith effort to secure liquid D3 gallons and cannot, CWCs should be available. A "true up" approach would allow EPA to drop the protocol that allows obligated parties to avoid liquid D3 gallons if they so choose, which has subtle but clearly observable negative effects on oil industry engagement in off-take and prices offered, in favor of one that allows them to do so if these

gallons are unavailable or are not reasonably priced against the CWC price. [EPA-HQ-OAR-2016-0004-1733-A1 p.23]

American Fuel and Petrochemical Manufacturers (AFPM)

CAA section 211(o)(7)(D)(i) requires EPA to reduce the statutorily-prescribed volume of cellulosic biofuel required “based on the estimate provided [by the Energy Information Administration] under paragraph (3)(A).” EPA did not rely on an EIA estimate when proposing the cellulosic biofuel standard for 2017. AFPM expects that the Agency will comply with the statute and use an EIA estimate when it determines the level of the cellulosic biofuel standard for 2017 in the final rule. If EIA’s and EPA’s projections for cellulosic biofuel volume in 2017 are not identical, then EPA must explain the differences. [EPA-HQ-OAR-2016-0004-1814-A1 p.13]

EPA has access to actual data that demonstrates the proposed growth in the cellulosic requirement is unrealistic. EPA’s Moderated Trading System (“EMTS”) shows that there were only 47 million cellulosic RINs generated in January through April. Multiplying this number by 3 to annualize volumes for 2016 only yields 141 million RINs. This is well short of the 2016 standard of 230 million. It is contrary to statute for EPA to establish the applicable volume of cellulosic biofuel on any basis other than the projected volume of cellulosic biofuel for the calendar year in which the cellulosic biofuel requirement applies. It is therefore contrary to statute, arbitrary and capricious for EPA to raise the cellulosic standard from 230 million in 2016 to 312 million in 2017 given the already large potential shortfall for 2016. A shortfall for 2016 suggests caution in determining requirements for 2017, not optimism or exuberance. [EPA-HQ-OAR-2016-0004-1814-A1 p.13]

EPA announced that it intends to use updated information on expected production of cellulosic biofuels when it promulgates the 2017 Final RFS Rule.²³ However, EPA’s methodology remains subjective and unclear, and precludes interested parties from providing informed comment on the specific methodology that EPA employs in the final rule and how EPA determined projected production. Therefore, in this case, EPA’s final cellulosic biofuel standards would at minimum violate the requirements of CAA section 307 respecting proposal and finalization of rules. [EPA-HQ-OAR-2016-0004-1814-A1 p.14]

American Petroleum Institute (API)

First, EPA’s unquestioning acceptance of producers’ projected start-up dates is unreasonable in light of past experience. EPA has consistently erred in forecasting liquid cellulosic biofuel facility start-up dates in prior years. In nearly every case, EPA has adopted start-up dates that prove to be months or years earlier than a facility’s actual start-up date. [EPA-HQ-OAR-2016-0004-3512-A2 p.27]

Given EPA’s long history of adopting overly optimistic projected start-up dates, it is incumbent on EPA to come forward with hard evidence that the start-up dates in the Proposed Rule are grounded in fact and describe “what will actually happen.” API, 706 F.3d at 479. The Proposed Rule fails to carry this burden; indeed, it provides no meaningful evidence that the projected start-up dates it adopts are any more realistic than the start-up dates adopted in prior years. Nor

does EPA factor into its analysis the possibility that new liquid cellulosic plants will repeatedly miss their target start-up dates for years on end, as the Cool Planet, DuPont, and Poet-DSM plants have. [EPA-HQ-OAR-2016-0004-3512-A2 p.27-28]

Second, EPA's use of a six-month ramp-up to expected capacity is unreasonable in light of past experience. See 81 Fed. Reg. 34,805. EPA has produced no evidence that a six-month ramp-up period is reasonable, and so far as API is aware, no liquid cellulosic biofuel facility capable of producing commercial-scale quantities of fuel has ever reached planned capacity within six months. Indeed, as of December 2015, "[n]o biofuel startups have managed to produce a next-generation biofuel at commercial scale in the U.S.," period. The record shows that many facilities take a year or more to reach even a fraction of design capacity. [EPA-HQ-OAR-2016-0004-3512-A2 p.28]

It is true that the Proposed Rule employs a six-month ramp-up only to compute "the high end of the projected production range for each group of companies." 81 Fed. Reg. 34,805. But EPA has offered no evidence that a six-month ramp-up period is attainable even under the best of circumstances. Despite the abundance of data on ramp-up periods from past years, the Proposed Rule does not cite one example in which a facility achieved substantial production within six months of initial production. Even if EPA could identify a handful of instances in which a facility did ramp up to full capacity within six months, that data would need to be balanced against the considerable data showing that it takes facilities years to ramp up to meaningful production, and against the data showing that facilities often go out of business before generating any cellulosic biofuel RINs. [EPA-HQ-OAR-2016-0004-3512-A2 p.28]

Third, EPA failed to consider the possibility that facilities would encounter difficulties that cause them to fall below prior production levels, or even to zero. See 80 Fed. Reg. 77,503–05 (setting the low end of the range for companies with "consistent commercial scale production" at a level equal to those companies' "actual production volumes" over the preceding 12-month period). This omission is unreasonable given the considerable evidence that cellulosic biofuels producers are often unable to sustain production levels over extended periods. [EPA-HQ-OAR-2016-0004-3512-A2 p.28]

EPA should remedy this error by adopting zero as the low end of the expected range for each conventional liquid cellulosic biofuel facility. Such an approach would better harmonize with past experience and better predict "what will actually happen" in the future. API, 706 F.3d at 479. [EPA-HQ-OAR-2016-0004-3512-A2 p.29]

Fourth, the Proposed Rule ignores completely several producers that EPA has relied upon in prior rulemakings, but which went out of business or have been unable to produce meaningful volumes of liquid cellulosic biofuel. The Proposed Rule (and its supporting memorandum) do not acknowledge or discuss Cool Planet and INEOS Bio, two firms that EPA relied upon in fashioning its final rule for 2016. See 80 Fed. Reg. 77,508. As discussed in Appendix B, neither of these firms has produced cellulosic biofuel RINs in recent years, and neither of them is expected to begin producing such RINs any time soon. Nor does the Proposed Rule "reflec[t] on" the failures of other liquid cellulosic biofuel producers in past years, despite the abundance of available and highly relevant data. API, 706 F.3d at 427. An agency seeking to take "neutral aim

at accuracy,” *id.*, may not bury its head in the sand in this fashion. [EPA-HQ-OAR-2016-0004-3512-A2 p.29]

EPA should rectify this error by adopting a percentile model that is in line with the record. The data above shows that 2.8% of capacity is a more accurate estimate for cellulosic biofuel production from facilities without a proven production track record. Applying this model to the aggregate design capacity of 51 million gallons for facilities without prior commercial-scale production would yield an estimate of 1.4 million gallons of cellulosic biofuel production in 2017 for new liquid cellulosic biofuel producers, rather than the projection of 12 million gallons included in the Proposed Rule. See 81 Fed. Reg. 34,806. [EPA-HQ-OAR-2016-0004-3512-A2 p.30]

Based on the data discussed in Appendix B, and accounting for the possibility (albeit unlikely) that liquid cellulosic biofuel producers will produce at a higher overall rate in 2017 than in prior years, a proper substitute model would use 10% of the “established” producer group’s cumulative capacity. Only a handful of firms have reached production rates above 10% in recent years, and EPA has provided no evidence that these small firms (e.g., Quad County Corn Producers) are representative of the “established” producer group as a whole. Moreover, a model using 10% of the “established” producer group’s capacity vastly outperforms the Proposed Rule’s 50th percentile model when applied to the data for 2010–2015 shown above. This model would generate an expected production volume from the “established” producer group of 2.9 million gallons in 2017, rather than the projection of 18 million gallons included in the Proposed Rule. See 81 Fed. Reg. 34,806. [EPA-HQ-OAR-2016-0004-3512-A2 p.31]

Second, the CAA 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 2017 arbitrary and capricious, notwithstanding EPA’s statement that is “anticipate[s] considering these estimates . . . for the final rule.” [EPA-HQ-OAR-2016-0004-3512-A2 p.31]

Third, EPA has not provided sufficient transparency on data that form the central basis for EPA’s liquid cellulosic biofuel projections. EPA has withheld call notes, production data, and other key materials for liquid cellulosic biofuel producers, claiming that this information is CBI. EPA needs to improve its transparency when establishing the cellulosic biofuel mandate, and, at minimum, provide sufficient information on which the public can provide meaningful comments. [EPA-HQ-OAR-2016-0004-3512-A2 p.31]

Furthermore, EPA’s projection of CNG/LNG includes several invalid assumptions in the estimation of potential future volumes. Specifically, the Proposed Rule uses a 50th percentile estimate of production for facilities that have not yet generated a cellulosic biofuel RIN. This

approach is overly optimistic for the following reasons: [EPA-HQ-OAR-2016-0004-3512-A2 p.32]

- Not all new facilities are capable of producing transportation-grade biogas. Of the approximately 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. An even smaller percentage of high BTU projects exist for digester and other biogas projects. [EPA-HQ-OAR-2016-0004-3512-A2 p.32]

- 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-2016-0004-3512-A2 p.32]

- 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-2016-0004-3512-A2 p.32]

- Generating cellulosic RINs from RNG requires additional recordkeeping and reporting after the RNG is produced to document that it is used as a transportation fuel. This is an additional burden that can be a deterrent from generating additional RINs as the volume of RNG in the market continues to grow. In other words, growth in RNG volume may not translate directly into proportional growth in RIN generation. [EPA-HQ-OAR-2016-0004-3512-A2 p.32-33]

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. [EPA-HQ-OAR-2016-0004-3512-A2 p.33]

Biotechnology Innovation Organization (BIO)

Yet EPA's approach to cellulosic RVOs, as described in the proposed rule, impermissibly puts a thumb on the scale on the side of lower projections. Such an approach would not be consistent with the statute, which provides that if there is a projected shortfall in cellulosic production, EPA must reduce the cellulosic volume requirement "to the projected volume available during that calendar year."⁴¹ The statute ensures that the adjusted requirement is no higher than the projected volume available for the relevant calendar year; it also ensures that the adjusted requirement is no lower than that projected volume. For further discussion of this basic point, see Part IV of these comments, below. [EPA-HQ-OAR-2016-0004-2721-A1 p.15-16]

As noted above, EPA has acknowledged that "a simple projection of historical data is not an appropriate method for projecting future production from a new industry."⁴² Nevertheless, EPA's proposed approach gives undue weight to historical numbers, and lumps producers into two groups ((1) a group of producers with a history of consistent cellulosic biofuel production and RIN generation, and (2) a group of producers without such a history), without adequately

accounting for the circumstances of the individual producers within the group. [EPA-HQ-OAR-2016-0004-2721-A1 p.16]

In particular, EPA discounts its much more carefully derived facility-specific production projections (the “high end” of the “projected production range” set by EPA43) by applying across-the-board “discounts” to production projections on a group-by-group, rather than producer-by-producer or facility-by-facility, basis. EPA does so using historical data (the “low end” – zero, for all companies that have not yet begun commercial-scale production) for all producers in a group (not considered individually) as the baseline against which to conduct the group-by-group discounting exercise.⁴⁴ For cellulosic biofuel, the result tilts in favor of lower projections for both new facilities and facilities with a history of production deemed adequate by EPA [EPA-HQ-OAR-2016-0004-2721-A1 p.16]

When finalizing the 2017 RVOs, the agency should include anticipated volumes from companies that are expected to receive pathway approval and to begin production during the compliance period. [EPA-HQ-OAR-2016-0004-2721-A1 p.18]

EPA can and should change its estimation process to include estimates of cellulosic biofuel production based on likely pathway approvals. To completely ignore the likely approval, by the compliance year, of all such pathways would be to underestimate likely actual numbers and to result in inaccurate projections of biofuels production figures. Such estimation errors are inconsistent with the requirements of the governing statute and do not conform with the D.C. Circuit’s admonition in *API v. EPA* to take a neutral aim at accuracy in calculating cellulosic biofuel volumes.⁵¹ Neutrality forbids overshooting the mark, but also forbids undershooting the mark. [EPA-HQ-OAR-2016-0004-2721-A1 p.18-19]

EPA should anticipate (and actively work to complete) the timely approval of pathways and registration processes and should accurately include in the 2017 RVOs all reasonably anticipated volumes from companies that intend to begin producing qualifying fuels during the compliance year. We emphasize that EPA’s rulemaking is being undertaken with sufficient lead time to make this possible. [EPA-HQ-OAR-2016-0004-2721-A1 p.19]

Coalition for Renewable Natural Gas et al.

It is certainly our intention to support cellulosic biofuel developers and help them all become successful producers under the RFS. However, given the history of production from cellulosic biofuel sources, we agree that EPA’s methodology does a reasonable job at projecting production with a neutral aim at accuracy. [EPA-HQ-OAR-2016-0004-1732-A1 p.5]

CountryMark

It is also noted in the Preamble that EPA’s projection for 2017 cellulosic biofuel production relies primarily on CNG/LNG derived from biogas. CountryMark does not have the infrastructure to purchase, produce, sell, or distribute CNG/LNG-based products in its fuel distribution system. CountryMark’s position is that the 2017 volume and percentage mandates should be frozen at 2016 levels until liquid cellulosic biofuel production is sufficient to meet the

overall volume requirements without having to rely on biogas. If greater volumes of cellulosic biofuels more reliably enter the liquid fuels markets, producers of these products will generate RINs to better supply the market place, and will accrue profits for their ability to do so, but thus far cellulosic biofuels have yet to be produced in any significant volumes. [EPA-HQ-OAR-2016-0004-1826-A1 p.6]

To improve the sustainability of the RFS Program, CountryMark's key recommendations are listed below:

“ Limit the volumetric and percentage growth mandates of Cellulosic and Advanced Biofuels until these fuels become more prevalent in the marketplace. It is recommended that 2017 requirements be reverted to match 2016 requirements. [EPA-HQ-OAR-2016-0004-1826-A1 p.15]

DuPont Industrial Biosciences

While DuPont is generally supportive of the methodology that EPA chose for the proposed and final 2016 volumes and the proposed 2017 volumes, we believe that EPA could improve on the approach. Specifically, EPA's approach separates facilities into two major categories: (1) those facilities without consistent commercial scale production; and (2) facilities with consistent commercial scale production. EPA then applies a discount, 75% for the first category and 50% for the second category. By applying an across-the-board, one-size-fits-all discount to each facility, this approach does not take a facility-by-facility approach for projecting what each individual plant will produce. We believe that a summation of projections from each facility would yield a more accurate projection of fuel volumes. [EPA-HQ-OAR-2016-0004-1827-A1 p.9]

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 2017 and future years for new and existing facilities coming on-line. [EPA-HQ-OAR-2016-0004-1827-A1 p.9]

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-2016-0004-1827-A1 p.9]

DuPont Industrial Biosciences et al.

While we are generally supportive of the methodology that EPA chose for the proposed and final 2016 volumes and the proposed 2017 volumes, we believe that EPA could improve on the approach. Specifically, EPA's approach separates facilities into two major categories: (1) those facilities without consistent commercial scale production; and (2) facilities with consistent commercial scale production. For each facility, EPA calculates a "high-end" production estimate for 2017 based on a number of factors. For the first category, EPA then discounts the high-end estimate by 75% to come up with a 2017 projection. For the second category, EPA averages the actual RIN production over the 12 months prior to the proposal with the high end estimate for 2017 to come up with a 2017 projection. By applying this uniform methodology with respect to each category of facility, EPA does not adequately take into account facility-by-facility circumstances that greatly affect the likelihood that the "high-end" or even greater production levels can be achieved in 2017. We urge EPA to defer to the technical expertise of the cellulosic ethanol and biogas manufacturers including plant operators and engineers in their respective volume projections, while using EPA staff expertise and judgment on a facility-by-facility basis to examine what the likelihood of high-end or greater production will be for 2017. While predicting the future is difficult, this approach will result in the closest projection of what will actually happen in 2017 and future years for new and existing facilities coming on-line. [EPA-HQ-OAR-2016-0004-1824-A1 p.4]

We are also concerned that EPA has underestimated the production volume for biogas for 2017. Given the nature of the CNG/LNG industry, we recognize that the amount of biogas that will be dedicated to the transportation sector is not easy to predict. However, the Coalition for Renewable Natural Gas conducted such an analysis and provided it to EPA in a March 2016 letter. The Renewable Natural Gas Coalition's fuel projection for biogas for 2017 is approximately 376 million gallons. We believe this should be the starting point for setting the 2017 cellulosic biofuel volumes. We offer this approach because biogas will comprise the overwhelming majority of the total cellulosic volumes and the projection from the Coalition for Renewable Natural Gas significantly exceeds the 284 million gallons that EPA proposed for 2017. Since biogas technology has been adequately demonstrated, we believe that EPA's approach is overly conservative. [EPA-HQ-OAR-2016-0004-1824-A1 p.4]

ExxonMobil

With respect to cellulosic standards, ExxonMobil urges EPA to lower its production estimates and rely more heavily on demonstrated production in order to satisfy the mandate of the U.S. Court of Appeals for the DC Circuit to take neutral aim at accuracy in setting cellulosic standards. [EPA-HQ-OAR-2016-0004-1870-A1 p.2]

Marathon Petroleum Corporation (MPC)

In the NPRM EPA proposes 312 million of cellulosic RINs roughly split as 27 million from cellulosic ethanol and 285 million from biogas. Every compliance year since the beginning of RFS2, the EPA has overestimated the actual production of cellulosic biofuel by anywhere between 86 and 100%. Yet, EPA did not adjust its methodology for 2017 to account for its consistent past overestimations. The cellulosic industry is in the early stages of commercialization, which makes predictions of future performance fraught with large errors. To

avoid the errors, we propose that EPA use actual historical performance to predict future production until such time that the cellulosic industry becomes established. [EPA-HQ-OAR-2016-0004-1806-A1 p.7]

In support of our concern regarding the uncertainty in cellulosic supply, we would ask the agency to review the rules for prior years and note the wild fluctuations in volumes and suppliers. Many of the suppliers that EPA had counted upon are no longer in business and/or had never produced volumes at the levels they had promised. It seems that every year, EPA significantly revises the supplier list. Thus, cellulosic volumes should be based on established production, not aspirational goals for production. [EPA-HQ-OAR-2016-0004-1806-A1 p.7]

Response:

EPA received many comments on our methodology for projecting cellulosic biofuel production in 2017. These comments conveyed a wide range of views on the methodology used, with some commenters claiming the methodology was inappropriately conservative and should rely more heavily on information from potential cellulosic biofuel producers, others that it was overly optimistic and should rely more heavily on historical cellulosic biofuel production data, and yet others claiming it was generally appropriate. We believe that in light of the diversity views on EPA's methodology, the lack of a consensus on how the methodology should be adjusted, and the reasonably accurate projections produced using this methodology in 2015 and 2016,⁵¹ it is appropriate to use the methodology from the proposed rule to project cellulosic biofuel production in 2017 in this final rule. We will continue to monitor the accuracy of the projections of cellulosic biofuel production using this methodology, and anticipate making adjustments to the methodology where appropriate. Each of the issues raised by commenters on the methodology used to project cellulosic ethanol production in 2017 is discussed further below.

One commenter claimed that EPA had impermissibly underestimated likely cellulosic biofuel production in 2017 in our proposed rule. The commenter claimed that EPA's methodology relied too heavily on historical production volumes, and objected to the discounting of the facility-specific production volumes calculated by EPA for use as the high end of the potential range of production. EPA disagrees with the commenter, and believes that historical production volumes of cellulosic biofuels provide a relevant piece of information in projecting likely production volumes in the following year. We note that while we believe the high end of the range calculated by EPA for each company (or group of companies in the case of CNG/LNG derived from biogas) is appropriate, few companies have successfully achieved this level of production in previous years. It is important, therefore, to consider experience in previous years in projecting cellulosic biofuel volumes for 2017. Failure to do so, either through the use of discounting factors or some other means, would very likely result in an unreasonably high projection of cellulosic biofuel production in 2017. We believe the methodology used in this rule

⁵¹ See "Assessment of the Accuracy of Cellulosic Biofuel Production Projections in 2015 and 2016", memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2016-0004.

resulted in a reasonably accurate projection of cellulosic biofuel production in 2015 and 2016, and is therefore appropriate for use in 2017.⁵²

A commenter also requested that potential cellulosic volumes from pending pathway applications be included in our projection for 2017. 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.⁵³

A commenter suggested that EPA establish cellulosic biofuel standards by making a good faith estimate of cellulosic biofuel production in our annual rule, and then re-setting the volume equal to the actual supply of cellulosic biofuel RINs after the end of the year, when the actual volume supplied in the year is known. The commenter suggested that with such an approach EPA could avoid making cellulosic waiver credits available to cover the situation where sufficient physical volume is not produced to match the projection-based standard. EPA does not believe this would be a reasonable approach to establishing the cellulosic biofuel standard for several reasons. First, to the extent that the commenter is suggesting that EPA could re-set the cellulosic standard at the end of the compliance year through use of its general waiver authority,⁵⁴ EPA notes that a such a waiver may only be issued after notice and opportunity for comment. The additional process requirements and time required for such an approach would be unwieldy, especially in the context of an annual rulemaking process to establish volume requirements for the succeeding year. Furthermore, it would necessarily set back the compliance demonstration deadline for the cellulosic standards, further complicating implementation of the program. We also believe that such a process may hinder the development of cellulosic biofuels, since it could lead obligated parties to delay the purchase of cellulosic biofuel (and/or cellulosic biofuel RINs) until after the “re-set” following the compliance year when they would know with certainty their cellulosic biofuel obligations. Finally, we note that even if we did set the cellulosic biofuel standard in the manner requested by the commenter, EPA would still be required to offer cellulosic waiver credits if the initial standard (set using EPA’s cellulosic waiver authority) was lower than the statutory requirement for cellulosic biofuel in any year. Thus the approach is not a viable approach to avoid the issuance of cellulosic waiver credits.

Two commenters stated that EPA’s cellulosic biofuel standard must be based on the estimate received from EIA, and that if it differs from EIA’s estimate this difference must be explained. EIA’s estimate, including a comparison to EPA’s cellulosic biofuel standard for 2017 and a discussion of the differences can be found in Section III.C of the preamble. This commenter also stated that because RIN generation in 2016 was falling short of the generation rate needed to meet the cellulosic biofuel requirement in 2016 EPA should not raise the requirement significantly in 2017. We disagree with this assessment of RIN generation relative to the cellulosic biofuel standard to date in 2016. We believe that the available data suggest that the

⁵² See “Assessment of the Accuracy of Cellulosic Biofuel Production Projections in 2015 and 2016”, memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2016-0004.

⁵³ We also note that very few of the facilities for which cellulosic pathway petitions have been submitted for consideration would be in a position to produce fuel in 2017 even if their petitions were approved in the very near future.

⁵⁴ If EPA uses the cellulosic waiver authority to reduce the required volume of cellulosic biofuel the Clean Air Act directs EPA to make cellulosic waiver credits available

cellulosic biofuel standard for 2016 can be achieved, and that this provides support for using the same methodology in this final rule as we used in 2016.⁵⁵ Use of this methodology with the information available relative to likely cellulosic biofuel producers in 2017 results in a significantly higher projection of cellulosic biofuel production in 2017 relative to 2016. We disagree that this methodology is excessively subjective or unclear, and believe this increase is supported by the data presented in this rule. We further believe that while we have taken care to appropriately protect confidential business information, we have been sufficiently transparent with the data on which we have relied to allow for meaningful comment on our projections.

A commenter objected to several elements of EPA's cellulosic biofuel production methodology, including the acceptance of producers' projected start-up dates, six month ramp-up period, low end of the range calculations, and percentile values used within a projected range. After reviewing these comments, we do not believe they provide sufficient justification to modify these elements of our projection methodology. Contrary to the commenter's claims, EPA does not unquestioningly accept producers projected start-up dates, but rather considers relevant information such as project funding and progress towards construction completion in assessing the reasonableness of the projected start-up dates. It is true that since EPA has adopted this methodology several companies have failed to meet their anticipated start-up dates, however this is precisely why EPA has devised a methodology that uses projected production ranges and assumes the start-up dates are achieved and production is ramped up within 6 months only in a scenario representing the upper end of the production range. We also assess a value corresponding to a much more conservative lower end of the range (based on the production history of each facility), and then take a value from within this range that reflects the facility's history of production and whether it is using an established technology (biogas-to-CNG/LNG) or a less well understood approach with greater technology risk (liquid cellulosic biofuel production). We also believe the experience of Quad County Corn Processors, which achieved full production rates in approximately six-months justifies the use of this time period in calculating the high end of the range. We note that while many companies have failed to achieve full production rates within six months of their projected start-up, the primary challenges have been with technology failure and/or start-up delays rather than unreasonably optimistic ramp-up periods. Contrary to the commenters claim we have not ignored the possibility that any individual facility will produce a lower volume of fuel in 2017 than in the previous 12 months. We believe that it is unlikely that any of the facilities included in our projection will produce significantly less cellulosic biofuel in 2017 than they have in the previous 12 months. There may be cases where decreases in production are more likely, such as financial or legal difficulties or planned facility shut-downs for maintenance or upgrades. While this is not the case for any of the facilities EPA projects will produce cellulosic biofuel in 2017, we anticipate that we would use a lower value for the low end of the range in such situations. We believe that any impact on our overall cellulosic biofuel production projection that would result from a facility producing significantly less cellulosic biofuel in 2017 than in the previous 12 months is off-set by the possibility that a facility not included in our projection will produce cellulosic biofuel in 2017, or that a facility that we have considered will achieve production that exceeds the high end of the projected production range. Further, we believe that setting the low end of the potential production range to zero for all liquid cellulosic biofuel producers would negatively bias our

⁵⁵ See "Assessment of the Accuracy of Cellulosic Biofuel Production Projections in 2015 and 2016", memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2016-0004.

projection methodology, and note that overall cellulosic biofuel production, as well as liquid cellulosic biofuel production, has increased each year since 2014.

Finally, the commenter argues that EPA should use much lower percentile values to project liquid cellulosic biofuel production within the projected ranges based the utilization rates of cellulosic biofuel production facilities from 2010-2015. We do not believe it is appropriate to use a percentile value within our calculated ranges based solely or primarily on the average utilization rate achieved by cellulosic biofuel producers considered by EPA in previous annual rules, as EPA used different criteria to determine which facilities to include in our projections as well as a different projection methodology in these years.⁵⁶ While we acknowledge that our projection methodology over-estimated production from new liquid cellulosic biofuel producers in 2015 and appears likely to overestimate production from these facilities in 2016, we believe our methodology should ultimately be evaluated on its ability to reasonably project overall cellulosic biofuel production in a given year.⁵⁷ Based on data from 2015 and 2016 we believe that our projection methodology accomplishes this task with reasonably accuracy. We also note that as the cellulosic biofuel industry develops and becomes less reliant on first-of-a-kind facilities, we anticipate that our projections will become even more reliable, and that percentile values based on first-of-a-kind facilities will become less relevant.

A commenter also objected to EPA's projection of CNG/LNG derived from biogas, claiming that our estimation made several invalid assumptions. EPA disagrees. EPA has taken each of the considerations noted by the commenter into account in our projection of RINs generated for CNG/LNG derived from biogas. The commenter claimed less than 8% of landfills are currently producing high BTU biogas that can be upgraded and used as transportation fuel, implying that this could limit cellulosic biofuel production from CNG/LNG derived from biogas in 2017. The 8% of landfills currently producing high BTU biogas, however, produce far more biogas than we are projecting will be used as transportation fuel and will generate cellulosic biofuel RINs 2017, and we therefore do not believe the number of landfills producing high BTU biogas will be a limiting factor in the number of cellulosic biofuel RINs generated for CNG/LNG derived from biogas in 2017. Further, the facilities capable of producing high BTU biogas are very likely located near natural gas pipelines, as the production and upgrading of high BTU biogas is most often done with the intention of injecting the biogas into a natural gas pipeline. 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,

⁵⁶ In projecting cellulosic biofuel production prior to 2014 EPA considered pilot and demonstration scale cellulosic biofuel production facilities, as well as facilities that required significant advances in the construction, modification, and/or funding of their facilities to enable cellulosic biofuel production. We have not included facilities in these situations in this rule. Further, in years prior to 2014 EPA did not use a range methodology that considered both the production history of individual facilities over the last 12 months for which data was available along with the production projection from the individual facilities.

⁵⁷ See "Assessment of the Accuracy of Cellulosic Biofuel Production Projections in 2015 and 2016", memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2016-0004.

and would not be a neutral projection. In reviewing the available production data for CNG/LNG derived from biogas in 2015 and 2016, we find that the methodology suggested by the commenter (simply using past production rates to project production rates in the future) significantly underestimated cellulosic RIN generation for CNG/LNG derived from biogas in 2017, and would therefore not be appropriate.

One commenter objected to EPA's cellulosic biofuel production methodology because it results in a volume comprised primarily of CNG/LNG derived from biogas, which the commenter is not able to purchase, produce, sell, or distribute. The commenter requests that the 2017 requirement for cellulosic biofuel be set at the 2016 required volume. We do not believe that the fact the commenter is unable to purchase, produce, sell, or distribute CNG/LNG derived from biogas is sufficient justification for finalizing a cellulosic biofuel requirement equal to the 2016 required volume in light of our projection that a greater volume of cellulosic biofuel will be produced in 2017. The RIN system was designed to enable compliance with the RFS standards by parties that are unable or unwilling to obtain RINs through blending renewable fuels. The commenter provided no indication that they would be unable to comply with the proposed cellulosic biofuel requirements in 2017. Furthermore, EPA is making cellulosic waiver credits available for 2017, as required by statute.

Some commenters, while generally supporting the approach to projecting cellulosic biofuel production in the proposed rule, suggested that rather than project production volumes for groups of companies EPA should project production volumes from individual facilities and then sum these projections to project cellulosic biofuel production across the cellulosic biofuel industry. They recommended that EPA defer to the technical expertise of the cellulosic biofuel manufacturers or EPA staff to determine a likely production volume from each facility, and that projections could be improved by focusing on committed funding, committed feedstock and catalyst supplies, and the project sponsors' experience with pilot-scale facilities. EPA disagrees that projecting precise production volumes from individual facilities would result in a more accurate overall cellulosic biofuel production projection. Each year, EPA has requested volume projections from project developers and these estimates have consistently proved to be overly optimistic. In recent years EPA has placed special emphasis on many of the factors suggested by the commenter, yet the accuracy of the production estimates provided by project developers have not significantly improved. While EPA believes we have gained sufficient experience to allow us to project likely production from broadly similar groups of companies, based in part on facility-specific information, we do not believe that our projections would improve through using a more individualized assessment approach. We therefore believe the methodology used in this rule, which proved reasonably accurate in projecting cellulosic biofuel volumes in 2015 and 2016, is preferable to the methodology suggested by these commenters.⁵⁸

EPA received comments expressing concern that we had underestimated the likely production of CNG/LNG derived from biogas in 2017. These commenters noted that the projection provided by the Coalition for Renewable Natural Gas (CRNG) was significantly higher than the volume projected by EPA in 2017. While this is the case, we believe our experience in 2014-2016, where the number of cellulosic RINs generated for CNG/LNG derived from biogas was substantially

⁵⁸ See "Assessment of the Accuracy of Cellulosic Biofuel Production Projections in 2015 and 2016", memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2016-0004.

lower than the number projected by the CRNG indicates that our approach to discounting projections, including those we received from CRNG, is appropriate. Discounting these projections in the way described in this final rule resulted in reasonably accurate cellulosic biofuel RIN generation projections in 2015 and 2016.⁵⁹ We also note that we received comments directly from the CRNG stating that they believed the methodology used in this final rule “does a reasonable job at projection production with a neutral aim at accuracy”.

One commenter requested that EPA lower our projection and rely more heavily on demonstrated production. As stated in previous rules, we do not believe it would be appropriate to adopt a methodology that relied exclusively or excessively on RIN generation volumes in previous years to project likely future production, especially in an emerging industry. We believe the methodology used in this final rule appropriately considers previous RIN generation data, and has reasonably projected cellulosic biofuel production in previous years.

A commenter requested that EPA adjust our methodology for projecting cellulosic biofuel projection, claiming that EPA had overestimated cellulosic biofuel production every year by 86%-100%. This is not accurate. From 2010 – 2013 EPA’s projections of cellulosic biofuel production exceeded the volume produced in these years. In response to these overestimates, EPA revised our projection methodology.⁶⁰ This revised projection methodology was used for the first time to project cellulosic biofuel production in 2015 and 2016. In 2015 this new methodology underestimated cellulosic biofuel production, and we believe that available data to-date suggest that the projection methodology will produce reasonably accurate results in 2016.⁶¹ EPA therefore believes we are justified in using this methodology to project cellulosic biofuel production in 2017.

5.3 Proposed cellulosic biofuel standard

Comment:

Adler's Antique Autos

EPA's assumptions, under review, appear overly optimistic, especially in advanced biofuels. Many of the pilot projects involving cellulosic biofuels listed in the February 2013 proposed rule have not scaled up to commercial volumes, and many more of these companies have gone out of business. [EPA-HQ-OAR-2016-0004-2523 p.1]

⁵⁹ See “Assessment of the Accuracy of Cellulosic Biofuel Production Projections in 2015 and 2016”, memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2016-0004.

⁶⁰ In the rule establishing standards for 2014-2016, EPA began using a range methodology, wherein the low end of the range is based on actual production for the most recent 12 months for which data is available and the high end of the range is calculated using information from the potential cellulosic biofuel producer. Prior to 2014 EPA did not use a range method that explicitly considered production in the most recent 12 months.

⁶¹ See “Assessment of the Accuracy of Cellulosic Biofuel Production Projections in 2015 and 2016”, memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2016-0004.

