SmartWay Truck Tool Advanced Class Webinar Presentation

Matthew Payne
US Environmental Protection Agency
February 7, 2018

SmartWay℠

So you've filled out your SmartWay tool and sent it in, …now what????

Choice 1: "I'm glad that is done, I don't have to think about it until they make me do it next year. Now, back to my Fantasy Football League."

Choice 2: "Since I put the effort into collecting the data, I'd better look at it. Maybe I can benchmark my performance or find areas to target for improvement."

Choices have consequences.

“Well Bob, we kinda had a lean year so here’s a set of steak knives.”

“Great job Jenni, you saved us over $8,675,309, I think you deserve a bonus this year!”

Choices have consequences.

“Well Bob, we kinda had a lean year so here’s a set of steak knives.”

Don’t be Bob

“Great job Jenni, you saved us over $8,675,309, I think you deserve a bonus this year!”

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

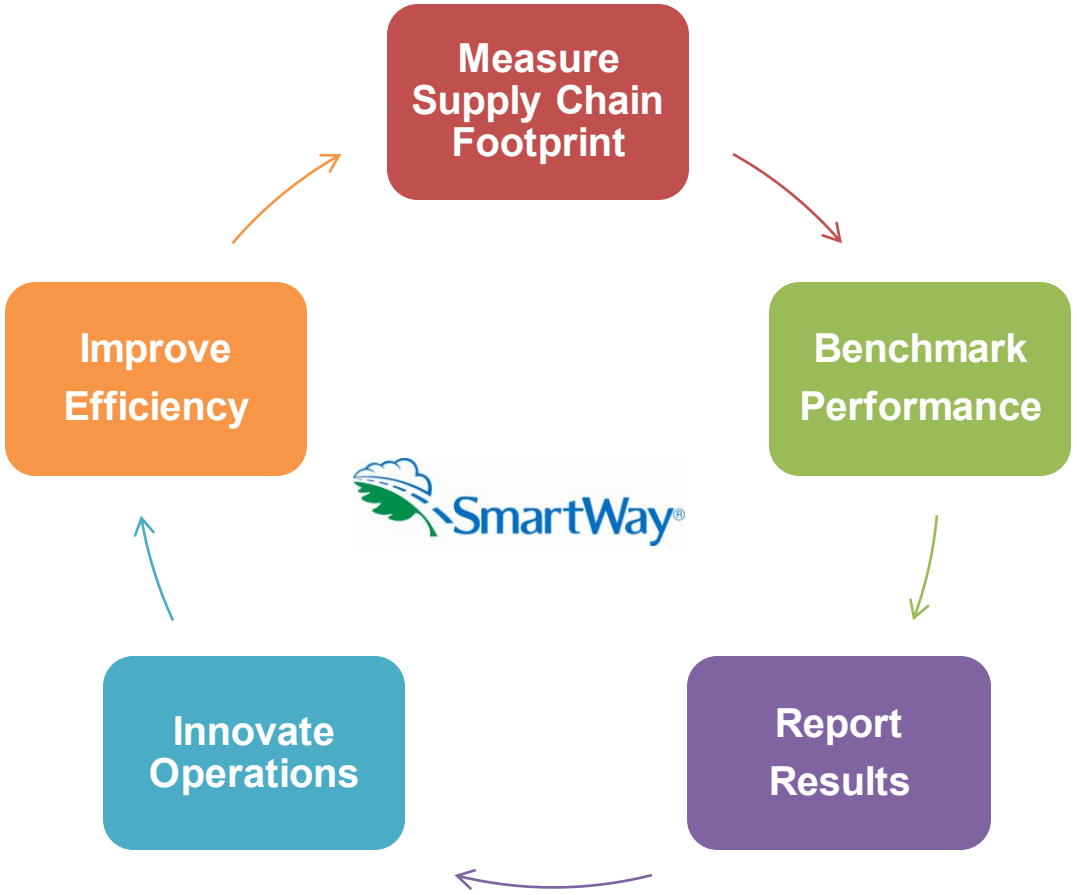
  - **The SmartWay Equation:**
    Fuel Use = $$$ = CO_2

- Currently over 3000 Carriers and over 250 Shippers are members of SmartWay.
- SmartWay is the Global Standard in Freight Emissions Reporting

.

