Welcome to the SmartWay Webinar Series

Today’s webinar is:

**SmartWay Truck Tool Advanced Class:**

**Getting the Most out of Your SmartWay Participation**
Questions: Yours and Ours

• Submit a question via the Questions pane on your GoTo control panel.

• After the presentation, as time permits, our EPA presenter will answer questions submitted via the Questions box.

• Please complete the survey at the end of today’s webinar. Your feedback is important to us!
SmartWay Turns 15 Years Old!

For 15 years, our Partners & Affiliates have worked for cleaner, more fuel-efficient freight transportation!

Learn about SmartWay
- Overview of SmartWay
- Why Freight Matters
- How SmartWay Advances Sustainable Transportation Supply Chains
- Sustainability Accounting & Reporting
- SmartWay Program Successes
- Trends, Indicators & Partner Statistics

Participate in SmartWay
- How to Participate in SmartWay
- How the SmartWay Partnership Works
- Become a SmartWay:
  - Shipper
  - Logistics Company
  - Carrier
  - Affiliate

SmartWay Latest News
- January/February
  - Affiliate Calendar
- VIDEO: EPA Congratulates 2018 SmartWay Excellence Award Recipients

More SmartWay News
- February 27, 2019 - Education Webinar: 2019 SmartWay Excellence Award Criteria
- March 14, 2019 - Tool Demo Webinar: Advanced Truck Tool Webinar

View Scheduled Webinars and Past Webinar Recordings

SmartWay home page
www.epa.gov/smartway
Select the “Past Webinars/Events” tab to see resources from previous webinars.
Erik Herzog has been with the EPA Office of Transportation and Air Quality for 30 years, and has been working with SmartWay for the last twelve. He has worked on development of the SmartWay partner tools, and on many aspects of program evaluation, including data quality, emissions reduction benefits, and harmonizing SmartWay methodologies with other green freight protocols. He has a Bachelor’s in Psychology from Bethany College, a Master’s in Natural Resource Policy from the University of Michigan, and an Advanced Certificate in Sustainable Innovation from the University of Vermont.
SmartWay Truck Tool
Advanced Class
Webinar Presentation

Erik Herzog
US Environmental Protection Agency
April 2, 2019
Covered Today

• Background
• **SmartWay Ranking:** how we do it and why it’s important
• How your data entry choices yield more useful results
• How to read and understand SmartWay data reports
• How Shippers use SmartWay data and what it means for you
Background

- SmartWay was initiated as a voluntary market based program with members of the U.S. Freight industry in 2001.
- It was launched in 2004 after three years of cooperative development.
- Goals
  - Improve the efficiency and competitiveness of the freight industry
  - Reduce the release of harmful emissions
  - Improve the reputation of the freight industry
- The SmartWay Equation:
  \[ \text{Fuel Use} = $$$ = \text{CO}_2 \]
- Currently over 3000 Carriers and over 250 Shippers are members of SmartWay.
- SmartWay is the Global Standard in Freight Emissions Reporting.
Background

SmartWay is continuous improvement for the Environment and Efficiency
Background

The SmartWay System

SmartWay Data Collection Tools

SmartWay Staff

SmartWay Database

Carrier Data File

SmartWay Web

Shipper Use

Welcome to the 2016 SmartWay SHIPPER Tool

Since 2004, companies have been participating in the SmartWay Program to reduce their fuel usage, reduce emissions, and save money. Developed in cooperation with the freight transportation industry, the SmartWay Transport Partnership helps you to improve your efficiency by tracking and benchmarking performance.
SmartWay Rankings: Why we do it.

- First and foremost SmartWay is a benchmarking system
  - Publishing information about company environmental efficiencies allows them to see how they compare with their peers
  - Companies can discover deficiencies and correct them
  - Helps to improve company performance
  - Ultimately this creates improvement in the U.S. freight system allowing American companies to be more competitive

- Shippers need carrier environmental data
  - SmartWay provides a standard data system for Shippers
  - Without SmartWay, Shippers would be asking each carrier individually causing additional work for carriers
  - Shippers need environmental data for corporate sustainability reporting and annual reports
  - Shippers see advertising value in using the Smartway logo and promoting green business practices in their advertising
  - Shippers use SmartWay participation in their carrier hiring decisions and bonus determinations
SmartWay Rankings: How we do it.