American Biogas Council (ABC)

With the low proposed targets, we risk meeting the demand with supply that is already under construction, creating three key issues: [EPA-HQ-OAR-2016-0004-1692-A1 p.2]

First, meeting demand early in 2017 will crash RIN values. [EPA-HQ-OAR-2016-0004-1692-A1 p.2]

Second, in anticipation of the collapse of RIN values, producers will hold onto available gallons, keeping them off the market until they can be sold more profitably early in the next year. [EPA-HQ-OAR-2016-0004-1692-A1 p.2]

And third, the high volatility of RIN values makes investors and the finance community even more reluctant to allow RIN revenue to be included in the pro forma when evaluating a potential biogas-vehicle fuel project investment. [EPA-HQ-OAR-2016-0004-1692-A1 p.2]

Moreover, as future pathways such as biogas-to-electric vehicles, renewable hydrogen, and biointermediates pathways are finalized, additional supply will adversely affect the value of RINs and be a disincentive to additional development. While the 2017 targets are an increase of 35% from 2016, they still fall far short of the already existing production capacity these pathways represent. [EPA-HQ-OAR-2016-0004-1692-A1 p.2]

We urge the Agency to not equate “volume available” to “fuel production.” Volumes produced in any year and not used for compliance in that year, under EPA precedent, are considered “volume available” for the subsequent year. 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. [EPA-HQ-OAR-2016-0004-1692-A1 p.3]

Additionally, we urge your inclusion of prior year over production within the current year RVO. For instance, EMTS shows 140 million cellulosic biofuel RINs generated in 2015. However, the 2015 Final Rule RVO required only 123 million gallons of cellulosic biofuel. The net difference of 17 million gallons should be accounted for in future year RVOs. [EPA-HQ-OAR-2016-0004-1692-A1 p.3]

Biogas Researchers, Inc.

- Using updated information concerning RIN-generation potential resulting from the actions above, include a “reasonably achievable supply” of RFS-qualified renewable electricity in the finalized 2017 cellulosic biofuel RVO. [EPA-HQ-OAR-2016-0004-1650-A1 p.3]

Biomass Power Association

despite this finding and a successful D3 Petition in 2014, EPA continues to ignore the potential to generate D3 RINs from electricity derived from cellulosic feedstocks. [EPA-HQ-OAR-2016-0004-1803-A1 p.1]

Although biomass power has yet to be analyzed, BPA strongly believes that such fuel will meet the requirements of a D3 Code. Based on current estimates, approximately 2200MW of grid connected biomass is available, and represents more than 765,000,000 additional D3 RINs. Between biogas and biomass to electricity, actual and potential production of qualifying D3 RINs exceeds 1.4 billion gallons. [EPA-HQ-OAR-2016-0004-1803-A1 p.2]

None of these RINS appear in EPA's 2017 volume projection, despite that (1) renewable electricity is recognized by statute and the Agency's 2010 Rule (2) has qualified as a D3 RIN since 2014 (3) and is available in all 50 states and in volumes that far exceed actual use. [EPA-HQ-OAR-2016-0004-1803-A1 p.3]

Chevron

Chevron generally agrees with EPA's assessment of the potential volumes of cellulosic biofuels that may be available to the market in 2017. However, it appears that not all of the available cellulosic fuel that is being produced is actually being used to generate RINs under the RFS. [EPA-HQ-OAR-2016-0004-1684-A1 p.3]

The primary source of cellulosic RINs since 2014 has been renewable natural gas (RNG). We generally agree with EPA's estimate of available renewable natural gas which could reach 284 million gallons, the forecast amount from the 2017 NPRM. However, renewable natural gas has other uses in the marketplace such as the generation of renewable power which does not generate a RIN. In addition, RIN generation from renewable natural gas requires a demonstration of use in a vehicle fleet, accompanied by commercial agreements and extensive recordkeeping. Because of this, it appears that RIN generation is lagging the volume of renewable natural gas that is currently available for this purpose. Thus, EPA's 2017 forecast in regards to the RFS cellulosic volume mandate is over-estimated. [EPA-HQ-OAR-2016-0004-1684-A1 p.3]

To acknowledge the current rates of RIN generation from renewable natural gas plus a modest volume of liquid cellulosic fuels, Chevron recommends a cellulosic volume standard of 200 million gallons. This is consistent with the recommendation from API and AFPM. [EPA-HQ-OAR-2016-0004-1684-A1 p.3]

Coalition for Renewable Natural Gas et al.

EPA is obligated to follow the court rulings that speak directly to the Agency's administration of the RFS. EPA is required by court order to employ a "neutral methodology"⁴ that is a "prediction of what will actually happen"⁵ when setting future year RVOs. We agree that the proposed 2017 cellulosic biofuel volume requirement is based on a projection of production, as known to EPA at the date of publication, that reflects a reasonable aim at accuracy. [EPA-HQ-OAR-2016-0004-1732-A1, pp.3-4]

As EPA has done with prior year RVOs, it is critical that the 2017 RVO Final Rule consider new production data as it becomes available. We sympathize that determining future year production is akin to hitting a moving target. Already we are seeing actual and viable projects surface which were not readily known as of the publication of this Draft Rule. Your adjustments up until, and potentially after, publication of the Final Rule are essential to ensuring a strong program. We thank you for your prior commitments to incorporate this newly available data, especially since incorporation will likely result in a higher cellulosic biofuel RVO. [EPA-HQ-OAR-2016-0004-1732-A1, pp.4-5]

We urge that “volume available” does not necessarily equate to “fuel production.” Volumes produced in any year and not used for compliance in that year, under EPA precedent^{6,7,8} and court rulings⁹, are considered “volume available” for the subsequent year. In order to take a “neutral methodology”¹⁰ that is a “prediction of what will actually happen”¹¹ with respect to “volume available,”¹² 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. [EPA-HQ-OAR-2016-0004-1732-A1, pp.5-6]

Additionally, we urge inclusion of prior year over production within the current year RVO. For instance, EMTS shows 140 million cellulosic biofuel RINs generated in 2015. However, the 2015 Final Rule RVO required only 123 million gallons of cellulosic biofuel. The net difference of 17 million gallons should be accounted for in future year RVOs. [EPA-HQ-OAR-2016-0004-1732-A1 p.6]

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, EPA should clarify that its methodology does and will include such considerations. [EPA-HQ-OAR-2016-0004-1732-A1 p.6]

4 American Petroleum Institute v. Environmental Protection Agency, No. 12-1139 (C.A. D.C., Jan. 25, 2013), at 10.

5 Id.

6 In the 2010 RFS2 Final Rule EPA noted that “it is ultimately the availability of qualifying renewable fuel, as determined in part by the number of RINs in the marketplace...”. EPA further noted “These 2009 and 2010 RFS1 RINs will be available and can be used towards volume requirements of obligated parties.” 75 Fed. Reg. 14,698 (March 26, 2010).

7 In the 2015 NPRM, EPA reiterated its approach that carryover RINs represent a component of available volume. “We believe that the availability of this full volume of carryover RINs will be

important for both obligated parties and the RFS program itself in addressing significant future uncertainties.” 80 Fed. Reg. 33, 130 (June 10, 2015).

8 It should be noted that, in the 2015 NPRM, EPA’s rationale for not including carryover RINs in the D6 RIN applicable volume was not because such RINs were not available volume for compliance, but rather that they were needed to avoid the risk of supply shortages and possible harm to the economy. In the case of cellulosic biofuels, the statute prescribes an alternative method to prevent harm – the Cellulosic Waiver Credit – which is a built in relief valve to price impacts of volume shortages. Accordingly, EPA would have no basis for rejecting the inclusion of projected cellulosic biofuel carryovers as “available volume”.

9 *Monroe Energy v. Environmental Protection Agency*, No. 13-1265 (D.C. Cir. 2014), at 12. The D.C. Circuit indicated it was appropriate for EPA to consider the availability of carryover RINs when determining whether supply was adequate for the purposes of the general waiver authority. “EPA reasonably concluded that ‘the availability of carryover RINs was certainly relevant... to volume requirement.’”

10 *American Petroleum Institute v. Environmental Protection Agency*, No. 12-1139 (D.C. Cir., Jan. 25, 2013), at 10.

11 *Id.*

12 CAA 211(o)(7)(D)(i).

DuPont Industrial Biosciences

DuPont is concerned that EPA has underestimated the production volume for biogas for 2017. Given the nature of the CNG/LNG industry, we recognize that the amount of biogas that will be dedicated to the transportation sector is not easy to predict. However, the Coalition for Renewable Natural Gas conducted this analysis and provided it to EPA in a March 2016 letter. The Renewable Natural Gas Coalition’s fuel projection for biogas for 2017 is approximately 376 million gallons. While DuPont is unable to provide feedback on whether 376 million gallons of biogas is a reasonable projection, we believe this should be the starting point for setting the 2017 cellulosic ethanol volumes with a particular focus on facilities that have already generated RINs. For those locations that have already generated RINs and have a production history, a 75% reduction in their individual production level may not be warranted. We offer this approach because biogas will comprise the overwhelming majority of the total cellulosic ethanol volumes and the projection from the Coalition for Renewable Natural Gas significantly exceeds the 284 million gallons that EPA proposed for 2017. [EPA-HQ-OAR-2016-0004-1827-A1 p.10]

DuPont Industrial Biosciences et al.

Accurately projecting biogas volumes combined with an EPA effort to develop a more detailed interview process for D3 producers would improve the accuracy for projecting cellulosic ethanol volumes. [EPA-HQ-OAR-2016-0004-1824-A1 p.4]

Independent Fuel Terminal Operators Association (IFTOA)

However, based on (1) past and 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 2017 is too high and not a realistic projection. Therefore, EPA should “discount” its estimates of cellulosic biofuel to reflect the difficulties and ongoing uncertainties that face this industry. The mandate should be reduced accordingly. [EPA-HQ-OAR-2016-0004-1823-A1 p.4]

PBF Energy LLC

EPA is still showing aspirational cellulosic standards for 2017 given the current production of cellulosic biofuels annualized is less than about half of the 2017 proposed requirement. However, statutory requirements require obligated parties to use or pay for these RINs, despite being unavailable in the marketplace. [EPA-HQ-OAR-2016-0004-2692-A1 p.6]

Phillips 66 Company

The vast majority of the cellulosic volumes has been, and is projected to be, from landfill biogas converted to CNG or LNG. The table below shows the regulatory standards, the current EMTS volumes, and potential shortfall in 2016. [EPA-HQ-OAR-2016-0004-1807-A1 p.2]

[Table can be found on p.2 of this docket]

The 2017 volumes are more aggressive than the 2016 volumes. If the production falls short in either 2016 or 2017 or both, obligated parties will be forced to purchase cellulosic waiver credits from the EPA. These credits are only applicable to the cellulosic standard, not the total advanced or total renewable volumes. This results in an increase in the “other advanced” volume that obligated parties must meet. Given the system constraints on increasing ethanol volumes into the gasoline supply, this leaves obligated parties the option of blending biomass-based diesel in excess of the standard, the purchase or use of banked RINs (if the obligated party has any) or deficit carry-over. [EPA-HQ-OAR-2016-0004-1807-A1 p.2]

Response:

EPA received many comments on our projection of cellulosic biofuel production in 2017. These comments conveyed a wide range of views on the projection, with some commenters claiming our projection was too low, others that it was too high, and yet others claiming it was generally appropriate. We believe that in light of the diversity views on our projection of cellulosic biofuel production in 2017 and the reasonably accurate projections produced using this methodology in 2015 and 2016,⁶² it is appropriate to use a projection using the same methodology as in 2015 and 2016 in this final rule. We will continue to monitor the accuracy of the projections of cellulosic biofuel production, and anticipate making adjustments to the methodology where appropriate.

⁶² See “Assessment of the Accuracy of Cellulosic Biofuel Production Projections in 2015 and 2016”, memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2016-0004.

Each of the comments on our projection of cellulosic biofuel production in 2017 is discussed further below.

One commenter claimed that EPA's assessment of projected cellulosic biofuel production appeared overly optimistic, and cited the failure of projects cited in the 2013 NPRM to scale up to commercial scale as support for their claim. EPA has adjusted our methodology for projecting cellulosic biofuel production since the 2013 NPRM.⁶³ Additionally, in 2014 EPA finalized a pathway allowing CNG/LNG derived from biogas to generate cellulosic biofuel RINs, significantly increasing the production of cellulosic biofuels in the United States. We believe that RIN generation data from 2015 and 2016 demonstrate that this new methodology produces reasonably accurate projections and is appropriate for use in this final rule (for a further discussion of comments on the methodology for projection cellulosic biofuel production in 2017 see response in Section 5.2.3 of the RTC).

A commenter raised concerns that the proposed cellulosic biofuel volumes could be met with supply from facilities that are already under construction. The commenter claimed that this could have negative impacts on the market for cellulosic biofuels and cellulosic RINs, especially if cellulosic RIN generation met or exceeded the required volume of cellulosic biofuel for 2017 early in the year. We acknowledge that all of the production is expected to come from facilities that are already producing cellulosic biofuel or are currently under construction. We believe this is appropriate, as facilities that have not yet begun construction are highly unlikely to generate cellulosic biofuel RINs in 2017. We also believe it is highly unlikely that the 2017 requirements will be met early in the year. The required volume of cellulosic biofuel for 2017 is approximately 35% higher than the required volume for 2016, and EPA has no information to suggest that the cellulosic biofuel industry is capable of generating the required 311 million cellulosic biofuel RINs in the first half of 2017. If cellulosic biofuel production exceeds the required volume in 2017 we believe the market reaction would be similar to 2015, where RIN generation exceeded the cellulosic biofuel standard. In 2015 we saw no evidence of the crashing RIN values, withheld production, or RIN volatility feared by the commenter, and we do not believe these activities are likely to occur in 2017.

Multiple commenters requested that EPA use updated information concerning RIN-generation potential in our final rule. EPA has updated all relevant information used in projecting cellulosic biofuel production in this final rule.

A commenter stated that they generally agreed with EPA's assessment of cellulosic biofuel production in 2017, but they believed that RIN generation for CNG/LNG derived from biogas would be lower than projected by EPA due to demand in non-transportation sectors and challenges associated with verifying the use of CNG/LNG as transportation fuel. As discussed in more detail in Section 5.2.3 of the RTC, EPA has taken competing demand for CNG/LNG derived from biogas and challenges associated with verifying the use of this fuel as

⁶³ In the rule establishing standards for 2014-2016, EPA began using a range methodology, wherein the low end of the range is based on actual production for the most recent 12 months for which data is available and the high end of the range is calculated using information from the potential cellulosic biofuel producer. Prior to 2014 EPA did not use a range method that explicitly considered production in the most recent 12 months.

transportation fuel into account in our projections. We believe data to date suggests that our projection methodology resulted in a reasonable projection of cellulosic biofuel RIN generation in 2016, and underestimated cellulosic biofuel RIN generation in 2015.⁶⁴ We note that the volume of cellulosic biofuel recommended by this commenter is significantly lower than the volume expected to be generated in 2016, and would project no growth in the production of cellulosic biofuels in 2017. We do not believe such a projection reflects the expected growth in the cellulosic biofuel industry.

A commenter raised concerns that EPA had underestimated likely production from CNG/LNG derived from biogas in 2017. They specifically questioned EPA's use of a 75th percentile value (which the commenter mischaracterized as a "75% reduction") for facilities that have generated RINs in previous years. While we recognize that projections made by CNG/LNG producers and submitted to EPA by the CRNG represent good faith estimates, we note that such projections have consistently exceeded actual RIN generation. We therefore do not think it would be appropriate to simply use these estimates to project likely cellulosic biofuel RIN generation in 2017. We note that in their comments the CRNG supported EPA's methodology, including the use of these percentile values, and that this methodology resulted in reasonably accurate projections in 2015 and 2016.

Several commenters generally claimed the cellulosic biofuel projections in our proposed rule were too high. Some noted the uncertainties related to these projections as well as the fact that the cellulosic biofuel projection for 2017 exceeds the current rate of production of cellulosic biofuel. Some parties claimed this was especially problematic as obligated parties would be required to purchase RINs (or cellulosic waiver credits) even if the cellulosic biofuel standard exceeds actual production of cellulosic biofuel in 2017. We do not believe these comments provide sufficient justification for altering EPA's projection methodology for cellulosic biofuel production in 2017, especially as this methodology resulted in reasonably accurate projections of cellulosic biofuel production in 2015 and 2016.⁶⁵

Multiple commenters requested that EPA project the available carryover RINs due to excess cellulosic RIN generation and/or cellulosic waiver credits in previous years and add these RINs to our projection of cellulosic biofuel production in 2017 to determine the cellulosic biofuel requirement in 2017. This issue is discussed in Section III.D of the preamble.

Several commenters requested that EPA consider cellulosic biofuel RINs generated for electricity used as a transportation fuel, and increase our projection of cellulosic biofuel production in 2017. This issue is discussed in Section 5.2 of the RTC document.

⁶⁴ See "Assessment of the Accuracy of Cellulosic Biofuel Production Projections in 2015 and 2016", memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2016-0004.

⁶⁵ See "Assessment of the Accuracy of Cellulosic Biofuel Production Projections in 2015 and 2016", memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2016-0004.

6. Percentage standards

Comment:

CountryMark

CountryMark recommends adjusting the RF percentage blend standard to at least the 2016 10.1% standard. [EPA-HQ-OAR-2016-0004-1826-A1 p.8]

Response:

We do not believe it would be appropriate to set the applicable percentage standard for total renewable fuel in 2017 to the same level established for 2016. We believe the methodology we have used to derive the total renewable fuel standard for 2017 reflects an appropriate use of our waiver authority, for the reasons described in the final rule. Briefly, we have used the cellulosic waiver authority to reduce the advanced biofuel volume for 2017 to a level that is reasonably attainable and appropriate. Providing an equal volume reduction for the total renewable fuel applicable volume results in a volume requirement that we have determined is reasonably attainable. Although the volume requirements for 2017 are higher than for 2016, such growth is consistent with the objectives of the program.

7. Other comments

7.1 Outlook for 2018 and beyond

Comment:

Action Aid et al.

[III] Comprehensive Assessment of RFS Mandates through “Reset” Provision

As the advanced and total renewable volume targets set by Congress in 2007 become increasingly unreachable, EPA must consider all legally sound, environmentally protective, and socially responsible options for establishing a more rational and realistic set of annual volume requirements going forward. The “reset provision” outlined in Clean Air Act sections 211(o)(7)(F) (establishing the trigger for multiyear volume adjustments) and 211(o)(2)(B)(ii) (listing six factors the Agency must analyze when making such adjustments) will play a critical role in this process. [EPA-HQ-OAR-2016-0004-1801-A1 p.7]

Action Aid USA & The Hunger Project

there are potential land rights implications of breaking the so-called blend wall. [EPA-HQ-OAR-2016-0004-1817-A1 p.3]

We are concerned that the market will respond with increasing use of conventional biodiesel from palm oil, and the resulting land and environmental risks this poses. [EPA-HQ-OAR-2016-0004-1817-A1 p.3]

Adler's Antique Autos

In future years the increases in renewable fuel volume graph to a straight-line slope. This works during an economic expansion, but at some point before 2022 when the program is fully mature, there's high probability of an economic recession. [EPA-HQ-OAR-2016-0004-2523 p.1]

Advanced Biofuels Association (ABFA)

We also feel it is important for EPA to embark on the studies, required under Sec. 202(b)(B)(ii) of the EISA, concerning the impact that the RFS program has had on the environment, energy security, distribution infrastructure, etc., in order for EPA to be prepared to issue the 2023 volumetric requirements on a timely basis, i.e. at least by November 2021. [EPA-HQ-OAR-2016-0004-1831-A1 p.10]

American Biogas Council (ABC)

As stated above, one of the issues most affecting project financing is certainty and predictability. There is much speculation about the future of the RFS after 2022. The ABC urges the EPA to ensure that Congress and other decision makers understand that the program does not sunset in 2022. [EPA-HQ-OAR-2016-0004-1692-A1 p.4]

Biotechnology Innovation Organization (BIO)

Beginning a process of potentially “resetting” (or “off-ramping”) the remaining years in the entire statutory table of fuel volumes for a category of fuels would eliminate the certainty that Congress provided in enacting the table into law. [EPA-HQ-OAR-2016-0004-2721-A1 p.12]

A desire or intention to trigger the (7)(F) waiver simply is not relevant to the legal criteria for triggering the provisions governing either of these statutory waivers, even assuming that EPA’s interpretation of its waiver authority is correct. At the same time EPA’s interest in avoiding reset, and in avoiding reset’s destabilizing consequences for Congress’s goals in establishing the RFS program, would be a legitimate reason for setting volume levels that would avoid beginning the reset process in 2017 or any other year [EPA-HQ-OAR-2016-0004-2721-A1 p.12]

Brazilian Sugarcane Industry Association (UNICA)

Indeed, in view of the statutory reset provisions, EPA should ensure if at all possible that the reduction of advanced biofuels from statutory levels does not again reach 20 percent in 2017, and certainly not 50 percent, which would independently trigger the statutory reset provision. [EPA-HQ-OAR-2016-0004-1698-A2 p.26]

Clean Air Task Force (CATF)

“Reset” provision: Given the criteria set forth in Clean Air Act Section 211(o)(7)(F), EPA must begin readjusting long-term RFS volumes after certain categories of biofuels in the RFS fail to meet their statutory mandates by 50% in one year or by 20% in two consecutive years. When making these adjustments, EPA is required to analyze six criteria set forth in CAA § 211(o)(2)(B)(ii), which support a more comprehensive analysis of the appropriate levels of RFS biofuel volumes in future years. [EPA-HQ-OAR-2016-0004-1804-A1 p.2]

EPA Must Consider a Comprehensive Reassessment of Long-Term RFS Mandates

As the advanced and total renewable volume targets set by Congress in 2007 become increasingly unreachable, EPA must consider all legally sound, environmentally protective, and socially responsible options for establishing a more rational and realistic set of annual volume requirements going forward. The “reset provision” outlined in CAA §§211(o)(7)(F) (establishing the trigger for multi-year volume adjustments) and 211(o)(2)(B)(ii) (listing six factors the Agency must analyze when making such adjustments) will play a critical role in this process. [EPA-HQ-OAR-2016-0004-1804-A1 p.16]

Coalition for Renewable Natural Gas et al.

Uncertainty surrounding the future of the RFS post-2022 continues to limit financing and contract commitments. We will continue to provide education about RFS and reassure decision makers that the program does not sunset in 2022. We request that EPA assist us in this effort by making clear and regular statements about the future of the program post 2022. [EPA-HQ-OAR-2016-0004-1732-A1 p.6]

National Association of Wheat Growers

Altering the RFS would impact future investments in the next generation of biofuels. Future investments in biofuels could potentially decline because of changes in the RVO and indications that the RFS is not a priority and a consistent requirement, making investors wary to extensive resources. [EPA-HQ-OAR-2016-0004-2697-A1 p.2]

Response:

Many of the comments regarding the outlook for 2018 and beyond focused on the provisions of CAA section 211(o)(7)(F), which provides for modifying the RFS volumes otherwise specified in CAA section 211(o)(2)(B), often referred to as the reset provisions. Commenters stated 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 CAA section 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 2018 or later (other than the biomass-based diesel volume requirement specifically addressed in this rule), to be beyond the scope of this rulemaking.

More generally, comments indicated the importance of setting the 2018 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 2017 in this final rule, EPA intends to remain on schedule in setting 2018 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.

Several commenters also requested that EPA clarify that the RFS program does not sunset after 2022, which is the final year of statutory volumes in the Clean Air Act. EPA agrees with commenters that the RFS program does not end after 2022, after which point EPA will establish volumes in accordance with CAA section 211(o)(2)(B)(ii). However, it is beyond the scope of this rulemaking to speculate as to the volumes that EPA may propose in the future under this provision.

7.2 Dates/deadlines

Comment:

Action Aid et al.

Some of these impacts were detailed in EPA's First Triennial Report to Congress from 2011, but even though the law requires EPA to assess biofuels' impacts on the environment every three years, a follow-up report has not been released.⁶ We urge EPA to follow the law and provide an

updated assessment to Congress given that the second report is already two years overdue. [EPA-HQ-OAR-2016-0004-1801-A1 p.3]

6 US Environmental Protection Agency. 2011. Biofuels and the Environment: the First Triennial Report to Congress (2011 Final Report). (<https://cfpub.epa.gov/ncea/biofuels/recordisplay.cfm?deid=235881>).

Advanced Biofuels Association (ABFA)

The third issue is proposing and finalizing the RVOs by the required deadlines. We are grateful that EPA has gotten the program back on track in 2015. These deadlines are essential to demonstrate the Agency's commitment to the overall program and to the individual sectors covered under the RFS. During the years in which we had no clear mandates in place, the RIN market was far less predictable and lead to a significantly negative impact on the advanced biofuels sector. For companies that already had plants in the ground and a market that demanded 10% blends of their fuels, they suffered far less. For companies that were seeking to raise capital or sustain their investments, that became an impossibility. While you have righted that ship, sustained commitment to meeting deadlines is crucial to building the next generation of biofuels. We urge you to continue to utilize the actual gallons produced under the program as the starting point for your issuance of RVOs and continue to meet the November 30th deadline under the law each calendar year. [EPA-HQ-OAR-2016-0004-1831-A1 p.9]

CHS, Inc.

as a supporter of the RFS, we strongly encourage the agency to finalize it by the statutory deadline to ensure market certainty for our businesses and our farmer-owners. [EPA-HQ-OAR-2016-0004-1612-A1 p.1]

ExxonMobil

EPA should finalize the 2017 total, advanced, and cellulosic RFS standards by November 30 and the 2018 biomass based diesel standard by October 31 to meet its statutory deadlines. [EPA-HQ-OAR-2016-0004-1870-A1 p.1]

HollyFrontier Corporation

EPA's efforts to get back on track for final rules issued by November 30 provides greater ability for the market to digest information, and for obligated parties such as HollyFrontier to plan for how to comply with volumes required. [EPA-HQ-OAR-2016-0004-2867-A1 p.1]

Response:

As addressed in the recent EPA IG report “EPA Has Not Met Certain Statutory Requirements to Identify Environmental Impacts of Renewable Fuel Standard” (Report No. 16-P-0275), EPA plans to issue a triennial report by December 31, 2017.

EPA has met the November 30 statutory deadline to set percentage standards for 2017, and plans to continue to do so in the future.

7.3 Public participation

Comment:**Lippold Strategies, LLC**

EPA should consider coordinating and engaging with relevant DOD counterparts to determine the impact of the RFS — even if only small to moderate risks — on the U.S. military. [EPA-HQ-OAR-2016-0004-1739-A1 p.6]

Response:

The RFS does not mandate any specific fuels or fuel blends, but rather lets the market determine the most appropriate means of meeting the renewable fuel standards. To this end actions by the DOD to promote the use of renewable fuels can enhance compliance with the RFS, and if there are situations for which the use of renewable fuels runs counter to DOD needs, the market can respond to these needs. Furthermore, each rulemaking action by EPA goes through an interagency review process wherein the Department of Defense can provide input, should they have concerns or suggestions, on first the draft proposal and then the draft final rule prior to their public release.

7.4 Statutory and Executive Order reviews

Comment:**George Washington University, Regulatory Study Center**

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.⁴⁰

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. [EPA-HQ-OAR-2016-0004-2687-A1 p.12]

40 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 2017 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 V.D and X.C of the final rule, and Section 3.1 of this RTC document.

Comment:

Small Refinery Owners Ad Hoc Coalition

III. SBREFA Analysis

The Small Business Regulatory Enforcement Fairness Act ("SBREFA") screening analysis included in the Proposed Rule fails to assess the impacts of the rule on small entities. Rather, EPA performed a high-level analysis of the impacts of the rule on the industry as whole without distinguishing between small and large entities.

In doing so, EPA ignored the conclusions from the DOE Study, information the agency obtained from small entities through small refinery hardship petitions, and information provided to the agency over the course of several years of meetings, correspondence and rule comments explaining the costs, vulnerabilities, and unique harms to small entities caused by the structural flaws in the rule. The Coalition is disappointed by the agency's lack of investment in the SBREFA process in this rulemaking because the members of the Coalition have so much at stake if EPA fails to fix the significant flaws in its implementing regulations.

Under SBREFA, EPA must prepare a regulatory flexibility analysis for any rule for which the Agency is required to issue a proposed rulemaking under the Administrative Procedures Act.⁴⁰ EPA may decide not to prepare a regulatory flexibility analysis if it certifies that the "rule will not, if promulgated, have a significant economic impact on a substantial number of small entities" and issues a statement providing the factual basis for such certification.⁴¹ Even where EPA certifies that a rule will not have a significant economic impact on a substantial number of

small entities, it is EPA's policy to "make an assessment of the rule's direct adverse impact on any small entities, to engage the potentially regulated entities in a dialogue regarding the rule, and to minimize the impact of the rule on small entities."⁴² None of these things happened in this rulemaking.

A. EPA's SBREFA Analysis Only Considered the Incremental Cost of Compliance Between 2016-2017 And Is Invalid In Light of the Agency's Policy Changes

EPA's 2010 regulatory impact analysis concluded that small refineries were expected to comply with the RFS by buying RINs and that RIN costs and access to RINs for compliance were key considerations in assessing the potential for significant harm to small entities. The agency concluded at the time that RINs were available, that the market was competitive and liquid, and that small refineries' RIN costs would decrease over time, ultimately resulting in a cost savings by 2022. The agency also noted that if circumstances changed and/or the RIN market were to become non-competitive or illiquid, small refineries could petition for hardship relief.

EPA's SBREFA analysis is no longer valid because: (1) in 2014-2016, the agency adopted a policy to increase the price of RINs to overcome market constraints; (2) the 2017 SBREFA screening analysis demonstrates that the cost of complying through purchasing RINs is significantly higher than complying through blending; and (2) EPA raised the bar for securing hardship relief, so there is no longer a safety net.

First, the agency's 2014-2016 policy shift to increase the price of RINs to encourage investments in infrastructure to overcome market constraints, resulted in an immediate increase in the price of RINs. RINs are now trading at close to \$1.00, compared to the 2-5 cents cost at the time of EPA's regulatory impact analysis. Second, in its SBREFA analysis, EPA did a detailed analysis of the cost of RINs and the cost of blending, which showed that the cost of buying RINs for compliance is substantially higher than the cost of complying by blending. This is true without considering the impact of the biodiesel tax credit. If the biodiesel tax credit is extended into 2017, blenders' costs will be even lower. For these reasons, EPA can no longer assume that small entities are not being adversely affected by high RIN prices.

Finally, in May of 2014, EPA working with the Department of Energy, issued a two page "addendum" to the Small Refinery Exemption Study changing the standard for small refineries to secure hardship relief. In the addendum, EPA raised the bar for securing hardship relief and applied a new "profitable enough" standard. The standard makes small refinery hardship more difficult to secure, which means that there is no longer a safety net to protect small refineries against high RIN prices.

As a result of these very significant policy changes, EPA's SBREFA analysis unfairly considers the incremental cost difference between 2016 and 2017 compliance, when it should consider the impact of the rule as a whole.

B. Large and Small Refiners Compliance Costs Are Not Comparable

The SBREFA analysis in the Proposed Rule fails to assess the rule's impact on small entities

because it considers the impact of the Proposed Rule on the refining industry as a whole. In the SBREFA analysis, EPA estimated the costs of complying with the Proposed Rule under three scenarios. Under each scenario, EPA calculates the costs of compliance for the refining industry as a whole and does not look at the costs specific to small refineries. Therefore, the SBREFA analysis has not attempted to evaluate the costs of compliance on small entities, which is its sole purpose.

In addition, EPA compares costs to the sales revenue refiners receive from selling gasoline and diesel fuel, but does not consider whether large and small refiners receive different sales revenues for their products or whether small refiners have higher operating costs. This approach directly contravenes the purpose of SBREFA, which requires EPA to examine how its rulemaking impacts small entities. By looking at the impact of the rule on the refining industry as a whole, EPA has failed to consider the possibility that small entities have higher compliance costs or that they receive less for their products. It is well known to EPA that small refiners have lower gross and net refining margins than large, vertically integrated refiners, reflecting either or both higher costs and lower profits, which are ignored in the SBREFA analysis.

The SBREFA analysis compares the costs of compliance through blending to the cost of compliance through purchasing RINs. If EPA had considered the biodiesel blending tax credit and the current price of RINs when estimating compliance costs, EPA likely would have found that it is more expensive to comply with RFS by purchasing RINs than by blending. As the DOE Study recognized, most small refineries comply by purchasing RINs, which means that most small refineries have higher compliance costs than large, vertically integrated refineries. The SBREFA analysis does not consider the impact to small entities of having a higher compliance cost than large, vertically integrated refineries.

When considering the cost of compliance through blending, the SBREFA analysis fails to consider small entities' inability to retain the RIN value when selling their fuel. As the Coalition pointed out in comments on the 2014-2016 petition, in hardship petitions, and in correspondence and meetings with the agency, small refiners do not sell their gasoline or diesel fuel at retail outlets and have to discount their fuel, by giving away 60-70% of their RIN value to compete with exempt blenders and large, vertically integrated refiners. These factors decrease the sales revenue that small refiners receive relative to large refiners and are ignored in EPA's SBREFA analysis.

C. DOE Structural And Economic Metrics Were Not Considered In The SBREFA Analysis

In the DOE Study, DOE identified "structural and economic" factors that could cause harm to small refineries complying with the RFS. EPA's SBREFA analysis did not consider any of the DOE metrics when evaluating the economic impact of the Proposed Rule on small entities.

1. The "Diesel Disparity" Harms Small Refineries

In its study, DOE concluded that small refineries are disadvantaged relative to large refiners if they disproportionately produce diesel fuel, which the members of the Coalition do. For example, one member of the Coalition produces 100% diesel fuel, another member produces

68% diesel fuel, and most or all of the members produce diesel above the industry average.

DOE explained the disparity as follows:

While ethanol blending at 10 percent is already common, biodiesel is normally blended at 5 percent or less due to a lack of market acceptance. Therefore, refineries that disproportionately favor diesel production over gasoline inherently have a more difficult compliance pathway, as the percentage of renewable fuel available to blend into diesel is much lower than the 10 percent of ethanol that can be blended into gasoline.⁴³

The more difficult compliance pathway refers to the fact that a small refinery that disproportionately produces diesel will generate fewer RINs from blending than a large, complex refinery that produces more gasoline and less diesel. As shown in the table below and the attached spreadsheet, a refinery producing more gasoline than the industry average will generate more RINs than it needs for compliance, a refinery producing gasoline at the industry average will break even, and a small refinery producing diesel above the industry average, will generate fewer RINs than it needs for compliance.