Background

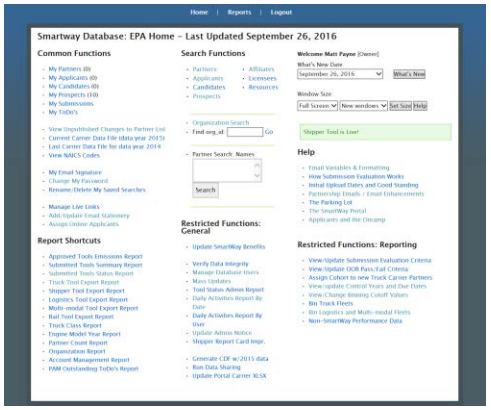
SmartWay is continuous improvement for the Environment and Efficiency



Background

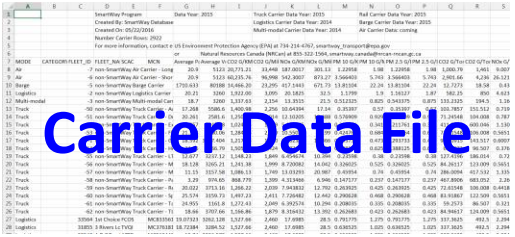
The SmartWay System

SmartWay Data Collection Tools



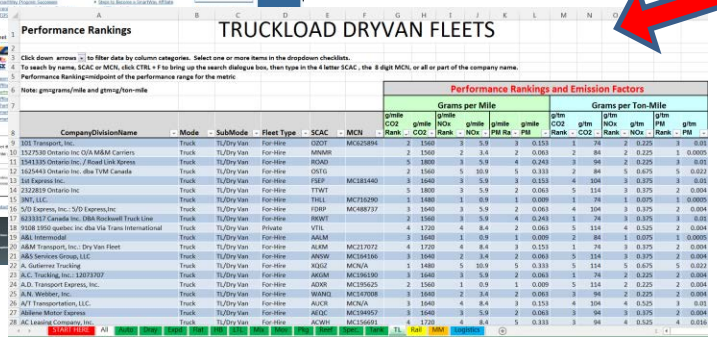
SmartWay Database

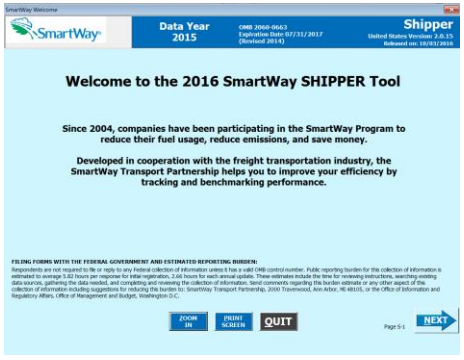
SmartWay Staff



Carrier Data File

SmartWay Web





Shipper Use

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.

- Ranking starts with your Fleet Description
- The Fleet description tabs determine what peer group you will be compared to

SmartWay Truck: Home

SmartWay®

Data Year 2017

OMB 2060-0663
Expiration Date 07/31/2017
(Revised 2014)

Truck
United States Version: 2.0.17a
Released on: 01/12/2018

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 (.xlsm) tool file to EPA. If your email size limit cannot handle the tool file, send only the smaller data file.

