SmartWay Truck Tool Advanced Class: Getting the Most out of Your SmartWay Participation

Erik Herzog, EPA SmartWay
February 5, 2020
Housekeeping

🔍 Attendees phone lines are muted to preserve audio quality.

🔍 Submit a question via the Questions box on your GoTo control panel.

🔍 After the presentation, as time permits, our EPA presenters 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 how!

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
  Congratulations 2018 SmartWay Excellence Award Recipients

More SmartWay News

Upcoming Webinars & Events
- 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

www.epa.gov/smartway
SmartWay Webinars & Events

EPA hosts free webinars to help you learn how to get the most out of the SmartWay Program.

View SmartWay Webinars

Upcoming Webinars  Past Webinars

Past Webinars: Descriptions, links to webinar recordings, and presentation slides for past webinars are listed below.

Event Type Legend

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<tr>
<th>Type</th>
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<td>Freight Matters</td>
<td>The “Green Supply Chain”: A critical assessment of a multimodal, multinational freight supply chain of a Fortune 50 retailer</td>
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<td>Tool Demo Webinar</td>
<td>2018 SmartWay Shipper Tool Webinar</td>
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www.epa.gov/smartway/smartway-webinars-events#smartway-webinars-past
Presenter: Erik Herzog

Erik Herzog has been with the EPA Office of Transportation and Air Quality for 31 years, and has been working with SmartWay for the last thirteen. 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: Getting the Most out of Your SmartWay Participation

Erik Herzog, EPA SmartWay
February 5, 2020
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
- SmartWay Metrics – What they mean
- How to use SmartWay data to improve performance
Not Covered Today

- This is not a demo on how to fill out the tool
- For that, please refer to the Basic Truck Tool Webinar
  - Presented January 22
  - Available for replay at:
  -  https://www.epa.gov/smartway/smartway-webinars-events#past
Background

🎨 SmartWay is continuous improvement for the Environment and Efficiency

- Measure Supply Chain Footprint
- Benchmark Performance
- Report Results
- Innovate Operations
- Improve Efficiency

Innovate Operations

- Improve Efficiency

Benchmark Performance

- Measure Supply Chain Footprint

Report Results

- Innovate Operations
The SmartWay System

SmartWay Data Collection Tools

SmartWay Staff

SmartWay Database

Carrier Data File

SmartWay Web

Shipper Use
SmartWay Rankings: Why we do it.

- **SmartWay offers companies a way to benchmark and improve environmental performance in goods movement**
  - Providing environmental efficiency information allows companies to see how they compare with their peers, and how they change over time
  - Companies can identify areas to improve and make positive change
  - Contributes to cleaner, leaner freight logistics across supply chains

- **Shippers need Smartway environmental data for their carriers**
  - SmartWay provides a standardized data system for Shippers
  - Without SmartWay, Shippers would need to ask each carrier individually causing additional work for carriers and for shippers
  - Helps shippers translate corporate sustainability goals into measurable metrics for CSR reporting and annual performance reports
  - Shippers and many carriers see brand value in using the Smartway logo and promoting green business practices in their advertising
  - Carriers benefit from shippers’ use of SmartWay participation in carrier hiring decisions, key performance indicators and incentive structures
  - Carriers and shippers can access additional peer-to-peer knowledge to improve operational practices
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 specific as the other categories.
- Each SmartWay truck category has five performance levels for each performance metric.

### 2018 SmartWay Carrier Categories and Data Specificity

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<th>Dry Van &amp; Chassis</th>
<th>Reefer and Reefer Chassis</th>
<th>Flatbed</th>
<th>Tanker</th>
<th>Heavy &amp; Bulk</th>
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Less than 75% in any category
SmartWay Rankings: How we do it.

**SmartWay’s Current 6 Emission Metrics**

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<th>Metrics</th>
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<td>Grams per Mile</td>
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<tr>
<td>NOx</td>
<td>Grams per Mile</td>
</tr>
<tr>
<td>PM</td>
<td>Grams per Ton-mile</td>
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</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

**Metrics**
- Grams per Mile: Amount of pollution produced for every mile travelled
- Grams per Ton-mile: Amount of pollution produced for every ton that travels one mile, usually the best metric to use
SmartWay Rankings: How we do it.