	68% Diesel Production			100% Diesel Production		
	RIN Excess (Deficit)			RIN Excess (Deficit)		
	<u>Large</u>	<u>Average</u>	<u>Small</u>	<u>Large</u>	<u>Average</u>	<u>Small</u>
Cellulosic	(346,000)	(346,000)	(346,000)	(346,000)	(346,000)	(346,000)
Biodiesel	946,925	1,100,000	7,069,101	946,925	1,100,000	11,967,501
Other Advanced	(754,000)	(754,000)	(754,000)	(754,000)	(754,000)	(754,000)
Total Advanced	(153,075)	0	5,969,101	(153,075)	0	10,867,501
Ethanol (D6)	231,567	0	(9,029,860)	231,567	0	(16,440,000)
Total Renewable	78,492	0	(3,060,759)	78,492	0	(5,572,499)

The Clean Air Act does not mandate this harm to small refineries. The diesel disparity was adopted by EPA for administrative convenience when it chose not to split the renewable fuel standards into gasoline and diesel specific standards.⁴⁴

Although DOE identified the additional compliance costs imposed on small refineries by their disproportionate diesel production, EPA failed to consider this factor in its SBREFA analysis.

2. Economic Factors Affecting Small Entities Were Not Considered in EPA's SBREFA Analysis

EPA's SBREFA analysis assumes that all refineries have the same economics – that a small refinery has the same access to capital and credit, borrowing rates, cash flow, refining margins, and profits as ExxonMobil, but on a smaller scale. DOE's study found just the opposite. DOE concluded that small entities may have restrictions on capital, limitations on access to credit,

higher borrowing rates, and loan covenants that may prevent small refineries from cost-effectively managing their RIN purchases.

DOE also recognized that small refineries' lack of vertical integration and lower refining margins would make small entities more susceptible to market volatility, which could impact their cash flows. DOE explained that because refining margins tend to have considerable volatility, large, vertically integrated refiners are more stable financially and thus better able to afford RFS compliance costs.⁴⁵

With respect to RINs, DOE concluded that small refineries may not be able to generate "windfall profits" from selling RINs and that windfall profits could offset other margin related impairments. DOE considered whether purchasing RINs for compliance was a net cost or a net revenue, to be the most important factor in determining harm to small entities. The DOE Study recognized that small refineries would be significantly impacted by high-priced RINs and that small refineries may have to choose between making efficiency improvements and buying RINs.⁴⁶

Despite these findings, EPA did not consider any of these factors in its SBREFA analysis.

3. Renewable Fuel Blending

In its study, DOE also concluded that small refiners are disadvantaged compared to large refiners because they rely on the RIN market for compliance. DOE explained that refiners that have to purchase RINs to demonstrate compliance (typically small refiners) have a higher cost of compliance than refiners that blend to demonstrate compliance (typically large refiners).⁴⁷ DOE explained:

The degree to which a small refiner can actively blend refinery production with renewable fuels is a large component of economic impairment. Generally, for ethanol, (and biodiesel and other advanced biofuels) the lower the proportion of renewable fuel blending the greater the impairment.⁴⁸

Again, although DOE identified the additional compliance costs imposed on small refineries by their inability to blend renewable fuel, EPA failed to consider this factor in its SBREFA analysis. EPA also failed to consider the "sharing" of RIN value by small refineries competing with exempt (non-refining) blenders, which has been described to EPA in numerous hardship petitions.

EPA's failure to consider any of the DOE metrics in its SBREFA analysis means that EPA failed to consider the impact of the rule on small entities.

D. EPA Should Have Applied A Cost-to-Profits Test

EPA's SBREFA analysis inappropriately applies a "cost-to-sales" test instead of "cost-to-profit" test to determine whether the Proposed Rule will have a significant economic impact on small entities. EPA guidance explains that, when determining whether a proposed rule will

have a significant economic impact on a substantial number of small entities, the first step EPA must follow is to determine what criteria it will use to measure a rule's economic impact on affected entities.⁴⁹ In performing the first step, EPA may compare the costs of compliance to sales, current cash flow, or profits.⁵⁰ EPA stated that comparing costs to profits represents the most accurate method for measuring a proposed rule's economic impact.⁵¹ EPA also stated that comparing costs to profits instead of comparing costs to sales is a better indicator of the economic impact on small entities.⁵²

Therefore, EPA chose not to apply the test that would be the best indicator of economic impact on small entities. The SBREFA analysis in the Proposed Rule ignores EPA's own guidance in determining the appropriate criteria for assessing the economic impact of the Proposed Rule. In its SBREFA analysis, EPA applies a cost-to-sales test to assess economic impact and does not mention or consider whether another test would be more appropriate. Had EPA thoughtfully considered which test it should apply, it would have concluded that a cost-to-sales test was not appropriate. The refining industry operates on very thin margins. Because of these factors, a cost-to-profit test would more accurately reflect the impact of the Proposed Rule on small refiners.

EPA cannot claim that it lacks the necessary information to apply a cost-to-profit test.

Many small refiners have submitted detailed financial statements to EPA over the last three years as part of their petitions for hardship relief from the RFS program. These financial statements included detailed information about costs and profits and EPA should have used this information in conducting its SBREFA analysis.

E. EPA Should Not Have Used A 1% Threshold For Its Costs to Sales

EPA's SBREFA analysis also fails to accurately assess the rule's impact on small entities because it relies on a 1% threshold for assessing economic impact. EPA guidance explains that, after EPA decides what criteria it will use to measure a rule's economic impact on small entities, the second step is to decide what threshold it will use to determine whether the impact of a rule may be substantial.⁵³ In determining the appropriate threshold, EPA should consider the average profit margins of the affected small entities, which EPA did not do.⁵⁴

Refiners, particularly small refiners, operate on very small margins and 1% of sales is an extremely high percentage of a refiner's EBITDA and profits. For example, for one Coalition member, 1% of sales is equivalent to 10% of its EBITDA and 20% of its profits. Small refiners cannot afford to spend 20% of their profits on complying with RFS and remain competitive with refiners who have no RFS compliance costs because they blend more than they produce and retain the RIN value through their retail distribution.

If EPA uses a 1% cost-to-sales test to assess economic impact on small refineries, at a minimum, it should seek to use real costs and real sales, and not industry-wide sales data.

F. EPA Failed To Consider Market Power In Concluding That RIN Costs And Passed-Through

EPA’s SBREFA analysis also fails to accurately assess the rule’s impact on small entities because it fails to consider the fact that small entities cannot pass their compliance costs on to consumers or suppliers. EPA’s guidance directs EPA to consider the ability of small entities to pass on compliance costs when conducting the SBREFA analysis.⁵⁵ EPA’s SBREFA analysis erroneously concludes that small entities can pass on their compliance costs in the form of higher prices of the gasoline and diesel fuel that they sell.⁵⁶ As described above and in the Coalition’s comments on the 2014-2016 proposed rule, small refiners cannot pass their compliance costs on to consumers in the form of higher sales prices. Small refineries are price takers, not price setters. Small refineries have to discount their fuel, giving away RIN value, in order to compete with exempt and partially exempt rack sellers. EPA failed to consider this factor in its SBREFA analysis.

G. EPA Failed To Consider Unique Small Refiner Operations In Evaluating RFS Compliance Costs

EPA has reviewed hardship petitions from small refineries that produce specialty products and for whom transportation fuels are a byproduct of their production. These specialty products cost more to manufacture than traditional transportation fuels because they require more expensive feedstocks and more complex operations. For these small entities, transportation fuels may have low or no refining margins and the costs of acquiring RINs may compound the refiners losses selling these products. Although EPA has this information, it failed to consider this information when it looked at the costs to the industry as a whole, rather than the costs to small entities.

H. Harm Caused By EPA’s Delay In Ruling On Hardship Petitions And Issuing The 2014-2016 Rules

In its SBREFA analysis, EPA should have considered the additional compliance cost imposed on small refiners who were waiting for up to two years for EPA to rule on their 2014 RFS hardship petitions and whose 2015 and/or 2016 petitions are still pending. Under the Clean Air Act, EPA is required to decide small refinery hardship petitions within 90 days of receipt. EPA ruled on all but one 2014 small refinery hardship petition (for members of the Coalition) on June 29 and June 30th, 2016, 30 days before the compliance deadline. One small refinery’s hardship petition is still pending even though the compliance deadline is a few weeks away. By the time EPA issued its 2014 hardship decisions, the RIN market was illiquid, RIN prices had increased to a 12-month high, and small refineries denied hardship relief were forced to carryover a deficit into 2015 to avoid entering the market at its 12-month high.

In performing its SBREFA analysis, EPA estimated the cost of compliance through purchasing RINs by looking at an average cost for RINs that was not available to small entities in general and not on the eve of the compliance deadline for 2014. As shown in the table below, the cost of RINs for the members of the Coalition on the eve of the compliance deadline bears no relation to the costs used by EPA in its SBREFA analysis.

	EPA estimated “Cost per RIN”	Cost per RIN on June 30, 2016
Corn Ethanol	\$0.70	\$0.92

EPA's delay in issuing the 2014-2016 final rules, has compressed the compliance deadlines for four compliance years into a 13-month period. Therefore, RIN costs are expected to remain elevated, which makes EPA's reliance on a 70 cents RIN value for its SBREFA analysis unreasonable.

I. Tier 3 Compliance Costs Were Not Considered In The SBREFA Analysis

Although EPA refers to the Tier 3 rulemaking, it makes no mention of the costs to small refineries from compliance. For some members of the Coalition, the costs of Tier 3 compliance will be significant, yet this fact is not considered in the current rulemaking.

J. Failure To Consult With Small Refiners

Finally, even though EPA's SBREFA analysis concluded that the Proposed Rule would not impose significant economic impact on a substantial number of small entities, EPA should have consulted with small refiners on ways to minimize the impact of the rule. EPA guidance states that even where EPA finds that a rule will not have a significant economic impact, EPA should still engage the affected small entities in a dialogue regarding the rule and should minimize the impact of the rule on small entities.⁵⁷ As described above, there are several ways EPA could minimize the impact of the rule on small entities, including changing the "point of obligation" and removing the "diesel disparity."

B. Re-Do The SBREFA Analysis

EPA's SBREFA screening analysis is fraught with errors. It appears that EPA gave little consideration to trying to ascertain whether small entities would be adversely impacted. It fails to consider any of the unique vulnerabilities of small refineries including small entities' disproportionate production of diesel, lower refining margins, differential cost structures, and all of the factors considered to be material to small refinery hardship in DOE's Small Refinery Exemption Study. EPA assumes that a single-asset, small refinery has the same profits, access to capital, borrowing rates, refining margins, and cash flow as the largest vertically integrated refiner. EPA needs to perform a new and complete SBREFA analysis seeking input from stakeholders in the process. [EPA-HQ-OAR-2016-0004-2364-A1 p.34]

In the meantime, EPA should grant hardship relief as intended by Congress by revoking the "addendum" to the DOE Study, by timely ruling on hardship petitions, removing the diesel disparity, and reducing the proposed volumes to restore a competitive and liquid RIN market. [EPA-HQ-OAR-2016-0004-2364-A1 p.35]

40 5 U.S.C. § 603(a).

41 5 U.S.C. § 605(b).

42 EPA'S ACTION DEVELOPMENT PROCESS: FINAL GUIDANCE FOR EPA

RULEWRITERS: REGULATORY FLEXIBILITY ACT AS AMENDED BY THE SMALL BUSINESS REGULATORY ENFORCEMENT FAIRNESS ACT 10 (Nov. 20, 2006) [hereinafter “EPA SBREFA GUIDANCE”].

43 DOE SMALL REFINERY EXEMPTION STUDY, *supra* note 35, at 34.

44 RFS2 Proposed Rule, 74 Fed. Reg. at 24,953.

45 DOE SMALL REFINERY EXEMPTION STUDY, *supra* note 35, at 34.

46 *Id.*

47 *Id.* at 35.

48 *Id.*

49 EPA SBREFA GUIDANCE, *supra* note 42, at 19.

50 *Id.* at 21.

51 *Id.* at 20.

52 *Id.* at 25.

53 *Id.* at 19.

54 *Id.* at 25.

55 *Id.* at 25.

56 Memorandum from Dallas Burkholder and Tia Sutton, U.S. EPA Office of Transp. and Air Quality to Docket EPA-HQ-OAR-2016-0004, at 5 (May 2016).

57 EPA SBREFA GUIDANCE, *supra* note 42, at 10.

Response:

EPA has updated the screening analysis using more recent prices for gasoline, diesel, renewable fuels, and RINs. As discussed in the updated screening analysis memo⁶⁶, our analysis was performed for those entities meeting the definition of a small business as defined by the Small Business Administration.⁶⁷ Refiners not meeting this definition but meeting the definition of a small refinery in Section 211(o)(1)(K) of the Clean Air Act were not included in this analysis. The memo concerns our screening analysis performed for the 2017 annual volume standard rule

⁶⁶ “Updated Screening Analysis for the Renewable Fuel Standard Program Renewable Volume Obligations for 2017,” Memorandum from Dallas Burkholder and Tia Sutton to EPA Docket EPA-HQ-OAR-2016-0004.

⁶⁷ Entities in the petroleum refining industry with 1,500 employees or less company-wide (13 CFR 121.201).

only. However, prior to issuing our 2009 proposal for the general RFS regulatory program regulations required to implement amendments enacted pursuant to the Energy Independence and Security Act, we analyzed the potential impacts of implementing the full RFS program on small entities through calendar year 2022 (the “RFS2” rule), and convened a Small Business Advocacy Review Panel (SBAR Panel, or ‘the Panel’) to assist us in this evaluation. This information is located in the RFS2 rulemaking docket (Docket EPA-HQ-OAR-2005-0161).

A commenter raised a number of concerns with the screening analysis performed by EPA (referred to as the “SBREFA Analysis” by the commenter). We continue to believe that it is more appropriate to consider the impacts of the 2017 standards on small businesses as a part of the overall RFS program, rather than as a stand-alone action. We disagree with the commenter that the volumes established in the 2014-2016 rulemaking, as well as the proposed volumes for 2017, represent a departure from the RFS policy described and finalized in 2010, and that the SBREFA analysis performed in conjunction with that rule is no longer valid. We believe it is appropriate to look at the incremental costs associated with the increased renewable fuel volumes being finalized for 2017 relative to those established for 2016 in this context; that the screening analysis is complimentary to, rather than a replacement for, the full SBREFA analysis performed as part of the 2010 rule. Further, EPA has determined, based on available information, that obligated parties, including small entities, are generally recovering the cost of acquiring the credits (called “renewable identification numbers,” or “RINs”) necessary for compliance with the RFS standards through higher sales prices of the petroleum products they sell.^{68,69} This is true whether they acquire RINs by purchasing renewable fuels with attached RINs or purchase separated RINs. Nevertheless, even if the RFS standards for 2017 are viewed as a stand-alone action and the ability for obligated parties to recover the cost of acquiring RINs is not considered, EPA finds that these standards will not have a significant economic impact on a substantial number of small entities.

We acknowledge that in our screening assessment we have not considered the precise cost of compliance or revenues of individual refineries. However, while there may be slight variations in each individual refinery’s cost of compliance or revenues (due to slight variations in their cost to acquire RINs or their revenues for petroleum products) it is highly unlikely that these slight variations would result in a cost to revenue ratio of greater than 1% for any individual refinery. When EPA considered the extreme scenario where a refiner obtained the RINs necessary for compliance by purchasing separated RINs and did not recover any of the RIN costs through higher prices for the petroleum products sold, the cost to sales ratio was 0.32%. In considering such a scenario, EPA adequately accounted for refineries that produce only diesel fuel, as their ability to purchase separated RINs to use for compliance purposes is not impacted by the products produced by the refinery. We similarly adequately accounted for the possibility that there would be a “market power” difference for small refineries, by assuming for the sake of this scenario that the refineries were not able to pass through any of the RIN costs to their customers.

⁶⁸ For a further discussion of the ability of obligated parties to recover the cost of RINs see “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.

⁶⁹ Knittel, Christopher R., Ben S. Meiselman, and James H. Stock. “The Pass-Through of RIN Prices to Wholesale and Retail Fuels under the Renewable Fuel Standard.” Working Paper 21343. NBER Working Paper Series. Available online <http://www.nber.org/papers/w21343.pdf>.

Refinery operating costs, access to capital, cash flow, refinery margins, Tier 3 compliance costs etc. are not a relevant factor in a cost to sales comparison, as they are not costs that are attributable to the RFS standards.

To perform our screening analysis, we used a cost-to-sales ratio test – a ratio of the estimated annualized compliance costs to the value of sales (for a complete description of the method used to analyze costs, please see the screening analysis memo). A cost-to-sales ratio test is a recommended quantitative approach for small business screening analyses. Further, in performing such analyses, agency practice involves assessing the cost-to sales percentages – and impact of less than 1% is generally recognized as a threshold for the assessment of whether or not an action constitutes a significant impact on small entities. The cost-to-sales test indicated that all obligated parties, including the small refiners subject to the RFS program, would be affected at less than 1 percent of their sales (i.e., the estimated costs of compliance with the rule would be less than 1 percent of their sales) even when we did not consider their potential to recover RIN costs – with the estimated cost-to-sales percentages ranging from 0.00% to 0.42%. Additionally, the cost estimates did not consider the currently available subsidies for the blending of biodiesel (currently \$1.00 per gallon for biodiesel/renewable diesel) or cellulosic biofuel (currently \$1.01 per gallon producer credit). If these tax credits are extended into 2017 and these costs were taken into consideration, the estimated costs to obligated parties would be substantially lower.

We do not believe the results of our cost-to-sales assessment demonstrate that it is more cost effective to acquire RINs by blending renewable fuels as compared to purchasing separated RINs. In our assessment we made the simplifying assumptions that parties that blend renewable fuels can sell these fuel blends for the same price as gasoline or diesel fuel without renewable fuels, and that obligated parties do not recover the cost of RINs through higher prices for their petroleum fuels. Data reviewed by EPA indicates that this is unlikely to be the case, and that in order to remain competitive parties must sell fuel blends that contain renewable fuels (such as E10 or B5) for a lower price than fuel blends that do not contain renewable fuels (such as E0 or B0). This is especially true for fuel blends, such as E85, that have a significantly lower energy content than fuels blends that do not contain renewable fuels. While this assumption would tend to under-estimate the cost of obtaining RINs by blending renewable fuels, we again note that the scenarios considered in our analysis have ignored the ability for obligated parties to recover RIN costs in the price of the petroleum products they sell. Finally, we believe that a scenario where parties acquire RINs by purchasing separated RINs and do not recover any of these costs in the petroleum products they sell is a worst case scenario, since if this were the most cost effective way to obtain RINs any obligated party could choose to do so with no capital investment.

The commenter's concerns about the manner in which EPA evaluates petitions for hardship relief are beyond the scope of this rulemaking. With regard to the commenters' concerns about the standards themselves and the makeup of the standards, please see Sections 1 and 2 of this Response to Comments document.

7.5 Beyond the scope

7.5.1 Legislative changes

Comment:**Advanced Biofuels Association (ABFA)**

ABFA is opposed to the change in the tax credit proposed by NBB. The result would be higher costs to consumers and rewards to feedstock growers and large, low-cost producers. Given that fuels and crude oil are global commodities, our renewable fuels tax policy should be in harmony with free trade principles, and not a special interest's effort to create a subsidy for the large biodiesel producers at the expense of ordinary Americans. The RFS program is an energy and environmental policy. It should focus on the development of innovative fuels and environmental sustainability, as opposed to providing yet another farm subsidy to growers. [EPA-HQ-OAR-2016-0004-1831-A1 p.3-4]

Anonymous 4

Third, the government should end tax credits that subsidize the blended fuel industry. These credits have existed for MANY years now, and at this point we should see if the free market accepts ethanol as a fiscally viable option. [EPA-HQ-OAR-2016-0004-1894 p.1]

Capital Yacht Club

The CYC requests EPA's support and co-sponsoring of The Renewable Fuel Standard Reform Act of 2015, introduced by Representative Bob Goodlatte (R-VA). This bill has 30 original co-sponsors, both Democrat and Republican. It will effectively remove mandates for higher blend ethanol fuels (more than 10%) and allow for the investment in other more compatible biofuels. This is a critical step to ensure safe fuels for the engines in boats of our boating public and our members. If this step is not taken, the proposed Renewable Volume Obligations (RVO) for 2017 will force greater amounts of E15 and higher blends into the marketplace. [EPA-HQ-OAR-2016-0004-3575-A1, p.1]

George Washington University, Regulatory Study Center

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-2016-0004-2687-A1 p.5]

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-2016-0004-2687-A1 p.12]

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-2016-0004-2687-A1 p.13]

Mass Comment Campaign sponsored by Vets4Energy (Web) - (3)

I believe the best course of action, in the long-term, is for Congress to fix the RFS through legislation [EPA-HQ-OAR-2016-0004-1707-A1 p.1]

DeCicco, John M.

Although as called for in my testimony, Congressional repeal of the RFS is warranted, the agency need not wait for such a policy decision to begin expediently reducing the RFS requirements. [EPA-HQ-OAR-2016-0004-1828-A1 p.2]

New York State Assembly, 122nd District

I am writing to express my concern regarding the proposed 2017 Renewable Fuel Standard (RFS) that could lead to ethanol volumes blended into gasoline that exceed 10% and breach the "E10 Blend Wall". [EPA-HQ-OAR-2016-0004-3592-A1 p.1]

In an effort to help resolve this matter with RFS, Congress could assist in introducing legislation that would require the EPA to lower the renewable fuel blending requirements and set the final ethanol mandate below 10%. [EPA-HQ-OAR-2016-0004-3592-A1 p.1]

K Coe Isom

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.104]

If we're going to remove or reduce RFS to effectively enforce the 10 percent blend wall, then let's remove all other mandates so that consumers have the true choice of whether they want E0, E10, E30. Let's let the consumers decide.

Response:

These comments request congressional action on the RFS program and 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.

7.5.2 RFS regulation changes

Comment:

CountryMark

However, applying a BBD standard to gasoline volumes unreasonably inflates an obligated party's renewable fuel obligation. In addition, refineries that are configured similar to CountryMark to maximize diesel production will incur further unwarranted renewable fuel obligations. **For these reasons, CountryMark requests that the manner and method of applying percentage standards to the various renewable fuel categories be revisited.** [EPA-HQ-OAR-2016-0004-1826-A1 p.6-7]

HollyFrontier Corporation

We believe a more equitable structure is to expand the categories of required biofuels from four to seven in the RVO calculation. Such a change would not change the required volumes proposed by EPA but simply allocate those volumes more appropriately. [EPA-HQ-OAR-2016-0004-2867-A1 p.6]

Response:

The commenters suggest that the way in which an obligated party's RVO is calculated should be revised, such as by expanding the number of renewable fuel categories from the current four (cellulosic, biomass-based diesel, advanced, and total) to seven (based on separate gasoline and diesel production), which the commenters claim would create a more equitable structure within the RFS program. This comment is beyond the scope of this rulemaking, as EPA did not propose such changes or any other changes to the overall structure of the RFS program. However, EPA notes that it already evaluated this alternative approach as part of the RFS2 NPRM (74 FR 24953, May 26, 2009), stating that "this alternative approach relies on projections of the relative amounts of gasoline-displacing and diesel-displacing renewable fuels that would need to be updated every year. While such projections would be available through our proposed Production Outlook Reports (see Section III.K), we nevertheless believe that such an approach would unnecessarily complicate the program, and thus we are not proposing it." EPA received only one comment on this alternative approach, which was in support of basing the standards on the sum of all gasoline and diesel fuel, rather than setting separate standards for each fuel type. See Section 3.6.1 of the RFS2 Summary and Analysis of Comments.

Comment:

Brazilian Sugarcane Industry Association (UNICA)

EPA's own lifecycle analysis show that sugarcane ethanol from Brazil is an advanced fuel that reduces greenhouse gases by at least 61 percent when compared to gasoline, a reduction that surpasses the threshold of cellulosic fuels.⁵⁶ This is significant since EPA's regulations require cellulosic fuel have a GHG emission savings of at least 60% when compared to gasoline. In the future, EPA could institute a regulation allowing compliance entities to use advanced fuels with a GHG emission savings superior to 60%, like sugarcane ethanol, to meet the cellulosic shortfall.

This would incentivize imports of higher volumes of sugarcane ethanol but at no increase in GHG lifecycle emissions. Further, cellulosic ethanol would still be favored since sugarcane ethanol would only make up the difference in the cellulosic shortfall, and the United States would not need to forego the GHG reductions otherwise lost in volume decreases of all categories of fuel. Alternatively, EPA could create a separate carve-out in advanced fuels for advanced ethanol with low GHG lifecycles, requiring a specified volume of the product be blended into the gasoline supply. Finally, as set forth in the 2015 Comments, EPA could change the equivalence value (“EV”) for sugarcane ethanol to reflect its relatively low GHG lifecycle, allowing compliance entities to meet their goal through increased use of the fuel. [EPA-HQ-OAR-2016-0004-1698-A2 p.27]

Response:

The commenter suggests numerous changes that the EPA should make to essentially allow for advanced biofuels that achieve a GHG reduction of at least 61 percent, such as sugarcane ethanol, to be able to qualify as cellulosic biofuel or to allow it to backfill for shortfalls in the cellulosic biofuel standard. This comment is beyond the scope of this rulemaking, as EPA did not propose such changes or any other changes to the overall structure of the RFS program. However, EPA notes that “cellulosic biofuel” is defined in CAA Section 211(o)(1)(E) as “renewable fuel derived from any cellulose, hemicellulose, or lignin that is derived from renewable biomass [...]” and since sugarcane ethanol is not derived from cellulose, hemicellulose, or lignin, it is not eligible to be considered cellulosic biofuel, regardless of the GHG reduction that it achieves.

Comment:

National Biodiesel Board

Perhaps, more important, NBB has long asked EPA to provide more information on the actual RVOs being reported. There is a way to provide greater transparency without unduly revealing confidential business information. EPA, however, has declined to do so, providing only information on the total number of RINs retired for compliance. As noted above, this does not necessarily identify the RVO’s being reported, as prior-year RINs and deficits may also be carried over. NBB believes that transparency on the demand side is extremely important to protect against market volatility. Indeed, unlike renewable fuel producers, who are not required to participate in the RFS program, compliance by obligated parties is mandatory and adequate information should be available to the public to ensure EPA is enforcing the program properly. Thus, EPA should provide on a monthly basis information on RIN purchases and retirement by obligated parties. More transparency provides more certainty in the marketplace and allows the market to function with less speculation and volatility. This is particularly true as critics of the program question EPA’s estimates on diesel fuel use to raise speculation in the market about unavailability of RINs. [EPA-HQ-OAR-2016-0004-2904-A2 p.126]

Response:

EPA agrees with the commenter that transparency in the RIN marketplace is important. EPA has started posting aggregate annual compliance information submitted by obligated parties, which includes the total reported RVOs for all obligated parties (including exporters), the RINs retired to satisfy those RVOs, and the total deficits carried over. EPA will update these data as obligated parties submit updates to their reports and post new compliance year information after those data are collected and ready to post. EPA does not believe that monthly retirements by obligated parties would differ much from the annual compliance information already posted since most RIN retirement activity by obligated parties occurs near the compliance reporting deadline. EPA will consider posting additional information from EMTS or annual compliance reports to promote better transparency in the future.

7.5.3 RIN-generating pathway approvals

Comment:**Advanced Biofuels Association (ABFA)**

In order to diversify the marketplace, we need to see wood and other materials provided the opportunity to make renewable diesel, synthetic gasoline, and jet fuel replacements. In addition, a number of feedstocks continue to linger on the pathway list all of which could provide significantly more gallons in the biomass-based diesel pool. These pathway petitions should be expeditiously considered if we are to make similar penetration of sustainable fuels into the diesel and heating oil markets. [EPA-HQ-OAR-2016-0004-1831-A1 p.9-10]

American Biogas Council (ABC)**EPA Can Spur Additional Growth in Cellulosic Biofuel Production with Expedited Pathway Action**

Although not discussed in this proposed rule, the biogas-to-electric-vehicles, renewable hydrogen, and bio-intermediates pathways under consideration by EPA will significantly affect cellulosic biofuel availability once finalized. The ABC urges EPA to expedite these pathways and to be aware of their likely impact on the Final Rule and future RVOs. We are certain the ABC and its members will have many comments on these pathways once those rulemakings are proposed. [EPA-HQ-OAR-2016-0004-1692-A1 p.4]

Biogas Researchers, Inc.

For that reason, we request that EPA take the following actions to enable inclusion of renewable electricity in the 2017 cellulosic biofuel RVO:

- Work closely with applicants to authorize near-term generation of RINs with renewable electricity under EPA's existing regulations. Those regulations were finalized in 2014, and they provide an approved "cellulosic biofuel pathway for renewable electricity (used in electric vehicles) produced from biogas," and address documentation, registration, reporting and recordkeeping requirements for renewable electricity. [EPA-HQ-OAR-2016-0004-1650-A1 p.2]

- Authorize requested RIN generation methodologies that can rapidly maximize the impact of the renewable electricity pathway, involve as many electric vehicles and biogas facilities as possible, and displace the greatest possible quantity of fossil fuels. [EPA-HQ-OAR-2016-0004-1650-A1 p.3]

Biotechnology Innovation Organization (BIO)

Because of EPA's eminently sensible exercise of judgment on this issue, it is now clear that pathways utilizing algae and cyanobacteria to use industrial waste carbon resources as a feedstock for fuel production are eligible for participation in the RFS program.

In our view, the same sound interpretive considerations and policy imperatives apply to all other microorganisms, such as bacteria, that make use of oxidized carbon in inorganic waste gases. Interpreting "algae" in EISA to include such microorganisms will equally "further the purpose of EISA." [EPA-HQ-OAR-2016-0004-3601-A1 p.2]

Accordingly, "algae" for RFS purposes should be construed to include all bacteria that perform the same set of biochemical transformations using non-photosynthetic mechanisms (i.e., capturing and using inorganic carbon oxides from waste gases to generate biomass).⁵ Such an outcome would be consistent with EPA's approach to eligibility for the RFS program in other areas.⁶

We recognize that there may be a variety of mechanisms by which EPA can take the step of clarifying that renewable biomass includes all autotrophic microbial biomass generated from waste inorganic gases. [EPA-HQ-OAR-2016-0004-3601-A1 p.3]

⁵ To be clear, taking this natural and appropriate interpretive step would not be inconsistent with the RFS statute's definitions of renewable fuel and renewable biomass. Renewable fuel must be produced from renewable biomass and must replace or reduce the quantity of fossil fuel present in transportation fuel, heating oil, or jet fuel. 42 U.S.C. § 7545(o)(1)(J)); *id.* § 7545(o)(1)(A); 42 C.F.R. § 80.1401. The clarification we endorse would be consistent with these requirements.

⁶ See 75 Fed. Reg. 14691 (defining "planted crops," as used in statutory definition of renewable biomass, 42 U.S.C. § 7545(o)(1)(I)(i), to include "microcrops" such as duckweed, which "are typically grown in a similar manner to algae, but cannot be categorized as algae since they are relatively more complex organisms" (see 75 Fed. Reg. 14697)) ("EPA's [initial] proposed definition would have unintentionally excluded microcrops such as duckweed through the requirement that planted crops be 'applied to the ground.' After considering comments received,

EPA does not believe that there is any basis under EISA for excluding from the definition of renewable biomass crops such as duckweed that are applied to a tank or pond for growth rather than to the soil. . . . [I]ncluding such microcrops within the definition of renewable biomass . . . will further the objectives of the statute of promoting the development of emerging technologies to produce clean alternatives to petroleum-based fuels, and to further U.S. energy independence."); 42 C.F.R. § 80.1401 (broadly defining "planted crops" to include "all annual or perennial agricultural crops from existing agricultural land that may be used as feedstocks for renewable fuel," including duckweed and other species, even if such feedstocks were intentionally applied by humans to "a growth medium, a pond or tank" by direct application or through intentional natural seeding or vegetative propagation by mature plants introduced or left undisturbed for that purpose).

With regard to algae, an unduly narrow interpretive approach would likely lead innovative companies to focus their commercialization efforts and investments outside the United States, which should maintain and enhance its leadership role in this area. We respectfully submit that such a narrow approach is not required by the RFS statute and is inconsistent with congressional intent and with Administration policy. A broader approach is a much better fit with the statute's interlocking goals, which include jumpstarting investment, innovation, and job growth in the United States; enhancing energy and national security domestically and abroad; and combating climate change. [EPA-HQ-OAR-2016-0004-3601-A1 p.4]

looking to the future, EPA's long-term administration of the RFS program should allow room for use of technologies that focus on the capture and utilization of available, waste-carbon feedstocks that have already served a primary purpose [EPA-HQ-OAR-2016-0004-3601-A1 p.4]

The Biotechnology Innovation Organization ("BIO") respectfully requests that EPA continue to improve the functioning of the Renewable Fuel Standard ("RFS") program - and to help achieve the program's crucial environmental goals - by recognizing that all autotrophic microbial biomass generated from oxidized carbon in waste inorganic gases warrants equal treatment for purposes of the program and thus should be treated as renewable biomass for those purposes. In particular, EPA should take rapid action to clarify that the RFS program's definition of renewable biomass can accommodate both non-photosynthetic and non-heterotrophic biofuel pathways as a way to increase volumes of advanced biofuels. Such a clarification could help prevent avoidable shortfalls in investment in and production of advanced biofuels, which provide substantial greenhouse gas (GHG) emissions reductions from the transportation sector. [EPA-HQ-OAR-2016-0004-3601-A1 p.1]

Coalition for Renewable Natural Gas et al.

Although they are not covered in the Proposed Rule, the biogas-to-electric-vehicles, renewable hydrogen, and bio-intermediates pathways under consideration by EPA will significantly impact cellulosic biofuel availability once finalized. [EPA-HQ-OAR-2016-0004-1732-A1 p.7]

We urge EPA to expedite these pathways and to be mindful of their impact on the Final Rule and future RVOs. We otherwise reserve our comments on these pathways for the appropriate rulemakings. [EPA-HQ-OAR-2016-0004-1732-A1 p.7]

Midwest AgEnergy Group LLC

We encourage the EPA to find ways to expedite the review and approval of new pathway petitions so that next generation technologies may be implemented and refined at the rate of industry innovation rather than experiencing significant delays through redundant regulatory review processes. [EPA-HQ-OAR-2016-0004-1738-A1 p.6]

Neste Oil

In order to meet the proposed standards and continue the growth of biomass-based diesel, adequate amounts of feedstock must be approved and available for use. It is therefore, fundamentally important that the Agency not create unnecessary and artificial obstacles to the use of additional feedstocks. [EPA-HQ-OAR-2016-0004-1821-A1 p.2]

Several options are already pending or available for approval including clarification that low-valued, secondary residue streams from vegetable oil refining can be classified in the feedstock category of biogenic waste oils, fats, and greases. These feedstocks are already available for use and the Agency has approved use for some producers but restricted the use of the same and similar feedstocks for other producers. Not only is the inequitable treatment between producers an inappropriate abuse of the Agency's regulatory authority, it undermines and restricts the growth of and access to available feedstock volumes crucial for continued support of biomass-based diesel volumes. [EPA-HQ-OAR-2016-0004-1821-A1 p.3]

Response:

Commenters encouraged EPA to expand the current universe of available pathways eligible for creating RINs under the RFS program and to expedite the current process of EPA approving additional pathways. Multiple commenters specifically discussed their interest in the creation of pathways and guidance for biogas-to-electricity, hydrogen fuel, and certain bio-intermediates.