YOUR RESULTS

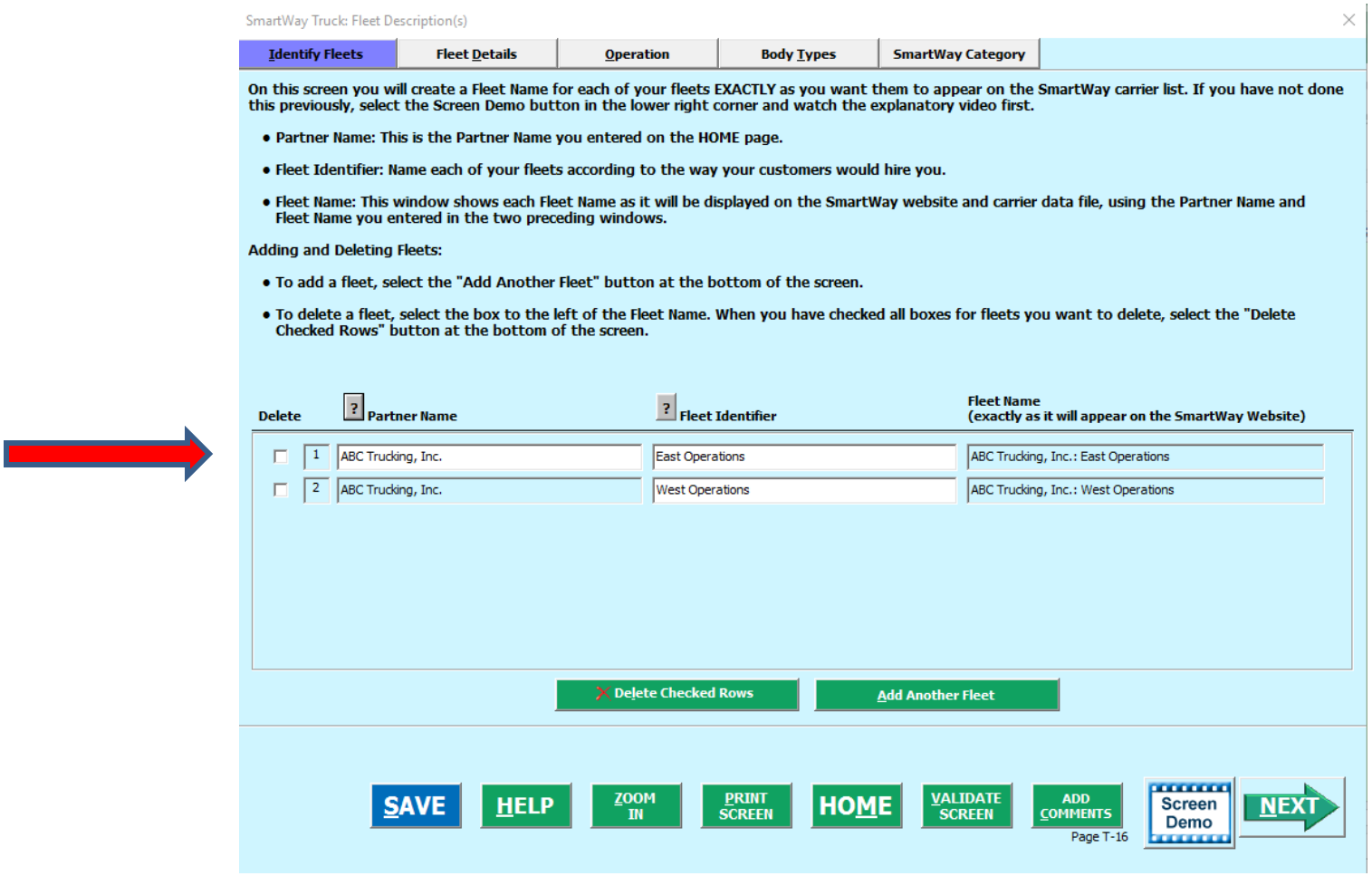
View Your Data Reports | Review your Year-to-Year Performance ?

