



# Improving Supply Chain Freight Performance:

## *A Goal Setting Guide for SmartWay Shippers*

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

# Improving Supply Chain Freight Performance: A Guide for Shippers

**A**s a SmartWay Shipper Partner, you have access to key data on your carriers' environmental and energy efficiency performance in the U.S and Canada. You have calculated your annual freight emissions based on the amount of freight given to each carrier and your selected carriers' emissions performance.

Once you have measured and benchmarked your organization's environmental footprint, you will likely want to set goals or targets for how you are going to improve performance, to contribute to your organization's overall corporate sustainability plans and commitments, and to reduce your carbon footprint.

After almost two decades of dedicated efforts, SmartWay Partners have identified and implemented a wide variety of practices, strategies and lessons learned from the field. Drawing upon our partners' decades of experience, EPA has compiled this set of resources to help you establish performance improvement goals for your organization's freight operations. This information guide is designed to help you get the most out of the SmartWay data and other resources. It provides key ideas and links to numerous resources on the SmartWay website and other relevant organizations. Some strategies and approaches may be more appropriate than others, depending on your unique operations. Consider these ideas as a menu of options to explore.

## In This Document

### 1. STRATEGIES FOR IMPROVING YOUR ORGANIZATION'S FREIGHT EFFICIENCY PERFORMANCE

- A. Work with Your Team
- B. Work with Your Carriers and Logistics Service Providers
- C. Work within Your Operations
- D. Work with Your Suppliers
- E. Work with Your Customers
- F. Work with Your Community

### 2. GOAL SETTING GUIDANCE AND TIPS

### 3. SAMPLE PERFORMANCE ACTION PLAN

# 01 Strategies for Improving Your Organization's Freight Efficiency Performance

Once you have completed your annual performance benchmarking submittal you have effectively set a baseline. Now you can begin to look for ways to improve your freight efficiency and educate your management and employees about the important roles they can play in these efforts. Here are some ways you can incorporate freight sustainability into your business goals.

## A. WORK WITH YOUR TEAM



### Dive Into Your Data

Learn more about your performance and find ways to improve by looking closely at your SmartWay data and associated reports and resources.

#### Resources

- Review emissions reports in your SmartWay tool(s)
- Shipper Performance Report, for Way-3 and Way-4 Shippers (located in your SmartWay Portal resources)
- [Example](#): SmartWay Shipper Performance Report
- [Webinar](#): Understanding SmartWay Shipper Performance

### Build a Freight Sustainability Workgroup in Your Organization

#### Resources

- [Build and Launch your Freight Sustainability Strategy](#)
  - o Identify your allies and peers in other departments using "Step 3: Identify your Allies" [here](#)
  - o Work with your colleagues to make a plan under "Step 4: Craft Your Business Case" [here](#)

### Share Data and Strategies With Your C-Suite

Develop a freight sustainability strategy and share information with key decision makers in your organization to gain support, visibility and commitment to improvements.

#### Resources

- [Webinar](#): Getting C-Suite Buy-In for Your Freight Sustainability Efforts
- [Launching a Successful Freight Sustainability Strategy](#)
  - o Talking Points: available under "Step 4: Craft Your Business Case" [here](#)
  - o Powerpoint: available under "Step 5: Share Your Business Case" [here](#)

## **Develop Employee Training on Freight Efficiency Strategies**

Teach staff about freight sustainability, why it matters to your organization, and what employees can do to help your organization meet your goals. Encourage employees to find new ways they can contribute to cutting miles or weight from shipments and green your freight supply chain. Don't forget to develop succession planning for key employees and teams to continue these strategies as the organization or business changes.

### **Resources**

- [Video](#): Greening Global Supply Chains from International Council on Clean Transportation
- [Develop Your Sustainable Logistics Roadmap](#) from Smart Freight Centre
- [The Green Freight Handbook](#) from Environmental Defense Fund

## **Develop Employee Education About Key Resources**

Integrate freight sustainability concepts and ideas into your company's DNA by encouraging employees to incorporate information about your company's contributions to emissions reductions into regular business updates. Download and use any of these visuals below on your website or as posters in your office to let your employees know about your commitment to freight efficiency. You can also develop your own graphics to highlight specific resources or ideas.