This comment is beyond the scope of this rulemaking, as EPA did not propose such changes or any other changes to the overall structure of the RFS program. EPA encourages commenters interested in biogas-to-electricity pathways and bio-intermediates to review and provide comments to the recently proposed Renewables Enhancement and Growth Support (REGS) rule.⁷⁰

EPA has taken several steps to improve the pathway petition process, such as adding more detailed directions on how to submit complete petitions to our website, developing the pathway screening tool, providing detailed data submission templates, and creating the Efficient Producer Petition Process (EP3). EP3 aims to streamline approvals for new corn starch and grain sorghum ethanol producers that demonstrate superior process efficiency through reduced onsite energy consumption, increased fuel output and/or use of biomass or biogas from certain sources to reduce process energy greenhouse gas emissions.⁷¹ EPA continues to publish its analyses of

⁷⁰ See 81 FR 80828 (November 16, 2016).

⁷¹ Learn more about the Efficient Producer Petition Process (EP3) at: <https://www.epa.gov/renewable-fuel-standard-program/how-prepare-efficient-producer-petition-under-renewable-fuel>

greenhouse gas emissions attributable to the production and transport of feedstocks used to produce cellulosic and advanced biofuel, including recent analysis of new pathways for the production of ethanol, naphtha, diesel, jet fuel, and heating oil from short-rotation hybrid poplar and willow. These analyses were included in EPA's recently proposed REGS rule. As a result of these initiatives, EPA has made significant progress on reducing the backlog of petitions currently under review.

One commenter requested that EPA allow all autotrophic microbial biomass to meet the renewable biomass definition of algae. This comment is beyond the scope of this rulemaking, as EPA did not propose such a change or any other changes to the overall structure of the RFS program.

7.5.4 Ethanol impacts on engines

Comment:

ABATE Missouri and COC&I

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.174-175]

This ethanol is destroying these motors.

We need to come to a happy medium here where we can get our zero fuel for all our small engines and equipment.

ABATE of Illinois, Inc.

Not only do we and the boaters need a fuel we can run but there are numerous other "motorized groups" such as "Classic Cars", "Antique Cars", "Hot Rod Cars", "Antique Motorcycles", "Antique Tractors", and "Antique Motors", that were used in the first part of the 20th century that were used for running belt driven equipment. All of these clubs/organizations have millions of members in the United States which cannot use anything over E-10 but nobody ever thinks of them on these matters. [EPA-HQ-OAR-2016-0004-2717 p.1]

ABATE of Pennsylvania

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-2016-0004-2200-A1 p.1]

Adler's Antique Autos

In particular we are concerned with ethanol's corrosivity and short shelf life before polymerization. [EPA-HQ-OAR-2016-0004-2523 p.1]

American Fuel and Petrochemical Manufacturers (AFPM)

the Coordinating Research Council has shown that gasoline blends exceeding 10 percent ethanol can lead to engine and fuel system damage. [EPA-HQ-OAR-2016-0004-1814-A1 p.25]

American Highway Users Alliance

First, it is well understood that gasohol blends higher than 10% damage many vehicle engines, including millions of light duty highway vehicles, with particularly aggressive damage associated with smaller engines. We understand that many vehicle engine warranties are voided if consumers use gasohol blends higher than 10%. [EPA-HQ-OAR-2016-0004-1810-A1 p.2]

American Petroleum Institute (API)

Tests conducted by the Coordinating Research Council (CRC) showed that ethanol concentrations in gasoline that exceed 10 percent can lead to engine and fuel system damage. [EPA-HQ-OAR-2016-0004-3512-A2 p.20]

American Sportfishing Association (ASA)

Our ultimate point of contention is not with the RFS or the intention underlying the statute. We take issue with how it has been implemented, the lack of regard for public outcry over the costly mechanical damage and voided insurance warranties it has caused, and the countless people who have been put in potential harm, not least among them families recreating on our nation's lakes, rivers, other waterways, and off the coast.

For anglers and boaters who purchase gas at regular, road-side stations as opposed to a marina, there are significantly fewer opportunities to find ethanol-free gas while there is a greater chance of misfueling. Misfueling refers to using the wrong fuel in one's engine, often the result of not knowing its exact contents, and it is very common given the substandard labeling of ethanol at pumps. That problem is one of education, but it is exasperated by the increasing prevalence of mid- and high-ethanol blends. [EPA-HQ-OAR-2016-0004-1675-A1 p.1]

Anonymous 11

The very short storage life span and destructive corrosion by Ethanol blended motor fuels has cost the nation's consumers dearly. [EPA-HQ-OAR-2016-0004-0697 p.1]

Anonymous 2

NASCAR, Indy Racing and competitive boat racing use biofuel and engines are not harmed [EPA-HQ-OAR-2016-0004-1468 p.1]

Anonymous 3

Just in 2015, 5.3 billion gallons of E0 were sold, mostly to boaters because of the damage that ethanol causes to boat engines and other similar small engines. [EPA-HQ-OAR-2016-0004-1925 p.1]

Anonymous 4

ethanol absorbs water, which in turn corrodes fuel systems in those vehicles not specifically designed to handle ethanol, including most older vehicles. [EPA-HQ-OAR-2016-0004-1894 p.1]

Anonymous 9

the use of ethanol in a combustion engine already creates a hazard. [EPA-HQ-OAR-2016-0004-2895 p.1]

Bassboaters

We do not need E15 fuel, its not outboard motor friendly! It will shut down the pleasure boating industry. [EPA-HQ-OAR-2016-0004-2030 p.1]

Belluardo, John

Ethanol has two very destructive propertied. First it conducts electricity and causes electrolysis to occur between dissimilar metals destroying them and second it has an affinity to water and attracts it to the fuel system. Many small engine powered devices are destroyed when stored over the winter with ethanol left in the fuel system. [EPA-HQ-OAR-2016-0004-2571-A1 p.2]

Blue Ridge Golf Course

What's worrisome to us is the wear and tear to the engines on that small equipment that is created by the EPA RFS rule that continues to demand ever increasing volumes of renewable fuel into the Nation's fuel supply. [EPA-HQ-OAR-2016-0004-2699 p.2]

The vast majority of cars, trucks, and other non-road vehicles and engines in the U. S. can only be fueled with E0 or E10 gasoline without voiding the manufacturers warranty or potentially damage to the engine. Increasing that limit above E10 requirements only exacerbate the problem and creates an undo burden and expense to small companies such as ours. [EPA-HQ-OAR-2016-0004-2699 p.2]

Canon, William G.

One would think I should be happy the proposed standards ask for an increasing amount of ethanol to be blended into gasoline which is already damaging to small engines because it brings more work into my shop. But the truth is it puts me in a bad position [EPA-HQ-OAR-2016-0004-0477-A1 p.1]

Carlson, Terry

Higher ethanol blends could damage engines [EPA-HQ-OAR-2016-0004-2163-A1 p.1]

Cascadia Academy

E15 damages many marine, smaller and older gasoline engines. [EPA-HQ-OAR-2016-0004-0714-A1 p.1]

Chesapeake Bay Yacht Clubs Association (CBYCA)

if adopted, these obligations will make it more difficult to find fuels that are safe for our boat's engines. [EPA-HQ-OAR-2016-0004-3510-A1 p.1]

E15 fuel is prohibited for use in our maritime engines as it has been shown to cause damage. [EPA-HQ-OAR-2016-0004-3510-A1 p.1]

City of Bellevue

high ethanol fuel blends damage many engines. [EPA-HQ-OAR-2016-0004-1659-A1 p.1]

Crappie Masters TV

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.187]

ethanol-enhanced fuel is not only safe to use in my outboard engine, it's frankly a better choice. E10 runs cleaner. It's more efficient, with increased horsepower and performance.

Davis, James

With EPA's proposal to require an even greater amount of ethanol, American consumers could see damage to cars, motorcycles, motorboats, and gas-powered equipment like lawnmowers. [EPA-HQ-OAR-2016-0004-2166-A1 p.1]

Eastman, John

The ethanol is not compatible with cars manufactured before 2008 and totally incompatible with, marine engines, outboards, chain saws, lawn mowers and a variety of gasoline burning equipment. [EPA-HQ-OAR-2016-0004-0557 p.1]

ExxonMobil

E15 creates potential harm to those vehicles and puts drivers and their passengers at risk. [EPA-HQ-OAR-2016-0004-1870-A1 p.2]

Florida State Hispanic Chamber of Commerce

Additionally, ethanol blends greater than E10 could damage engines in motorcycles, boats, offroad vehicles, small engine equipment and classic cars as we have seen to be the case with E10 blended fuel. [EPA-HQ-OAR-2016-0004-0247-A1 p.1]

Florida Trucking Association (FTA)

E15 wreaks havoc on vehicle engines by eating away at critical components. Ethanol-heavy gasoline causes rubber to swell and corrodes metal, and in some cases, leading to total engine failure. The increased costs associated E15 related engine damage places unnecessary financial strain on businesses across many industries [EPA-HQ-OAR-2016-0004-0479-A1 p.1]

Fort Washington Boating Association

It is prohibited to use E15 in marine engines and it has been shown to cause hundreds, even thousands of dollars worth of damage. [EPA-HQ-OAR-2016-0004-3364-A1 p.1]

Freedom of Road Riders

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.197]

Increases in 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.

Glenn Davis, Virginia House of Delegates

They show a crippling of the industries that rely on small motor tools, potential voiding of new car warranties that were not designed for E15. [EPA-HQ-OAR-2016-0004-2543 p.1]

Greenwood Christian Church

Engine damage.

“ 90 percent of vehicles now in use weren’t designed for E15, and manufacturers warn that using E15 could result in a voided new car warranty.

“ Ethanol blends greater than E10 could damage engines in motorcycles, boats, off-road vehicles,

small equipment (e.g., lawnmowers, snow blowers) and classic cars. [EPA-HQ-OAR-2016-0004-1719-A1 p.1]

Heath, Mark

An ethanol blend beyond 10% will destroy the fuel system components in the automobiles, pure and simple. [EPA-HQ-OAR-2016-0004-2671-A1 p.1]

Hehmeyer, Owen

ethanol and water are miscible (they mix together), and water is more corrosive than petroleum fluids. Ethanol must be handled separately from petroleum fluids, increasing cost and risk of accidents. As concentration increases past 10% these problems become more acute, and many internal combustion engines cannot cope with higher concentrations. [EPA-HQ-OAR-2016-0004-2670-A1 p.1]

Indiana Grocery and Convenience Store Association (IGSCA)

I am also a farmer and I believe the lead to ethanol volumes blended into gasoline that exceed 10 percent would breach the "E10 Blend Wall." These higher ethanol blends, such as E15 and E85, could lead to negative economic consequences and also harm the small engines used in agriculture. [EPA-HQ-OAR-2016-0004-1661-A1 p.1]

Jakes Landing, LLC

the current E10 gas causes serious engine problems. Many boats can sit idle for weeks at a time and the ethanol separates from the gas and settles in the bottom of the gas tank and can cause engine damage as the motor pulls the ethanol from bottom. Ethanol is a solvent and draws water in and tends to deteriorate the rubber lines that are in every boat engine. [EPA-HQ-OAR-2016-0004-1670-A1 p.1]

Jung, Jerry

It is well known that ethanol can cause engine damage because of its corrosive properties. [EPA-HQ-OAR-2016-0004-1833-A1 p.2]

Kisiel, John

I am concerned the proposed mandates under the Renewable Fuel Standard will drive higher ethanol blends, like E85 and E15 into the marketplace which will likely damage engines and fuel systems of millions of vehicles as well as gasoline-powered equipment. [EPA-HQ-OAR-2016-0004-1495-A1 p.1]

Marine Trade Association of New Jersey (MTA/NJ)

Studies have proven that these 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-2016-0004-0421 p.1]

Mass Comment Campaign sponsored by Anonymous 1 (Web) - (5,185)

I am concerned about the damage blends of ethanol, such as E15 or stronger, can have on marine engines. [EPA-HQ-OAR-2016-0004-0073 p.1]

Mass Comment Campaign sponsored by Anonymous 12 (email) - (106)

NASCAR is a billion dollar sport, so making a switch in the fuel used to power all of their cars was no small consideration. They put significant research into the pros and cons of E15, and in the end, decided that using a higher ethanol blend was the best course of action. Since its adoption in 2011, NASCAR has run over 8 million miles on E15 with great success. In fact, they are scheduled to surpass the 10 million mile mark in November of 2016, and they have not had a single issue with engine performance since introducing the fuel. Furthermore, consumers outside of NASCAR, such as myself, have quickly adopted the use of E15, resulting in over 150 million miles driven on E15, the equivalent of roughly 6,000 trips around the globe – again, without a single performance or durability issue. [EPA-HQ-OAR-2016-0004-1168-A1 p.1]

Mass Comment Campaign sponsored by Anonymous 22 (Web) - (572)

there are 46 million anglers in the US, and collectively we spend \$41 billion on our sport each year, supporting over 820,000 American jobs. As you may also know, the majority of anglers chose to fish from boats, which are directly threatened by increased levels of ethanol in the fuel supply. Therefore, our sport, traditions, and property are threatened by this proposal. [EPA-HQ-OAR-2016-0004-1788 p.1]

The proposed rule is misguided and fails to take into account years of objective studies and analysis on the dangers of mid and high level blends of ethanol, which adversely affect both the American public and the environment. Studies have proven that these blends of ethanol, such as E15, can create serious problems for marine engines, including a wide array of performance issues such as stalling, corrosion, oil leaks, fuel leaks, increased emissions, damage to valves, damage to fuel lines, damage to gaskets, and ultimately, total engine failure. [EPA-HQ-OAR-2016-0004-1788 p.1]

If EPA continues with this proposal it will put millions of marine engines, boat owners, and anglers in jeopardy. [EPA-HQ-OAR-2016-0004-1788 p.2]

Mass Comment Campaign sponsored by Anonymous 29 (paper) - (66)

the cost of ruined equipment, especially for small/non-road motors. [EPA-HQ-OAR-2016-0004-2604-A1 p.1]

Mass Comment Campaign sponsored by Boat Owners Association of the United States (Paper) - (200)

I urge the EPA to act to assure there is safe (10% ethanol or less) fuel widely available for use in my boat. [EPA-HQ-OAR-2016-0004-1706-A1 p.1]

Mass Comment Campaign sponsored by Energy Citizens (Paper) - (37,706)

With EPA's proposal to require an even greater amount of ethanol, American consumers could see damage to cars, motorcycles, motorboats, and gas-powered equipment like lawnmowers. [EPA-HQ-OAR-2016-0004-1966-A1 p.1]

Mass Comment Campaign sponsored by North Dakota Energy Forum (Paper) - (41)

We are also owners of non-classic cars; and we, like millions of Americans, could run the risk of damaging our other vehicles and equipment (e.g., motorcycles, boats, lawnmowers) if we use E15. [EPA-HQ-OAR-2016-0004-1789-A1 p.1]

These are also economic hardships that we and our fellow Americans should not be forced to bear. [EPA-HQ-OAR-2016-0004-1789-A1 p.1]

Mass Comment Campaign Sponsored by Novozymes (web) - (8)

As you know, prior to the EPA's approval of E15 in 2011, DoE conducted extensive peer-reviewed, standardized testing of 86 cars that represented all major vehicle models, which were each operated up to 120,000 miles—or over 6 million miles in total—to ensure that the fuel would not harm a vehicle. In other words, they drove enough miles to get to the moon and back 12 times. DoE found no increased risk of engine damage from using E15 fuel. Also, NASCAR has run 10 million miles on E15 with no problems and the fuel has been sold in the marketplace for more than 5 years and not a single case of an engine problem has been reported. [EPA-HQ-OAR-2016-0004-0717-A1 p.2]

Mass Comment Campaign sponsored by Vets4Energy (Web) - (3)

Furthermore, higher ethanol levels could potentially lead to engine damage for cars and small engines and higher food costs [EPA-HQ-OAR-2016-0004-1707-A1 p.1]

Michigan Boating Industries Association

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-2016-0004-2201-A1 p.1]

Motorcycle Riders Foundation/Freedom of Road Riders

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.196]

We ask the EPA and other stakeholders to consider actions going forward that would emphasize research on ethanol blends. Encouraging new research specifically targeted toward motorcycle engines as well as the effects on internal combustion could help alleviate the concerns of motorcycle riders, as well as motorcycle manufacturers.

NAFA Fleet Management Association

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. [EPA-HQ-OAR-2016-0004-1787-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. [EPA-HQ-OAR-2016-0004-1787-A1 p.2]

National Marine Manufacturers Association (NMMA)

NMMA members, through the Department of Energy's Renewable Energy Laboratory, have extensively studied the effects of E15 on marine engines. The results unequivocally show safety problems caused by significant engine damage, poor engine runability, performance and difficulty starting. The testing proved that utilizing high ethanol blends can lead to significant issues for consumers and can result in premature engine failure¹.

1 Hilbert, David. High Ethanol Fuel Endurance: A Study of the Effects of Running Gasoline with 15% Ethanol Concentration in Current Production Outboard Four-Stroke and Conventional Two-Stroke Outboard Marine Engines (2011) <http://www.osti.gov/bridge>.

Near, Cheryl Worth

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.71]

Our experience with selling E85 has been nothing but positive.

We have never had issues or a customer complaining of engine problems.

Nevada Franchised Auto Dealers Association

Most vehicles on the road today aren't recommended for operating on E15 by automobile manufacturers. Testing by the Coordinating Research Council shows that 15% ethanol blends would likely damage engines and fuel systems, jeopardizing the manufactures' warranties. [EPA-HQ-OAR-2016-0004-1652-A1 p.1]

Nevada Trucking Association

Increasing ethanol volumes blended into gasoline and diesel that exceed 10 percent, and breach the "E10 Blend Wall" is unnecessary and would lead to negative economic consequences, including damaging the engines of our members. [EPA-HQ-OAR-2016-0004-1639-A1 p.1]

New Mexico Cattle Growers' Association

Blended fuels may also cause damage to engines. Ethanol has been shown to corrode metals, causing rubber seals to swell and engines to wear more rapidly. Higher fuel costs coupled with the increased probability of engine break down, raise the cost of business for distribution companies. [EPA-HQ-OAR-2016-0004-1677-A1 p.2]

The increased costs associated E 15 related engine damage places unnecessary financial strain on businesses across many industries, stunting the growth of the nation. [EPA-HQ-OAR-2016-0004-1677-A1 p.2]

New Mexico Federal Lands Council

Blended fuels may also cause damage to engines. [EPA-HQ-OAR-2016-0004-1682-A1 p.2]

New Mexico Wool Growers, Inc. (NMWGI)

Blended fuels may also cause damage to engines. Ethanol has been shown to corrode metals, causing rubber seals to swell and engines to wear more rapidly. Higher fuel costs coupled with the increased probability of engine break down, raise the cost of business for distribution companies. [EPA-HQ-OAR-2016-0004-1683-A1 p.2]

The increased costs associated E15 related engine damage places unnecessary financial strain on businesses across many industries, stunting the growth of the nation. [EPA-HQ-OAR-2016-0004-1683-A1 p.2]

Newton, Wendy

Unfortunately what the EPA and other agencies are not sharing with consumers is what is known about Ethanol vehicle damage.

Why is federal or state government limiting the choice of the consumer and not giving them information about damages they can cause? [EPA-HQ-OAR-2016-0004-1872-A1 p.1]

North Dakota Petroleum Marketers Association

Increasing the mandated amount of biofuels in our vehicles could adversely affect the equipment our members have spent hundreds of thousands of dollars installing. Standard retail petroleum distribution equipment is not designed to accommodate greater concentrations of ethanol. [EPA-HQ-OAR-2016-0004-1756-A1 p.1]

Novozymes

DOE found no increased risk of engine damage from using E15 fuel. Also, NASCAR has run 10 million miles on E15 with no problems and the fuel has been sold in the marketplace for more than 5 years and not a single case of an engine problem has been reported. [EPA-HQ-OAR-2016-0004-1734-A1 p.5]

Ohio Coin Machine Association

ethanol blends greater than E10 could damage engines in motorcycles, boats, off-road vehicles, small engine equipment and classic cars as we have seen to be the case with E10 blended fuel. [EPA-HQ-OAR-2016-0004-2719 p.2]

Ohio Council of Retail Merchants

ethanol blends greater than E10 could damage engines in motorcycles, boats, off-road vehicles, small engine equipment and classic cars as we have seen to be the case with E10 blended fuel. [EPA-HQ-OAR-2016-0004-2893 p.2]

Ohio Grocers Association

Mandates requiring E15 could also result in a voided new car warranty. 90 percent of vehicles on the road are not designed for E15 and manufacturers warn that using E15 could result in a voided new car warranty. [EPA-HQ-OAR-2016-0004-2079 p.1]

Ohio Licensed Beverage Association

studies have concluded that E15 could damage engines and fuel systems in millions of vehicles, motorcycles, boats and other gasoline-powered vehicles and equipment. [EPA-HQ-OAR-2016-0004-2206 p.2]

Ohio Spirits Association

ethanol blends greater than E10 could damage engines in motorcycles, boats, off-road vehicles, small engine equipment and classic cars as we have seen to be the case with E10 blended fuel. [EPA-HQ-OAR-2016-0004-2252 p.2]

Ohio Veterans United

Currently, E85 can only be used in flex-fuel vehicles, and studies have concluded that E15 could damage engines and fuel systems in millions of vehicles, motorcycles, boats and other gasoline-powered vehicles and equipment. [EPA-HQ-OAR-2016-0004-1941 p.2]

These mandates can also cause damage to engines. Mandates requiring E15 could also result in a voided new car warranty. [EPA-HQ-OAR-2016-0004-1941 p.2]

Pasco Chamber of Commerce

Blending ethanol at levels higher than 10% has been proven to harm many conventional engines. This could damage farm equipment and other commercial vehicles not to mention what it can do the many personal vehicles. [EPA-HQ-OAR-2016-0004-0245-A1 p.1]

Pennsylvania House of Representatives

Higher ethanol blends could cause engine damage. [EPA-HQ-OAR-2016-0004-1751-A1 p.1]

Pennsylvania Motorcycle Dealers Association

Higher ethanol blends could cause engine damage. [EPA-HQ-OAR-2016-0004-2868-A1 p.1]

Pennsylvania Off Highway Vehicle Association

Higher ethanol blends could cause engine damage. [EPA-HQ-OAR-2016-0004-1757-A1 p.1]

Pennsylvania State Senate, 50th District

ethanol products are known to significantly deteriorate engines and fuel systems, thus creating a threat to automobiles, farm equipment, and other machinery that use gasoline. [EPA-HQ-OAR-2016-0004-2202-A1 p.1]

Pennsylvania State Snowmobile Association (PSSA)

Higher ethanol blends could cause engine damage [EPA-HQ-OAR-2016-0004-2869-A1 p.1]

Potomac River Yacht Clubs Association (PRYCA)

The PRYCA requests EPA's support and co-sponsoring of The Renewable Fuel Standard Reform Act of 2015, introduced by Representative Bob Goodlatte (R-VA). This bill has 30 original co-sponsors, both Democrat and Republican. It will effectively remove mandates for higher blend ethanol fuels (more than 10%) and allow for investment in other more compatible biofuels. This is a critical step to ensure safe fuels for the engines in boats of our boating public and other small engines. [EPA-HQ-OAR-2016-0004-2711-A1 p.1]

Scanlon Excavating & Trucking

The proposed standard leads to engine damage for older cars and small engines. [EPA-HQ-OAR-2016-0004-2413-A1 p.1]

Schnitker Law office, P. A.

Increased ethanol blends greater than E10 is more harmful to vehicles and most any engines resulting in a very large costs to American consumers. [EPA-HQ-OAR-2016-0004-1802-A1 p.1]

Scott, Dean

The EPA proposal for 2017 seeking to increase ethanol concentrations above the current E10 level will:

1. Damage internal combustion engines in automobiles, motorcycles, farm and lawn equipment, watercraft, all-terrain vehicles, and light sport aircraft, and especially engines using 2-stroke technology. [EPA-HQ-OAR-2016-0004-3460-A1 p.1]

Sheperd, Edward

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.162-164]

We run small engines. We've got chainsaws. We've got motorcycles. It's ruining it. It's tearing it up.

It does run hotter. The engines are air-cooled. They can't handle it.

It's the fuel's fault.

South Carolina African American Chamber of Commerce

There is a real concern that the smaller and older engines used in these businesses are either adversely impacted or cannot run on Ethanol blends higher than the current E10. [EPA-HQ-OAR-2016-0004-1711-A1 p.1]

Southeastern Meat Association

Rising requirements and demand will increase prices and vehicle maintenance costs caused by the blended fuel. [EPA-HQ-OAR-2016-0004-0475-A1 p.1]

Sportsmen Yacht Club

It is prohibited to use E15 in marine engines and it has been shown to cause serious damage. [EPA-HQ-OAR-2016-0004-1838-A1 p.1]

Stolar, Tim

In addition, there are reasons why cars have to be specially built to handle E85, and that is because ethanol is corrosive. What is that going to do to not only cars, but boats, snowmobiles, four wheelers, lawnmowers, and etc.? [EPA-HQ-OAR-2016-0004-1524-A1 p.1]

Vets4Energy

Additionally, 90% of vehicles currently on the road are not designed for high ethanol blends such as E15. Use of blends greater than E10 could seriously damage vehicle engines and void new car warranties. [EPA-HQ-OAR-2016-0004-1837-A1 p.1]

Virginia State Senate, 11th District

RFS continually show that damage is done to engines and fuel systems in many kinds of equipment [EPA-HQ-OAR-2016-0004-2259 p.1]

Washington State House of Representatives, 13th Legislative District

there is a great deal of concern and evidence that exceeding 10% ethanol (the “blend wall”) in fuel will damage engines. [EPA-HQ-OAR-2016-0004-0474-A1 p.1]

In addition to car and truck engines the potential damage to small engines from ethanol is even more significant. This includes 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 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-2016-0004-0474-A1 p.1]

EPA should lower the renewable fuel volume requirements and set the final ethanol mandate sufficiently below 10 percent. This will help to ensure that fuel such as E10 and E0 will continue to be readily available for engines that can be damaged by fuel containing ethanol. [EPA-HQ-OAR-2016-0004-0474-A1 p.1]

Washington State House of Representatives, 28th Legislative District

Furthermore, higher ethanol levels in gasoline used by the general public exceeding 10% could potentially lead to engine damage for cars and small engines. [EPA-HQ-OAR-2016-0004-0246 p.1]

Yinger, Alexander

it is prohibited to use E15 in my marine engine and it has been shown to cause damage. [EPA-HQ-OAR-2016-0004-3340-A1 p.2]

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 due to the possible harm it could cause to their vehicles, boats, motorcycles, and equipment/engine parts. Other commenters expressed concerns over the presence of any amount of ethanol in the gasoline used in these engines. Some commenters provided specific examples of compatibility issues with engine and fuel system components that they have observed due to ethanol.

The RFS program does not require the use of any particular ethanol blend, or even the use of ethanol itself. It is up to the market to determine which renewable fuels to use, in which concentrations, and in what portions of the marketplace. To the extent commenters are alleging problems caused by ethanol in gasoline or concerns regarding the E15 waiver decision, such issues are beyond the scope of this rulemaking. Nevertheless, we understand the commenter's concerns regarding compatibility issues of using higher 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 evaluate and perhaps improve in the future the regulatory program associated with E15.

7.5.5 Other information and ideas to overcome current challenges

Comment:**American Coalition for Ethanol (ACE)**

Another obstacle to increasing the use of flex fuels is that existing FFV credits are winding down, causing some automakers to reconsider adding cost-effective FFV technology to the cars and light trucks rolling off their assembly lines. Automakers need meaningful credits to continue making FFVs and retailers need more FFVs to help them justify adding E85 to their product offerings. If the Agency is unable or unwilling to help restore a meaningful FFV credit for automakers, we ask that EPA engage with us and auto manufacturers to develop a new type of credit for future engines that are better optimized to reduce greenhouse gas emissions (GHGs) and run efficiently on a high-octane, low carbon fuel. [EPA-HQ-OAR-2016-0004-1679-A2 p.10]

American Petroleum Institute (API)

A lack of clarification from EPA is leading not only to misinterpretations from individual station owners, but ethanol trade associations promoting the practice of relabeling E15 pumps in the summer as FFV only. EPA should clarify the regulations and prevent an un-level playing field in the marketplace. [EPA-HQ-OAR-2016-0004-3512-A2 p.44]

Anonymous 4

I propose adding a federal requirement that gas stations list the actual ethanol content in gasoline, even on those pumps that are 0%. This lets consumers choose whether or not to use ethanol blended fuels. [EPA-HQ-OAR-2016-0004-1894 p.1]

Anonymous 7

the EPA should focus to first establish technologies that achieve the intent of the legislation. [EPA-HQ-OAR-2016-0004-2457 p.1]

Anonymous 9

if you are wanting to keep the corn producers in your good graces without forcing such a thing on your constituents, you may wish to look into how you can give tax incentives and/or aid in how they can send excess corn to starving nations and count the value of that. This would then be counted on as a reduction of foreign aid in the sense of the dollar amounts actually sent, which then if invested in the producers of corn (and perhaps other raw goods) can thus spur the economy since they can now spend the additional revenue in a more profitable way (after all they are operating a business as well and the bottom line for them does indeed matter). [EPA-HQ-OAR-2016-0004-2895 p.1]

Biogas Researchers, Inc.

In furtherance of the actions requested above, we also request that Section II of the proposed 2017 RVO be revised, in the last sentence of the third paragraph, to add an additional bullet as shown below in bold print: Today we know that possible approaches to significantly expand renewable fuel use fall into a number of areas, such as:

- Increased use of E15 in model year 2001 and later vehicles,
- Increased use of E85 or other higher level ethanol blends in flexfuel 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 vehicles,
- Increased use of renewable electricity in electric vehicles,
- Increased use of renewable jet fuel and heating oil,
- Increased use of cellulosic and other nonfood based feedstocks, and
- Co-development of new technology vehicles and engines optimized for new fuels. [EPA-HQ-OAR-2016-0004-1650-A1 p.3]

Assign an appropriate equivalence value to renewable electricity that accurately accounts for the amount of fossil transportation fuel it displaces in comparison to ethanol. This will ensure EPA complies with the Clean Air Act's directions regarding credit values towards fulfillment of the Act's volume obligations. [EPA-HQ-OAR-2016-0004-1650-A1 p.3]

Biotechnology Innovation Organization (BIO)

The Biotechnology Innovation Organization ("BIO") respectfully requests that EPA continue to improve the functioning of the Renewable Fuel Standard ("RFS") program - and to help achieve the program's crucial environmental goals - by recognizing that all autotrophic microbial biomass generated from oxidized carbon in waste inorganic gases warrants equal treatment for purposes of the program and thus should be treated as renewable biomass for those purposes. In particular, EPA should take rapid action to clarify that the RFS program's definition of renewable biomass can accommodate both non-photosynthetic and non-heterotrophic biofuel pathways as a way to increase volumes of advanced biofuels. Such a clarification could help prevent avoidable shortfalls in investment in and production of advanced biofuels, which provide substantial greenhouse gas (GHG) emissions reductions from the transportation sector. [EPA-HQ-OAR-2016-0004-3601-A1 p.1]

The Energy Independence and Security Act of 2007 (EISA), which made crucial amendments to the Clean Air Act provisions that created the RFS program, specifies that renewable biomass includes "algae." EPA has already correctly made clear that algae, narrowly construed, are not the only microorganisms that should receive this treatment. [EPA-HQ-OAR-2016-0004-3601-A1 p.1]

Boat U.S.