- You will describe your fleets in the Operations tab and the Body Type tab.
- This information is used to place your fleet(s) in the proper SmartWay Categories for comparison.
- SmartWay categories are determined by a logical combination of operational and body types.
SmartWay Rankings: How we do it.

- By indexing the Operation type and Body type, SmartWay creates peer groups for comparison.
- Note: If you are not at least a 75% match for a SmartWay category, then your fleet is placed in a mixed category. Comparisons in the Mixed category are not as useful as the other categories.
- Each SmartWay truck category has five performance levels for each performance metric.

### 2018 SmartWay Carrier Categories and Data Specificity

<table>
<thead>
<tr>
<th>TRUCK</th>
<th>Dry Van &amp; Chassis</th>
<th>Reefer and Reefer Chassis</th>
<th>Flatbed</th>
<th>Tanker</th>
<th>Heavy &amp; Bulk</th>
<th>Auto Carrier</th>
<th>Moving</th>
<th>Specialized &amp; Utility</th>
<th>Mixed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dray</td>
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</tr>
</tbody>
</table>

Data Specificity:
- Dray: 5 Performance Levels
- Truckload: 5 Performance Levels
- Expedited: 5 Performance Levels
- LTL: 5 Performance Levels
- Package Delivery: 5 Performance Levels
- Mixed: Less than 75% in any category
**SmartWay Rankings: How we do it.**

**SmartWay’s Current 6 Emission Metrics**

<table>
<thead>
<tr>
<th>Pollutants</th>
<th>Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>Grams per Mile</td>
</tr>
<tr>
<td>NOx</td>
<td>Grams per Ton-mile</td>
</tr>
<tr>
<td>PM</td>
<td>Ton-mile</td>
</tr>
</tbody>
</table>

**Pollutants**
- **CO2**: Carbon Dioxide; a surrogate for fuel efficiency and global warming
- **NOx**: Oxides of Nitrogen; known for creating smog, a concern for local areas
- **PM**: Particulate Matter; known for creating black soot, a concern for local areas
SmartWay Rankings: How we do it.

For details see the Truck Tool Technical Document on the SmartWay website.

Emission factors are mostly determined by the EPA MOVES model:

- For NOx and PM g/mile scores are determined mostly by:

  - The AGE and CLASS (2b-8b) of your trucks
  - Fuel type (diesel, gasoline, LPG, LNG, CNG, electric, hybrid)
  - Mpg of your trucks

- The ACE and CLASS factors are determined mostly by:

  - Mpg of your trucks

- Non-road PM can be further reduced (pre-2007 PM emissions) by:

  - Biodiesel or ethanol usage
  - Road Type/Speed categories & Idling
  - Highway vs. Rural Driving, and Speed categories for urban driving

- Particulate traps and closed crankcase ventilation (by use of oxidation catalysts, trucks)

- Emission factors are mostly determined by emission factors mostly determined by the EPA MOVES model:

- For details see the Truck Tool Technical Document on the SmartWay website.
SmartWay Rankings: How we do it.

Your NOx and PM g/ton-mile scores are based on the mass of emissions determined by the previous inputs and adjusted by **Average Payload**.

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**Input Data: by Truck Class**

- **Gallons of Diesel Used, incl. Biodiesel & Reefer** (exact values) 1,755,865
- **Miles per truck check** 59,916
- **Gallons of Biodiesel (B100 Equivalents)** 10,979
- **Average Payload (tons) - Cargo Weight Only** 16.93
- **Truck Cargo Volume (cubic feet)** 3,322
- **Average Used Cargo Volume % (excluding empty miles)** 90.67
- **Road Type / Speed Categories**
  - Enter Speeds
  - Filter Speeds
- **Average Annual Idle Hours per Truck** 756

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*Indicates that default speed distributions were selected for urban road types.*
SmartWay Rankings: How we do it.

The Payload calculator can help you determine your Average Payload

- If you know your average payload it will be more accurate than the calculator and best practice is to know your payloads
SmartWay Rankings: How we do it.

Your CO2 g/mile score is **mostly** determined by:
- Fuel burned and total miles travelled
- Fuel type
SmartWay Rankings: How we do it.

Your CO2 \text{g/ton-mile} score is based on the mass of emissions determined by the previous inputs and adjusted by \text{Average Payload}.

![SmartWay Rankings](image)

Your CO2 \text{g/ton-mile} score is based on the mass of emissions determined by the previous inputs and adjusted by \text{Average Payload}.
SmartWay Rankings: How we do it.