BACK | SAVE | HELP | ZOOM IN | PRINT SCREEN | QUIT | Screen Demo

Page T-10

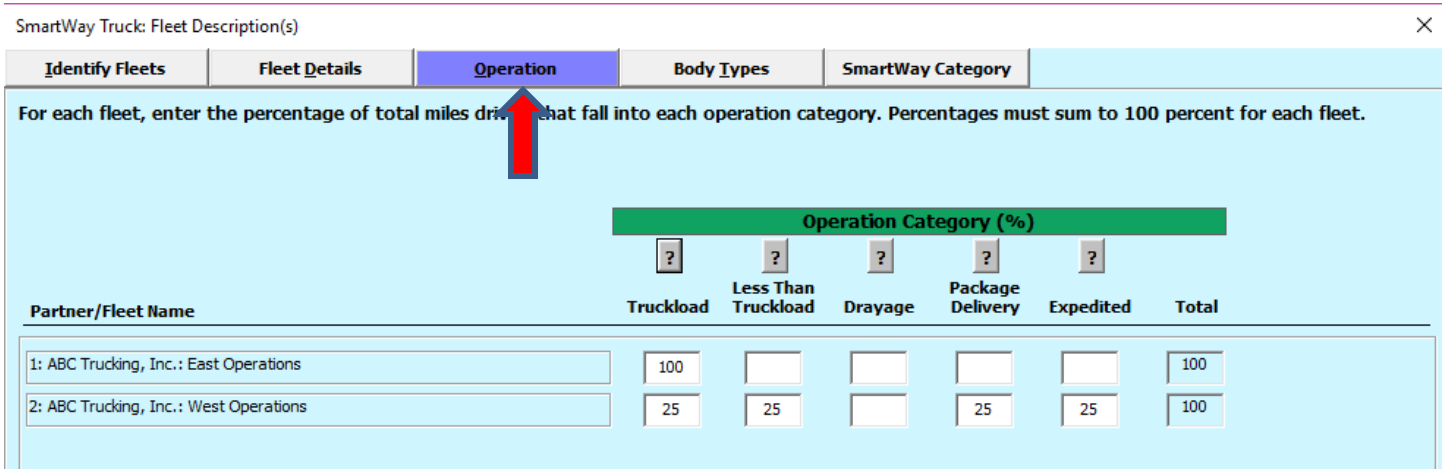
SmartWay Rankings: How we do it.

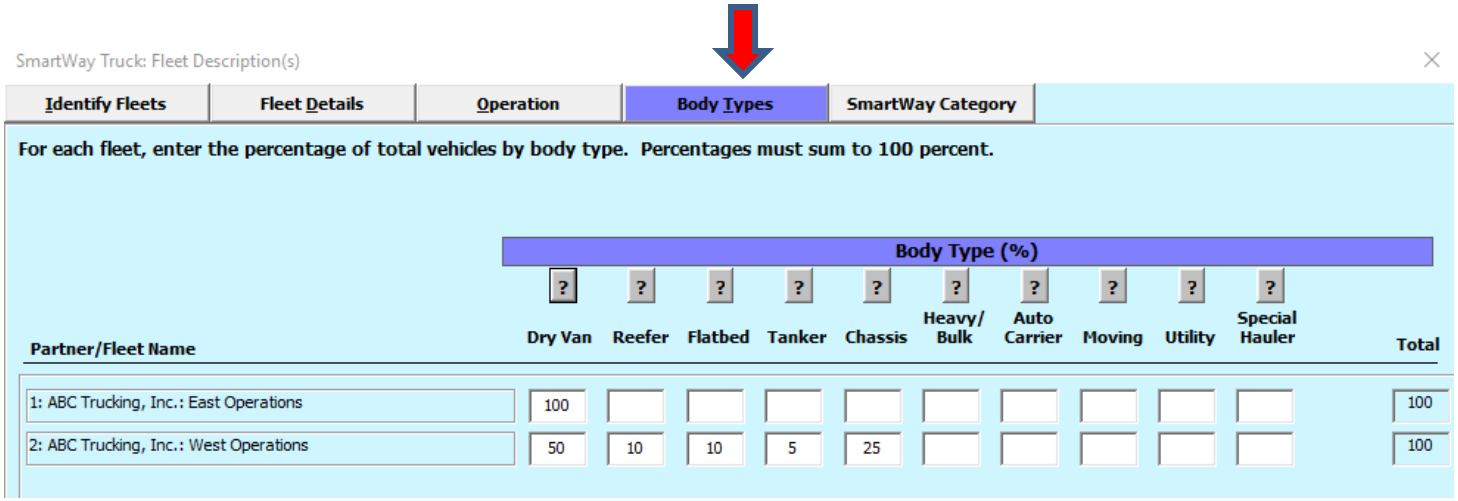
- Each fleet you create will be a separate entity that will be compared with its peers
- You should create your fleets ONLY in a way that your customers can hire them, not based on arbitrary internal tracking.