The EPA should provide a far more robust program for ensuring adequate safeguards be in place to protect boat owners from inadvertently using E15, damaging their engines and voiding their warranties. [EPA-HQ-OAR-2016-0004-1866-A1 p.2]

Should the previous customer have chosen E85 for example, the boat's engine could receive a destructive dose of the wrong fuel with no warning or way to prevent it from happening. Additional consideration should be given to revising misfueling mitigation plans and the USDA's Biofuels Infrastructure Partnership grant program to prevent this from occurring. [EPA-HQ-OAR-2016-0004-1866-A1 p.2]

Florida Transportation Builders' Association, Inc. (FTBA)

Additionally, our consumers are drivers, and need to be properly educated about the higher levels of ethanol and the consequences for their vehicles, since very few own "flex fuel" automobiles. [EPA-HQ-OAR-2016-0004-1640-A1 p.1]

Governors' Biofuels Coalition

EPA Should Restore A Reasonable Credit For Flex Fuel Vehicles [EPA-HQ-OAR-2016-0004-1729-A1 p.8]

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. [EPA-HQ-OAR-2016-0004-1729-A1 p.9]

Hehmeyer, Owen

Is the purpose of mandating ethanol to reduce petroleum imports? Encouraging the use hybrid drivetrains in the light duty fleet via high mileage standards, opening more federal lands and waters for oil exploration, and allowing hydraulic fracturing to flourish will do far more to reduce imports. [EPA-HQ-OAR-2016-0004-2670-A1 p.1]

Congress feels its technological options are poor, it should directly fund more research. [EPA-HQ-OAR-2016-0004-2670-A1 p.2]

Illinois Corn Growers Association and Illinois Renewable Fuels Association (ILRFA)

USEPA should also analyze the cost, environmental and energy benefits of moving to higher octane gasolines with mid-level blends of ethanol that would provide better efficiencies and lower greenhouse gas emissions. This transition would enable both the RFS and the CAFÉ Program to work in harmony and meet the mutual goals of both. [EPA-HQ-OAR-2016-0004-1745-A2 p.3-4]

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. [EPA-HQ-OAR-2016-0004-1745-A2 p.7]

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. [EPA-HQ-OAR-2016-0004-1745-A2 p.7]

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. [EPA-HQ-OAR-2016-0004-1745-A2 p.7]

Provide incentives for the production of FFVs that are needed to consume RFS 2 renewable fuel volumes. [EPA-HQ-OAR-2016-0004-1745-A2 p.7]

EPA should approve an E-xx certification fuel which allows the autos to design around a higher octane fuel from higher blends of ethanol. [EPA-HQ-OAR-2016-0004-1745-A2 p.8]

USEPA should also publish the rules for a new certification fuel that would replace the outdated indolene as a certification fuel. [EPA-HQ-OAR-2016-0004-1745-A2 p.8]

Iowa Corn Growers Association (ICGA)

There are further challenges for mid-level ethanol blends, such as E15 and E30, as the lack of EPA's certification of these fuels as test fuels for new vehicles presents another market barrier to getting cleaner burning fuels into the tanks of the U.S. fleet. [EPA-HQ-OAR-2016-0004-1726-A1 p.3]

Iowa Office of the Governor

we once again call on federal leaders to investigate restrictive branded oil contracts that out-right prohibit the sale of E15 or make it excessively cumbersome or costly to offer a non-petroleum controlled product. [EPA-HQ-OAR-2016-0004-1747-A1 p.3]

Jung, Jerry

The European Union placed a seven percent cap on the contribution of biofuels produced from food crops.¹⁷ The EPA should consider a similar cap, limiting the damaging effect of corn-based ethanol. Lowering the cap will focus innovation on production of more advanced biofuels from non-food crops and waste. [EPA-HQ-OAR-2016-0004-1833-A1 p.4]

¹⁷ <http://biofuelstp.eu/biofuels-legislation.html>

Pennington-Peine, Nicholas

if we are to increase our engine efficiencies that we need ethanol to boost the octane of our fuel. [EPA-HQ-OAR-2016-0004-3303-A1 p.1]

Steitz, Jim

restrict the Standard to cellulosic or other forms of biofuel without such a horrendous land sacrifice at home, rainforest destruction abroad, and accelerated global warming everywhere. [EPA-HQ-OAR-2016-0004-2058 p.2]

United Parcel Service

The RFS Should Focus on Incenting the Co-Processing of Renewable Feed-stocks With Petroleum at Existing Refineries

If the RFS-eligible fuels included renewable feed-stocks that existing refineries can co-process with gasoline and diesel fuel, then this would allow large petroleum refiners to incorporate renewable content during the refining process, near the top of the fuel supply chain. Advanced drop-in fuels like Renewable Hydro-treated Diesel and Renewable Gasoline can be comingled with petroleum-based diesel and gasoline at the refinery gate and can share transportation and common storage downstream. Unfortunately, these feed stocks are not widely available and

currently are producible only in purpose-built refineries. The use of renewable feed stocks would efficiently displace petroleum crude oil, accomplishing one of the key objectives of RFS. This approach would also eliminate the need to produce today's "boutique fuels" that are incompatible with the petroleum product supply chain and would eliminate complex blending operations. Finally, this would firmly place the obligation of reducing the carbon intensity of fuels, together with the technical ability to accomplish this objective, upstream with the producers who bear the RFS obligation. [EPA-HQ-OAR-2016-0004-3603-A1 p.2]

Response:

We recognize that the marketplace must overcome a number of challenges to fully realize the potential that exists for the use of increased volumes of renewable fuels. We also recognize that the RFS program plays a central role in creating the incentives for realizing that potential. 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 controlling the aromatic content of gasoline, putting in place greater incentives for FFVs through various means, and approving new certification fuels. 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 in other contexts 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. 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.

7.5.6 Changing the point of obligation

Comment:

A & T Blacow Gas

I operate a small retail fuel business that struggles to compete with larger retailers in a highly competitive marketplace. As a member of the Small Retailer Coalition, I am writing to ask EPA to grant the petition filed by Valero Energy Corporation and open a rulemaking to amend the definition of "obligated party" under the Renewable Fuel Standard. [EPA-HQ-OAR-2016-0004-3583-A1 p.1]

I support moving the point of obligation under the Renewable Fuel Standard to rack sellers so that small retailers like me are not competitively disadvantaged by a government-created revenue stream that effectively subsidizes my larger competitors. Moving the point of obligation under the Renewable Fuel Standard (RFS) to rack sellers also will help me sell more renewable fuel. [EPA-HQ-OAR-2016-0004-3583-A1 p.1]

If EPA changes the rule so that the rack sellers are obligated under the RFS, they will have an incentive to discount renewable blends at the rack in order to push the volume they need to meet their own obligation. [EPA-HQ-OAR-2016-0004-3583-A1 p.1]

American Fuel and Petrochemical Manufacturers (AFPM)

Contrary to EPA's assertions, the point of obligation is within the scope of any proposed rule purporting to address constraints on supply of renewable fuel under the current RFS program. EPA must consider this issue and make any changes in the 2017 rule that are necessary to correct market failures and reduce the systemic cost of compliance with the RFS. [EPA-HQ-OAR-2016-0004-1814-A1 p.37]

AFPM is aware of several petitions submitted to EPA requesting a rulemaking to address this issue. By placing the obligation on the title holder of the hydrocarbon fuel at the rack just prior to blending, EPA would place the point of obligation and the point of compliance in closer proximity. Having these two points separated, as is currently the case, is a major regulatory flaw. Addressing the point of obligation in the 2017 rulemaking is necessary to provide additional certainty for 2017 and beyond. AFPM urges EPA to adhere to its commitment to readdress the point of obligation in this rulemaking. [EPA-HQ-OAR-2016-0004-1814-A1 p.39]

American Petroleum Institute (API)

API opposes moving the point of RFS obligation. Changing the point of obligation will not fix the blendwall problem or meaningfully impact the overall volume of renewable fuels. A change to the point of RFS obligation will create uncertainty in the RIN market and will complicate the administration and function of the RFS program. [EPA-HQ-OAR-2016-0004-3512-A2 p.41]

Moving the point of RFS obligation does not alleviate the infrastructure constraints throughout the distribution system. E15 and E85 will still face the current infrastructure hurdles, including retail equipment compatibility. The current RFS structure does not prevent renewable infrastructure investments, and as EPA recognized in the 2014 – 2016 RFS proposal, renewable producers are free to make such investments. Moving the point of obligation also will not address consumer behavior as the significant issue of vehicle compatibility will remain. E15 will continue to face significant hurdles including potential liability, and E85 will still be limited to FFVs. Changing the point of obligation will only shift the compliance responsibility to a different group of RFS participants. [EPA-HQ-OAR-2016-0004-3512-A2 p.41]

Not a Solution to the Blendwall

Changing the point of obligation under the RFS will not fix the blendwall problem or meaningfully impact the overall volume of renewable fuels. Any adjustment to the point of obligation 9 years into the program would create uncertainty in the administration of the RFS and, potentially, in the RIN market RFS compliance plans, investments and commercial agreements that were premised on the current structure would be disrupted. Furthermore, moving the point of obligation would not address vehicle compatibility and consumer acceptance issues, nor would it address infrastructure constraints throughout the distribution system that inhibit greater penetration of E15 and E85. Simply put, moving the point of obligation will merely shift the compliance responsibility under the RFS from the current group to a different group of entities in the fuel supply chain. [EPA-HQ-OAR-2016-0004-3579-A1 p.2]

Increased Complexity

Moving the point of obligation would increase complexity for our members, and for EPA to administer and enforce the program. The increased complexity affects the fuel distribution industry as the identification of obligated fuels becomes more difficult. While we believe that the number of obligated parties would increase significantly should the point of obligation be moved, regardless, the number of reporting instances would rise dramatically as RFS reporting would move from larger bulk production and import points to smaller terminal distribution points. Burdens to certain small businesses would also surge through a change to the point of obligation. These newly obligated parties, particularly small businesses, would be forced to acquire the necessary personnel, expertise, and materials needed to navigate the complexities of compliance reporting under EPA fuels programs. [EPA-HQ-OAR-2016-0004-3579-A1 p.2]

APCO Petroleum Corp.

I support moving the point of obligation under the Renewable Fuel Standard to rack sellers. [EPA-HQ-OAR-2016-0004-3511-A1 p.1]

Please level the playing field by putting the RFS obligation on the rack sellers so that they are not just taking advantage of a revenue stream that small retailers do not have. [EPA-HQ-OAR-2016-0004-3511-A1 p.1]

Association of American Railroads

The AAR takes no position with regard to whether any railroad would qualify as an obligated party if the proposal were ultimately adopted as a final rule, but notes that three Class I freight railroads are included by Valero in Appendix D as entities that qualify as "rack sellers." [EPA-HQ-OAR-2016-0004-3580-A1 p.3]

The EPA should not move forward on any proposal that would make railroads obligated parties under the RFS program. In its cover letter, Valero expresses its concerns with the current rules because they do not take into account "the ability to affect the amount of renewable fuels blended and sold to consumers." Any change to the RFS program that creates obligations on railroads would suffer from this same infirmity. Railroads use large quantities of diesel fuels in their operations and therefore receive diesel fuels in a variety of physical and commercial ways,

but are end-users not resellers, and in no way connected to the production, blending or sale of fuel to retail consumers. [EPA-HQ-OAR-2016-0004-3580-A1 p.3]

Similarly, Valero advocates adjustments to the RFS program "to ensure that (1) it promotes renewable fuels in the U.S. transportation fuel system and (2) the renewable fuel market operates efficiently without irrational and disproportionate burdens." Creating obligations on railroads would frustrate both of these goals. Obligating railroads would not promote renewable fuels and could create huge administrative compliance and Renewable Identification Number burdens on railroads for no public policy benefit. [EPA-HQ-OAR-2016-0004-3580-A1 p.3]

Aycock Oil, Inc.

My business is threatened by large retailers who enjoy numerous advantages over smaller retailers. In recent years, large retailers have gained an additional advantage over small retailers like me due to their ability to obtain ownership of fuel above the rack, which allows them to generate extra revenue from sale of renewable fuel blending credits (RINs). [EPA-HQ-OAR-2016-0004-3545-A1 p.1]

I support moving the point of obligation under the Renewable Fuel Standard to rack sellers so that small retailers like me are not competitively disadvantaged by a government-created revenue stream that effectively subsidizes my larger competitors. Moving the point of obligation under the Renewable Fuel Standard (RFS) to rack sellers also will help me sell more renewable fuel. Higher renewable fuel blends are often priced higher than regular gasoline or are not priced well enough to encourage consumer use. Under the current system, small retailers like me do not get any discount passed down from the rack for higher renewable fuel blends, so I cannot discount higher blends of renewable fuel at the pump. If EPA changes the rule so that the rack sellers are obligated under the RFS, they will have an incentive to discount renewable blends at the rack in order to push the volume they need to meet their own obligation. [EPA-HQ-OAR-2016-0004-3545-A1 p.1]

Some of the national trade associations have expressed opposition to moving the point of obligation under the RFS, however, these associations are expressing the position of their larger dues-paying members at the expense of the 70% of the retail gasoline market that is made up of small retailers. [EPA-HQ-OAR-2016-0004-3545-A1 p.1]

Bay Oil Company

My business is threatened by large grocery and hypermarket retailers that have advantages to price fuel lower than I can. One thing that makes it easier for these large retailers to compete and disadvantage smaller retailers is the ability to obtain extra revenue for sale of renewable fuel blending credits (RINs). That revenue stream is very significant and doesn't help the consumer in the long run. I support moving the point of obligation under the Renewable Fuel Standard to rack sellers. Under the current system, my larger competitors are able to generate revenue for selling RINs based on taking ownership of fuel above the rack. My business does not have the financial ability, or contractual leverage, to do the same thing. It is already hard to compete with the bigger players in this industry and this just makes it more unfair. Moving the point of obligation

to the rack would still encourage blending renewable fuel and could help my business take advantage of better prices for renewable as well as allow us to undertake retail level blending. Please level the playing field by putting the RFS obligation on the rack sellers so small retailers can better compete and participate in promoting renewable fuels. [EPA-HQ-OAR-2016-0004-3548-A1 p.1]

Bellomo Fuel & Service, Inc

I support moving the point of obligation under the Renewable Fuel Standard to rack sellers. [EPA-HQ-OAR-2016-0004-3505-A1 p.1]

Please level the playing field by putting the RFS obligation on the rack sellers so that they are not just taking advantage of a revenue stream that small retailers do not have. [EPA-HQ-OAR-2016-0004-3505-A1 p.1]

Bravo Fuel

I support moving the point of obligation under the Renewable Fuel Standard to rack sellers. [EPA-HQ-OAR-2016-0004-3503-A1 p.1]

Moving the point of obligation to the rack would still encourage blending renewable fuel [EPA-HQ-OAR-2016-0004-3503-A1 p.1]

Please level the playing field by putting the RFS obligation on the rack sellers for the reasons above, and so small retailers can better compete and participate in promoting renewable fuels. [EPA-HQ-OAR-2016-0004-3503-A1 p.1]

Brown Oil Distributors, LLC

My business is threatened by large grocery and hypermarket retailers that have advantages to price fuel lower than I can. One thing that makes it easier for these large retailers to compete and disadvantage smaller retailers is the ability to obtain extra revenue for sale of renewable fuel blending credits (RINs). That revenue stream is very significant and doesn't help the consumer in the long run. I support moving the point of obligation under the Renewable Fuel Standard to rack sellers. Under the current system, my larger competitors are able to generate revenue for selling RINs based on taking ownership of fuel above the rack. My business does not have the financial ability or contractual leverage to do the same thing. It is already hard to compete with the bigger players in this industry and this just makes it more unfair. Moving the point of obligation to the rack would still encourage blending renewable fuel and could help my business take advantage of better prices for renewable as well as allow us to undertake retail level blending. Please level the playing field by putting the RFS obligation on the rack sellers so small retailers can better compete and participate in promoting renewable fuels. [EPA-HQ-OAR-2016-0004-3551-A1 p.1]

California Fuel Supply, Inc. (CAFS)

I support moving the point of obligation under the Renewable Fuel Standard to rack sellers so that our business and others like us are not competitively disadvantaged from a government-created revenue stream than only subsidize my competitors. [EPA-HQ-OAR-2016-0004-3502-A1 p.1]

I ask that the EPA take into consideration the voice of small distributors and retailers in considering moving the point of obligation in order to eliminate the disadvantage felt by small retailers under the current system. [EPA-HQ-OAR-2016-0004-3502-A1 p.2]

Capital Oil, Inc.

My business is threatened by large distributors, grocery, and hypermarket retailers that have advantages to buy fuel lower than I can. However; another needless thing I think that maims it easier for these large distributors and retailers to compete and disadvantage smaller distributors and retailers is the ability to obtain extra revenue for the sale of renewable fuel blending credits (RINs). That revenue stream is very significant as the smallest changes in our market can have significant competitive impacts. However, this RIN revenue generation by large retailers doesn't help the consumer in the long run. I believe it hurts the consumer in the long run. I support moving the point of obligation under the Renewable Fuel Standard to rack sellers so that my business and others like me are not competitively disadvantaged from a government created revenue stream that only subsidizes my competitors. Large distributors and retailers are capable of taking advantage of the current point of obligation disadvantaging small distributors and retailers. I don't believe it was EPA's original intent to penalize certain classes of petroleum retailers, distributors or manufactures with the RIN program. I am told that small distributors and retailers both branded and unbranded make up nearly 70% of the retail gasoline market, while large distributors and retailers make up only 17% of the market. However, large distributors and retailers have grown immensely in the last decade. I think this is in part due to RIN revenues. [EPA-HQ-OAR-2016-0004-3543-A1 p.1]

Casey's General Stores, Inc.

Changing the point of obligation will not increase Casey's incentives to blend renewable fuels [EPA-HQ-OAR-2016-0004-3609-A1 p.2]

Casey's buys and blends renewable fuel because our customers are demanding this product, and we want to offer a product for sale at the best price available for our consumers to buy fuel. In fact, we have been purchasing E-10 fuel for much longer than the RFS structure has been in place.

Yet, proponents of changing the point of obligation have even cited Casey's as an example of a large retailer that sells RINs and is not passing the full value of the RIN onto consumers.² We find it interesting that Casey's is being used as an example of why the EPA should alter the point of obligation when we do not generally hold title to the fuel immediately prior to the sale from the rack. It seems, then, that Casey's is being used as an example merely because we are a retailer that is selling RINs. [EPA-HQ-OAR-2016-0004-3609-A1 p.3]

Changing the point of obligation will decrease consumption of renewable fuels and impede the goals of the RFS.

We buy fuel from upstream entities that control the makeup and quality of the product. If those entities do not sell product that is compatible with renewable fuels, we would not be able to blend. It is not appropriate, therefore to place an obligation on an entity whose ability to satisfy its obligations would be dictated by its upstream counterparts, many of whom do not support the RFS.

Retailers and wholesalers do not control the characteristics of the nation's petroleum supply. Refiners and importers control such gasoline products, that is why they are correctly named as obligated parties. [EPA-HQ-OAR-2016-0004-3609-A1 p.3]

² See, e.g., American Fuel & Petrochemical Manufacturers, Petition for Rulemaking (Aug. 4, 2016), at 12.

Chevron

Chevron remains opposed to a change in the point of obligation, and disagrees with AFPM's position and the comments it submitted on this issue. [EPA-HQ-OAR-2016-0004-1684-A1 p.4]

Changing the point of obligation is being advertised as a solution to the blendwall by placing the compliance requirement on the downstream parties who are then incentivized to make investments in ethanol blending infrastructure. However, such a change does nothing to incentivize investment in retail infrastructure for higher ethanol blends, nor does it guarantee that consumers will change their behavior to purchase higher level ethanol blends in the market. [EPA-HQ-OAR-2016-0004-1684-A1 p.4]

Instead, changing the point of obligation simply transfers the compliance burden to a different population of program participants. It allows small and independent refiners, who do not market ethanol blended gasoline, to avoid any compliance requirement and the associated cost. [EPA-HQ-OAR-2016-0004-1684-A1 p.4]

Colorado County Oil Co.

My business is threatened by large grocery and hypermarket retailers that have advantages to price fuel lower than I can. One thing that makes it easier for these large retailers to compete and disadvantage smaller retailers is the ability to obtain extra revenue for sale of renewable fuel blending credits (RINs). That revenue stream is very significant and doesn't help the consumer in the long run. I support moving the point of obligation under the Renewable Fuel Standard to rack sellers. Under the current system, my larger competitors are able to generate revenue for selling RINs based on taking ownership of fuel above the rack. My business does not have the financial ability or contractual leverage to do the same thing. It is already hard to compete with the bigger players in this industry and this just makes it more unfair. Moving the point of obligation to the

rack would still encourage blending renewable fuel and could help my business take advantage of better prices for renewable as well as allow us to undertake retail level blending. Please level the playing field by putting the RFS obligation on the rack sellers so small retailers can better compete and participate in promoting renewable fuels. [EPA-HQ-OAR-2016-0004-3571-A1 p.1]

CountryMark

RINs shortage, causing the prices to increase. This is additional cost to all obligated parties' bottoms line that does nothing to increase the supply of renewable fuels into the market. [EPA-HQ-OAR-2016-0004-1826-A1 p.14]

In CountryMark's view, the current manner of assigning RFS Point of Obligation to refiners and importers has resulted in gross economic distortions in the fuel market. **CountryMark advocates moving the Point of Obligation to the location in the fuel market that will minimize, if not eliminate, these distortions.** This should hopefully provide the necessary incentives to get greater quantities of renewable fuel into the marketplace. [EPA-HQ-OAR-2016-0004-1826-A1 p.14]

Cumberland Farms

I am writing on behalf of Cumberland Farms, Inc. to register our opposition to recent petitions to change the definition of an obligated party under the Renewable Fuels Standard. [EPA-HQ-OAR-2016-0004-3611-A1 p.1]

CVR Energy, Inc.

Given the program's goal of increasing the use of renewable fuels in the transportation fuel supply, the appropriate parties for compliance are the persons who have the ability to blend renewable fuels into transportation fuels. In other words, EPA should place the point of obligation and the point of compliance at the same place. Congress clearly recognized this as it specifically listed blenders as one of the potentially appropriate parties for EPA to consider. Continuing to separate these two points, as the Proposed Rule allows, is a major regulatory flaw. [EPA-HQ-OAR-2016-0004-1873-A1 p.2]

We support the definition of "obligated party" that is proposed in the Valero Petition. Under this definition, EPA would regulate refiners, importers, and blenders who own petroleum fuel at the bulk terminal or truck loading terminal just prior to retail. Making these "rack sellers" obligated parties would align the obligation to blend renewable fuel into the transportation system with the persons who have the ability to do so and would properly align incentives. Currently exempt parties would be incentivized for the first time to increase renewable fuel blending to ensure that they generate sufficient Renewable Identification Numbers ("RINs") for compliance. [EPA-HQ-OAR-2016-0004-1873-A1 p.2]

Dabbs Oil Co.

My business is threatened by large retailers who enjoy numerous advantages over smaller retailers. In recent years, large retailers have gained an additional advantage over small retailers like me due to their ability to obtain ownership of fuel above the rack, which allows them to generate extra revenue from sale of renewable fuel blending credits (RINs). I support moving the point of obligation under the Renewable Fuel Standard to rack sellers so that small retailers like me are not competitively disadvantaged by a government-created revenue stream that effectively subsidizes my larger competitors. Moving the point of obligation under the Renewable Fuel Standard (RFS) to rack sellers also will help me sell more renewable fuel. Higher renewable fuel blends are often priced higher than regular gasoline or are not priced well enough to encourage consumer use. Under the current system, small retailers like me do not get any discount passed down from the rack for higher renewable fuel blends, so I cannot discount higher blends of renewable fuel at the pump. If EPA changes the rule so that the rack sellers are obligated under the RFS, they will have an incentive to discount renewable blends at the rack in order to push the volume they need to meet their own obligation. [EPA-HQ-OAR-2016-0004-3542-A1 p.1]

Some of the national trade associations have expressed opposition to moving the point of obligation under the RFS; however, these associations are expressing the position of their larger dues-paying members at the expense of the 70% of the retail gasoline market that is made up of small retailers. [EPA-HQ-OAR-2016-0004-3542-A1 p.1]

Under the current system, my larger competitors are able to generate revenue for selling RINs based on taking ownership of fuel above the rack. My business does not have the financial ability or contractual leverage to do the same thing. It is already hard to compete with the bigger players in this industry and this just makes it more unfair. Moving the point of obligation to the rack would encourage blending renewable fuel and could help my business take advantage of better prices for renewable fuel. Please level the playing field by placing the RFS obligation on the rack sellers so small retailers can better compete and participate in promoting renewable fuels. [EPA-HQ-OAR-2016-0004-3549-A1 p.1]

Dutchess Terminals, Inc.

I support moving the point of obligation under the Renewable Fuel Standard to rack sellers. Under the current system, my larger competitors are able to take positions above the rack which allows them to make extra profit from selling RINs. My business does not have the financial ability to do the same thing. It is already hard to compete with the bigger players in this industry and this just makes it more unfair. Please level the playing field by putting the RFS obligation on the rack sellers so that they are not just faking advantage of a revenue stream that small retailers do not have. [EPA-HQ-OAR-2016-0004-3550-A1 p.1]

ExxonMobil

ExxonMobil is convinced that moving the point of obligation would not affect any of the real issues with the RFS. There is no credible evidence that the market would become more efficient, that such a system would reduce RIN fraud, or that it would accomplish anything other than create slightly different profiles with respect to obligated parties. ExxonMobil believes that moving the point of obligation would require significant agency and obligated party resources,

would create marketplace uncertainty, and would distract both EPA and the regulated community from seeking actual solutions to the numerous problems that still plague RFS and its implementation. For that reason, ExxonMobil does not support moving the point of obligation and urges the EPA not to do so. [EPA-HQ-OAR-2016-0004-1870-A1 p.3]

Fuel Distributors Inc.

I am concerned that the current structure of EPA's Renewable Fuel Standard creates a competitive disadvantage for my business while failing to encourage increased use of renewable fuels. I believe that these problems could be corrected by amending the rule to move the point of obligation under the RFS rule to rack sellers. [EPA-HQ-OAR-2016-0004-3610-A1 p.1]

My business is threatened by large grocery and hypermarket retailers that have advantages to price fuel lower than I can. One thing that makes it easier for these large retailers to compete and disadvantage smaller retailers is the ability to obtain extra revenue for sale of renewable fuel blending credits (RINs). That revenue stream is very significant and doesn't help the consumer in the long run. I support moving the point of obligation under the Renewable Fuel Standard to rack sellers. Under the current system, my larger competitors are able to generate revenue for selling RINs based on taking ownership of fuel above the rack. My business does not have the financial ability or contractual leverage to do the same thing. It is already hard to compete with the bigger players in this industry and this just makes it more unfair. Moving the point of obligation to the rack would still encourage blending renewable fuel and could help my business take advantage of better prices for renewable as well as allow us to undertake retail level blending. Please level the playing field by putting the RFS obligation on the rack sellers so small retailers can better compete and participate in promoting renewable fuels. [EPA-HQ-OAR-2016-0004-3612-A1 p.1]

Gordon Petroleum Inc.

My business is threatened by large retailers that are able to sell more fuel than I can and to offer it at a lower price. One thing that makes it easier for these large retailers to compete and disadvantage smaller retailers is the ability to obtain extra revenue for sale of renewable fuel blending credits (RINs). Under the current system, my larger competitors are able to generate revenue for selling RINs based on taking ownership of fuel above the rack. My business does not have the financial ability or contractual leverage to do the same thing. It is already hard to compete with the bigger players in this industry and this just makes it more unfair. Moving the point of obligation to the rack would encourage blending renewable fuel and could help my business take advantage of better prices for renewable fuel. Please level the playing field by placing the RFS obligation on the rack sellers so small retailers can better compete and participate in promoting renewable fuels. [EPA-HQ-OAR-2016-0004-3557-A1 p.1]

HollyFrontier Corporation

Moving the point of obligation to rack sellers is critical to bringing a closer alignment of incentives and risks associated with obligation and compliance. Such a change is necessary at this time to reduce systemic costs, benefiting the overall fuel market and ultimately consumers. Additionally, expanding the point of obligation to rack sellers will better allow the market to

determine whether the fuel supply can handle any additional biofuel based on engine and infrastructure capabilities and, most importantly, consumer demand. [EPA-HQ-OAR-2016-0004-2867-A1 p.4]

Specifically, HollyFrontier joins Valero and AFPM in respectfully requesting that EPA revise the definition of "obligated party" under the RFS program to eliminate flaws in the implementation of the RFS program that are undermining the effectiveness of the program in realizing its regulatory goals and, as a collateral result, unnecessarily imposing significant and unnecessary burdens on HollyFrontier and other independent refiners. As a result, the current RFS structure and renewable identification number ("RIN") market do not advance the objectives of the RFS program but rather provide economic windfalls to non-obligated parties who separate and trade RINs instead of promoting a level market-based playing field among the regulated industry. As described below, without the requested regulatory change, many independent refiners including HollyFrontier are confronting crippling economic costs to comply with a program that was intended to implement the RFS program and was not intended to endanger the viability of smaller independent refiners and retailers. [EPA-HQ-OAR-2016-0004-3602-A1 p.3]

To remedy these consequences, HollyFrontier joins Valero and AFPM in requesting that EPA move the point of obligation for RFS compliance downstream to rack sellers that typically separate RINs for renewable fuels after blending them with traditional petroleum fuels. The rack sellers are more capable of effectively promoting markets for renewable fuel blends at the retail level. In contrast, refiners and importers who are currently obligated parties under the RFS program are too far removed from the retail market to effectively promote the increased blending and sale of renewable fuels that is necessary to meet the renewable fuel requirements set by Congress. To shift the point of obligation downstream, HollyFrontier requests that EPA revise the RFS regulations to define the obligated party as:

1. the entity that holds title to the gasoline or diesel fuel, immediately prior to the sale from the bulk transfer/terminal system (as defined by IRS regulations in 40 C.F.R. § 48.4081-1) to a wholesaler, retailer or ultimate consumer and is required to report federal excise tax liability for the gasoline or diesel on its Form 720 Quarterly Federal Excise Tax Return, within the 48 contiguous states or Hawaii, during a compliance period or the entity that is the enterer (as defined by IRS Regulations in 40 C.F.R. § 48.4081-1) of the gasoline or diesel fuel into the 48 contiguous states or Hawaii outside of the bulk transfer/terminal system and is required to report federal excise tax liability for the gasoline or diesel on its Form 720, during a compliance period. [EPA-HQ-OAR-2016-0004-3602-A1 p.4]

Because HollyFrontier is an independent refiner that does not own many downstream assets, HollyFrontier operates as a wholesale marketer at terminals connected to major product pipelines. Given HollyFrontier's non-integrated system, our customers possess purchasing power in dictating volumes and types of fuels preferred. In the high-priced RIN period our industry has operated in for some time, bulk and large volume purchasers of fuel at the wholesale level increasingly are demanding production and delivery of clear, unblended products so they can blend the gasoline or diesel with renewable fuels, separate the RINs, and then market the RINs as

a new, lucrative profit center. Since these entities are not obligated parties under the RFS, they have no legal requirement to sell the RINs, retire RINs with EPA when demonstrating compliance, or use proceeds generated by RIN sales as funds for investing to further the goals set forth by Congress and EPA under the RFS program. Thus, while HollyFrontier is incentivized to maximize sales of gasoline and diesel blended with renewable fuels wherever operations permit, due to the terminals' demand for clean, unblended products and their economic incentive to control the RINs in some of our regions, we find limited demand for blended products produced by HollyFrontier and, in particular, virtually no demand for products blended with greater than 10% ethanol. In fact, year to date we have averaged less than 100 barrels per day of flex-fuel gasoline sales, representing approximately 0.01% of our total gasoline sales.

As an obligated party with limited opportunity to separate RINs by blending its products with renewable fuels, HollyFrontier has no choice but to purchase RINs on the open market to fulfill its compliance obligations under the RFS program. As a result of the limited market for high-ethanol content blends and the ever-increasing RFS volume mandates, RIN prices have risen dramatically over the past several years and RFS compliance has lead to costs and burdens to the company which cannot be passed on to our customers. *In fact, RFS compliance costs now exceed total payroll costs for our 2,700 employees.* [EPA-HQ-OAR-2016-0004-3602-A1 p.4-5]

these extraordinary costs are not an inherent or necessary cost of achieving Congress' renewable fuel goals. Instead, they are the product of what we believe are fundamental flaws in EPA's RFS regulations that create market inefficiencies and allow non-obligated parties to separate RINs and sell them at a profit to independent refiners such as HollyFrontier that have no other means of complying with their RFS obligations [EPA-HQ-OAR-2016-0004-3602-A1 p.5]

II. EPA Has Clear and Undisputed Authority to Revise the Definition of Obligated Party

The Clean Air Act does not require EPA to define refiners and importers as obligated parties for purposes of compliance with the RFS program. Instead, it directs EPA to issue regulations that "contain compliance provisions applicable to refiners, blenders, distributors, and importers, *as appropriate*, to ensure that the requirements" of the RFS program are met. [EPA-HQ-OAR-2016-0004-3602-A1 p.5-6]

III. Moving the Point of Obligation to Rack Sellers Will Improve the RINs Market and Promote Renewable Fuel Blending

By moving the point of obligation from refiners and importers to rack sellers, EPA will address two critical problems with the current implementation of the RFS program. First, moving the point of obligation to rack sellers will improve the functioning of RINs markets by more closely aligning the point of obligation with the renewable fuel blending process where RINs are separated. Improving the alignment between these two points will ensure that, in virtually all cases, obligated parties will be able to separate their own RINs which they can then use for compliance if they choose. [EPA-HQ-OAR-2016-0004-3602-A1 p.6]

Second, moving the point of obligation to rack sellers will create incentives to increase the blending of renewable fuels. Independent refiners without significant downstream assets are too

far upstream to have any meaningful influence over the types of fuels that are ultimately demanded and purchased by consumers. In contrast, rack sellers are directly involved in the fuel blending process and have the ability to promote the sale of blended products, including gasoline blended with higher percentages of ethanol. [EPA-HQ-OAR-2016-0004-3602-A1 p.6]

Jasper Oil Company

I support moving the point of obligation under the Renewable Fuel Standard to rack sellers. Under the current system, my larger competitors are able to generate revenue for selling RINs based on taking ownership of fuel above the rack. My business does not have the financial ability or contractual leverage to do the same thing. It is already hard to compete with the bigger players in this industry and this just makes it more unfair. Moving the point of obligation to the rack would still encourage blending renewable fuel and could help my business take advantage of better prices for renewable as well as allow us to undertake retail level blending. Please level the playing field by putting the RFS obligation on the rack sellers so small retailers can better compete with the huge corporate owned and operated stores and participate in promoting renewable fuels. [EPA-HQ-OAR-2016-0004-3606-A1 p.1]

JJ Gouge & Son Oil Company, Inc.