Some Data Points are not used in calculating your scores but are included for your analysis efforts:

- Revenue miles, and Volumetric information

Input your activity information in the white boxes by truck class. Green boxes will appear underneath some data entry cells that will activate a pop-up screen to help you with your inputs. The totals for all your trucks will be summed/averaged on the left.

![SmartWay Rankings Table](screen.png)
SmartWay Rankings: How we do it.

Some Data Points are **not used** in calculating your scores but are included for SmartWay data evaluation

- % Operation US/Canada, Short-Long haul split, Brokerage, OTC information
SmartWay Rankings: How we do it.

- For trucking companies, SmartWay displays your results in one of five performance ranges.
- A distribution curve is developed for each SmartWay category for each emission metric.
- SmartWay divides each curve such that each performance range is composed of approximately 20% of fleets.
- SmartWay lists the high and low ranges of each performance metric, and displays the midpoint emission number publicly for each bin.
- All companies have the midpoint of the bin displayed as their number for that performance metric, as well as their performance number (1-5)
SmartWay Rankings: How we do it.

• There is a specific distribution for each SmartWay category and each performance metric so each SmartWay Category performance metric is unique.
• The midpoint of a Range 1 Score for Truckload Dry Van is NOT the same as the Range 1 score for Flatbed, Reefer, or any other SmartWay category.
• While both represent approximately the top 20% of their categories, the categories are not alike –
  • Operational differences such as duty-cycle, special needs such as reefer fuel, tanker one-way operation, and other factors.

For Example
• Range 1 Truckload Dry van CO2 is 1400 g/mile.
• Range 1 Refrigerated CO2 is 1475 g/mile.
• Range 1 Flatbed CO2 is 1550 g/mile.

• Therefore, the Range (1-5) Rankings are only relative rankings and are relevant within category, not across categories.
• However, the g/mile numbers represent actual performance and are comparable.
SmartWay Rankings: How we do it.

- **Non-SmartWay carriers** receive a default value that is equivalent to a calculated “Performance Range 6” number.

- There is no actual Range 6, but since we do not know what non-SmartWay carrier emissions – since they don’t submit data – we need a default number.

- We have to conservatively assume they are bad (worse than those submitting data) so we don’t underestimate emissions.

- This system makes sure that any company that submits data to SmartWay (whatever the performance) will have an emission factor better than a non-submitter.

- Otherwise there would be a perverse incentive NOT to submit.

- This methodology allows SmartWay to display default numbers for non-SmartWay that do not disbenefit members, while still providing a reasonable number for Shippers with a lot of non-SmartWay carriers that are attempting to determine their carbon footprint.
## Public Carrier Performance Data