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





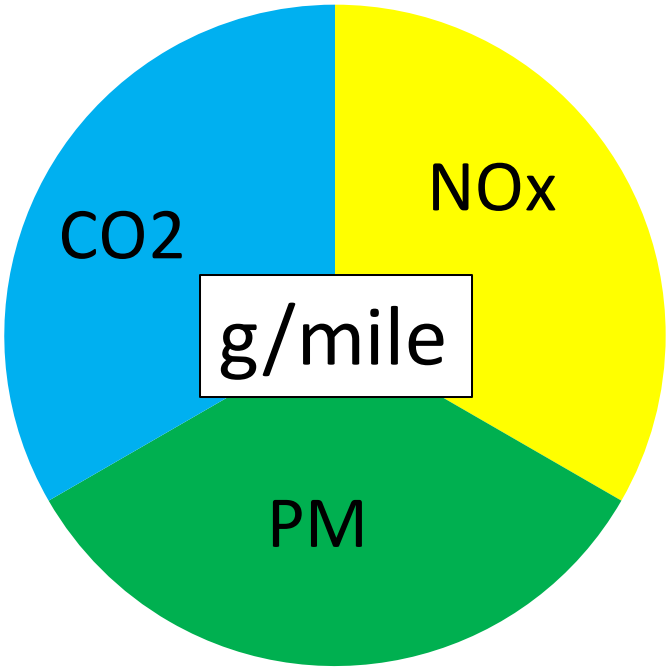
SmartWay Rankings: How we do it.

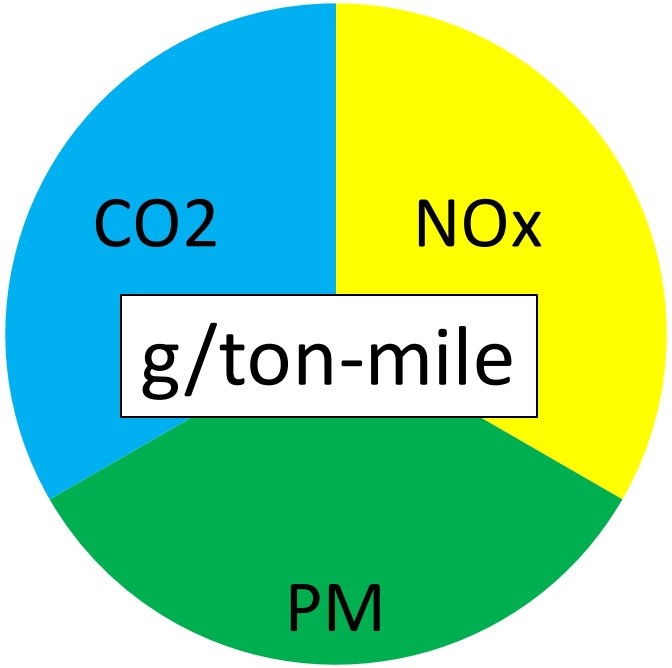
- By indexing the Operation type and Body type, SmartWay creates peer groups for comparison.
- Note: If you are not at least a 75% match for a SmartWay category, then your fleet is placed in a mixed category. Comparisons in the Mixed category are not as useful as the other categories.
- Each SmartWay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

2018 SmartWay Carrier Categories and Data Specificity

TRUCK	Dry Van & Chassis	Reefer and Reefer Chassis	Flatbed	Tanker	Heavy & Bulk	Auto Carrier	Moving	Specialized & Utility	Mixed
Dray	Dray 5 Performance Levels								
Truckload	Truckload DryVan 5 Performance Levels	Reefer 5 Performance Levels	Flatbed 5 Performance Levels	Tanker 5 Performance Levels	Heavy & Bulk 5 Performance Levels	Auto Carrier 5 Performance Levels	Moving 5 Performance Levels	Specialized & Utility 5 Performance Levels	Mixed 5 Performance Levels
Expedited	Expedited 5 Performance Levels								
LTL	LTL 5 Performance Levels								
Package	Package Delivery 5 Performance Levels								
Mixed	Mixed								Less than 75% in any category

SmartWay Rankings: How we do it.