My business is threatened by large retailers that are able to sell more fuel than I can and to offer it at a lower price. One thing that makes it easier for these large retailers to compete and disadvantage smaller retailers is the ability to obtain extra revenue for sale of renewable fuel blending credits (RINs). I support moving the point of obligation under the Renewable Fuel Standard to rack sellers so that my business is not competitively disadvantaged by a government-created revenue stream that only subsidizes my competitors. [EPA-HQ-OAR-2016-0004-3617-A1 p.1]

I also would like to address the issue concerning retailer trade groups that have come out and spoken against moving the point of obligation. These trade groups are merely speaking on behalf of their largest dues paying members. These members are large retailers who are capable of taking advantage of the current point of obligation to move up in the rack and acquire RIN revenues creating a competitive disadvantage for small retailers. Small retailers make up nearly 70% of the retail gasoline market. Very large retailers makeup about 17% but have grown rapidly over the past decade in part due to the RIN revenues they enjoy. The disproportionate advantages that the RFS creates for large retailers threatens the future of businesses like mine — currently the majority of the market. [EPA-HQ-OAR-2016-0004-3617-A1 p.1]

This is why I and other owners of small retail fuel businesses have united in the Small Retailer Coalition to make sure our perspective is considered. I ask that EPA consider moving the point of obligation in order to eliminate the disadvantage felt by small retailers under the current system [EPA-HQ-OAR-2016-0004-3617-A1 p.2]

Kendrick Oil Company

My business is threatened by large retailers that are able to sell more fuel than I can and to offer it at a lower price. One thing that makes it easier for these large retailers to compete and disadvantage smaller retailers is the ability to obtain extra revenue for sale of renewable fuel blending credits (RINs). Under the current system, my larger competitors are able to generate revenue for selling RINs based on taking ownership of fuel above the rack. My business does not have the financial ability or contractual leverage to do the same thing. It is already hard to compete with the bigger players in this industry and this just makes it more unfair. Moving the point of obligation to the rack would encourage blending renewable fuel and could help my business take advantage of better prices for renewable fuel. Please level the playing field by placing the RFS obligation on the rack sellers so small retailers can better compete and participate in promoting renewable fuels. [EPA-HQ-OAR-2016-0004-3618-A1 p.1]

M. Spiegel & Sons Oil Corp.

I support moving the point of obligation under the Renewable Fuel Standard to rack sellers. Under the current system, my larger competitors are able to take positions above the rack which allows them to make extra profit from selling RINs. My business does not have the financial ability to do the same thing. It is already hard to compete with the bigger players in this industry and this just makes it more unfair. Please level the playing field by putting the RFS obligation on the rack sellers so that they are not just taking advantage of a revenue stream that small retailers do not have. [EPA-HQ-OAR-2016-0004-3547-A1 p.1]

Magellan Midstream Partners

We believe the definition of an obligated party should be changed from the refiner and importer to the entity that owns the refined petroleum product(s) and renewable fuels prior to the sale at the terminal loading rack. [EPA-HQ-OAR-2016-0004-2695-A1 p.2]

The current definition of an obligated party does not provide the right party with the motivation to increase renewable fuel demand at the retail location. [EPA-HQ-OAR-2016-0004-2695-A1 p.2]

Moving the point of obligation to the entity who owns the refined products and renewable fuels prior to the sale at the terminal loading rack compliments the policy objectives of the RFS. [EPA-HQ-OAR-2016-0004-2695-A1 p.2]

Marathon Petroleum Corporation (MPC)

MPC opposes moving the point of obligation for the RFS. Moving the point of obligation does nothing to solve the main infeasibilities of the RFS: it does not solve the vehicle compatibility issue, it will not alleviate infrastructure constraints throughout the distribution system, and it will not change consumer behavior. [EPA-HQ-OAR-2016-0004-1806-A1 p.8]

Moving the point of obligation to the rack will not incentivize retail station owners to make the capital investments necessary to sell the higher ethanol and biodiesel blends necessary. Retailers make the decision on what products to sell based on the consumer demand and what margin they

can make on selling the transportation fuel. As we have seen, the current consumer fleet cannot consume and does not demand higher ethanol blends. [EPA-HQ-OAR-2016-0004-1806-A1 p.9]

In addition to the above, we believe that moving the point of obligation would result in new complexities related to having new parties become obligated parties that previously were not; potentially increasing the number of obligated parties, which would increase the workload for the EPA. We are also concerned about the significant increase in the number of transactions at the terminal level as compared to batch reporting at the refinery level. This could increase the number of errors and inadequate RVO reporting as parties who previously were not obligated parties would have to track all their activities. These activities would include tracking terminal loads and the corresponding volumes with each load, oftentimes with the loading occurring at a terminal owned by another party. In addition, these newly obligated parties would be required to show compliance with the various RIN types, when some of the smaller obligated parties may only be in the business of selling gasoline. Moving the point of obligation would create a hardship upon these business owners in complying with all the renewable fuel categories. [EPA-HQ-OAR-2016-0004-1806-A1 p.9]

As explained in this letter, moving the point of obligation to the terminal rack will not solve the ethanol blending limitations in the retail infrastructure, will not increase the amount of advanced biofuels in the marketplace, and ultimately may compromise the integrity of the RIN program. [EPA-HQ-OAR-2016-0004-3607-A1 p.1]

Moving the Point of Obligation to the Terminal Rack Will Not Increase Ethanol Blending

As noted, conventional ethanol can be used to fulfill the total renewable fuel obligation. The ethanol blendwall is an acknowledged constraint on the amount of ethanol that can be consumed in transportation fuel.⁷ Despite Petitioner's contentions, moving the point of obligation to the terminal rack will not increase ethanol blending nor relieve the significant supply constraints on the use of ethanol in transportation fuel. Petitioners argue that because blenders are not obligated parties, they have no incentive to blend greater volumes of ethanol in gasoline and may even be limiting their ethanol blending so as to increase the value of the D6 RIN.⁸ This statement is merely speculation about the intent of the blender. Petitioners ignore the factual supply constraints to increased ethanol blending — the lack of retail infrastructure to store and dispense higher ethanol blends and the lack of the consumer's ability to use gasoline-ethanol blends above E10. [EPA-HQ-OAR-2016-0004-3607-A1 p.5]

Retail station upgrades are necessary to store and dispense gasoline-ethanol blends greater than E10. [EPA-HQ-OAR-2016-0004-3607-A1 p.5]

Consumer demand and the vehicle fleet constrain the ability to increase ethanol blending.

Approximately 7.5% of the vehicle fleet are flex fuel vehicles capable of using E15 or ethanol flex fuel (E85).¹³ Those with flex fuel vehicles are more frequently purchasing E10 instead of E85. Based on our sales data, E85 still has not been accepted by the consumers.

Moving the Point of Obligation to the Terminal Rack Does Not Incentivize Growth in Advanced Biofuels

The volume of conventional biofuels has nearly reached the statutory target of 15 billion gallons. The goal, therefore, should be on relieving supply constraints to advanced biofuel growth. Moving the point of obligation to the terminal rack will not achieve this goal. [EPA-HQ-OAR-2016-0004-3607-A1 p.6]

Importing of renewable fuel also requires additional review to ensure that the product and associated RINs meet the renewable fuel standards. [EPA-HQ-OAR-2016-0004-3607-A1 p.7]

Even if not directly importing the renewable fuel, there is additional risk in accepting imported renewable fuel and associated RINs that a Rack Seller may not be willing to undertake due to a lack of resources to review documentation. [EPA-HQ-OAR-2016-0004-3607-A1 p.7]

Moving the Point of Obligation to the Terminal Rack May Compromise the Integrity of the RIN Program

Moving the Point of Obligation to the Terminal Rack Will Significantly Increase the Number of Facilities and Transactions Subject to Regulation.

Even if the number of obligated parties remains relatively the same, the number of points of obligation will significantly increase. In fact, moving the point of obligation to the terminal rack would create over 1,000 locations where gasoline and diesel transactions would need to be measured and recorded to calculate a party's renewable volume obligations.²¹ [EPA-HQ-OAR-2016-0004-3607-A1 p.7]

Current Obligated Parties Have Developed the Expertise and Experience to Protect the Integrity of the RIN

Managing the complexities of the RIN program to ensure RIN integrity takes a level of resources, staff, knowledge and expertise that smaller Rack Sellers do not have. [EPA-HQ-OAR-2016-0004-3607-A1 p.8]

Moving the point of obligation to the terminal rack and establishing new, inexperienced obligated parties would create uncertainty in RIN transactions and open the door to entities looking to manipulate the system. [EPA-HQ-OAR-2016-0004-3607-A1 p.8]

As shown, moving the point of obligation to the terminal rack will not solve the ethanol blendwall, does not encourage advanced biofuel growth and may, in fact, compromise the integrity of the RIN market. Moving the point of obligation may appease Petitioners' financial concerns, but at the expense of new obligated parties that are not positioned to meet all four renewable fuel categories and, therefore, would be similarly required to comply by purchasing RINs on the market. There is no perfect point of obligation in the RFS program because of the way in which the four renewable fuel categories are nested and the way in which renewable volume obligations are calculated. Because moving the point of obligation does not solve the

RFS program supply constraints but instead could create new compliance concerns, EPA should deny the Petitions. [EPA-HQ-OAR-2016-0004-3607-A1 p.9]

¹³ Percentage based on 2015 EIA Data for ethanol flex fuel cars and trucks: <http://www.eia.gov/forecasts/aeo/data/browser/#/?id=49-AE02016&cases=ref2016—ref no cpp&sourcekey=0>²¹ Active Fuel Terminals as of August 31, 2016, at https://www.irs.gov/pub/irs-utl/tcn_db.pdf

Mass Comment Campaign in sponsored by Anonymous 30 (Paper) - (5)

My business is threatened by large retailers who enjoy numerous advantages over smaller retailers. In recent years, large retailers have gained an additional advantage over small retailers like me due to their ability to obtain ownership of fuel above the rack, which allows them to generate extra revenue from sale of renewable fuel blending credits (RINs). My business does not have the financial ability or contractual leverage to do the same thing. I support moving the point of obligation under the Renewable Fuel Standard to rack sellers so that small retailers like me are not competitively disadvantaged by a government-created revenue stream that effectively subsidizes my larger competitors. Moving the point of obligation under the Renewable Fuel Standard (RFS) to rack sellers also will help me sell more renewable fuel. [EPA-HQ-OAR-2016-0004-3604-A1 p.1]

Monroe Energy, LLC

EPA is no longer able to "ensure" that transportation fuel contains the applicable biofuels volumes set by Congress, and it is now clear that EPA's programmatic choice to place the compliance obligation on refiners has itself become a "supply constraint" that is limiting the amount of renewable fuel that can be supplied. That choice must be revisited, and that supply constraint must be eliminated. EPA should act on the numerous pending petitions addressing the point of obligation in conjunction with issuing the final standards for 2017. [EPA-HQ-OAR-2016-0004-1869-A1 p.40]

Murphy USA, Inc.

Murphy strongly disagrees with this assertion. It believes that such a change will actually discourage additional investment and the use of renewable fuels, and will not result in bringing more renewable fuels into the transportation fuel market. There is ample incentive under the current RFS Program to achieve the objectives of the program -- for blenders to build infrastructure and market renewable fuels [EPA-HQ-OAR-2016-0004-1875-A1, pp.1-2]

Advocates for moving the point of obligation assert that blenders retain large RIN revenues, do not pass the value of the RIN through in their pricing, and these actions undermine the market's ability to expand the use of renewable fuels. However, nothing could be further from the truth. Indeed, the gasoline market is very competitive; blenders typically pass-through all or a great deal of the RIN value to consumers, depending on the area. In most cases blenders use the

remaining margin to expand their infrastructure and sales of renewable fuels. [EPA-HQ-OAR-2016-0004-1875-A1 p.2]

Therefore, if the "point of obligation" were changed, and blenders/marketers were designated as obligated parties, they would incur an additional compliance cost. These costs would significantly raise their cost of product and inhibit or prevent them from reducing the price of high-blend fuels to encourage consumption and from building new infrastructure. The change would actually serve as a disincentive to invest and expand their renewable fuel operations. [EPA-HQ-OAR-2016-0004-1875-A1 p.2]

National Association of Truck Stop Operators (NATSO)

- EPA should explicitly reject the idea of revising 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 position holders rather than refiners and importers were obligated parties, the RFS’s objectives would not be achieved.
- The current policy has worked effectively: it creates a strong financial incentive for downstream fuel marketers to blend renewable fuels into the fuel supply all while lowering the prices at the pump for consumers. This is government policy at its finest: Establishing a market-based financial inducement for private actors to engage in behavior that is considered beneficial to society at large.
- Changing the point of obligation would have the opposite effect of *discouraging* downstream fuel marketers from blending renewable fuels into the fuel supply, reducing competition and thereby raising the prices at the pump for consumers. [EPA-HQ-OAR-2016-0004-1830-A1 p.2-3]

Currently, the entities that are “obligated parties” are fuel refiners and importers. This approach has worked effectively: It creates a strong financial incentive for downstream fuel marketers to blend renewable fuels into the fuel supply all while lowering prices at the pump for consumers. Given motor fuel consumers’ price-sensitivity, it is imperative that renewable fuels be sold on a cost-competitive basis with traditional petroleum-based fuels if they are to achieve the type of market penetration that the RFS envisions. [EPA-HQ-OAR-2016-0004-1830-A1 p.6]

If position holders were to become obligated parties, there would inevitably be a decrease in the number of “position holders.” Indeed, marketers would be incentivized to acquire fuel “below the rack” in order to avoid RFS obligations. The cost of fuel acquired “above the rack” would increase because doing so would entail RFS obligations. This cost increase would be passed down to all fuel purchased below the rack, including ultimately consumers in the form of higher prices at the pump. (As discussed below, this trend has already taken place in California under the Low Carbon Fuel Standard (“LCFS”) in place there.) [EPA-HQ-OAR-2016-0004-1830-A1 p.7]

As a general matter, the petition relies upon various flawed premises (*e.g.*, that the legal and market dynamics prompting EPA to exercise its waiver authority would disappear if the point of obligation shifts downstream) and mischaracterizes some very predictable consequences that its

proposed policy shift would trigger. Although the Proposal does not include any reference to shifting the point of obligation, and therefore the final rule cannot include such a policy shift, for the reasons outlined below NATSO urges the Agency to explicitly reject this petition contemporaneously with the issuance of the final rule. [EPA-HQ-OAR-2016-0004-1830-A1 p.8]

Not only would it be absolved of most of its RVO obligations, it would acquire substantial leverage to raise prices. The predictable diminution in position holders at terminals throughout the country (many would only buy product below the rack to avoid an RVO) would mean less competition for Valero at the rack, thereby enabling it to raise prices. Valero would also remain able to export product rather than sell it domestically if the export arbitrage opened up; this business position would be far more attractive if the company did not assume RVOs for product introduced into U.S. commerce. [EPA-HQ-OAR-2016-0004-1830-A1 p.12]

The Valero petition asserts that California's LCFS "illustrates that placing the obligation at the rack effectively incentivizes market penetration of renewable fuels." In fact, California's LCFS has demonstrated that placing the point of obligation at the rack decreases the number of position holders in California, allowing those that remain to raise prices without fear of being undercut by competition. Raising the price for renewable fuel blends is not the best way to incentivize customers to purchase them. [EPA-HQ-OAR-2016-0004-1830-A1 p.15]

New Distributing Company, Inc.

My business is threatened by large retailers that are able to sell fuel at a lower price. This is largely due to the ability of these large retailers to obtain extra revenue for sale of renewable fuel blending credits (RINs). I support moving the point of obligation under the Renewable Fuel Standard to rack sellers so that my business is not competitively disadvantaged by a government-created revenue stream that only subsidizes my competitors. [EPA-HQ-OAR-2016-0004-3544-A1 p.1]

I also would like to address the issue concerning retailer trade groups that have come out and spoken against moving the point of obligation. These trade groups are merely speaking on behalf of their largest dues paying members. These members are large retailers who are capable of taking advantage of the current point of obligation to move up in the rack and acquire RIN revenues creating a competitive disadvantage for small retailers. Small retailers make up nearly 70% of the retail gasoline market. Very large retailers makeup about 17% but have grown rapidly over the past decade in part due to the RIN revenues they enjoy. The disproportionate advantages that the RFS creates for large retailers threatens the future of businesses like mine - currently the majority of the market. Yet, the large retailers have the loudest voices in the national trade associations. The national trade association opposition to moving the point of obligation is contrary to the position' small retailers, such as myself, take in support of moving the point of obligation. By these trade groups taking a firm stance against moving the point of obligation, they are ignoring the concerns of small retailers, and therefore, are not representing the interest of many of their members. [EPA-HQ-OAR-2016-0004-3544-A1 p.1-2]

PBF Energy LLC

As previously stated, PBF continues to strongly object to EPA's original, inequitable, unilateral decision to impose RFS ethanol volume compliance obligations on refiners and importers rather than on downstream entities that are closer to the point at which ethanol is blended into gasoline. After all, the Clean Air Act explicitly authorizes EPA to impose the RFS compliance obligation on "refineries, blenders, and importers, as appropriate,"¹ yet the Agency has been hesitant to even consider changing the Point of Obligation, which also leads to the Agency failing to meet stated goals of the RFS program because independent refiners like PBF typically have minimal to no blending operations. [EPA-HQ-OAR-2016-0004-2692-A1 p.3]

Pep-Up Inc.

Under the RFS, very large retailers have the ability to purchase their fuel above the fuel terminal rack and thus control the blending of the fuel and thus capture and hold the RIN. They are blending and selling E10, the same fuel I am purchasing from the rack, but unlike small retailers, they are keeping a RIN profit that under current RIN prices represents around 10 cents a gallon. This is more than my entire per gallon margin. It grossly distorts the competitive landscape. EPA must fix this. [EPA-HQ-OAR-2016-0004-3572-A1 p.1]

Recently Valero filed a petition to change the point of obligation. Small retailers everywhere not only support this petition, our very survival depends on it. Some of our national trades have come out against moving the point of obligation; even my own NACS has initially indicated that they want to hold the status quo. However, EPA should know these trades are speaking only for the largest due paying members. This Trade Associations are not representing the interest of the small retailer: [EPA-HQ-OAR-2016-0004-3572-A1 p.1]

The correct placement of the point-of-obligation at the point of compliance would obviate the competitive disadvantage that small retailers face due to the RIN-related revenue generation of large retailers. The change would allow all retailers to compete on a level playing field. It would also be the most efficient and effective means of passing through the RIN value to consumers. Furthermore, it is also clear that revenues from the sale of increasingly scarce RINs by large retailers are not being spent on additional blending infrastructure. [EPA-HQ-OAR-2016-0004-3572-A1 p.2]

Accordingly, I respectfully request that EPA reconsider its current definition of "obligated party." This change would be consistent with the mandates and the spirit of the Clean Air Act ("CAA"). [EPA-HQ-OAR-2016-0004-3572-A1 p.2]

For numerous small retailers across the nation, the RFS as implemented by EPA amounts to a massive industry-wide transfer of wealth and allows the large retailers a substantial competitive advantage that is simply not available to small retainers. The RFS was not conceived of by Congress as an anti-competitive policy and, in my view, EPA should consider changing the point-of-obligation to reflect the needs of all market participants. [EPA-HQ-OAR-2016-0004-3572-A1 p.2]

PetroTex Fuels, Inc.

My business is threatened by the large grocery and hypermarket retailers that have certain volume advantages to price fuel at a lower rate in the market than I have the ability to purchase at Rack. With that, be advised that one thing that makes it possible for these large retailers to take advantage of the smaller Marketer Network; is the ability to obtain extra revenues driven by the sale of renewable industry fuel blending credits, known as RINs. This revenue stream is significant as the smallest adjustment in the market place fuel cost has significant volume impact on our business as proven thus far. However, as you also must know, this RIN revenue generation by large retailers does not help the consumer in the long run, and because of that, I hereby make strong request to your Moving The Point Of Obligation under the Renewable Fuels Standard to Rack Sellers, so that my business and others like it in industry are not competitively disadvantaged, as caused by a government-created revenue stream that only subsidizes a certain class of trade, [EPA-HQ-OAR-2016-0004-3546-A1 p.1]

Also with that, I likewise raise concern with regard to the Retailer Trade Groups that have surfaced speaking-out against moving the Point Of Obligation, and with that, as you also must know, these trade groups are merely speaking on behalf of their largest dues paying members, with those members being the large retailers to whom I am speaking about. With that, I ask you to make this change in obligation point, and sincerely request that you personally take-on this request as a serious requirement with merit in business. Also so you are made aware, please be advised that the smaller marketers with independent retailers make up approximately 70% of the retail gasoline market in the continental United States. In comparison, the large retailers makeup only about 17%, but have grown rapidly over the past decade in part due to the RIN revenues stream they currently enjoy. The disproportionate advantages that the EPA has created under the current RFS program allowance utilized by these large retailers has threatened the future of all marketer businesses like mine in industry, and these large retailers have the loudest voices in the national trade associations as you would expect. With that, the national trade association's opposition to moving the point of obligation is contrary to the position of all smaller marketer and retailers who absolutely support Moving The Point Of Obligation To The Rack. By these trade groups taking their stance against moving the point of obligation, they obviously are ignoring small marketers/retailer concerns and this disadvantaged circumstance also nets-out-to be a government allowed competitive disadvantage being experienced in business by the small to mid-sized petroleum Marketer and Retailer class of trade, and it is wrongly allowed. With that, be advised that you do not represented fairness in trade with your allowing this point of obligation being in its current structure as it pertains to the Majority of Petroleum Marketer's across the country. With that, I hereby request that the EPA take into consideration the voice of the small Marketer segment in industry thereby Moving The Point Of Obligation To The Rack, so to eliminate the disadvantage circumstance in industry as currently being experienced under this current lopsided system. [EPA-HQ-OAR-2016-0004-3546-A1 p.1-2]

Phillips 66 Company

Phillips 66 does support moving the point of obligation to the terminal position holder as a matter of equity. We provided comments in response to EPA's requests during the original RFS2 proposed rulemaking and our position has not changed. Currently, refiners incur an obligation relative to their production of gasoline and transportation diesel fuel. Some refiners control these volumes all the way to the terminal rack, while others sell some or all of the volumes to other

parties who then own them at the terminal. Current obligated parties who do not have marketing volumes equal to their production are dependent upon purchasing RINs to meet their compliance obligations. Moving the point of obligation to the position holder at the terminal would eliminate the need for obligated parties to purchase all or a significant portion of their required RINs from other entities, a condition that exists for some obligated parties today. [EPA-HQ-OAR-2016-0004-1807-A1 p.8]

EPA has evaluated this issue in the past and previously decided not to make a change. In part, the decision was influenced by the perception that the number of obligated parties would increase, making it more difficult for EPA to administratively manage the program. It is difficult to ascertain how a change in the point of obligation would impact the number of obligated parties. Some marketers that engage in blending are not currently obligated parties but would become so with a change. Some of these entities may be engaging in gasoline only blending or diesel only blending. They may not be equipped or staffed to handle compliance in all 4 renewable categories (cellulosic, biomass-based diesel, advanced, and total renewable). These entities may choose to change their business model and arrange to purchase blended fuel from another party rather than take on the burden of becoming an obligated party. [EPA-HQ-OAR-2016-0004-1807-A1 p.8]

It is important to point out that shifting the point of obligation would not solve the basic flaws in the RFS program, will not alleviate the fundamental infrastructure constraints that exist throughout the distribution system and in the vehicle fleet, and is not a solution to the E10 blend wall. These constraints will continue to limit E15 and E85 volume feasibility. The E10 blend wall coupled with lack of advanced biofuel availability will still require EPA to reduce statutory volumes to make the RFS workable. Changing the point of obligation re-allocates the volume obligation and alleviates, for some entities, the partial or total reliance on the paper RIN market for compliance and for that reason, we are supportive. [EPA-HQ-OAR-2016-0004-1807-A1 p.8]

RaceTrac Petroleum, Inc.

RaceTrac Petroleum, Inc. ("RaceTrac") writes to oppose the various petitions (collectively, the "Petitions") for a rulemaking to change the point of obligation under the Renewable Fuel Standard program ("RFS" or the "Program").¹ [EPA-HQ-OAR-2016-0004-3608-A1 p.1]

Contrary to assertions found in the Petitions, the current structure has incentivized companies like RaceTrac to blend more renewable fuels. In fact, we are blending as much as we are able to. Retailers do not create demand, we respond to demand. Under the existing RFS structure, however, we are able to pass along Renewable Identification Number ("RIN") value to consumers who are incredibly price conscious. By passing along RIN value, we are able to sell products blended with renewables at a price that is competitive with unblended products, and thus desirable to consumers. If we were unable to price blended product competitively, U.S. consumption of renewable product would decrease—ultimately thwarting the goals of the RFS. [EPA-HQ-OAR-2016-0004-3608-A1 p.1]

we have had to adapt to the RFS. On the other hand, a small minority of obligated parties have not effectively positioned themselves to comply with their RFS obligations. This minority is now

urging policymakers to shift the point of obligation downstream to fuel marketers like RaceTrac. Revising the point of obligation at this time and under these conditions would cause upheaval of a functioning marketplace and supply chain, pushing many retailers to change their blending activities. [EPA-HQ-OAR-2016-0004-3608-A1 p.2]

Finally, the current retail fuels market is a robust competitive marketplace. The current structure of the RFS encourages continued competition at the rack, which benefits all retailers and most of all, consumers. Should EPA change the point of obligation, however, many entities that currently buy fuel above the terminal may move further downstream, reducing competition at the rack. With fewer competitors, fuel wholesalers will have even fewer incentives to price competitively at wholesale. Reduced competition at wholesale is bad for large and small retailers alike, and means higher prices at retail for consumers. [EPA-HQ-OAR-2016-0004-3608-A1 p.2]

The current structure of the RFS already incentivizes blending—changing the point of obligation will not increase RaceTrac's incentives to blend renewable fuels. [EPA-HQ-OAR-2016-0004-3608-A1 p.3]

The Petitioners suggest that downstream entities such as RaceTrac only blend to reap large profits off of RIN trading and fail to pass along these savings to our customers. This assertion is false. [EPA-HQ-OAR-2016-0004-3608-A1 p.4]

we capitalize on every opportunity to lower our fuel prices. The current structure of the RFS incentivizes fuel wholesalers to blend as much as they can. For us to compete on price, we blend and purchase blended renewable fuel as much as possible, and use the value of a RIN to lower fuel prices for our customers. [EPA-HQ-OAR-2016-0004-3608-A1 p.4]

Recently, ethanol prices have been higher than gasoline prices. Without the value of a RIN from blending, fuel wholesalers like Metroplex would have no financial incentive to blend more ethanol into our wholesale or retail fuel offerings. [EPA-HQ-OAR-2016-0004-3608-A1 p.4]

As long as consumers continue to purchase based on price, and ethanol costs more than gasoline, the only way for EPA to fulfill the RFS' objectives is through the current Program structure — where blending is incentivized through RIN value. [EPA-HQ-OAR-2016-0004-3608-A1 p.4]

Under the modified Program structure envisioned by the Petitioners, however, this incentive would be severely diminished. First, the Petitioner will never have an incentive to introduce renewables into the marketplace the way retailers do. It will also limit competition at the rack, which will likely lead to higher prices for consumers. Most significantly, the retail cost savings of blending would be vastly diminished. The RIN separation we realize by blending renewable products does not enable us to reap large profit windfalls: it allows us to lower our cost of goods sold, resulting in lower prices at retail. Lower prices for fuels with renewable components — which are feasible only through passing along RIN value — is why renewables have been successful in the marketplace today. Taking away the value of a RIN for blending activities will make renewable products more expensive and result in less consumption at retail. This is counter to the RFS' objectives. [EPA-HQ-OAR-2016-0004-3608-A1 p.4]

To ensure the future success of the RFS, EPA Should Reject the Petitions and Retain the Existing Point of Obligation

1. Under the current structure of the RFS, RIN value is passed along to consumers. [EPA-HQ-OAR-2016-0004-3608-A1 p.5]

If the Agency were to alter the point of obligation, it will disincentivize infrastructure investments.

1. Some of the Petitioners state that if the point of obligation were changed from refiners and importers to position holders, position holders and downstream entities would be incentivized to make infrastructure investments in order to sell higher ethanol blends such as E 15 or E85. Infrastructure constraints that limit the amount of renewables that reach the market are not at the terminal, but at the retail level. Retailers have a number of legal limitations that serve as barriers to entry to offer higher renewable blends at the present time. [EPA-HQ-OAR-2016-0004-3608-A1 p.5]

The current structure of the RFS has already led to important investments by current obligated parties - refiners and importers - that would not have occurred without the RFS program. The current RFS structure incentivized obligated parties to introduce an entirely new product that did not exist before the existence of the Program: Conventional Blendstock for Oxygenate Blending ("CBOB"). The introduction of CBOB which is not a legal product without ethanol, helps drive the 10% utilization of ethanol. The introduction of this product helped achieve the RFS' objectives [EPA-HQ-OAR-2016-0004-3608-A1 p.6]

Under the existing RFS structure, obligated parties, including Petitioner, recover RIN costs in the price of fuel sold to downstream entities.

Petitioners assert several statements: that it struggles with risks associated with RIN acquisition and inflated RIN prices must try to "anticipatorily recover RIN cost" in the base price of fuel but then also is at a disadvantage because it is competing against RIN-long refiners. Taken together, these statements are contradictory. Any so-called disadvantage is balanced by the fact that present day obligated parties are able to recover RIN costs because RIN value is largely included as a component of the fuel price calculation (it is baked in). [EPA-HQ-OAR-2016-0004-3608-A1 p.7]

EPA should also consider that while refiners and importers have a RIN compliance cost incorporated into their manufacturing margin. Refiners have benefited from historically high crack margins over the eleven years since the adoption of the RFS. [EPA-HQ-OAR-2016-0004-3608-A1 p.7]

Changing the point of obligation will decrease consumption of renewable fuels. [EPA-HQ-OAR-2016-0004-3608-A1 p.7]

The value of RINs is found in the wholesale fuel cost today. With wholesale prices benefitting from the 8.2 cent/gallon of RINs generated in a 10% blend of ethanol with \$0.82 Ethanol RIN

values. Switching the point of obligation would likely lead to a 8.2 cent wholesale price increase for E10 gasoline. In addition to this price increase, prices at the pump will increase as upstream entities raise prices on specialty products such as CBOB. [EPA-HQ-OAR-2016-0004-3608-A1 p.8]

Refiners and importers are obligated parties because they actually control the introduction, makeup and characteristics of petroleum products.

Companies, whose main product is petroleum-based have no incentive to displace that product in the market. Remember. CBOB was developed because manufacturers needed to ensure that their product could be blended with renewables so they could comply with their RFS obligations. Changing the point of obligation means that blend stocks would no longer be a critical product for manufacturers but they would become a necessity for businesses like ours. When this shift happens manufacturers will be able to charge a premium for this specialty product--and this added cost will be passed down to consumers in the form of higher prices at the pump. [EPA-HQ-OAR-2016-0004-3608-A1 p.8]

¹ Valero. Petition for Rulemaking: Renewable Fuel Standard Definition of Obligated Party-40 C.F.R. § 80.1406 (June 13, 2016); American Fuel & Petrochemical Manufacturers ("AFPM"). Petition for Rulemaking: Renewable Fuel Standard Definition of Obligated Party-40 C.F.R. § 80.1406 (Aug. 4, 2016).

Renewable Energy Group (REG)

REG agrees with SIGMA and NACS that moving the point of obligation would not bring more renewable fuels into the marketplace nor would it create additional RIN liquidity. [EPA-HQ-OAR-2016-0004-3477-A1 p.13]

Rock House Advisors LLC

support of the request by a number of RFS stakeholders for the EPA to conduct a rulemaking process to fully examine the merits and other implications of moving the point of obligation (PO) from refiners and importers to the position-holders of the fuel at the time of the distribution at the bulk transfer/terminal system (also known as "the Rack"). Moving the PO is fully within the agency's administrative authority, and would not require a wholesale overhaul of the program. [EPA-HQ-OAR-2016-0004-1717-A1 p.2]

the only way to fully explore and evaluate the impacts of this change is to conduct a rulemaking process where all interested parties can provide input and data to inform the analysis. [EPA-HQ-OAR-2016-0004-1717-A1 p.2]

support of those proposals which move the obligation to a specific segment of blender, that of "Rack Seller". The Rack Seller is the position-holder at the terminal that controls the gasoline and diesel fuel at the time it is sold. Under this scenario, "Rack Buyers" would not necessarily be

obligated parties, and below-the-rack blending could still be done in a similar way that it is done now, especially for biomass based diesel. The Rack Seller in most cases is the party that controls whether the fuel is blended with biofuel at the rack, and is the party that pays the federal excise tax on the fuel. Aligning the point of obligation with the party that makes the decision whether to blend gasoline or diesel fuel with actual wet gallons of biofuel, makes a lot of sense [EPA-HQ-OAR-2016-0004-1717-A1 p.2]

Changing the PO to Rack Sellers would incentivize more BBD blending investment at the rack to achieve more efficiency and make the blends more available to more consumers at a lower cost. And it would encourage more blending overall, because the most cost effective means of compliance is for an obligated party to blend actual wet gallons of biofuel, separate the RINs, and ultimately submit those RINs for compliance purposes. [EPA-HQ-OAR-2016-0004-1717-A1 p.2]

Moving the point of obligation closer to the point of compliance inherently strengthens RIN integrity. [EPA-HQ-OAR-2016-0004-1717-A1 p.3]

Narrowing the pool of obligated parties specifically to Rack Sellers rather than the broader pool of all blenders, makes the total number of obligated parties who are responsible for ultimate compliance smaller and more manageable. [EPA-HQ-OAR-2016-0004-1717-A1 p.3]

Tying the PO to the point and parties who pay federal excise tax adds a much higher degree of transparency, stability, enforcement capability, and therefore fraud deterrence. [EPA-HQ-OAR-2016-0004-1717-A1 p.3]

EPA should also consider how the current point of obligation causes other RFS market distortions. [EPA-HQ-OAR-2016-0004-1717-A1 p.3]

Changing the PO would even further empower biomass-based diesel to meet the advanced biofuel goals in future years. [EPA-HQ-OAR-2016-0004-1717-A1 p.4]

[I] request that EPA initiate a rulemaking to evaluate the impact and implications that moving the Point of Obligation would have on the RFS2 program. [EPA-HQ-OAR-2016-0004-1717-A1 p.4]

Sageland Petroleum, Inc.

I operate a small retail fuel business that struggles to compete with larger retailers in a highly competitive marketplace. As a member of the Small Retailer Coalition, I am writing to ask EPA to grant the petition filed by Valero Energy Corporation and open a rulemaking to amend the definition of "obligated party" under the Renewable Fuel Standard. [EPA-HQ-OAR-2016-0004-3582-A1 p.1]

I support moving the point of obligation under the Renewable Fuel Standard to rack sellers so that small retailers like me are not competitively disadvantaged by a government-created revenue stream that effectively subsidizes my larger competitors. Moving the point of obligation under

the Renewable Fuel Standard (RFS) to rack sellers also will help me sell more renewable fuel. [EPA-HQ-OAR-2016-0004-3582-A1 p.1]

If EPA changes the rule so that the rack sellers are obligated under the RFS, they will have an incentive to discount renewable blends at the rack in order to push the volume they need to meet their own obligation. [EPA-HQ-OAR-2016-0004-3582-A1 p.1]

SEI Fuel Services, Inc. & Gasoline, 7-Eleven, Inc.