### Performance Rankings and Emission Factors

| Carrier Fleet Name | Mode | Fleet Category | Type | SCAC | MCN | US DO | NSC | Canadian | g/m CO2 Rank | g/m NOx Rank | g/m PM Rank | g/m CO2 | g/m NOx | g/m PM | g/tm CO2 Rank | g/tm NOx Rank | g/tm PM Rank | g/tm PM |
|--------------------|------|----------------|------|------|------|-------|-----|----------|--------------|-------------|------------|----------|--------|--------|--------|--------------|--------------|--------------|--------|
| Truck T/L/Dry Van  | For-Hire | OZOT | 625894 | 1705392 | N/A | | | | 3 | 1600 | 7.5 | 0.086 | 2 | 81.5 | 0.445 | 3 | 0.007 |
| Truck T/L/Dry Van  | For-Hire | MNMR | 1159500 | 142970530 | 5 | | | | 3 | 1600 | 7.2 | 0.026 | 3 | 90.5 | 0.355 | 2 | 0.007 |
| Truck T/L/Dry Van  | For-Hire | ROAD | N/A | 1063823 | 143460740 | 5 | | | 3 | 1800 | 5.2 | 0.024 | 5 | 96.5 | 0.265 | 1 | 0.005 |
| Truck T/L/Dry Van  | For-Hire | PDGH | 521737 | 1360591 | N/A | | | | 3 | 1600 | 3.2 | 0.026 | 3 | 81.0 | 0.175 | 1 | 0.005 |
| Truck T/L/Dry Van  | For-Hire | FSEP | 181440 | 284589 | N/A | | | | 1 | 1400 | 3.4 | 0.068 | 3 | 90.5 | 0.265 | 2 | 0.005 |
| Truck T/L/Dry Van  | For-Hire | DFHR | 691346 | 1937937 | N/A | | | | 4 | 1700 | 7.5 | 0.086 | 5 | 108.5 | 0.445 | 3 | 0.015 |
| Truck T/L/Dry Van  | For-Hire | SWYC | N/A | 230633 | N/A | | | | 5 | 1800 | 11 | 0.006 | 5 | 108.0 | 0.185 | 2 | 0.005 |
| Truck T/L/Dry Van  | For-Hire | TTWT | N/A | 173-333-034 | N/A | | | | 3 | 1600 | 3.5 | 0.086 | 4 | 99.5 | 0.265 | 3 | 0.005 |
| Truck T/L/Dry Van  | For-Hire | THLL | 716290 | 2042543 | N/A | | | | 3 | 1600 | 11 | 0.006 | 2 | 81.5 | 0.185 | 1 | 0.005 |
| Truck T/L/Dry Van  | For-Hire | FDRP | 488737 | 1243083 | N/A | | | | 3 | 1600 | 3.2 | 0.026 | 3 | 90.5 | 0.175 | 1 | 0.005 |
| Truck T/L/Dry Van  | For-Hire | RKWT | 297845 | 233669 | 14973150 | 2 | | | 1500 | 5.5 | 0.086 | 5 | 72.5 | 0.265 | 4 | 0.011 |
| Truck T/L/Dry Van  | For-Hire | STFW | 552013 | 2465329 | 17974209 | 3 | | | 1600 | 11 | 0.006 | 3 | 90.5 | 0.185 | 1 | 0.005 |
| Truck T/L/Dry Van  | For-Hire | VTL | 471471 | 1175764 | 50331659 | 3 | | | 1600 | 11 | 0.006 | 3 | 72.5 | 0.185 | 1 | 0.005 |
| Truck T/L/Dry Van  | For-Hire | ALKM | 212072 | 344824 | N/A | | | | 3 | 1600 | 5.4 | 0.066 | 3 | 90.5 | 0.185 | 1 | 0.005 |
| Truck T/L/Dry Van  | For-Hire | WANG | 147008 | 76507 | N/A | | | | 3 | 1800 | 5.2 | 0.026 | 5 | 108.5 | 0.265 | 3 | 0.005 |
| Truck T/L/Dry Van  | For-Hire | AUCR | N/A | 196845 | N/A | | | | 3 | 1600 | 3.5 | 0.086 | 4 | 99.5 | 0.265 | 3 | 0.005 |
| Truck T/L/Dry Van  | For-Hire | AOKO | 574445 | 131973 | 2519173 | 4 | | | 1700 | 3.3 | 0.026 | 3 | 81.5 | 0.175 | 2 | 0.003 |
| Truck T/L/Dry Van  | For-Hire | ACWH | 156691 | 26412 | N/A | | | | 2 | 1500 | 9.5 | 0.086 | 3 | 72.5 | 0.445 | 3 | 0.015 |
| Truck T/L/Dry Van  | For-Hire | OFNS | 548067 | 1450334 | 12925853 | 3 | | | 1600 | 9.5 | 0.086 | 3 | 81.5 | 0.445 | 3 | 0.015 |
| Truck T/L/Dry Van  | For-Hire | AGTE | 569163 | 1525204 | 153776747 | 2 | | | 1500 | 3.2 | 0.046 | 4 | 81.5 | 0.175 | 2 | 0.003 |
| Truck T/L/Dry Van  | For-Hire | ALBK | 903750 | 238464 | N/A | | | | 5 | 1800 | 7.2 | 0.026 | 3 | 90.5 | 0.355 | 2 | 0.005 |
| Truck T/L/Dry Van  | For-Hire | ALLM | 154127 | 169025 | N/A | | | | 3 | 1600 | 3.3 | 0.046 | 3 | 81.5 | 0.175 | 2 | 0.003 |
| Truck T/L/Dry Van  | For-Hire | DAKO | S/O | 1257162 | 6186976 | 4 | | | 1700 | 3.2 | 0.026 | 3 | 81.5 | 0.175 | 2 | 0.003 |
| Truck T/L/Dry Van  | For-Hire | AMCM | 72565 | 2313051 | N/A | | | | 3 | 1400 | 9.5 | 0.086 | 5 | 72.5 | 0.445 | 5 | 0.015 |
| Truck T/L/Dry Van  | For-Hire | ARXX | 586865 | 15962 | N/A | | | | 3 | 1400 | 9.5 | 0.086 | 5 | 72.5 | 0.445 | 5 | 0.015 |
Understanding Your SmartWay Rankings