- Your 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)
  - Miles travelled

- And also by:
  - Biodiesel or ethanol usage
  - Road Type/Speed categories & Idling
  - For PM only: PM Reduction equipment
  - Highway vs. Rural Driving, and Speed categories for urban driving
  - PM can be further reduced (pre-2007 trucks) by use of oxidation catalysts, particulate traps and closed crankcase ventilation
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.
Your CO2 g/mile score is mostly determined by:
- Fuel burned and total miles travelled
- Fuel type

### General Information

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#### Diesel

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#### Input Data: by Truck Class

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<th>Gallons of Diesel Used, incl. Biodiesel &amp; Reefer (exact values)</th>
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#### Average Annual Idle Hours per Truck

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#### Road Type / Speed Categories

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#### 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 g/tom-mile score is based on the mass of emissions determined by the previous inputs and adjusted by Average Payload.
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 range.
- All companies have the midpoint of the range 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, and gram/ton-mile numbers represent actual performance and are comparable.
SmartWay Rankings: How we do it.

- **Non-SmartWay carriers** receive a default value equivalent to a calculated “Performance Range 6” number (e.g., more polluting than other similar carriers).

- A default value is needed to account for the percent of a shipper’s freight carried by non-SmartWay partners. It is calculated since (by definition) non-SmartWay partners do not submit data.

- Within each carrier fleet category, any company submitting data to SmartWay will have an emission factor that is lower (“better”) than a non-partner.

- EPA uses this conservative approach -- not assuming that non-SmartWay partners are MORE efficient than SmartWay partners – to not understate Shipper emissions.

- This approach also reduces any unfair advantage that non-partners might receive in the program over partners that **do** submit information.

- The approach also provides an incentive for Shippers to use SmartWay carriers, in order to obtain a more accurate carbon footprint. A good SmartWay ranking enables a carrier to market itself as a greener carrier.
### Public Carrier Performance Data

#### Performance Rankings

- **TL/Dry Van**

Click down arrows to filter data by column categories. Select one or more items in the dropdown checklists.

**Note**: g/m = grams/mile and g/tm = grams/ton-mile

#### Performance Rankings and Emission Factors

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</tbody>
</table>
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 Range 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 Range 2 (what is displayed publicly), then you are likely better than 70% of refrigerated carriers.
- If you are in Range 5, then at least 80% of your peers are doing better than you.
“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

6. Generate a (.xml) data file

Optional survey to help us improve your SmartWay experience.

To complete your submission, email the small (.xml) data file and your large (.xls) 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

Select the report you would like to view:
- Fleet Description(s)
- General Information
- Truck Counts
- Activity Information
- Refueling Fuel Consumption
- PM Reduction Strategies
- Comments
- Out 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

Select the data reports:
- Estimated CO2, NOx, and PM emissions for your fleets. You can view these estimates based on truck class, fuel type, or fleet.
- Displays all of the data you entered in the Fleet Description(s) section.
- Displays all of the data you entered in the General Information section.
- Displays all of the data you entered in the Engine Model & Year section.
- Displays all of the comments that have been entered throughout the tool.
- Displays all of the data source information you provided throughout the Tool.
- Displays all of the values throughout the Tool that were not within the expected range.
- Displays the feedback and suggestions you provided in Step 5.
Accessing Your Reports

- Tool data reports are strictly internal to what you have entered into the tool.
- Good for double-checking your inputs.
### Activity Information