[We] oppose the petition to change the Point of Obligation under the Renewable Fuel Standard program ("RFS" or the "Program"), which was submitted by Valero Energy Corporation and its subsidiaries ("Petitioner") on June 13, 2016. [EPA-HQ-OAR-2016-0004-3577-A1 p.1]

Petitioner contends that changing the Point of Obligation will increase incentives for companies like SEI to blend more renewable fuels; that Petitioner is competitively and economically disadvantaged by the current structure of the RFS; and that altering the Point of Obligation will further the RFS and create a more balanced retail fuel market. Those assertions are without foundation and SEI strongly urges the EPA to deny this petition. [EPA-HQ-OAR-2016-0004-3577-A1 p.1]

SEI opposes changing the Point of Obligation because it is counterproductive to the goals of the RFS, which are to expand the blending and consumption of renewable fuels. Shifting the Point of Obligation to a blender would not incentivize SEI Fuel to blend more ethanol or other renewable fuels. [EPA-HQ-OAR-2016-0004-3577-A1 p.1]

Making downstream blenders Obligated Parties, rather than manufacturers and importers, would render the entire RFS optional, as manufacturers and importers would have no obligation to generate petroleum products that can be blended and blenders would be under no obligation to continue their blending obligations. [EPA-HQ-OAR-2016-0004-3577-A1 p.2]

SEI's FUEL'S INCENTIVES TO BLEND RENEWABLE FUELS WILL NOT IMPROVE IF THE POINT OF OBLIGATION IS ALTERED. [EPA-HQ-OAR-2016-0004-3577-A1 p.3]

MANY OF PETITIONER'S POINTS ARE INACCURATE. THE EPA SHOULD DENY THE PETITION AND RETAIN THE EXISTING POINT OF OBLIGATION. [EPA-HQ-OAR-2016-0004-3577-A1 p.4]

Changing the Point of Obligation will not incentivize infrastructure investments. To the contrary, it may disincentive such investments. [EPA-HQ-OAR-2016-0004-3577-A1 p.5]

Today, Obligated Parties, including Petitioner, recover RIN costs in the price of fuel sold to downstream entities. [EPA-HQ-OAR-2016-0004-3577-A1 p.5]

IF EPA CHANGES THE POINT OF OBLIGATION, CONSUMPTION OF RENEWABLE FUELS WILL DECREASE AND HINDER THE GOALS OF THE RFS. [EPA-HQ-OAR-2016-0004-3577-A1 p.6]

Specifically, SEI believes that this change would cause prices at the pump to increase because the ability of downstream marketers to satisfy their obligations would be dictated by their upstream counterparts, who would have the leverage and incentive to raise prices. [EPA-HQ-OAR-2016-0004-3577-A1 p.6]

Shasta Siskiyou Transport

My business is threatened by large grocery and hypermarket retailers that have advantages to price fuel lower than I can. One thing that makes it easier for these large retailers to compete and disadvantage smaller retailers is the ability to obtain extra revenue for sale of renewable fuel blending credits (RINs). That revenue stream is very significant as the smallest changes in our market can have significant competitive impacts. However, this RIN revenue generation by large retailers doesn't help the consumer in the long run. I support moving the point of obligation under the Renewable Fuel Standard to rack sellers so that my business and others like me are not competitively disadvantaged from a government-created revenue stream that only subsidizes my competitors. [EPA-HQ-OAR-2016-0004-3541-A1 p.1]

I also would like to address the issue concerning retailer trade groups that have come out and spoken against moving the point of obligation. These trade groups are merely speaking on behalf of their largest dues paying members. These members are large retailers who are capable of taking advantage of the current point of obligation to move up in the rack and acquire RIN revenues creating a competitive disadvantage for small retailers. Small retailers make up nearly 70% of the retail gasoline market. Very large retailers makeup about 17% but have grown rapidly over the past decade in part due to the RIN revenues they enjoy. The disproportionate advantages that the RFS creates for large retailers threatens the future of businesses like mine - currently the majority of the market. Yet, the large retailers have the loudest voices in the national trade associations. The national trade association opposition to moving the point of obligation is contrary to the position small retailers, such as myself, take in support of moving the point of obligation. By these trade groups taking a firm stance against moving the point of obligation, they are ignoring the concerns of small retailers, and therefore, are not representing the interest of many of their members. [EPA-HQ-OAR-2016-0004-3541-A1 p.1]

Sheetz, Inc.

Sheetz Inc. writes to oppose the petition for rulemaking to change the point of obligation under the Renewable Fuel Standard program ("RFS" or the "Program"), which was submitted by Valero Energy Corporation and its subsidiaries ("Petitioner") on June 13, 2016.¹ [EPA-HQ-OAR-2016-0004-3581-A1 p.1]

We urge EPA to deny this petition. In support of its petition, Valero asserts three central points: (1) changing the point of obligation will increase incentives for companies like ours to blend more renewable fuels; (2) Petitioner is competitively and economically disadvantaged by the current structure of the RFS; and (3) changing the point of obligation will result in a more "equitable" retail market. The following letter will show why these assertions are baseless. [EPA-HQ-OAR-2016-0004-3581-A1 p.1]

Sheetz is currently the largest seller of E15 in the U.S. today so we know very well what the true obstacles are with regard to getting more renewable fuels into the market. Despite Valero's assertion, changing the point of obligation will not increase the amount of renewable fuels in the market. To the contrary, changing the point of obligation may actually make the system worse. Although, the current system, as designed, is working the way it was intended, there are opportunities to improve the implementation of the RFS which we will outline herein. [EPA-HQ-OAR-2016-0004-3581-A1 p.1]

For the reasons detailed below, Sheetz Inc. respectfully requests that the EPA deny Valero's petition and retain the current point of obligation. [EPA-HQ-OAR-2016-0004-3581-A1 p.1]

If the business of blending renewables is as lucrative as Valero contends, more parties, including themselves, should start getting involved. The problem the wholesaler and retailer face is that they don't create demand they only satisfy it. The consumer creates the demand; it's a pull not a push. [EPA-HQ-OAR-2016-0004-3581-A1 p.2]

The gasoline retailing business is extremely competitive and is characterized by low margins and high volume to make money. [EPA-HQ-OAR-2016-0004-3581-A1 p.2]

The gasoline supply chain is very transparent. Any costs along the chain must be passed on or absorbed which results in even lower margins. Today, everyone is very aware of the RINs price. Valero's statement that parties who blend are just pocketing the RIN value as a windfall profit is ludicrous. [EPA-HQ-OAR-2016-0004-3581-A1 p.2]

The Real Issues

First, it's important to understand the true obstacles with getting more renewables in the fuel mix. There are essentially four major hurdles. The first one is the capital expenditure required with an unknown return on that investment. [EPA-HQ-OAR-2016-0004-3581-A1 p.3]

Another huge hurdle is the 1 pound waiver not being applicable to blends over 10% ethanol, i.e. E15. [EPA-HQ-OAR-2016-0004-3581-A1 p.3]

Next there is the extremely onerous fine of \$37,500 per day that retailers potentially face for consumers mis-fueling even if the dispensers have been properly labeled based on the EPA's mis-fueling mitigation plan. [EPA-HQ-OAR-2016-0004-3581-A1 p.3]

Last but not least, is the consumer acceptance of this new fuel. [EPA-HQ-OAR-2016-0004-3581-A1 p.3]

RIN Being Recouped

It is our belief that the cost of RINs is factored into the base cost of gasoline and therefore the refiner benefits from higher crack spreads which offsets the RIN costs. Obligated parties are quick to point out the line item cost of RINs, but has anyone determined the offsetting benefit that lies buried in the crack spreads; it's same for the blenders. They have a RINs line item but

there is an offset buried in the cost of gasoline for ethanol blending and the retail pricing discounts. [EPA-HQ-OAR-2016-0004-3581-A1 p.4]

Another Red Herring

Well we all found out that the blend wall was not this immovable object and could be exceeded. The problem is that obligated parties have done nothing to help facilitate an increase in blending renewables which has driven up the cost of a RIN. [EPA-HQ-OAR-2016-0004-3581-A1 p.4]

Conclusion

The mechanism for balancing the RINs obligation works perfectly fine so why fix something that isn't broken. Higher RIN prices were purposely intended to drive change as the program was designed. Somehow Valero thinks the change should be to the program rather than the market place. To help bring more renewables to the market, the EPA should modify the 1 pound waiver to include EI 5 and then eliminate the liability of a retailer for mis-fueling by the consumer. Furthermore, the EPA can strengthen its recommendation that EIS can be used in 2001 model year vehicles and newer with guarantees that protect the retailers from any liability from damage to vehicles. These small changes will increase the availability of higher ethanol blends in the marketplace, improve consumer acceptance and sales and ultimately lower the value of RINs. We believe changing the point of obligation will only undermine the goals of the RFS which is to encourage the blending and consumption of renewable fuels. [EPA-HQ-OAR-2016-0004-3581-A1 p.5]

1 Valero, Petition for Rulemaking: Renewable Fuel Standard Definition of Obligated Party-40 C.F.R. § 80.1406 (June 13, 2016). Sheetz also uses this letter as an opportunity to respond to a similar letter filed by the American Fuel & Petrochemical Manufacturers ("AFPM") on August 4, 2016. See AFPM, Petition for Rulemaking: Renewable Fuel Standard Definition of Obligated Party-40 C.F.R. § 80.1406 (Aug. 4, 2016).

Shell Oil Products US

Although EPA has not proposed to change the RFS point of obligation in this rulemaking, we understand that numerous obligated parties raised this issue at the recent public hearing. Our views on this issue have evolved over time. We do not support changing the point of obligation. In sum, our view is that changing the point of obligation 1) will not fix the blend wall problem or impact the overall volume of renewable fuels; 2) will create additional uncertainty in the RFS program and RIN market; and 3) will complicate administration and function of the program. [EPA-HQ-OAR-2016-0004-1725-A1 p.4]

Small Refinery Owners Ad Hoc Coalition

This omission is both illegal and material to the instant rulemaking because EPA once again used its general and cellulosic waiver authorities to reduce the statutory volumes without first

considering whether it could ensure that the statutory volumes could be met by adding non-refining blenders to the list of obligated parties. See Id. § 7545(o)(3)(B)(ii). The language in the Act makes clear that EPA is not at liberty to retain the current point of obligation while simultaneously recognizing that doing so has prevented the investments in blending and distribution infrastructure necessary to meet the statutory volumes. [EPA-HQ-OAR-2016-0004-2364-A1 p.4]

major retailers would have two separate disincentives to promoting E85 usage: (1) the discount on the price they would have to offer to promote E85 usage, and; (2) the additional liquidity it would promote in the RIN market, which would reduce their windfall RIN revenues. [EPA-HQ-OAR-2016-0004-2364-A1 p.31]

Although there may be other options for fixing 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 rack.⁷¹ The obligation could easily 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. It is a discrete number of already regulated entities including refiners, importers, and currently exempt non-refining blenders. [EPA-HQ-OAR-2016-0004-2364-A1 p.34]

Small Retailers Coalition

Despite the fact that small retailers make up over 50% of the retail fuel business, the national trade associations representing retailers and petroleum marketers are not currently representing and protecting the interests of small retailers and small convenience store owners with regard to the renewable fuels issue. Because small retailers around the country and our customers are being negatively impacted by the current point of obligation under the RFS, I am writing to inform you that we have formed a new coalition- the Small Retailers Coalition - to urge EPA to move the point of obligation. [EPA-HQ-OAR-2016-0004-3574-A2 p.1]

Because the current point of obligation is removed from the rack, these retailers are unobligated and able to generate additional revenue from selling renewable fuel trading credits, known as Renewable Identification Numbers ("RJNS"). This position at the rack for unobligated parties, such as these large retailers, generates enormous windfall profits in the form of RIN sales and allows large retail competitors to have a direct price and other competitive advantages that I and other small retailers cannot match. [EPA-HQ-OAR-2016-0004-3574-A2, pp.1-2]

The current system needlessly tilts the playing field towards large retailers. By pitting industry segments against one another and creating distinct winners and losers, the current point-of obligation threatens everyday consumers. [EPA-HQ-OAR-2016-0004-3574-A2 p.2]

The correct placement of the point-of-obligation at the point of compliance would correct the competitive disadvantage that small retailers now face due to the RIN-related revenue generation of large retailers. The change would allow all retailers to compete on a level playing field. It

would also be the most efficient and effective means of passing through the RIN value to consumers. [EPA-HQ-OAR-2016-0004-3574-A2 p.2]

Accordingly, we respectfully request that EPA reconsider the current point of obligation under the RFS and place it at the point of compliance - the blending point at the rack. This change would be consistent with the mandates and the spirit of the Clean Air Act ("CAA"). The CAA and other laws require, among other economic analysis, that EPA carefully analyze the effects of the RFS program on competition with respect to small business and the effects of the standard or regulation on consumer costs. Continuing to give short shrift to this analysis portends dire consequences for the nations' smaller petroleum retailers. [EPA-HQ-OAR-2016-0004-3574-A2 p.3]

Society of Independent Gasoline Marketers of America (SIGMA) & National Association of Convenience Stores (NACS)

We are keenly aware that certain stakeholders have advocated that EPA modify the RFS in a manner that would make the entity that owns the product immediately before it is dispensed from a terminal, the "position holder," so-called "obligated parties," rather than refiners and importers. SIGMA and NACS are adamantly opposed to this change in the Program. Changing the point of obligation would inject substantial disruptions into the renewable fuels market and impose significant burdens on participants. These consequences would hinder the achievement of the Program's objectives. As such, SIGMA and NACS urge EPA to reject changing the point of obligation in any future rulemakings.¹⁸ [EPA-HQ-OAR-2016-0004-1808-A1 p.8-9]

In addition, EPA has not proposed to change the definition of "obligated parties" in its Proposed Rule. It would, therefore, be both inappropriate and inconsistent with the Administrative Procedure Act, for EPA to change the definition of "obligated parties" in this rulemaking without a full notice and comment. [EPA-HQ-OAR-2016-0004-1808-A1 p.9]

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.31.]

anyone who believes that changing the point of obligation, as proposed by some members of the refining industry, from what it is to what they propose it is, will, in fact, result in more renewable fuels being in fuel mixed in the United States will never own his or her own home.

It's just not going to happen. The program is set up today to have the people who have to sell it have every incentive to sell it, and we urge you not to go forward with that petition.

the Renewable Fuels Standard program ("RFS" or the "Program") has been working.² Contrary to Petitioner's assertion, the current structure has incentivized SIGMA's and NACS' members to blend as many renewable fuels as they possibly can. Fuel retailers do not create demand; they respond to demand. The Environmental Protection Agency ("EPA" or the "Agency") designed the RFS to encourage consumption of renewable fuels. Under the existing RFS structure, the associations' members are able to use Renewable Identification Number ("RIN") value to lower

the cost of goods sold. Put another way, SIGMA's and NACS' members are able to use RIN value to sell products blended with renewables at a price that is competitive with unblended products. Because consumers are hyper-price conscious, they do not normally want to purchase a renewable fuel blend that costs more than an unblended alternative. Thus, if fuel retailers were unable to price blended product competitively, U.S. consumption of renewable product would decrease, ultimately frustrating the goals of the RFS. [EPA-HQ-OAR-2016-0004-3621-A1 p.2-3]

Petitioner calls on EPA to change the point of obligation to address so-called inequities and "distortions and disincentives" in the marketplace.³ [EPA-HQ-OAR-2016-0004-3621-A1 p.3]

one reason the RFS has been successful is because it has channeled stakeholders' profit-motives in a manner that will achieve the Program's objectives. The RFS has created financial incentives for private companies to behave and go to market in ways that result in positive externalities for American society. [EPA-HQ-OAR-2016-0004-3621-A1 p.3]

If EPA changes the point of obligation, it will decrease the penetration of biofuels into the marketplace because it will remove the incentive to blend renewable fuels into the fuel supply that currently exists. [EPA-HQ-OAR-2016-0004-3621-A1 p.3]

Should EPA change the point of obligation, however, many companies that currently buy fuel above the terminal may move further downstream, reducing competition at the rack. When that happens, businesses like Petitioner will have reduced incentives to price competitively at wholesale—a result that will harm independent retailers and will lead to higher retail fuel prices for consumers. At that point, the incentives to expand renewable fuels blending and consumption will be reduced to the Program's detriment. Moreover, EPA will face additional administrative burdens that will make it more difficult and costly to administer and enforce the Program. [EPA-HQ-OAR-2016-0004-3621-A1 p.3]

Although Petitioner may be at a disadvantage compared to other RIN-long refiners, any perceived "inequity" Petitioner is experiencing is entirely of its own making. Petitioner bemoans that its business is "harmed by an inefficient renewable fuel market that artificially increases price of RINs and the risks associated with RIN acquisition"—however, Petitioner elected to spin off its retail store locations while the Program was in place.⁴ Ownership of retail locations could have guaranteed a supply of RINs to allow Petitioner to fulfill renewable volume obligations ("RVOs") under the RFS. Therefore, any statements that Petitioner is unfairly placed at a RIN-short disadvantage are misplaced. In fact, Petitioner essentially is asking EPA to fix a business decision it made while fully cognizant of how the Program worked. [EPA-HQ-OAR-2016-0004-3621-A1 p.3-4]

i. Price Flow at Retail

The competitive nature of this market compels retailers to pass through cost savings to consumers in order to maintain and enlarge their market share. [EPA-HQ-OAR-2016-0004-3621-A1 p.5]

all of SIGMA's and NACS' members are "price takers" at retail, meaning they must take the price of fuel the market sets and compete to gain market share as the transparency of the market exerts a constant downward pressure on retail fuel prices. It is important to remember, however, that there is a long chain of stops before fuel is sold to consumers at retail—and any costs that are incurred along the fuel production and supply chain will be passed down to retailers and ultimately will be absorbed by consumers.⁵ [EPA-HQ-OAR-2016-0004-3621-A1 p.5]

retailers have an incentive to blend under the RFS because blending enables retailers to separate and sell RINs, which lowers the cost of the goods they sell every day. And, as described above, retailers want to be more competitive at retail because increased fuel sales volume drives traffic through the stores. [EPA-HQ-OAR-2016-0004-3621-A1 p.5]

ii. Price Flow at Wholesale

The primary reason that many of SIGMA's and NACS' members obtain product above the rack is that it allows them to seek out cost savings. In contrast to retail pricing, at wholesale SIGMA's and NACS' members are "price seekers," meaning they seek out the best price they can get for fuel products in the wholesale market. [EPA-HQ-OAR-2016-0004-3621-A1 p.5]

Unlike retail, there are minimal pressures exerting downward pressure on price. In fact, the only thing that does exert downward pressure on rack prices is a loss of volume. Because refiners, importers, and manufacturers of petroleum products (collectively "refiners") are sensitive to the volume of sales made to downstream customers, it is only when downstream retailers begin to purchase fewer gallons of fuels at the rack that refiners are pressured to bring prices down. [EPA-HQ-OAR-2016-0004-3621-A1 p.6]

SIGMA's and NACS' members are not the only ones who can choose to actively seek savings at the rack. They are, however, the players most likely to pass those savings onto consumers. [EPA-HQ-OAR-2016-0004-3621-A1 p.6]

iii. Retailers Do NOT Create Demand, They Respond to Demand.

Motorists do not purchase products because members of SIGMA and NACS sell them; members of SIGMA and NACS sell products because their customers purchase them. [EPA-HQ-OAR-2016-0004-3621-A1 p.6]

E85 has proven to be a commercial failure and very few retailers selling mid to high-level ethanol-gasoline blends such as E15 or E85 have seen substantial sales of these products. [EPA-HQ-OAR-2016-0004-3621-A1 p.6]

Although E85 normally can be sold for fewer dollars-per-gallon than the more widely available E10, this price differential does not generate sufficient demand to justify a retailer's capital investment costs. [EPA-HQ-OAR-2016-0004-3621-A1 p.6]

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 [EPA-HQ-OAR-2016-0004-3621-A1 p.6]

Congress did **not** include a mandate for consumers to purchase anything. While the U.S. Department of Agriculture is attempting to increase the number of retail outlets offering E15 and E85 through its Biofuel Infrastructure Partnership, the number of outlets selling these blends will not by itself generate notably greater E15 and E85 consumption. [EPA-HQ-OAR-2016-0004-3621-A1 p.7]

iv. Infrastructure Limitations and Retailer Liability

While there remain significant infrastructure limitations throughout the fuel supply chain, nowhere are there greater infrastructural impediments to renewable fuels consumption than at retail. [EPA-HQ-OAR-2016-0004-3621-A1 p.7]

federal and state laws and regulations pose significant potential legal liabilities for selling fuel blends with concentrations of ethanol greater than E10. [EPA-HQ-OAR-2016-0004-3621-A1 p.7]

prior to 2010, UL had not listed a single dispenser as compatible with any ethanol concentration greater than 10 percent. Further, under UL's policy, no device listing can be revised. Consequently, retailers who wish to sell any gasoline containing more than 10 percent 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 six years.⁸ [EPA-HQ-OAR-2016-0004-3621-A1 p.7]

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.⁹ [EPA-HQ-OAR-2016-0004-3621-A1 p.8]

It is feasible to convert dispensers to ensure compatibly with higher levels of ethanol-blended fuel, but it is much more complicated to determine the compatibility of underground storage equipment

- recordkeeping
- misfueling
- automobile warranties [EPA-HQ-OAR-2016-0004-3621-A1 p.8-9]

II. Altering the RFS Point of Obligation Will Undermine the Goals of the Program by Leading to a Decrease in the Blending and Consumption of Renewable Fuels.

A. Petitioner's Assertion That the Existing RFS Structure is Hampering the Growth of Renewable Fuels Consumption and Impeding Investment in Infrastructure is False.

Since enactment of the RFS, there has been a significant increase in the use of renewable fuels in the United States.¹⁸ [EPA-HQ-OAR-2016-0004-3621-A1 p.10]

there are many legitimate reasons for why the nation's renewable fuels usage has fallen short of the benchmarks established by Congress, including decreased demand and retailer liability risk. [EPA-HQ-OAR-2016-0004-3621-A1 p.10]

Moving the point of obligation will not get rid of, nor will it ameliorate, these impediments. [EPA-HQ-OAR-2016-0004-3621-A1 p.10]

Today, retailers have an incentive to blend as much renewable fuel as they can into the fuel supply. Even with this incentive, investment in renewable fuel-compatible infrastructure has been slow because it is expensive and the demand just is not there. [EPA-HQ-OAR-2016-0004-3621-A1 p.10]

Petitioner also asserts that “because Rack Sellers are not obligated parties, there is not sufficient infrastructure for biodiesel blending at terminals.”²² This is an interesting statement because many of the associations' members are doing substantial biodiesel blending at terminals [EPA-HQ-OAR-2016-0004-3621-A1 p.11]

B. Contrary to Petitioner's Assertion, RIN Values are Passed on to Consumers Under the Existing RFS Structure.

many retailers currently purchasing product above the rack became position holders long before the RFS was ever established and did so in order to seek out cheaper prices on bulk product—they did not decide to become position holders solely to separate and then trade in RINs.²⁵ [EPA-HQ-OAR-2016-0004-3621-A1 p.11]

If Petitioner wishes to sell more product at the rack, it absolutely could. But to do so Petitioner would have to price its product under the rack at a more attractive level so it would be advantageous for customers to buy in bulk at that point rather than ahead of the rack. [EPA-HQ-OAR-2016-0004-3621-A1 p.12]

The only reason why retailers are able to offer biodiesel at a price that is more competitive than unblended diesel is because they are able to pass along the RIN values to consumers.²⁸ [EPA-HQ-OAR-2016-0004-3621-A1 p.12]

there is not sufficient RIN value to compensate for the price spread necessary to sell large quantities of E85. [EPA-HQ-OAR-2016-0004-3621-A1 p.12]

Recently, ethanol prices have been higher than gasoline prices. Without the ability to pass through ethanol RIN value, retailers could not offer competitive prices on E10. [EPA-HQ-OAR-2016-0004-3621-A1 p.13]

C. Petitioner, and Other Fuel Manufacturers, are Responsible for any Existing RIN Price Inflation.

Petitioner claims that RIN prices are inflated, RIN-Short refiners are highly vulnerable to inflated RIN prices, and the system creates disparities in RIN access.³² [EPA-HQ-OAR-2016-0004-3621-A1 p.13]

The blame rests with refiners and importers, who persist in manufacturing at heightened levels.³⁴ This excess manufacturing, without a corresponding increase in consumer fuel demand, has created gasoline and diesel supply gluts across the nation. This renders RVO compliance exceedingly difficult because existing obligated parties incur RIN obligations when they manufacture petroleum products³⁵ and can only satisfy those obligations once RINs are freed after blending. [EPA-HQ-OAR-2016-0004-3621-A1 p.13]

Obligated parties, including Petitioner, are able to recover RIN costs today because RIN value is fundamentally incorporated into fuel price calculations and contracts. [EPA-HQ-OAR-2016-0004-3621-A1 p.14]

D. Many Market Participants OPPOSE Changing the Point of Obligation.

there is a guaranteed demand for renewable fuels products and fuel retailers are incentivized to blend as much renewable fuels as possible into the fuel supply. This benefits renewable fuels producers. [EPA-HQ-OAR-2016-0004-3621-A1 p.14]

E. Making Position Holders Obligated Parties Will Increase EPA's Administrative Burden Because the Number of Obligated Parties Will Increase Significantly.

SIGMA and NACS concur with previous comments by EPA that changing the point of obligation would “would result in a significant change in the number of obligated parties” and likely create significant disruptions in the Program.⁴¹ [EPA-HQ-OAR-2016-0004-3621-A1 p.15]

If downstream fuel marketers became obligated parties, it would disrupt EPA's RFS enforcement regime because there would be many more obligated parties than exist currently. [EPA-HQ-OAR-2016-0004-3621-A1 p.15]

F. Evidence from California's Low Carbon Fuel Standard (“LCFS”) Program Does Not Demonstrate that Changing the Point of Obligation Would be Effective.

Since imposition of the LCFS, small shippers have abandoned the rack in droves [EPA-HQ-OAR-2016-0004-3621-A1 p.16]

As businesses have moved below the rack, competition at the rack has decreased significantly. This has ensured that remaining position holders can raise the price for product [EPA-HQ-OAR-2016-0004-3621-A1 p.16]

III. The Current RFS Structure Is Appropriate to Achievement Of Its Objectives. If EPA Changes the Point of Obligation, It Will Derail the Program.

Today, the RFS is working as intended. It is reducing U.S. dependence on foreign petroleum, stimulating environmental benefits, and promoting price and supply stability. [EPA-HQ-OAR-2016-0004-3621-A1 p.16]

It is because refiners, manufacturers, and importers control the characteristics of petroleum products and the manner in which such products are introduced into commerce that they are (and should remain) obligated parties. [EPA-HQ-OAR-2016-0004-3621-A1 p.17]

Without RFS obligations, manufacturers have zero incentive to displace their main product—petroleum—with renewable fuel blends. [EPA-HQ-OAR-2016-0004-3621-A1 p.17]

Downstream entities, unlike refiners and importers, would be unable to control how to meet their obligations if they became obligated parties. Rather, their ability to satisfy their obligations under a revised RFS structure would be dictated by their upstream counterparts. In this situation, those upstream counterparts would have significant leverage and incentive to raise prices. [EPA-HQ-OAR-2016-0004-3621-A1 p.17]

¹⁸ SIGMA and NACS will be submitting a formal letter of opposition to the petition EPA received to change the definition of obligated party, separate and apart from the comments filed in this rulemaking.

² The RFS is largely working as intended: U.S. Ethanol production has increased dramatically since 2007 and the marketplace has adapted to increased renewable fuels. In 2015, for example, ethanol displaced the gasoline equivalent of 527 million barrels of crude oil. *See* Renewable Fuels Association, Energy Security, <http://ethanolrfa.org/issues/energy-security/>.

³ Valero, Petition, *supra* note 1, at 4.

⁴ Business Wire, *CST Brands, Inc. Spins Off from Valero Energy Corporation* (May 1, 2013), <http://www.businesswire.com/news/home/20130501005416/en/CST-Brands-Spins-Valero-Energy-Corporation>; *see also* Reuters, *Valero may raise \$3.5 billion through retail arm auction* (Sept. 27, 2012), <http://www.reuters.com/article/us-valero-retail-auction-idUSBRE88Q12D20120927>; MarketWatch, *Valero retail spinoff CST Brands to start trading Thursday* (May 1, 2013), <http://blogs.marketwatch.com/energy-ticker/2013/05/01/valero-retail-spinoff-cst-brands-to-start-trading-thursday/>; Vicki Vaughan, *Valero sells remainder of CST Brands shares* (Nov. 14, 2013), <http://www.mysanantonio.com/business/local/article/Valero-sells-remainder-of-CST-Brands-shares-4984168.php>.

⁵ Nowhere is this price pass-through phenomenon more visible than in the retail fuel industry. *See* U.S. Energy Information Administration, Michael Burdette and John Zyren, *Gasoline Price Pass-Through* (Jan. 2003), available at http://www.eia.gov/pub/oil_gas/petroleum/feature_articles/2003/gasolinepass/gasolinepass.htm (noting that “any change in price at the refinery, or any intermediate point of sale downstream, should be expected to affect prices at each successive sale”).

⁸ To sell higher ethanol blends, retailers must also ensure that the small component parts that allow fuels to be dispensed from an UST to a vehicle (e.g., overfill valve, tank probe, sump sensor, impact valve, etc.) are compatible with those blends. The costs of replacing these smaller items can rapidly add up into the many thousands of dollars. For example, it costs approximately \$2,100 to replace a tank probe, so if a retailer had four USTs at a particular site, it would cost about \$8,400 just to replace the tank probes in those tanks. These costs serve as yet another deterrent for a retailer to invest in a fuel where demand is at best uncertain.

⁹ 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 percent ethanol. These units are currently available for \$2,000 - \$4,000 per kit and may be available for more than 50 percent of the dispensers in the market. This reduces the costs for many retailers, but the expense still equates to nearly 10 percent of a store's annual pre-tax income—a significant risk given uncertain consumer demand.

¹⁸ As EPA is no doubt aware, ethanol is present at almost every terminal in the United States. For information on the displacement of petroleum by ethanol, *see* Renewable Fuels Association, Energy Security, <http://ethanolrfa.org/issues/energy-security/>.

²² Valero, Petition, *supra* note 1, at 23.

²⁵ It is also important to note that Petitioner's statement, "Retailer-Rack Sellers generate RINs . . ." is inherently flawed because retailers do not generate RINs. Under the RFS, a RIN is generated at the point of renewable fuels production, not at the point of blending. Valero, Petition, *supra* note 1, at 10.

²⁸ EPA correctly observed that: "The economic incentives provided by the . . . RIN have made it possible for some retailers to realize additional profits when selling biodiesel blends, while in many cases offering these blends at a lower price per gallon than diesel fuel that has not been blended with biodiesel." 81 Fed. Reg. 34794.

³² Valero, Petition, *supra* note 1, at 13, 18-19.

³⁴ Christopher Sell, *Here's Why It's All Downhill for Oil Refiners* (July 28, 2016), <http://www.bloomberg.com/news/articles/2016-07-28/here-s-why-it-s-all-downhill-for-oil-refiners>.

³⁵ Since Petitioner sold its guaranteed RIN supplier — it may in fact have a more difficult time fulfilling its RVOs compared to integrated refiners. Nevertheless, this difficulty was of Valero's own making.

⁴¹ EPA, Final Rule: Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program. 75 Fed. Reg. 14670, 14722 (Mar. 26, 2010) ("Moreover, a change in the designation of obligated parties would result in a significant change in the number of obligated parties and the movement of RINs, changes that could disrupt the operation of the RFS program during the transition from RFS1 to RFS2.").

Speed Bird Gasoline

My business is threatened by large retailers who enjoy numerous advantages over smaller retailers. In recent years, large retailers have gained an additional advantage over small retailers like me due to their ability to obtain ownership of fuel above the rack, which allows them to generate extra revenue from sale of renewable fuel blending credits (RINs). My business does not have the financial ability or contractual leverage to do the same thing. I support moving the point of obligation under the Renewable Fuel Standard to rack sellers so that small retailers like me are not competitively disadvantaged by a government-created revenue stream that effectively subsidizes my larger competitors. Moving the point of obligation under the Renewable Fuel Standard (RFS) to rack sellers also will help me sell more renewable fuel. [EPA-HQ-OAR-2016-0004-3605-A1 p.1]

Swati Enterprises, Inc.