Wile E. Coyote Transportation
SmartWay category: Truckload Dry Van

<table>
<thead>
<tr>
<th></th>
<th>CO2</th>
<th>Oxides of Nitrogen (NOx)</th>
<th>Particulate Matter (PM)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>g/mile</td>
<td>g/ton-mile</td>
<td>g/mile</td>
</tr>
<tr>
<td>CO2</td>
<td>This score indicates your performance on a mpg basis.</td>
<td>NOx causes Smog, contributes to Ozone Action Days, and Acid Rain. NOx emissions are harmful to both humans and the environment. To improve your score, buy newer trucks</td>
<td>PM causes breathing problems, can lead to lung cancer, and contributes to prolonged sickness. PM tends to concentrate in the areas in which it is emitted. To improve your score, buy newer trucks</td>
</tr>
</tbody>
</table>

**SmartWay Rank**

<table>
<thead>
<tr>
<th></th>
<th>This score indicates your fuel efficiency performance on a per weight basis. Higher payloads will improve your g/ton-mile performance.</th>
<th>This score indicates your efficiency by how much NOx you emit on a per mile basis.</th>
<th>This score indicates your NOx performance on a per weight basis. Higher payloads will improve your g/ton-mile performance.</th>
<th>This score indicates your efficiency by how much PM you emit on a per mile basis.</th>
<th>This score indicates your PM performance on a per weight basis. Higher payloads will improve your g/ton-mile performance.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congratulations!</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Your SmartWay scores (1-5) can be viewed at: https://www.epa.gov/smartway/smartway-carrier-performance-ranking
Understanding Your SmartWay Rankings

Remember: Scores tell a story and each fleet is unique!

- Example 1: BEST Possible SmartWay Score
  - CO2 g/ton-mile: 1
  - CO2 g/mile: 1
  - NOx g/ton-mile: 1
  - NOx g/mile: 1
  - PM g/ton-mile: 1
  - PM g/mile: 1

- Example 2: Highly fuel efficient fleet using older trucks SmartWay Score
  - CO2 g/ton-mile: 1
  - CO2 g/mile: 1
  - NOx g/ton-mile: 5
  - NOx g/mile: 5
  - PM g/ton-mile: 5
  - PM g/mile: 5

- Example 3: A fleet with all new trucks, with very light loads
  - CO2 g/ton-mile: 5
  - CO2 g/mile: 1
  - NOx g/ton-mile: 3
  - NOx g/mile: 1
  - PM g/ton-mile: 3
  - PM g/mile: 1

- Example 4: A fleet that uses a lot of double and triple trailers with a mix of old and new trucks
  - CO2 g/ton-mile: 1
  - CO2 g/mile: 5
  - NOx g/ton-mile: 2
  - NOx g/mile: 4
  - PM g/ton-mile: 2
  - PM g/mile: 4
Understanding Your SmartWay Rankings

So...how good am I?

- Example: You are a Refrigerated Carrier and are in Bin 2 for Grams per Ton-mile.
- This means that at a minimum you are better than 60% of refrigerated carriers in this metric, and could be better than 80% at most. If your actual g/ton-mile is better than the midpoint for bin 2 (what is displayed publicly), then you are likely better than 70% of refrigerated carriers.
- If you are in Bin 5, then at least 80% of your peers are doing better than you.
Truck Tool Data Reports

“What you put in is what you get out…”

“If you put in the effort, you might as well reap the rewards”
Accessing Your Reports

Please complete the following steps. Check boxes on the left indicate successful completion of each step. For more information, select the 'Help' button.

1. Enter Partner Name (Exactly as it should appear on the SmartWay website):
   ABC Trucking, Inc.

2. Contact Information

3. Fleet Description(s)

4. Data Entry (Double-click the fleet name or select and hit Enter):
   ABC Trucking, Inc.: East Operations - Complete (with Warnings)
   ABC Trucking, Inc.: West Operations - Complete (with Warnings)

5. Give us Feedback
   Optional survey to help us improve your SmartWay experience.

6. Generate a (.xml) data file
   To complete your submission, email the small (.xml) data file and your large (.xlsx) tool file to EPA. If your email size limit cannot handle the tool file, send only the smaller data file.

YOUR RESULTS

View Your Data Reports

Review your Year-to-Year Performance
Data Reports

- SmartWay provides a lot of pre-generated reports for you!