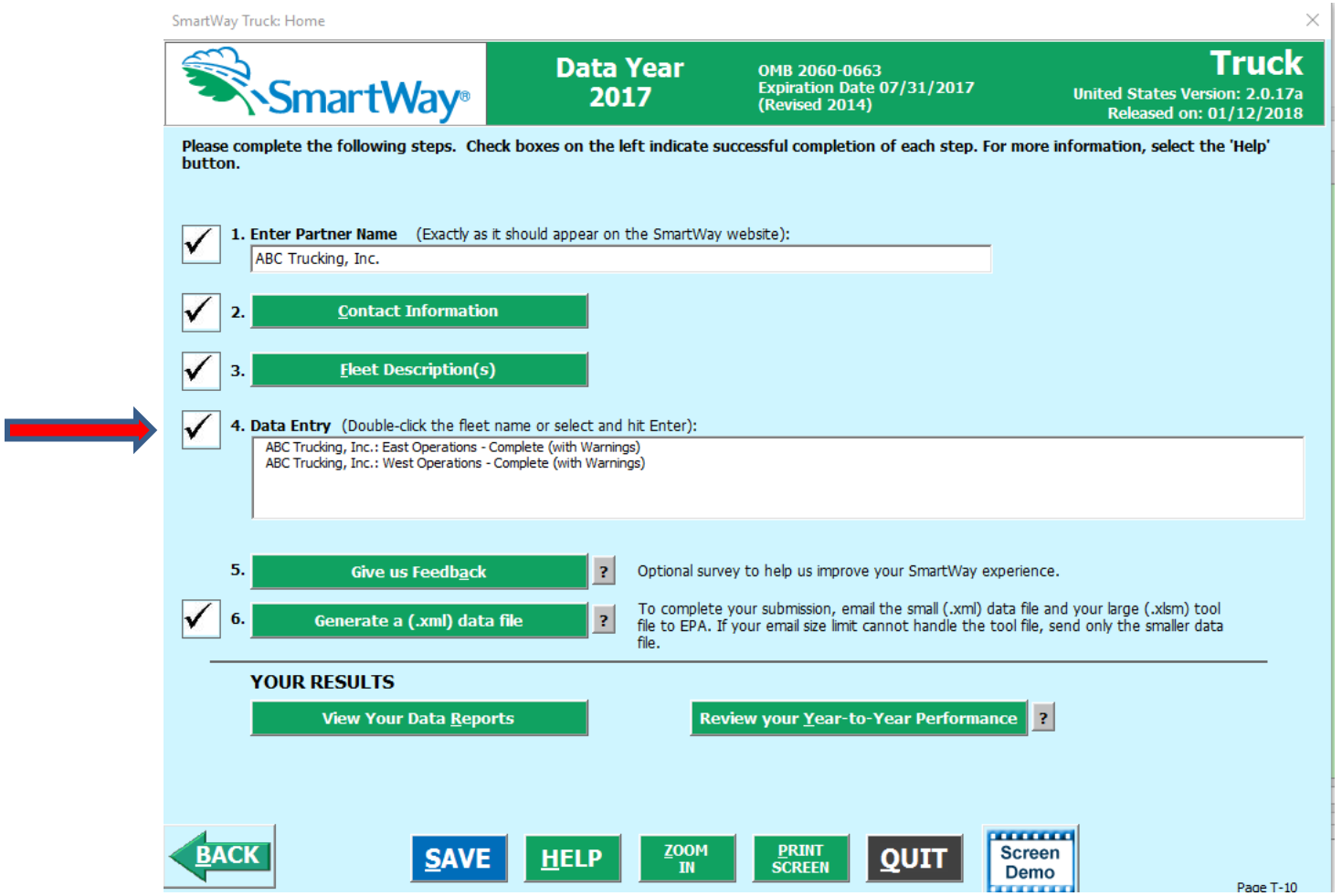


SmartWay's Current 6 Emission Metrics

Pollutants			Metrics	
CO2	Carbon Dioxide: a surrogate for fuel efficiency and global warming		Grams per Mile	Amount of pollution produced for every mile travelled
NOx	Oxides of Nitrogen: known for creating smog, a concern for local areas		Grams per Ton-mile	Amount of pollution produced for every ton that travels one mile, usually the best metric to use
PM	Particulate Matter: known for creating black soot, a concern for local areas			

SmartWay Rankings: How we do it.