**Partner:** ABC Trucking, Inc.

**Tool:** Truck

---

| Fleet Name                              | Fuel Type | Class   | Number of Trucks | Fuel (Gallons or kWh)* | Barrels of Oil** | Barrels of Diesel/Gasoline | Biokilos (BTU100/100 Eqv. Gal) | Vehicle Efficiency*** | Total Annual Miles Driven | Total Annual Revenue Miles | Total Annual Empty Miles | Average Payload (ton)* | Truck Cargo Volume (tscFt)** | Average Used Cargo Volume % | % Highway Driving | % Urban Driving (Under 25 mph) | % Urban Driving (25 mph to 50 mph) | % Urban Driving (Over 50 mph) | % Urban Driving (per truck per year) |
|-----------------------------------------|-----------|---------|------------------|-------------------------|------------------|-----------------------------|--------------------------------|-------------------------|--------------------------|--------------------------|---------------------|-----------------------------|-----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------------|
| ABC Trucking, Inc.: East Operations     | Diesel    | 4       | 7                | 207.961                 | 29.627           | 4.921                       | 1.000                         | 7.2                      | 1,497,816                | 1,400,810               | 47,063               | 9.30                        | 2,519                       | 89.00%                   | 13%                      | 1%                       | 72%                      | 6%                              |
| ABC Trucking, Inc.: East Operations     | Gasoline  | 3       | 10               | 16.961                 | 2.621            | 1.443                       | 0                            | 6.5                      | 447,816                 | 400,816                 | 10,062               | 1.40                        | 606                          | 93.00%                   | 7%                       | 15%                      | 5%                       | 5%                              |
| ABC Trucking, Inc.: East Operations     | Gasoline  | 4       | 15               | 107.961               | 6.976            | 2.669                       | 0                            | 5.5                      | 586,589                 | 526,586                 | 10,063               | 2.53                        | 700                          | 85.00%                   | 7%                       | 13%                      | 6%                       | 3%                              |
| Total ABC Trucking, Inc.: East Operations| All       | 110     | 1,932,748        | 183,799                | 45,757           | 10,979                      | 5,2                          | 10,012,189               | 9,481,375               | 525,014              | 15,37                        | 3,045                       | 90.00%                   | 8%                       | 2%                       | 2%                       | 676                             |
| ABC Trucking, Inc.: West Operations     | Diesel    | 6       | 10               | 40.961                 | 4.097            | 1.096                       | 0                           | 5.9                      | 209,691                 | 219,682                 | 10,007              | 5.05                        | 1,384                       | 87.00%                   | 6%                       | 15%                      | 5%                       | 1%                              |
| ABC Trucking, Inc.: West Operations     | Gasoline  | 3       | 10               | 129.961               | 30.915           | 0.5                           | 5.3                         | 6,879,691               | 6,119,682               | 700,000              | 18.36                        | 3,166                       | 91.00%                   | 7%                       | 1%                       | 3%                       | 561                             |
| ABC Trucking, Inc.: West Operations     | Gasoline  | 5       | 10               | 9.974                  | 320              | 235                         | 7.71                        | 75,937                  | 71,936                  | 1,400               | 2.02                        | 706                         | 92.00%                   | 7%                       | 10%                      | 3%                       | 245                             |
| ABC Trucking, Inc.: West Operations     | LPG       | 6       | 10               | 10.592                | N/A              | N/A                         | 6.7                          | 79,668                  | 66,652                  | 800,000            | 2.5                         | 655                         | 76.00%                   | 35%                      | 31%                      | 26%                      | 8%                              |
| ABC Trucking, Inc.: West Operations     | LNG       | 3       | 10               | 26.524                | N/A              | N/A                         | 5.3                          | 154,938                 | 132,276                | 32,612           | 1.26                        | 706                         | 83.00%                   | 49%                      | 23%                      | 21%                      | 7%                              |
| ABC Trucking, Inc.: West Operations     | CNG       | 6       | 15               | 16.102                | N/A              | N/A                         | 4.9                          | 94,936                  | 89,932                  | 5,114            | 2.71                        | 655                         | 82.00%                   | 32%                      | 30%                      | 27%                      | 9%                              |
| ABC Trucking, Inc.: West Operations     | Electric  | 2b      | 2                | 9.467                 | N/A              | N/A                         | 2.6                          | 24,879                  | 22,877                  | 2,002           | 0.40                        | 367                          | 85.00%                   | N/A                      | N/A                      | N/A                      | N/A                              |
| ABC Trucking, Inc.: West Operations     | Gasoline  | 3       | 15               | 2,989                 | 152              | 69                          | 0.6                          | 24,589                  | 22,581                  | 2,068           | 0.96                        | 538                          | 72.00%                   | 35%                      | 30%                      | 26%                      | 9%                              |
| Total ABC Trucking, Inc.: West Operations| All       | 26       | 1,422,069        | 135,427                | 32,389           | 0.4                          | 5.4                         | 7,615,055               | 6,815,288               | 799,757            | 17.34                        | 2,910                       | 90.38%                   | 10%                      | 9%                       | 8%                       | 2%                              |
| ENTIRE PARTNER TOTALS                   | All       | 126     | 3,355,737        | 319,226                | 78,146           | 10,979                       | 5.2                         | 17,647,404              | 16,296,622              | 1,324,771          | 16.22                        | 3,912                       | 90.38%                   | 10%                      | 8%                       | 2%                       | 568                             |
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
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