SmartWay Reports

Please select the report you would like to view:

- Interior Metrics
- Fleet Description(s)
- General Information
- Truck Costs
- Activity Information
- Reefer Fuel Consumption
- PM Reduction Strategies
- Comments
- Get of Range
- Data Sources
- Give Us Feedback

Select the level of detail you wish to display:
- Display only totals
- Display details for each Fleet
- Display details for each Truck Class
- Display details for each Fleet and Truck Class combination
- Display details for each Fuel Type
- Display details for each Fleet and Fuel Type combination
- Display details for each Fleet, Fuel Type, and Truck Class combination

OK
Accessing Your Reports

- Tool data reports are strictly internal to what you have entered into the tool.
- Good for double-checking your inputs.
Select the level of detail you wish to display

- Display only totals
- Display details for each Fleet
- Display details for each Truck Class
- Display details for each Fleet and Truck Class combination
- Display details for each Fuel Type
- Display details for each Fleet and Fuel Type combination
- Display details for each Fleet, Fuel Type, and Truck Class combination

OK
<table>
<thead>
<tr>
<th>Fleet Name</th>
<th>Fuel Type</th>
<th>Number of Trucks</th>
<th>Number of Fuel Gallons or kWh**</th>
<th>Barrels of Distillate Gasoline</th>
<th>Distillate Barrels Barrels (E10/E100) Eqv. Gallons</th>
<th>Vehicle Efficiency***</th>
<th>Total Annual Miles Driven</th>
<th>Total Annual Revenue Miles</th>
<th>Total Annual Empty Miles</th>
<th>Average PayLoad (tons/truck)*</th>
<th>Truck Cargo Volume (cu $/truck)*</th>
<th>Average Used Cargo Volume</th>
<th>% Highway Driving</th>
<th>% Urban Driving (Under 25 mph)</th>
<th>% Urban Driving (25 mph to 50 mph)</th>
<th>% Urban Driving (Over 50 mph)</th>
<th>% Urban Driving (Under 50 mph)</th>
<th>Average Idle Hours per Truck per Year</th>
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<tbody>
<tr>
<td>ABC Trucking, Inc. East Operations</td>
<td>Diesel</td>
<td>7</td>
<td>25</td>
<td>207,969</td>
<td>29,667</td>
<td>4,921</td>
<td>1,300</td>
<td>1,497,896</td>
<td>1,450,892</td>
<td>47,003</td>
<td>5.30</td>
<td>2,510</td>
<td>69.00%</td>
<td>72%</td>
<td>13%</td>
<td>4%</td>
<td>1%</td>
<td>7%</td>
</tr>
<tr>
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<td>60</td>
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<td>36,844</td>
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<td>7,190,962</td>
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<td>18.48</td>
<td>3,416</td>
<td>91.00%</td>
<td>89%</td>
<td>6%</td>
<td>4%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>ABC Trucking, Inc. East Operations</td>
<td>Gasoline</td>
<td>3</td>
<td>10</td>
<td>68,987</td>
<td>3,631</td>
<td>1,643</td>
<td>66</td>
<td>447,896</td>
<td>409,894</td>
<td>21,002</td>
<td>1.40</td>
<td>606</td>
<td>88.00%</td>
<td>62%</td>
<td>18%</td>
<td>15%</td>
<td>5%</td>
<td>56%</td>
</tr>
<tr>
<td>ABC Trucking, Inc. East Operations</td>
<td>Gasoline</td>
<td>4</td>
<td>15</td>
<td>107,969</td>
<td>5,679</td>
<td>2,549</td>
<td>66</td>
<td>596,896</td>
<td>428,894</td>
<td>70,003</td>
<td>2.33</td>
<td>700</td>
<td>69.00%</td>
<td>72%</td>
<td>13%</td>
<td>11%</td>
<td>4%</td>
<td>3%</td>
</tr>
</tbody>
</table>

**This tool has been reviewed by The World Resources Institute for conformance with the GHG Protocol Corporate Standard.**
Accessing Your Reports

Year-to-Year Performance

- You will need a previous year’s file for comparison, so keep all of your information in a directory that you can access
- Great for looking at performance trends

![Screen shot of SmartWay Truck: Home interface](image-url)
Year-to-Year Reports

- If you were in SmartWay in previous years, you can compare your data to see how you’ve changed over time.
- Also good for double-checking your inputs… a 200% change from one year to the next is a trouble sign.
# Year-to-Year Reports