### **Resources**

- Public Service Ads: available [here](#)
- Presentation Template Powerpoint: available under "Step 5: Share Your Business Case" [here](#)
- [Video](#): EPA SmartWay: Any Way You Ship it. Move it the SmartWay.
- [Video](#): SmartWay for Shippers: You're in Good Company
- Develop your marketing materials using the [SmartWay Logo Use Guidelines](#)

## **Improve Performance of Your Corporate Light Duty Fleets**

If your business has a fleet of passenger vehicles, those are part of your corporate transportation footprint. Do you know how clean and efficient they are? Do you know you have options for procuring a "green(er) fleet" that reflects your corporate sustainability goals?

Upgrade your light-duty corporate fleet by purchasing lower-emitting SmartWay Vehicles. The SmartWay program certifies the 20% lowest-emitting passenger vehicles each model year, based on greenhouse gas and smog ratings.

### **Resources**

- [US EPA Green Vehicle Guide](#)



## B. WORK WITH YOUR CARRIERS AND LOGISTICS SERVICE PROVIDERS

### Educate Your Carriers and 3PLs About Your Commitment to Freight Sustainability

Tell your carriers and 3PLs about your commitment to freight sustainability and encourage them to register in SmartWay if not already. Share webinars and resources with your carriers to help them learn about the benefits of benchmarking freight performance. Consider presenting freight sustainability ideas and goals at your annual carrier meeting and share your commitment to SmartWay.

#### Resources

- [Template](#): Shipper to Carrier Letter
- [SmartWay Program Highlights](#)
- [Carrier Business Case for Freight Sustainability](#)
- [Overview of Carrier Strategies](#)
- [Tech Bulletins](#): Carrier Strategies for Efficiency
- [Video](#): SmartWay for Carriers: Building Efficiency into Your Fleet Operations
- Ask your SmartWay Partner Account Manager if EPA can provide a presentation or webinar for your carriers

### Engage Your Third-Party Logistics Service Providers (3PLs)

If you use freight services provided by 3PLs, consider working with them to enhance your reporting, efficiency and sustainability projects. Many 3PLs are adding sustainability services, data and environmental expertise to their portfolios, which can support or complement your efforts. Because they work directly with carriers on your behalf, you may be able to collaborate with them to drive efficiency measures, better reporting, and performance benchmarking.

Encourage your 3PLs to study the SmartWay Carrier Rankings and help you to procure high(er) performing SmartWay carriers. You might also work with your 3PLs to explore mode shifting, enhanced routing, load sharing, backhauling and other supply chain optimization strategies.

#### Resources

- [Video](#): SmartWay for Logistics Service Providers: Delivering Value in the Supply Chain
- [Webinar](#): Sustainability Strategies for Third-Party Logistics
- [Explore](#): SmartWay Carrier Rankings
- [Study](#): Analytics, Green Logistics Rank High in 3PL Study

## Share Your Performance Reports With Your Carriers and 3PLs

Use your Shipper Performance Report as a way of helping your carriers and 3PLs understand how their performance affects your emissions footprint.

### Resources

- [Share Reports from your SmartWay Shipper tool](#)
- [Share your custom Shipper Performance Report, for Way-3 and Way-4 Shippers \(this is found in your SmartWay Portal resources\)](#)
- Or share the [Example: Shipper Performance Report](#)
  - o Observe the mode allocation ranges
  - o Study the carrier performance ranges
- [Webinar: Understanding Shipper Performance](#)

## Increase Your Percent of Freight Shipped With Higher Performing Carriers

Use the Carrier Performance Ranking spreadsheet and your tool data to identify opportunities to increase freight shipments with more SmartWay Carriers and higher performing SmartWay carriers. Your 3PLs should also be able to assist you with this effort and help you to engage the carriers they procure on your behalf. By selecting more efficient carriers, you can reduce your emissions footprint.

### Resources

- [Understanding SmartWay Data: A Primer for Shippers](#)
- [SmartWay Carrier Performance Ranking](#)
- [SmartWay High Performer Lists](#)

## Create Carrier Incentives

Encourage your carriers to improve their performance rankings by establishing incentives for higher performance levels.

### Resources

- [Factsheet: The Business Case for Becoming a SmartWay Carrier](#)
- [Webinar: Shippers: Resources for Aligning Win-Win Relationships With Your Carriers](#)
- [Webinar: Best Practices of a Preferred Shipper](#)
- [Webinar: Maximize your Efficiency with Fuel Saving Strategies and Technologies](#)
- [Webinar: SmartWay Carrier Awardees Share Effective Strategies](#)

## Incorporate SmartWay Status Into Your Bidding/RFP Process

Add language to your RFPs that encourages or requires participating in SmartWay for carrier and/or 3PL contracts.