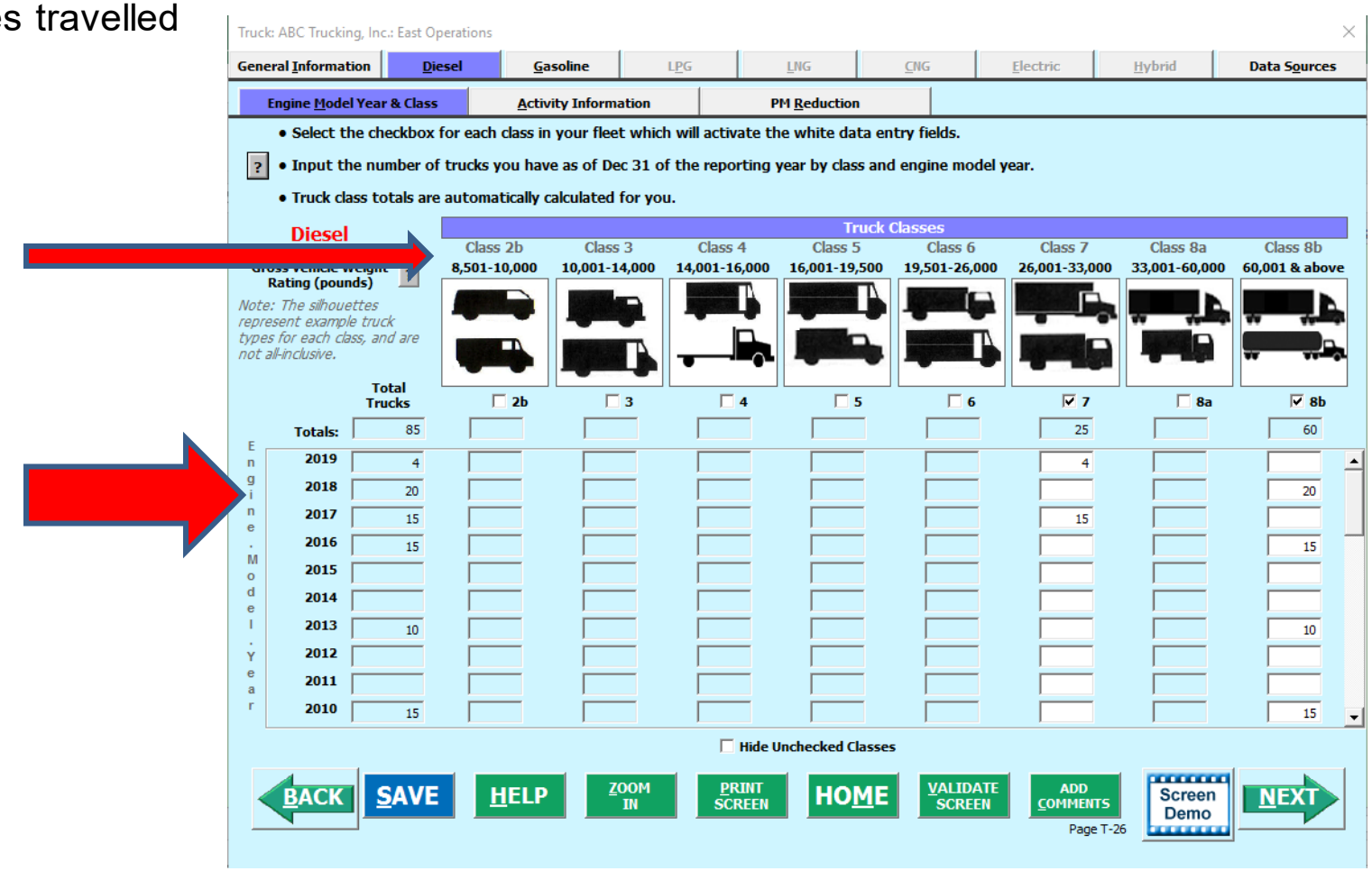
Your ranking in each of the 6 performance metrics is determined by the information you input in the Activity Data Screens