My business is threatened by large grocery and hypermarket retailers that have advantages to price fuel lower than I can. One thing that makes it easier for these large retailers to compete and disadvantage smaller retailers is the ability to obtain extra revenue for sale of renewable fuel blending credits (RINs). That revenue stream is very significant and doesn't help the consumer in the long run. I support moving the point of obligation under the Renewable Fuel Standard to rack sellers. Under the current system, my larger competitors are able to generate revenue for selling RINs based on taking ownership of fuel above the rack. My business does not have the financial ability or contractual leverage to do the same thing. It is already hard to compete with the bigger players in this industry and this just makes it more unfair. Moving the point of obligation to the rack would still encourage blending renewable fuel and could help my business take advantage of better prices for renewable as well as allow us to undertake retail level blending. Please level the playing field by putting the RFS obligation on the rack sellers so small retailers can better compete and participate in promoting renewable fuels. [EPA-HQ-OAR-2016-0004-3573-A1 p.1]

Tonlino's Fuel Service, Inc

I support moving the point of obligation under the Renewable Fuel Standard to rack sellers. [EPA-HQ-OAR-2016-0004-3504-A1 p.1]

Please level the playing field by putting the RFS obligation on the rack sellers so that they are not just taking advantage of a revenue stream that small retailers do not have. [EPA-HQ-OAR-2016-0004-3504-A1 p.1]

Toot 'n Totum

My business is threatened by large retailers that are able to sell more fuel than I can and to offer it at a lower price. One thing that makes it easier for these large retailers to compete and disadvantage smaller retailers is the ability to obtain extra revenue for sale of renewable fuel blending credits (RINs). Under the current system, my larger competitors are able to generate revenue for selling RINs based on taking ownership of fuel above the rack. My business does not have the financial ability or contractual leverage to do the same thing. It is already hard to

compete with the bigger players in this industry and this just makes it more unfair. Moving the point of obligation to the rack would encourage blending renewable fuel and could help my business take advantage of better prices for renewable fuel. Please level the playing field by placing the RFS obligation on the rack sellers so small retailers can better compete and participate in promoting renewable fuels. [EPA-HQ-OAR-2016-0004-3598-A1 p.1]

United Parcel Service

UPS opposes the Valero petition for rulemaking, but not because we are satisfied with the Renewable Fuels Standard (RFS) as it exists today. To the contrary, that there are several glaring policy problems that we believe prevent the program from reaching its full potential. That said, we disagree with Valero's assessment that renewable fuels penetration would increase if the obligation mandate were shifted to downstream parties, as Valero's petition requests. And in the case of UPS, we believe that such a shift would diminish our ability to continue our leadership in the adoption of renewable fuels into our ground fleet. [EPA-HQ-OAR-2016-0004-3603-A1 p.1]

Although UPS Understands Valero's Frustration With the RFS, We Disagree With their Assertion That Moving the RFS Obligations Downstream to Rack Sellers Would Yield Greater Renewable Fuels Penetration

The Valero proposal would impose RFS obligations on what they call "rack sellers," and "blenders," who Valero describes as, "the entities that actually control the hydrocarbon at the primary point of blending," and who "control the blending decision. However, their definition of "obligated party" casts a much wider net, reaching anyone who is:

"the entity that holds title to the gasoline or diesel fuel, immediately prior to the sale from the bulk transfer/terminal system (as defined by IRS regulations in 40 CFR §48.4081-1) to a wholesaler, retailer or ultimate consumer and is required to report federal excise tax liability for the gasoline or diesel on its Form 720 Quarterly Federal Excise Tax Return, within the 48 contiguous states or Hawaii, during a compliance period or the entity that is the enterer (as defined by IRS Regulations in 40 CFR §48.4081-1) of the gasoline or diesel fuel into the 48 contiguous states or Hawaii outside of the bulk transfer/terminal system and is required to report federal excise tax liability for the gasoline or diesel on its Form 720, during a compliance period." (Petition at 1) [EPA-HQ-OAR-2016-0004-3603-A1 p.2]

This language appears to attempt to capture companies, like UPS who is neither a producer, refiner, nor blender of petroleum product. Instead, UPS is both a reseller and an end-user of petroleum fuels. [EPA-HQ-OAR-2016-0004-3603-A1 p.2]

Shifting the RFS Obligation Downstream to Blenders Would Inhibit UPS's Fulfillment of Its Commitment to Deploy Low-Carbon Alternative Fuels

Achieving both of these goals involves the purchase and use of renewable fuels and that depends on UPS receiving and, for now, monetizing the renewable fuels credits when we purchase the blended fuel. This enables UPS to purchase renewable diesel and renewable natural gas at prices close to parity with conventional petroleum. For UPS, the RFS program is an effective incentive

to our increasing our use of renewable fuels through **voluntary** purchases, and the results are dramatic. [EPA-HQ-OAR-2016-0004-3603-A1 p.3]

If the RFS obligation were shifted downstream, it would force UPS to re-examine its above-the-rack purchases, which we began long before the RFS began. We engage in above the rack purchases in order to reduce the cost to us of diesel fuel, jet fuel and gasoline and lower our cost of delivering packages. For us, the RFS program would move from an effective incentive to purchase renewable fuels voluntarily to a disincentive to our purchase of fuels above the rack. This would raise our fuel costs, lower price competition above the rack, and disrupt our plans to incorporate renewable fuels into our fleet. Our commitment to renewable fuels would be driven, not by optimizing our use of renewable fuels voluntarily in our fleet, but rather by meeting our mandatory renewable fuels purchase obligations that may not synchronize at all with our needs for alternative fuels. [EPA-HQ-OAR-2016-0004-3603-A1 p.3]

Shifting the RFS Obligation Downstream to More Parties Would Cause Greater Costs of Program Administration and Enforcement

Any proposal to shift the RFS obligation downstream would necessarily increase the number of parties obliged to purchase renewable fuels, thereby raising the administrative and enforcement costs. [EPA-HQ-OAR-2016-0004-3603-A1 p.3]

Valero

Valero recognizes the effort EPA has undertaken and supports EPA's exercise of its statutory waiver authority, but as an essential part of that effort, EPA must move the Point of Obligation. The statute requires EPA to review and consider the appropriateness of the current regulatory structure in satisfying the goals of the RFS. EPA is legally obligated to review the appropriateness of the RFS Point of Obligation every year it sets RVOs. In addition, when EPA relies on waiver authority to set annual standards below statutory levels, EPA is legally required to correct structural deficiencies in the RFS program that hamper the growth of renewable fuels in the U.S. market. [EPA-HQ-OAR-2016-0004-1746-A1 p.1-2] [This comment can also be found in Document Number EPA-HQ-OAR-2016-0004-3559, pp.112-113.]

[The following comment was submitted as testimony at the Kansas City, Missouri public hearing on June 9, 2016. See Docket Number EPA-HQ-OAR-2016-0004-3559 p.114.]

EPA could correct this problem by moving the point of obligation to the title holder of the hydrocarbon fuel at the rack just prior to blending. Moving the point of obligation at the rack will not increase the number of obligated parties and thus not impact the administrative burden of this rule.

Wawa, Inc

Wawa writes to oppose the petition for a rulemaking to change the point of obligation under the Renewable Fuel Standard program ("RFS" or the "Program"), which was submitted by Valero

Energy Corporation and its subsidiaries ("Petitioner") on June 13, 2016. [EPA-HQ-OAR-2016-0004-3590-A1 p.2]

In fact, there are numerous challenges currently facing retailers with respect to blending ethanol into gasoline above 10% (discussed later in this letter). Shifting the obligation as the Petitioner has outlined is likely to result in the ultimate consumer facing higher fuel prices, similar to how state and federal taxes are handled. [EPA-HQ-OAR-2016-0004-3590-A1 p.2]

We also do not believe the Petitioner is competitively and economically disadvantaged by the current structure of the RFS. [EPA-HQ-OAR-2016-0004-3590-A1 p.2]

While Wawa has no obligation under the RFS to blend ethanol, we do so because the RFS has been successful in establishing petroleum products blended with renewable fuels as the most competitive priced supply. The use of renewable identification numbers ("RINs") has provided the marketplace with a mechanism to drive down the costs of supply through the distribution system, which has been passed on to the ultimate retail customer effectively and successfully driving renewable fuels into the motor fuel pool in the United States. This was the original intent of the RFS. [EPA-HQ-OAR-2016-0004-3590-A1 p.4]

the wholesale market has adjusted to the reality of RIN values and the various modes of supply factor in RIN values. The key fact here is crucial for the Agency to understand---the cost of the RIN is being borne by the refiners (as designed in the RFS), passed through at the wholesale level no matter how the fuel is sold (bulk, term rack or "spot") and thereby lowering the cost of fuel for the retail customer. Any effort by Wawa to adjust its portfolio to "above the rack" and hold onto RIN values would simply lead to an erosion of our competitive position at the street against other marketers. [EPA-HQ-OAR-2016-0004-3590-A1 p.4]

The Petitioner's argument about marketers being in a "windfall" position for "above the rack blending" is just not accurate. We would argue the current RFS, in fact, has moved the market to blend renewable fuels into the United States gasoline pool since its inception. [EPA-HQ-OAR-2016-0004-3590-A1 p.4]

We would argue the Petitioner's arguments stem from the reality of insufficient gasoline demand and the resultant factors for obligated parties within the RFS. Those realities simply aren't "fixed" by shifting the obligation [EPA-HQ-OAR-2016-0004-3590-A1 p.4]

III. EPA Should Deny Petition and Retain the Existing Point of Obligation

A. Today, RIN value is passed through to consumers.

If the point of obligation were to change to all position holders, the Petitioner and other non-retail holders would have NO incentive to pass along any savings to consumers which is occurring now. [EPA-HQ-OAR-2016-0004-3590-A1 p.5]

B. Changing the point of obligation will not incentivize infrastructure investments. To the contrary, it may disincentivize such investments.

Changing the point of obligation would not increase the incentives to invest in infrastructure — retailers want to blend renewable fuels today because the RIN value enables them to lower costs and make them more competitive at retail.

C. Today, obligated parties, including Petitioner, recover RIN costs in the price of fuel sold to downstream entities. [EPA-HQ-OAR-2016-0004-3590-A1 p.6]

IV. CHANGING THE POINT OF OBLIGATION COULD DECREASE CONSUMPTION OF RENEWABLE FUELS AND THWART THE GOALS OF THE RFS.

It is more than likely prices at the pump will increase because the ability of downstream marketers to satisfy their obligations would be dictated by their upstream counterparts, who would have the leverage and incentive to raise prices. Downstream marketers do not control the characteristics of the nation's petroleum supply. Refiners and importers control such characteristics: that is why they are obligated parties. [EPA-HQ-OAR-2016-0004-3590-A1 p.7]

Wildcat Fuels

My business is threatened by large grocery and hypermarket retailers that have advantages to price fuel lower than I can. One thing that makes it easier for these large retailers to compete and disadvantage smaller retailers is the ability to obtain extra revenue for sale of renewable fuel blending credits (RINs). That revenue stream is very significant and doesn't help the consumer in the long run.

I support moving the point of obligation under the Renewable Fuel Standard to rack sellers. Under the current system, my larger competitors are able to generate revenue for selling RINs based on taking ownership of fuel above the rack. My business does not have the financial ability, or contractual leverage, to do the same thing. It is already hard to compete with the bigger players in this industry and this just makes it more unfair. Moving the point of obligation to the rack would still encourage blending renewable fuel and could help my business take advantage of better prices for renewable as well as allow us to undertake retail level blending. Please level the playing field by putting the RFS obligation on the rack sellers so small retailers can better compete and participate in promoting renewable fuels. [EPA-HQ-OAR-2016-0004-3616-A1 p.1]

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. We also received comments from several parties opposed to changing the point of obligation. These comments are beyond the scope of this rulemaking.

In a separate action EPA has proposed to deny the petitions we have received to change the point of obligation in the RFS program. EPA has opened a public docket (EPA-HQ-OAR-2016-0544)

to receive comments on our proposed denial of these petitions.⁷² Our proposed response to the petitions we have received, together with the petitions, comments received to-date on the petitions, and EPA's draft analysis can also be found in this docket.

7.5.7 Cellulosic waiver credits and rollover cap

Comment:

Advanced Biofuels Association (ABFA)

The practicality of this approach essentially allows twice the mandate if production were to meet the RVO target. The manner in which this has been approached by the obligated parties is to simply purchase a cheaper wet gallon from any other nested category and buy the waiver credit instead of the cellulosic wet gallons. Additionally, allowing both the gallons and the waiver credits to meet the obligation undercuts the value of both the fuels and the RINs in terms of more supply than demand. We would argue that as written EPA should use its authority to simply issue the number of waiver credits that makes up for any shortfalls in the production of wet gallons to meet the RVO. [EPA-HQ-OAR-2016-0004-1831-A1 p.9]

What has happened in practice since the inception of the program has been that obligated parties wait until the end of the year to queue up their obligations and simply buy the EPA CWCs instead of the actual wet gallons of available fuels. This trend has been exacerbated by the fact so few gallons of cellulosic biofuels have been produced to date and is a significant impediment to seeking financing to build the next generation of plants. [EPA-HQ-OAR-2016-0004-1831-A1 p.9]

Advanced Biofuels Business Council (ABBC)

While the ABBC recognizes the difficulty of predicting new fuel markets in the context of a regulation, and understands that EPA staff are making a good faith effort to get the forecasts right, the Council believes that EPA fails the test set forth by CAA Sec. 211(o)(7)(D)(iii) by creating a system under which it is not known if D3 RINs will, once produced, be needed for compliance. [EPA-HQ-OAR-2016-0004-1733-A1 p.9]

So while EPA does not allow obligated parties to purchase more CWCs than they need for compliance (i.e. the delta between their obligation and what they have already secured) and does not allow obligated parties to accumulate and carryover CWCs from year to year, there is nothing in the regulation that requires obligated parties to make a good faith effort to secure liquid D3 gallons instead CWCs on a year to year basis. As such, obligated parties have the option to buy a predictable, risk-free, condition-free, government-backed waiver as an alternative

⁷² The EPA Administrator signed the Proposed Denial of Petitions for Rulemaking to Change the RFS Point of Obligation on November 10, 2016. More information about this proposed rule can be found at <https://www.epa.gov/renewable-fuel-standard-program/response-petitions-reconsideration-rfs2-rule-change-point-obligation>

to buying liquid D3 gallons that would facilitate the RFS (something oil companies do not want to do) and empower a competitor (something the oil companies also do not want to do). [EPA-HQ-OAR-2016-0004-1733-A1 p.10]

But EPA's current approach to avoiding this outcome falls well short of its clear statutory charge to promote certainty, liquidity and transparency and "ensure that waiver credits are not over-utilized at the expense of actual renewable volume." As EPA has acknowledged, administering CWCs in a way that requires obligated parties to buy D3 gallons is fundamental to the success of new cellulosic facilities and to attracting additional investment in cellulosic biofuel capacity. [EPA-HQ-OAR-2016-0004-1733-A1 p.11]

We believe that the current system of making good faith but inherently uncertain forecasts and then flooding the market with the maximum allowable number of CWCs is inconsistent with Section 211(o)(7)(D)(iii). We believe that EPA should change their approach systemically to one that would allow the inherent uncertainties in this innovation marketplace to surface and be accounted for without causing D3 market uncertainty, transparency issues and illiquidity. [EPA-HQ-OAR-2016-0004-1733-A1 p.22-23]

American Coalition for Ethanol (ACE)

Enabling obligated parties to acquire CWCs in lieu of purchasing physical gallons of cellulosic ethanol deflates the value of D3 RINs which in turn makes future investment and expansion of cellulosic ethanol uncertain. Waiver credits are only intended for use when physical gallons of cellulosic biofuel are not available. ACE endorses the advice and comments of QCCP regarding how EPA should handle CWCs: First, EPA should limit CWCs to cellulosic biofuel shortfalls. Second, the Agency should utilize a trading platform where cellulosic biofuel producers receive the same price that CWCs are being issued to obligated parties. [EPA-HQ-OAR-2016-0004-1679-A2 p.9]

American Petroleum Institute (API)

At the June 9, 2016 public hearing on EPA's proposal, some commentators argued that EPA should restrict the availability of cellulosic waiver credits (CWCs) available to obligated parties. We disagree with this suggestion. [EPA-HQ-OAR-2016-0004-3512-A2 p.42]

DuPont Industrial Biosciences

Cellulosic biofuel producers recently expressed their concerns to EPA about the transparency and liquidity of the D3 RIN marketplace. Some cellulosic biofuel producers are reporting that obligated parties are not engaging in offtake for liquid gallons of cellulosic biofuel because of the availability of Cellulosic Biofuel Waiver Credits (CWCs) and past decisions by EPA to refund obligated parties for purchases of CWCs. Concerned parties in the cellulosic biofuel sector believe that EPA could remedy the problem by making adjustments to its current approach to administering CWCs. This section explores the legal question of how much flexibility EPA has under the statute to modify how it administers CWCs as part of its broader authorities under the RFS. [EPA-HQ-OAR-2016-0004-1827-A1 p.10-11]

EPA should address the unintended consequence that an abundance of cellulosic waiver credits has had on the cellulosic biofuel market. With the way EPA currently administers the CWC program, there is no certainty that available production of cellulosic biofuel with D3 RINs attached will be purchased or used by obligated parties and thus investment in cellulosic biofuels is not appropriately incentivized. The problem of CWCs being purchased in lieu of cellulosic biofuels with D3 RINs is apparent. The magnitude of the problem will increase as cellulosic biofuel production increases during 2015. The consequence of available cellulosic volumes with D3 RINs attached not being purchased clearly falls within the category of unintended consequences that EPA has acknowledged could occur. EPA should promptly modify the rules which allow obligated parties to purchase CWCs in lieu of making good faith efforts to purchase cellulosic biofuel gallons in order to align the CWC program with Congressional intent. [EPA-HQ-OAR-2016-0004-1827-A1 p.13]

DuPont Industrial Biosciences et al.

Some cellulosic biofuel producers are reporting that obligated parties are not engaging in full potential value offtake arrangements for liquid gallons of cellulosic biofuel. This is a result of the availability of Cellulosic Biofuel Waiver Credits (CWCs) and past decisions by EPA to refund obligated parties for purchases of CWCs. Because of the current treatment of CWCs, offtake agreements in the market today are trading at 75 to 80% below the D5 + CWC alternative price, which does not incentivize investments in cellulosic ethanol capacity. Concerned parties in the cellulosic biofuel sector believe that EPA could remedy the problem by making adjustments to its current approach to administering CWCs. This section explores the legal question of how much flexibility EPA has under the statute to modify how it administers CWCs as part of its broader authorities under the RFS. [EPA-HQ-OAR-2016-0004-1824-A1, pp.4-5]

EPA should address the unintended consequence that an abundance of cellulosic waiver credits has had on the cellulosic biofuel market. With the way EPA currently administers the CWC program, there is no certainty that available production of cellulosic biofuel with D3 RINs attached will be purchased or used by obligated parties and thus investment in cellulosic biofuels is not appropriately incentivized. The problem of CWCs being purchased in lieu of cellulosic biofuels with D3 RINs has been documented and provided to EPA. The magnitude of the problem will increase as cellulosic biofuel production increases during 2016. The consequence of available cellulosic volumes with D3 RINs attached not being purchased clearly falls within the category of unintended consequences that EPA has acknowledged could occur. EPA should promptly modify the rules which allow obligated parties to purchase CWCs in lieu of making good faith efforts to purchase cellulosic biofuel gallons in order to align the CWC program with Congressional intent. [EPA-HQ-OAR-2016-0004-1824-A1 p.6]

Quad County Corn Processors (QCCP), Delayne Johnson, CEO

We also respectfully request EPA to reduce the cellulosic waiver credits available to obligated parties as an alternative for physical cellulosic gallons and/or establish a D3 RIN trading platform which improves market transparency and encourages investment in proven cellulosic technologies [EPA-HQ-OAR-2016-0004-1325-A2 p.1] [Similar comments can also be found in Document number EPA-HQ-OAR-2016-0004-3559. p.170.]

Ethanol plants want to invest in cellulosic technologies but board of directors and lenders currently evaluate cellulosic technology's ROI without D3 RIN value since it is uncertain. The uncertainty is caused by lack of D3 RIN market transparency and an unlimited supply of cellulosic waiver credits being issued despite physical cellulosic ethanol being available to purchase. The intent of the CWC program was not to offer an alternative compliance mechanism; rather it was intended to simply fill any gaps between the physical gallons of cellulosic biofuel available and the annual cellulosic biofuel standard. [EPA-HQ-OAR-2016-0004-1325-A2 p.1-2] [These comment can also be found in Document number EPA-HQ-OAR-2016-0004-3559, pp.169-170.]

Syngenta

The way EPA currently issues CWCs is a detriment to the first Cellerate® plant Quad County Corn Processors (QCCP). 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. To this point, the EPA issues CWCs on a gallon for gallon basis and does not require obligated parties prove need in purchasing the waiver credits. 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-2016-0004-1832-A1 p.3]

Using Cellerate® as an example, the easily integrated process is roughly a \$9 million upfront investment for QCCP or approximately \$5 per cellulosic gallon for any existing plant that would like to have the option to produce cellulosic ethanol. The industry currently has the ability to produce nearly 2 billion cellulosic gallons using the Cellerate® technology. Part of the incentive for making this investment is to capture the higher value of the cellulosic RINs due to their reductions in greenhouse gas and flexibility for compliance in the market. The ability to recoup this investment is dependent on selling the cellulosic ethanol at the increased value. For example, QCCP sold 1.227 million D3 RINs for a 60 cent premium over D6 RINs. This is a discount to the real potential of very little liquidity in the market. If the EPA administers the waiver credit program properly, the right premium that is market driven would greatly improve the ROI on the ethanol plant investment. [EPA-HQ-OAR-2016-0004-1832-A1 p.3]

If plants such as QCCP cannot recoup the full value of what they produce due to EPA issuance of waiver credits, the technology will take longer to pay for itself, deterring uptake in the market by other potential investors. [EPA-HQ-OAR-2016-0004-1832-A1 p.3]

Limit the issuance of cellulosic waiver credits. These credits were designed to be issued only in circumstances of cellulosic feedstock shortfalls. [EPA-HQ-OAR-2016-0004-1832-A1 p.4] [Similar comments can also be found in Document number EPA-HQ-OAR-2016-0004-3559 p.189.] [Similar comments can also be found in Document number EPA-HQ-OAR-2016-0004-3558 p.156.]

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. For a discussion of the treatment of carryover RINS in establishing the cellulosic biofuel standard for 2017 see Section III.D of the preamble.

7.5.8 Biointermediates**Comment:****Advanced Biofuels Association (ABFA)**

We applaud EPA for beginning the rulemaking process for the use of "intermediate feedstocks" in facilities that are not based in the same geographic location. [EPA-HQ-OAR-2016-0004-1831-A1 p.9]

Tesoro Companies Inc., et al.

We are writing to express support for the Environmental Protection Agency's (EPA) efforts to address biointermediates under the Renewable Fuel Standard (RFS). As you are aware, biointermediate products, such as biocrude, biomethane, biogas, and renewable hydrogen, hold tremendous promise for the advanced biofuels industry. While there are RFS-qualified pathways that use these feedstocks, Renewable Identification Numbers (RIN) cannot currently be generated for any fuel that is produced using a two-stage process in which biointermediate production and refining take place separately. Recognizing the value that renewable feedstocks have in conventional refining applications, the agency's pending biointermediate rule will open up new RFS compliance options at a time when they are sorely needed and transform the market for drop-in advanced biofuels. [EPA-HQ-OAR-2016-0004-3620-A1 p.1]

We are, however, concerned that further delays in issuing the rule may impede important progress and therefore urge the agency to move swiftly to release its proposal and finalize a new rule.

While we understand the importance of all the issues addressed in the combined Renewables Enhancement and Growth Support (REDS) rule, the biointermediates rule is unique in terms of the interest and support it has generated among a variety of RFS stakeholders. While we understand that resource constraints and pressure to address other RFS-related issues may have required EPA to incorporate multiple RFS modifications into one rule, we hope that any difficulties relating to other parts of the BEGS rule do not hold up issuance of a final biointermediates rule. [EPA-HQ-OAR-2016-0004-3620-A1 p.1]

Response:

While these comments are beyond the scope of this rulemaking, EPA thanks the commenters for their support and notes that the proposed rulemaking for addressing biointermediates was recently published in the Federal Register on **November 16, 2016 (81 FR 80828)**.

7.5.9 1 psi RVP waiver for E15**Comment:****Advanced Biofuels Business Council (ABBC)**

We ask that EPA establish a timeframe for action on E15 and RVP. We encourage EPA to push the limits of the CAA, while staying within them, to open fuel energy markets to lower carbon alternatives. E15 is in this category, and resolving the issue is critical to low carbon ethanol fuels. [EPA-HQ-OAR-2016-0004-1733-A1 p.24]

American Coalition for Ethanol (ACE)

EPA could remove a major restriction to E15 demand by simply treating E15 the same way it treats E10 with respect to summer RVP restrictions. [EPA-HQ-OAR-2016-0004-1679-A2 p.10]

American Petroleum Institute (API)

Several stakeholders testifying at the June 9, 2016 public hearing implored EPA to extend the 1.0 RVP waiver to E15 blends. API does not support such an extension. [EPA-HQ-OAR-2016-0004-3512-A2 p.43]

Archer Daniels Midland Company (ADM)

EPA could make adoption of E15 much easier by extending the 1psi RVP waiver to blends up to 15 percent. [EPA-HQ-OAR-2016-0004-1727-A1 p.6]

Birr, Adam

Rather than reduce volumes, the EPA should focus on obstacles to consumption like Reid Vapor Pressure. 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. [EPA-HQ-OAR-2016-0004-3146-A1 p.1-2]

Farmers Cooperative Company

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.139]

With a similar RVP value as E10, why is E15 not granted the same summer 1-pound waiver as E10?

Governors' Biofuels Coalition

The EPA can extend the one-pound waiver to all E10 and higher blends. [EPA-HQ-OAR-2016-0004-1729-A1 p.7]

Highwater Ethanol

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-2016-0004-1662-A1 p.2]

Illinois Corn Growers Association and Illinois Renewable Fuels Association (ILRFA)

a 1 psi Reid Vapor Pressure (RVP) for E-15 blended in summertime months in conventional gasoline should have been approved. [EPA-HQ-OAR-2016-0004-1745-A2 p.6]

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. [EPA-HQ-OAR-2016-0004-1726-A1 p.3]

Iowa Office of the Governor

State leaders also call again 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. [EPA-HQ-OAR-2016-0004-1747-A1 p.3]

Kansas Farm Bureau

vehicles that can use E15 represent 85 percent of the unleaded fuel sold in the U.S. but E15 ethanol blends do not receive the same 1-pound RVP volatility waiver that is granted to E10. This regulatory restriction limits summertime sales in many states, creates a disincentive for retailers to sell E15 biofuel blends and denies consumers access to a fuel that can meet both their price and performance needs. We ask EPA to grant an RVP volatility waiver for E15 [EPA-HQ-OAR-2016-0004-1718-A1 p.2]

Midwest AgEnergy Group LLC

We strongly encourage EPA to apply the RVP waiver currently allowed in E10 to E15. Similar to E10, we believe the reduction in harmful tailpipe emissions outweighs a small and seasonal vapor pressure increase. Especially since RVP emissions from E15 are less than RVP emissions from E10 which EPA already recognizes comprises nearly all gasoline sales. [EPA-HQ-OAR-2016-0004-1738-A1 p.5]

Minnesota Bio-Fuels Association, Inc. (MBA)

EPA should use its existing authority to address the Reid Vapor Pressure (RVP) challenge it has created for E15 since the RVP acts as an artificial barrier to greater use of a lower GHG lifecycle renewable fuel. [EPA-HQ-OAR-2016-0004-1871-A1 p.8]

Minnesota Corn Growers Association (MCGA)

Obstacles like Reid Vapor pressure – an unnecessary regulation that blocks the sale of E15 to non-flex-fuel vehicles during the summer months -- should be removed to advance the adoption of E15. [EPA-HQ-OAR-2016-0004-1818-A1 p.2]

Missouri Corn Growers Association (MCGA)

Market Constraints: EPA Needs to Address the Reid Vapor Pressure [EPA-HQ-OAR-2016-0004-1782-A1 p.8]

To fix the RVP constraints, the EPA must address the RVP volatility threshold for ethanol blends and put them on a level playing field. We encourage the EPA to use their authority to address this issue in the final rule or to set a transparent timeline for doing so. [EPA-HQ-OAR-2016-0004-1782-A1 p.9]

Phillips 66 Company

E15 does not qualify for a 1 psi RVP allowance during the summer gasoline volatility season, representing a significant barrier to E15 penetration in conventional gasoline markets. [EPA-HQ-OAR-2016-0004-1807-A1 p.3]

Quad County Corn Processors (QCCP), Delayne Johnson, CEO

EPA should ensure RVP parity for E10 and E15 [EPA-HQ-OAR-2016-0004-1325-A2 p.2]

Siouxland Ethanol

[The following comments were submitted as testimony in the Chicago Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3558 p.205]

Allow the waiver for the Reid Vapor Pressure for higher levels of ethanol blends in the summer.

Syngenta

if there was parity between E10 and E15 in terms of evaporative emissions, we would see this consumption increase dramatically as it would allow the fuel product to be available to consumers all year. [EPA-HQ-OAR-2016-0004-1832-A1 p.2]

The Andersons, Inc.

[The following comments were submitted as testimony in the New York Room at the Kansas City, Missouri public hearing on June 9, 2016. See document number EPA-HQ-OAR-2016-0004-3559 p.191]

we are confused by the logic behind not creating E10 and E15 with the same respect to summertime RVP control. This oversight removes E15 from consumer availability between June 1st and September 15th every summer, the peak driving season.

Either include E15 in the summer 1-pound RVP waiver along with E10 or remove the waiver altogether.

Response:

Many commenters suggested that the current 1 psi RVP waiver that applies to E10 should be extended by EPA to E15 as well, or that E10 and E15 should be subject to the same RVP limit. These comments are beyond the scope of this rulemaking. We note, however, that EPA has received several petitions for rulemaking with regards to the harmonization of the E10 and E15 RVP standards. We will take these comments into consideration when we address this issue in a future response to those petitions.

7.5.10 E15 misfueling

Comment:

American Highway Users Alliance

Fifth, we believe that any move by EPA to encourage service stations to provide E15 as a substitute for E10 will likely lead to the misfueling of vehicles that cannot safely use such blends. A significant amount of public education would be needed to prevent millions of light duty vehicle owners, as well as motorcyclists, boaters, and other small engine users from accidentally filling with damaging fuels. [EPA-HQ-OAR-2016-0004-1810-A1 p.2]

American Motorcyclist Association (AMA)

Most importantly, the proposed rule never mentions the likelihood of misfueling. At least in the 2015 rule, it was mentioned once. This is the same misfueling mitigation plan that initially mandated an ill-conceived 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 retail operators. [EPA-HQ-OAR-2016-0004-1811-A1 p.2] [These comments can also be found in Docket Number EPA-HQ-OAR-2016-0004-3558, pp.169-170.]

The AMA remains concerned about the lack of consumer awareness surrounding the limitations of unsafe E15 and the damage it can cause to engines and infrastructure. We urge the EPA to initiate a consumer awareness campaign to ensure that consumers have adequate information on this issue. Currently, this daunting task is left to the AMA and other groups. [These comments can also be found in Docket Number EPA-HQ-OAR-2016-0004-3558 p.170.]

The urgent need for EPA action to address misfueling is supported by a recent study from the Outdoor Power Equipment Institute. The study indicates only 5 percent of consumers are aware that E15 is prohibited for use in certain engines and that 60 percent of consumers assume that any gas sold at a pump must be safe for all of their engines.

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 or, at least, conducting a public consumer awareness campaign to safeguard the public. [EPA-HQ-OAR-2016-0004-1811-A1 p.3]

Capital Yacht Club

We are also very concerned that not enough has been done to prevent the mis-fueling of our boats 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 our inadvertently using the wrong gasoline in our boats. [EPA-HQ-OAR-2016-0004-3575-A1 p.2]

Chesapeake Bay Yacht Clubs Association (CBYCA)

The association is very concerned that not enough has been done to prevent the mis-fueling of our engines with the higher ethanol blends. The presence of one sticker on fuel pumps as a mis-fueling mitigation plan does not provide sufficient protection against inadvertent use of the prohibited E15, or higher, gasoline in our boat's engines. [EPA-HQ-OAR-2016-0004-3510-A1 p.1]

Fort Washington Boating Association

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 marine engines. [EPA-HQ-OAR-2016-0004-3364-A1 p.1]

Illinois Corn Growers Association and Illinois Renewable Fuels Association (ILRFA)

Approve liability protection to petroleum marketers regarding mis-fueling concerns and equipment compatibility [EPA-HQ-OAR-2016-0004-1745-A2 p.8]

Marine Trade Association of New Jersey (MTA/NJ)

EPA has outright prohibited marine engines 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 from taking place. [EPA-HQ-OAR-2016-0004-0421 p.1]

Mass Comment Campaign sponsored by Anonymous 1 (Web) - (5,185)

In addition, I urge the EPA to finally take steps, as it has promised to do so in the past, to properly mitigate misfueling concerns. [EPA-HQ-OAR-2016-0004-0073 p.1]

Mass Comment Campaign sponsored by Anonymous 22 (Web) - (572)

It should not be taken lightly that this rule would further force blends like E15 and E85 into the marketplace, and increase the chances for a boat owner to accidentally misfuel his or her vessel. Despite it being illegal for E15 to be used in marine engines, the federal government has failed to implement any legitimate plan or precautionary measure to prevent such misfueling from taking place. This alone should eliminate an increase in the amount of ethanol in the fuel supply. [EPA-HQ-OAR-2016-0004-1788 p.2]

[The EPA] has failed to properly protect consumers against misfueling. [EPA-HQ-OAR-2016-0004-1788 p.2]

In addition, I urge the EPA to finally take steps, as has been promised, to properly mitigate misfueling concerns. [EPA-HQ-OAR-2016-0004-1788 p.2]

Mass Comment Campaign sponsored by Anonymous 4 (Web) - (625)

Though the EPA is aware that the RFS program it administers is changing the makeup of the fuel supply, it has undertaken no serious education campaign-beyond requiring small warning labels on fuel pumps to inform boaters and other consumers about the costly and hazardous problems they may face from improper or accidental fueling. [EPA-HQ-OAR-2016-0004-0113 p.1]

Mass Comment Campaign sponsored by Recreational Boat Owners (email) - (23,476)

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-2016-0004-0553-A1 p.1]

Michigan Boating Industries Association

The EPA's proposal will force blends like E15 and E85 into the marketplace, and increase the chances for a boat owner to accidentally misfuel his or her vessel. [EPA-HQ-OAR-2016-0004-2201-A1 p.1]

97 percent of boaters are able to purchase gasoline at regular fueling stations and not just at a marina. This means that if the local station is dispensing E15, then they are at risk of purchasing the wrong fuel. [EPA-HQ-OAR-2016-0004-2201-A1 p.1]

the EPA has outright prohibited marine engines 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 from taking place. [EPA-HQ-OAR-2016-0004-2201-A1 p.1-2]

EPA to finally take steps, as it has promised to do so in the past, to properly mitigate misfueling concerns. [EPA-HQ-OAR-2016-0004-2201-A1 p.2]

National Marine Manufacturers Association (NMMA)

NMMA calls on the EPA to adhere to their pledge to work with all parties to develop a better and more effective misfueling mitigation campaign. One that educates the public to ensure all consumers are sufficiently warned about the approved uses and potential effects of E15, and one with enhanced warnings and physical applications at the pump to avoid misfueling. [EPA-HQ-OAR-2016-0004-1949-A1 p.6]

National Taxpayers Union (NTU)

Misfueling can cause major damage and/or violate a vehicle's warranty. [EPA-HQ-OAR-2016-0004-1874-A1 p.2]

Outdoor Power Equipment Institute (OPEI)

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. [EPA-HQ-OAR-2016-0004-1664-A1 p.3]

Petroleum Marketers Association of America

PMAA is also concerned that if an owner of a pre-2001 vehicle misfuels with E15, the retailer would be held liable for damage to engine and emission system components. Appropriately labeled dispensers warning consumers not to dispense E15 into older vehicles will do little to reduce the risk of liability for the retailer. Thus, E15 misfueling is unavoidable. [EPA-HQ-OAR-2016-0004-2771-A1 p.3]

Sportsmen Yacht Club

We are also concerned about mis-fueling. The mis-fueling mitigation plan currently available, does not provide efficient protection. [EPA-HQ-OAR-2016-0004-1838-A1 p.1]

Response:

Commenters generally expressed concerns surrounding the potential for vehicle damage and consumer harm due to misfueling with E15 (e.g., non-road engines, or vehicles manufactured before 2001) before appropriate education has been conducted and proper protections are in place. These commenters generally suggested that the current misfueling mitigation provisions and pump labeling provisions are inadequate. These comments are beyond the scope of this rulemaking. Nevertheless, we understand the commenter's concerns regarding compatibility issues of using high ethanol blends in some applications. We will take these comments under consideration as we work in other contexts 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.