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<th>Fleet Name(s)</th>
<th>Webinar Example Truck Tool</th>
<th>Webinar Example Truck Tool</th>
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<td>Working Contact:</td>
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<tr>
<td>Phone</td>
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<td>Truck Cargo Volume (cu ft/truck)*</td>
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<td>Average Used Cargo Volume %*</td>
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<td>% Highway or Rural Driving*</td>
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<td>% Urban Driving (Under 25 mph)*</td>
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<tr>
<td>% Urban Driving (25 mph to 50 mph)*</td>
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<td>Gallons of Diesel Used, incl. Reefer</td>
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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.
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 range 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 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.
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
Using SmartWay Data to Improve

- The SmartWay website has information on how to improve fuel economy
- https://www.epa.gov/smartway/smartway-truck-carrier-partner-resources

SmartWay Truck Carrier Partner Resources

This page has everything you need to get the most out of being a registered SmartWay Truck Carrier.

Bookmark this page for your convenience.

What would you like to do?

You may need a PDF reader to view some of the files on this page. See EPA’s About PDF page to learn more.

Optimizing fuel economy, driver performance, and operational efficiency is key to improving the performance of your fleets as a SmartWay Truck Carrier. Read these technical bulletins to discover the best opportunities for your company.

Truck Tool Due Dates

- Group 1: March 4, 2020
- Group 2: April 8, 2020
- Group 3: May 6, 2020
Using SmartWay Data to Improve Efficiency

https://www.epa.gov/smartway/smartway-truck-carrier-partner-resources

Strategies for Efficiency

- Overview of Carrier Strategies (PDF)
  (3 pp, 182 K, August 2019, EPA-420-F-19-049)
- Fact sheets about each strategy:
  - Driver Training (PDF) (2 pp, 197 K, August 2019, EPA-420-F-19-019)
  - Hybrid Powertrain Technology (PDF) (2 pp, 178 K, August 2019, EPA-420-F-19-020)
  - Idle Reduction (PDF) (2 pp, 206 K, August 2019, EPA-420-F-19-021)
  - Improved Aerodynamics (PDF) (2 pp, 179 K, August 2019, EPA-420-F-19-022)
  - Improved Freight Logistics (PDF) (2 pp, 183 K, August 2019, EPA-420-F-19-023)
  - Intermodal Shipping (PDF) (2 pp, 193 K, August 2019, EPA-420-F-19-024)
  - Longer Combination Vehicles (PDF) (2 pp, 179 K, August 2019, EPA-420-F-19-025)
  - Low Rolling Resistance Tires (PDF) (2 pp, 140 K, August 2019, EPA-420-F-19-026)
  - Low Viscosity Lubricants (PDF) (2 pp, 175 K, August 2019, EPA-420-F-19-027)
  - Reducing Highway Speed (PDF) (2 pp, 153 K, August 2019, EPA-420-F-19-029)
  - Weight Reduction (PDF) (2 pp, 175 K, August 2019, EPA-420-F-19-030)
Using SmartWay Data to Improve

- High NOx and PM emissions can indicate:
  - Aging trucks – replacing them with newer trucks can help.
  - Aggressive driving – driver training (see the Strategies for Efficiency list) and feedback to drivers on their driving based on telematic data.
  - Inadequate maintenance – make sure emission control systems are addressed in regular maintenance along with drivability issues and basic upkeep.
- High CO2 emissions can indicate:
  - Excessive truck idling -- (see the Strategies for Efficiency list)
  - Excessive wind resistance, or tire rolling resistance (see the Strategies for Efficiency list).
  - Excessive speed – time is money but so is fuel (see the Strategies for Efficiency list)
- Low CO2 gram per mile but high CO2 gram per ton-mile emissions can indicate:
  - Excessive empty backhauls – can be addressed with improved scheduling, often addressed through software.
  - Light payloads – can be a feature of a carrier’s business model, but can be addressed through improved logistics (see the Strategies for Efficiency list), also often addressed through software.
Using SmartWay Data to Improve

- An additional resource:
  - The Green Freight Handbook addresses such issues as establishing metrics, identifying opportunities, and implementing strategies.
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 Account Manager.
• Know who your Partner Account Manager is!
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