### Resources

- [Template](#): Shipper RFP Guidance
- [Webinar](#): Shippers: Resources for Aligning Win-Win Relationships With Your Carriers (Tyson and Whirlpool)

## Recognize Carrier Performance

Demonstrate the importance of freight efficiency by providing recognition and incentives for optimal performance.

### Resources

- [Recognize your Carriers during National Truck Driver Appreciation Week](#)
- [Webinar](#): Maximize your Efficiency with Fuel Saving Strategies and Technologies
- [Johnson & Johnson's Smart Shipping Operation](#)
- [XPO Carrier Rewards](#)

## C. WORK WITHIN YOUR OPERATIONS



## Collaborate With Other Shippers

Engage in proper load planning and emission-saving strategies to better manage transportation costs while reducing the environmental footprint of your supply chain. Explore strategies such as co-warehousing, co-loading, freight pooling, and backhauling as ways to improve shipment efficiency.

### Resources

- [Webinar](#): The Power of Partnership: Reducing Freight Emissions through Collaborative Efforts
- [Tech Bulletin](#): Load Optimization for Shippers
- Examples:
  - o Transloading facilities near ports
  - o Cross dock facilities
  - o Merge-in-transit facilities

## **Optimize Routes and Networks**

Explore systems and strategies for improving routing and redesigning transportation networks to cut miles out of your supply chain.

### **Resources**

- [Tech Bulletin](#): Route & Network Optimization for Shippers
- [Case Study](#): Ocean Spray - Leveraging Distribution Network Redesign

## **Implement “No Idling” Policies at Your Facilities**

Establish “no idling polices” at distribution and fulfillment centers and retail facilities to help save fuel and reduce exposure to harmful pollutants.

### **Resources**

- [Tech Bulletin](#): Idle Reduction for Shippers
- [Webinar](#): Best Practices of a Preferred Shipper

## **Increase Intermodal Shipments and Shift to Higher Efficiency Modes**

Look for opportunities to increase Intermodal shipments to reduce highway mileage, which produces cost savings and environmental benefits. For some companies, shifting from over-the-road transport to rail and barge where possible can reduce environmental impact and still meet business objectives. Consider strategies for reducing emissions from material handling equipment.

### **Resources**

- [Tech Bulletin](#): Intermodal for Shippers
- [Webinar](#): 2019 SmartWay Award Recipients Share Efficient Practices
  - o Kimberly Clark and Hub Group Intermodal
- Reduce Emissions on Warehouse Equipment

## **Improve Packaging and Loading**

Redesign packages to reduce weight and size, and optimize loads resulting in fewer miles and emissions.

### **Resources**

- [Tech Bulletin](#): Packaging Reduction for Shippers
- [Explore](#): Modular Conveyors: Low Visibility Components In Eco-Efficiency

## Upgrade Your Distribution/Fulfillment Centers

Create more energy-efficient warehouses to reduce environmental impacts and optimize loading/unloading.

### Resources

- List of Strategies
  - [LEED Certification](#) for Distribution Centers
  - [How Distribution Facilities Can Become Greener, More Sustainable](#)
  - Green roofs
  - Skylights for lighting
  - Quick open/close dock doors
  - LED lighting
  - Recycling
  - Low VOC floor coverings
  - Optimize layout to improve forklift flow:
  - Review layout/location of bays
  - No Idling at docks
  - Drop and hook

## Learn About Becoming a Preferred Shipper

Improve your ability to contract with the best carriers by employing strategies that improve carrier experience and efficiency at your warehouses.

### Resources

- [Webinar](#): Learn What It Means to be a Shipper of Choice
- Transplace
  - [Transplace rolls out a Preferred Shipper Checklist focused on best practices](#)
- CH Robinson
  - [Do Favored Shippers Really Receive Better Pricing and Service?](#)
- Examples:
  - Driver comfort stations (e.g., driver lounges, restrooms, parking)
  - Reduced dwell time
  - 24/7 or long load hours
  - Drop trailer opportunities

## Take a Closer Look at Your Global Footprint

Use SmartWay tools to evaluate your international ocean freight footprint and work with SmartWay affiliated programs around the world.