<table>
<thead>
<tr>
<th>Fleet Name(s)</th>
<th>Webinar Example Truck Tool</th>
<th>Webinar Example Truck Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Contact:</td>
<td>Ex Ample</td>
<td>Ex Ample</td>
</tr>
<tr>
<td>Phone</td>
<td>X</td>
<td>888-881-2364 / 1336</td>
</tr>
<tr>
<td>SCAC(s)</td>
<td>ABCD</td>
<td>ABCD</td>
</tr>
<tr>
<td>MCN</td>
<td>#1234567</td>
<td>#1234567</td>
</tr>
<tr>
<td>DOT</td>
<td>#123456</td>
<td>#123456</td>
</tr>
<tr>
<td>NSC</td>
<td>X</td>
<td>#123456</td>
</tr>
<tr>
<td>Fleet Type</td>
<td>For-Hire</td>
<td>For-Hire</td>
</tr>
<tr>
<td>Ranking Category</td>
<td>Flatbed</td>
<td>Flatbed</td>
</tr>
<tr>
<td>Body Types</td>
<td>Flatbed(100%)</td>
<td>Flatbed(100%)</td>
</tr>
<tr>
<td>MPG</td>
<td>-3.3%</td>
<td>7.15</td>
</tr>
<tr>
<td>Miles Per Truck</td>
<td>3.9%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Average Payload (tons/truck)*</td>
<td>-10.8%</td>
<td>17.15</td>
</tr>
<tr>
<td>Truck Cargo Volume (cu ft/truck)*</td>
<td>-0.2%</td>
<td>2.236</td>
</tr>
<tr>
<td>Average Used Cargo Volume %*</td>
<td>82%</td>
<td>82%</td>
</tr>
<tr>
<td>% Highway or Rural Driving*</td>
<td>0.0%</td>
<td>85%</td>
</tr>
<tr>
<td>% Urban Driving (Under 25 mph)*</td>
<td>0.0%</td>
<td>7%</td>
</tr>
<tr>
<td>% Urban Driving (25 mph to 50 mph)*</td>
<td>0.0%</td>
<td>6%</td>
</tr>
<tr>
<td>% Urban Driving (Over 50 mph)*</td>
<td>0.0%</td>
<td>2%</td>
</tr>
<tr>
<td>Average Idle Hours (per truck per year)</td>
<td>0.1%</td>
<td>778</td>
</tr>
<tr>
<td>Number of Trucks</td>
<td>-38.0%</td>
<td>2,321</td>
</tr>
<tr>
<td>Class 2b</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Class 3</td>
<td>-39.8%</td>
<td>186</td>
</tr>
<tr>
<td>Class 4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Class 5</td>
<td>-43.4%</td>
<td>43</td>
</tr>
<tr>
<td>Class 6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Class 7</td>
<td>-36.0%</td>
<td>383</td>
</tr>
<tr>
<td>Class 8a</td>
<td>-51.7%</td>
<td>58</td>
</tr>
<tr>
<td>Class 8b</td>
<td>-37.6%</td>
<td>-</td>
</tr>
<tr>
<td>Total Annual Miles Driven</td>
<td>-35.6%</td>
<td>109,835,547</td>
</tr>
<tr>
<td>Total Annual Revenue Miles</td>
<td>-35.8%</td>
<td>65,763,229</td>
</tr>
<tr>
<td>Total Annual Empty Miles</td>
<td>-35.4%</td>
<td>44,072,527</td>
</tr>
<tr>
<td>Fuel (Gallons or kWhr)</td>
<td>-33.4%</td>
<td>15,361,580</td>
</tr>
<tr>
<td>Gallons of Diesel Used, incl. Reefer</td>
<td>-33.4%</td>
<td>15,361,580</td>
</tr>
</tbody>
</table>
Data Quality

• The Tool is Only as Good as the Data You Enter
  ▪ Having systems and procedures to ensure complete and accurate data are captured, stored, retrieved and protected are essential to all aspects of your business
  ▪ SmartWay tools have validation limits for some data points, such as payload, empty miles relative to total miles, and others (Section 3.4, “Data Validation,” of the Truck Tool technical Documentation).
  ▪ You know your data better than anyone
  ▪ Check entries against company records and previous years’ tools and see if they make sense.
Hints for Best Data Analysis

