Understanding SmartWay Data:
A Primer for Shippers

Transport Partnership
U.S. ENVIRONMENTAL PROTECTION AGENCY

Summary of Understanding and Using SmartWay Performance Data: A Primer for Shippers

Shippers can use SmartWay data to evaluate transportation choices based upon carrier environmental performance and use this information to inform decisions on how to reduce their overall emissions inventory.

This document provides guidance to shippers on how to use the spreadsheet data and how to make accurate assessments of relative carrier performance.

EPA SmartWay provides shippers and other interested stakeholders a spreadsheet containing performance level data for SmartWay carriers. This spreadsheet is updated frequently.

This document explains how SmartWay collects carrier emissions data, how SmartWay presents the data to shippers, how SmartWay shippers can use the carrier performance data, and how to use the public performance level spreadsheet.

How EPA Collects Carrier Emissions Data

There are 15 categories of carrier in SmartWay:

- Truck carriers
- Drayage
- Flatbed
- Less-than-truckload dry van
- Mixed (no predominant operation or equipment type)
- Package Delivery
- Refrigerated
- Specialized
- Heavy/Bulk
- Auto Carrier
- Moving
- Expedited
- Tanker
- Truckload dry van
- Logistics companies
- Multimodal carriers (truck and rail intermodal operations)

These categories delineate different types of freight shipping operations and equipment, using commonly-understood terminology.

Carriers use the FLEET Tools to **calculate emissions at a fleet level.**

Each fleet operation/equipment category has distinct operations characteristics and meets different freight shipping/goods movement needs.

Each fleet is intended to represent an identifiable business unit that a carrier's shipping customers can discern and select.

Fleet-level assessment is intended only within a fleet operation/equipment category to ensure accurate **"apples to apples" evaluation.**

FLEET Tools use fuel, mileage and payload data to calculate emissions for eight emissions metrics:
- Grams/mile of Carbon Dioxide (CO_2)
- Grams/mile of oxides of Nitrogen (NOx)
- Grams/mile of Particulate Matter 2.5 microns (PM2.5)
- Grams/mile of Particulate Matter 10 microns (PM10)
- Grams/ ton-mile of Carbon Dioxide (CO_2)
- Grams/ ton-mile of oxides of Nitrogen (NOx)
- Grams/ ton-mile of Particulate Matter 2.5 microns (PM2.5)
- Grams/ ton-mile of Particulate Matter 10 microns (PM10)

How SmartWay Presents Carrier Emissions Data to Shippers

Truck, logistics, and multimodal carriers submit their Carrier FLEET Tools to SmartWay for evaluation and approval.

SmartWay aggregates carrier tool results of participating carriers at the fleet level to determine overall environmental performance for each of the eight emissions metrics within each fleet category.

SmartWay then divides the aggregated results for each emissions metric into five performance ranges

- Top 20%
- Second 20%
- Middle 20%
- Fourth 20%
- Bottom 20%

Performance ranges are specific to each fleet category, since each fleet category has distinct equipment and operational characteristics that can affect both fuel consumption and emissions.

There are independent ranges for each of the eight emissions metrics.

SmartWay calculates the midpoint of each of the five performance ranges for each of the emissions metrics in a given fleet category, and sets that as the performance level for all of the fleets that fall within that performance range within that fleet category.

This allows:

- SmartWay Shippers to assess relative performance of carrier fleets within operational/equipment categories for each freight shipping need
- SmartWay Shippers to equitably evaluate performance ranges among carrier modes (e.g., truckload dry van vs. multimodal)
- SmartWay Carriers to ensure data security of their specific company information

How SmartWay Shippers Use Performance Level Data

Shippers use the SmartWay Shipper tool to assess their total freight transportation emissions inventories and compare transportation options.

A Shipper inputs its activity level (i.e., miles and ton-miles) for each carrier fleet it uses.

The shipper tool multiplies the shipper's activity level for each carrier by the carrier's performance levels, across each of the eight emissions metrics.

The sum total of the carrier results produces an overall inventory for each of the eight emissions metrics

Shippers can:

- Identify carrier emission rates within the shipper tool or by viewing the Carrier Performance Level spreadsheet

- Estimate emission reductions based on their carrier fleet mix for shipper controlled strategies such as reduced packaging, weight reductions, or reducing miles

- Estimate the effects of modal shift, again using their own carrier base to compare different modes (e.g., multimodal vs. truckload dry van).

A Shipper can use SmartWay data to evaluate its transportation choices based upon environmental performance and use this information to inform decisions on how to reduce its overall emissions inventory. Examples include: employing operational strategies that reduce truck or rail trips; determining the most efficient mode for each shipping need; selecting the best environmentally-performing carriers within each mode.

How SmartWay Shippers Can use the Public Performance Level Spreadsheet

Shippers can use the Performance Level spreadsheet to search for fleets by:

- Going to the tab for the type of fleet they are looking for

- Searching the list by company name, SCAC code, or MCN

Shippers can use the performance levels to:

- Select the appropriate operation/equipment category for a given freight need based on performance ranges;

- Identify carrier performance levels within each operation/equipment category and assess relative effectiveness; and

- Assess fleets on ANY of the eight emissions metrics to fit different needs.

- (e.g., many shippers use CO_2 grams/ton-mile to develop their carbon footprint; however, shippers looking to reduce their PM or NOx emissions may opt to look at grams/mile).