### Resources

- [Case Study](#): Toward Greener Supply Chains from International Council on Clean Transportation
- [Webinar](#): The Green Supply Chain

## D. WORK WITH YOUR SUPPLIERS



## Encourage Your Suppliers to Join You in Your Freight Sustainability Journey

Spread your commitment to freight sustainability throughout your supply chain by inspiring your suppliers to commit to freight efficiency and join SmartWay.

### Resources

- Mentoring resources: Ask your PAM
- Shipper to Supplier letter: Ask your PAM
- [Webinar](#): Boosting Freight Sustainability at Lower Costs

## Coordinate Supplier Shipments

Partner with your suppliers to plan shipments and routing that increases efficiency, safety, and resiliency across your supply chain.

### Resources

- [Ten Steps to Managing Inbound Freight](#)
- [Linking Technology and a Sustainable Supply Chain](#)

## E. WORK WITH YOUR CUSTOMERS



## Develop Public Education Strategies

Tell your customers about why freight sustainability matters to your company.

## Resources

- Use the SmartWay logo on your marketing materials
- Reference [SmartWay Logo Use Guidelines](#)
- Include information on "[Why Freight Matters](#)" to your company on your website
- Produce public education resources

## Incorporate Your Freight Performance in Your Sustainability Reporting

Use SmartWay data to quantify your freight goals and performance improvements in sustainability and corporate responsibility reporting for your customers and stakeholders.

## Resources

- Use your "Public Disclosure Report" from your SmartWay tool for Scope 3 reporting
- Refer to Corporate Social Responsibility reporting guidance [here](#)

## F. WORK WITH YOUR COMMUNITY



## Develop Partnerships With a Range of Stakeholders

- While GHGs from freight operations are significant and have global climate impacts, other pollutants like oxides of nitrogen (NOx) and particulate matter (PM) have notable adverse and local public health impacts. This is particularly true in areas where older diesel trucks and equipment may operate, such as ports, borders and industrial areas. These pollutants contribute to localized smog formation and are harmful to public health. Numerous communities suffer from excesses of these emissions, and children, the elderly and those with heart and lung ailments are particularly vulnerable. Note that N<sub>2</sub>O (a component of NOx) and Black Carbon (a component of PM) are also both significant climate pollutants and reducing them also helps address climate change.
- Look for ways to showcase your commitment and leadership on freight sustainability in your state, region and local community. Identify and work with organizations with which you have shared goals and interests. Engage communities where you have operations, to understand more about place-based initiatives in their areas to reduce GHGs and improve air quality.
- Assess and act upon adverse impacts in underserved and disadvantaged communities subjected to higher emissions from freight activity. As a first step, get to know your local air quality agencies, metropolitan planning organizations and community environmental groups. They work together hand in hand and with other key local organizations which can connect you to projects and

programs locally. Also be sure to reach out to the EPA Regional Office for your area. They will have information on local and regional air quality concerns and climate impacts, having an enhanced understanding of environmental and health-related issues at the community level. EPA Regional Offices often implement and oversee local programs and projects where your company could potentially engage and contribute.

- In addition to the SmartWay program, EPA oversees many programs that support local initiatives aimed at climate and air quality solutions. See below for links to these and other programs.

## Resources

- [SmartWay Affiliates](#)
- [EPA State and Local Climate Energy Resources](#)
- [EPA Regional Offices](#)
- [Environmental Justice in Your Community](#)
- [EPA Ports Initiative](#)
- [EPA DERA Program](#)
- [EPA Border 2025 Program](#)
- [EPA Community Air Quality Monitoring Toolbox](#)
- [EPA Air Pollutants Technical Documents](#)
- [EPA Environmental Justice Resources](#)
- [State Trucking Associations](#)

## **02** Goal Setting Guidance and Tips

Like any journey, it makes sense to know where you aim to go before you begin. Setting emissions reductions goals and targets are no exception. Setting goals and getting management buy-in will help set the course for efficiency gains, cost reductions and improved environmental performance. Setting performance goals or reduction targets, and announcing your plans signals to your organization, your employees, your shareholders and your customers that your business is committed to being a more responsible corporate citizen and more sustainable business.

Your first step should be to understand your emissions baseline, and this is where SmartWay performance benchmarking tools can help you know your emissions profile, your year-over-year performance, and where your emissions are most prominent in your operations. Once you've used these resources to establish your baseline, consider setting absolute emissions reductions targets and/or emissions intensity targets unique to your business, operations or products. Once your targets are set, an action plan should serve as a roadmap to help direct what steps and actions should be implemented over a period of time to reach those goals. These activities include things like carrier optimization, modal shifts, supply chain redesign, and multitudes of practices described in this document. This will be your SmartWay Performance Action Plan.