- Keep all of your files in a secure directory, with a subdirectory for each submission year.
- Save each year’s SmartWay tools, user guides, and technical documents for quick reference.
- Save the public SmartWay carrier performance ranking spreadsheet each year.
- Make sure your company has a succession plan so you don’t lose older data.
- In the SmartWay tool:
  - Use the comment section of the tool to record notes.
  - Accurately and completely fill out the data sources tab so you can quickly access the same (or better) data sources next year.
  - Keep contact information up-to-date.
- Track your progress in data collection year-to-year and seek to collect better data each year.
- Develop an “information funnel.”
  - Develop standardized reports or file formats for people to send you data.
  - SmartWay has data sheets you can use as templates.
Remember, Data is powerful

- Make sure people in your organization know you have the data and publicize your reports to gain visibility.
- Use data reporting to improve your bottom line and take credit for it.
- Implement a Kaizen process for data quality; use SmartWay as a driver for improvement and to achieve your personal organizational goals.

- Invest in Big Data. Companies are gaining competitive advantage through the use of big data. SmartWay reporting should be a small component of your overall data handling capabilities.
- Consultants are available to assist you.
- Your Partner Account Manager can help you think of strategies to improve your data.
How Shippers use SmartWay data and what it means for you
How Do Shippers Use SmartWay Scores?

- Many Shippers publish Corporate Social Responsibility Reports...
  - They need to determine their emissions from many sources, and freight is one of these.
  - SmartWay provides a standardized way of calculating these emissions.
  - Without SmartWay, many shippers would be asking carriers for their information.
  - Shipper emissions show up on Shareholder reports, Social Responsibility Reports, Carbon Disclosure Reporting, Greenhouse Gas Protocol reporting, etc.

- Relating to SmartWay Carriers, some Shippers:
  - Require their carriers to be SmartWay.
  - Require their carriers to be certain bin levels within SmartWay (1 or 2).
  - Give preferential fuel surcharge rates to SmartWay carriers or high performing SmartWay carriers.
  - Give bonus points in bid proposals and carrier selection criteria.
  - Request carriers submit their SmartWay registration document with a bid.
What does a Shipper Tool Look Like?

- Shippers are able to manually add SmartWay carriers to their list, or upload a data file containing their SmartWay carriers to their tool.
- Either way, it requires the ability to match their information about the carrier with what the carrier has given to SmartWay.
What does a Shipper Tool Look Like?

- Shippers input the amount of freight in miles and ton-miles they haul with each carrier.
- This is indexed by each carrier’s emission metrics to produce mass emissions.
- Ton-miles x grams/ton-mile = grams
- These numbers are then summed to produce a total mass emissions from freight for the Shipper.
What does a Shipper Tool Look Like?

- Shippers can see and track carrier performance.
- Note: A non-SmartWay carrier will always have a worse emission factor than a SmartWay partner.
- The more freight a shipper moves with a cleaner carrier, the lower its overall emissions will be…making the shipper happier.
But What Do I Tell My Shipper?

“Your SmartWay score…
Give it to me now.”

• Example answer: SmartWay doesn’t have a single score for carriers. SmartWay has 6 scores. Two metrics: g/mile and g/ton-mile, for three pollutants: carbon dioxide (CO2), oxides of nitrogen (NOx), and particulate matter (PM). I can email you my 6 scores, or you can find them on the SmartWay website. Are you a member of SmartWay? If so, you can call or email them and they will explain the SmartWay “Scoring” system in detail.
Shipper Answers Cheat Sheet

• SmartWay website:  https://www.epa.gov/smartway

• Location of SmartWay performance ranking spreadsheet:  (Your scores are here)  https://www.epa.gov/smartway/smartway-carrier-performance-ranking

• Location of SmartWay Partner List:  If the Shipper is on the list they can call their SmartWay Partner Account Manager (PAM):
  •  https://www.epa.gov/smartway/smartway-partner-list

• SmartWay hotline (If they don’t know their PAM)  734-214-4767

• SmartWay Email (If they don’t know their PAM and don’t like to call)  smartway_transport@epa.gov

• This presentation will be uploaded to:  https://www.epa.gov/smartway/smartway-webinars-events
Please Remember

• Pay attention to SmartWay emails.
• Make sure SmartWay emails aren’t going into your spam folder.
• Have a current SmartWay contact and insure continuity of operations if you leave your position.
• Have a backup person in your organization.
• Save your SmartWay work in a single folder.
• Use SmartWay for benchmarking and Improvement.
• If you have a question- don’t hesitate: ask your Partner Manager.
• Know who your Partner Account Manager is!
Questions?