Your SmartWay Performance Action Plan indicates how much you will improve your environmental performance over a set period of time. Most companies set targets for three to five or even ten years. Your target may be expressed using any measure that is appropriate for your business. Your Action Plan summary is a simple description of the actions your company will take over the next several years to achieve your improvement goal.

### **How do I go about developing my SmartWay Performance Action Plan?**

You can use the Shipper reports and other data to help create and assess your goals by quantifying current emissions and projecting reductions from planned enhancements to your operations. EPA suggests that you complete the Activity Data and Way 4 sections of the Shipper Tool for your current operations, and complete a second version of the Tool for your projected operations in the future. Your goal can then be calculated as the difference in activities and emissions between the two versions of the Tool.

Alternatively, or in addition to using the Shipper Tool to develop your Action Plan, you may develop a table similar to the one included in this document, or may provide information in any other convenient format, describing the actions your company plans to take as a SmartWay Partner.

## Is there a minimum level of action that I must commit to taking?

Your SmartWay Performance Action Plan should set an ambitious and tangible target aiming to increase the proportion of goods shipped with higher performing Partner Carriers in addition to other efforts to reduce emissions from facilities you control – they should not simply project “business as usual.” Your goal should be described in any way that helps you to communicate your efforts. The sample table included in this document provides examples of goals and strategies.

### 03 Sample Performance Action Plan

Strategy	What	When	Objective	Status
<b>Strategy 1: Optimize Packaging and Loading</b>	Reduce weight and/or volume of packaging to drive more dense loading of freight which leads to fewer shipments and less emissions.	September 2022	Redesign packaging to increase product to package ratio.	Initiated
<b>Strategy 2: Optimize Supply Chain Routing and Distribution</b>	Redesign distribution network with more efficient network(s) which leads to fewer total miles and less emissions.	January 2023	Hire third-party logistics consultants to assess network design for optimal efficiency.	Initiated Assessment
<b>Strategy 3: Share Our Performance Report With Our Carriers and 3PLs</b>	Develop a presentation as part of our annual transport meeting to discuss our shipper performance report results, and reinforce our commitment to partnering with our carriers and 3PLs to improve the overall performance of our freight supply chain.	February 2022	Make sure our carriers and 3PLs know our goals. Inspire our carriers and 3PLs to value freight efficiency because it is our priority as a customer.	Completed
<b>Strategy 4: Recognize Carrier and 3PL Performance</b>	Work with our IT team to design a carrier and 3PL performance dashboard that includes efficiency metrics.	August 2022	Help carriers and 3PLs visualize their performance. Establish a way to discuss specific improvement goals with carriers and 3PLs. Create performance transparency metrics for carriers and 3PLs.	On Track

Strategy	What	When	Objective	Status
<b>Strategy 5: Host a Carrier and 3PL Webinar With EPA</b>	Schedule and set up a webinar for all of our transport service providers. Invite our PAM to speak on behalf of EPA SmartWay about how the program works and how it benefits carriers and 3PLS and syncs with our efficiency goals. Host a webinar.	June 2022  July 2022  August 2022	Educate our carriers and 3PLs about what the SmartWay program is, how it works, and what is involved in participating. Reinforce our commitment to working with 100% SmartWay Registered Carriers and 3PLs.	On Track
<b>Strategy 6: Assess and Upgrade Freight Policies at Distribution Centers</b>	Review our current policies at our DCs. Examine opportunities to improve drop off and loading systems. Develop a plan to implement and test a new set of policies.  Develop a benchmarking system and track the impact of DC improvement strategies.	September 2022 October 2022  November 2022  December 2022	Reduce idling and emissions on engine running times. Reduce dwell time. Improve driver comfort and our status as a preferred shipper. Measure and calculate the environmental and financial impact of our new DC policies.	Not started
<b>Strategy 7: Set a Carbon Reduction Goal</b>	Baseline carbon performance on an absolute and intensity basis, i.e., the annual tons of GHG emissions and the avg g/ton-mile efficiency of your freight supply chain. Set targets for reducing total tons of annual emissions and a lower g/ton-mile efficiency level.	September 2021    December 2026	Implement procurement policies and efficiency strategies for cleaner carriers. Improve load optimization, implement intermodal.	Not started



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