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



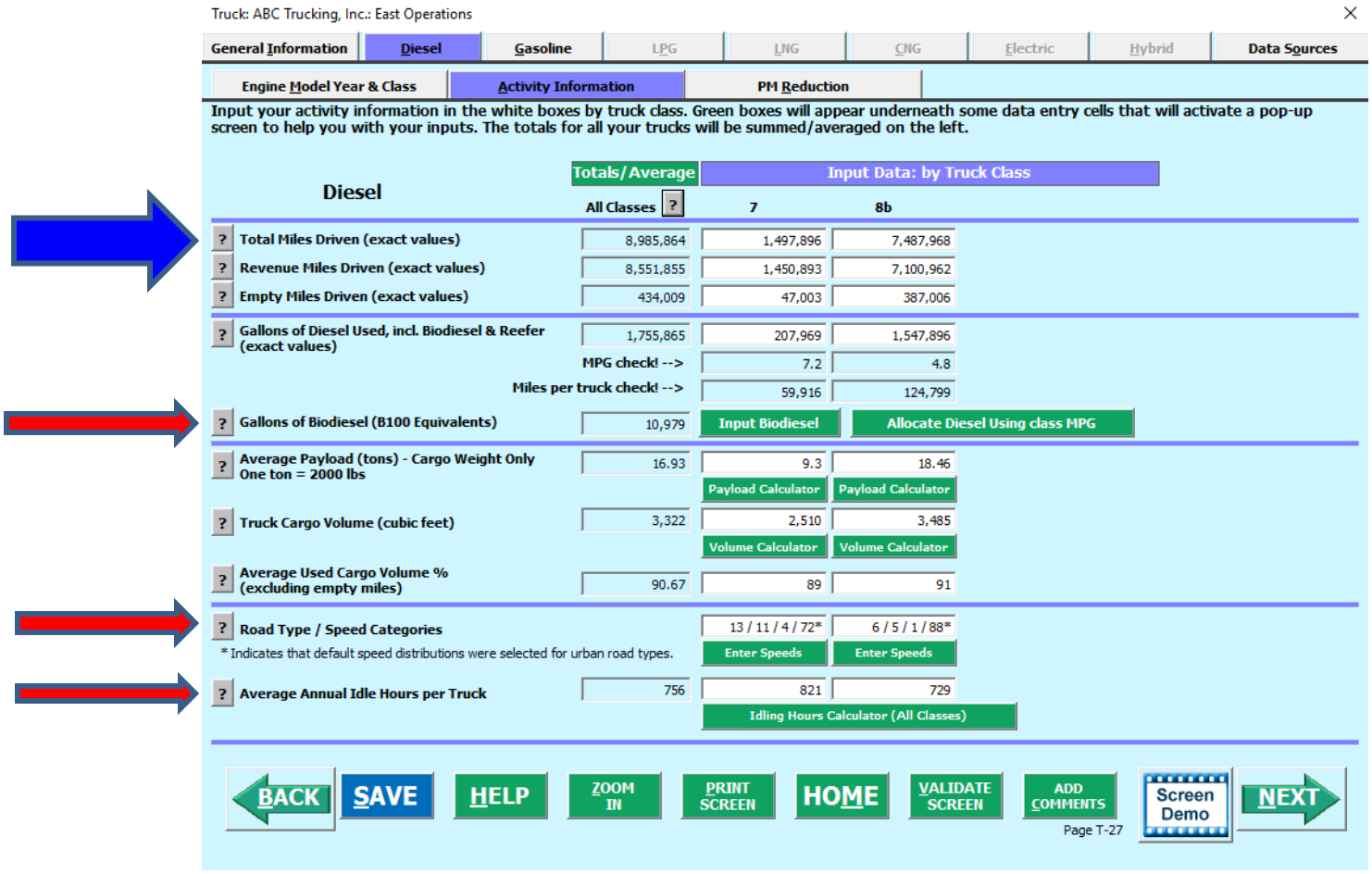
Emission factors are mostly determined by the EPA MOVES model

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

SmartWay Rankings: How we do it.

Your NOx and PM g/mile scores are also impacted by:

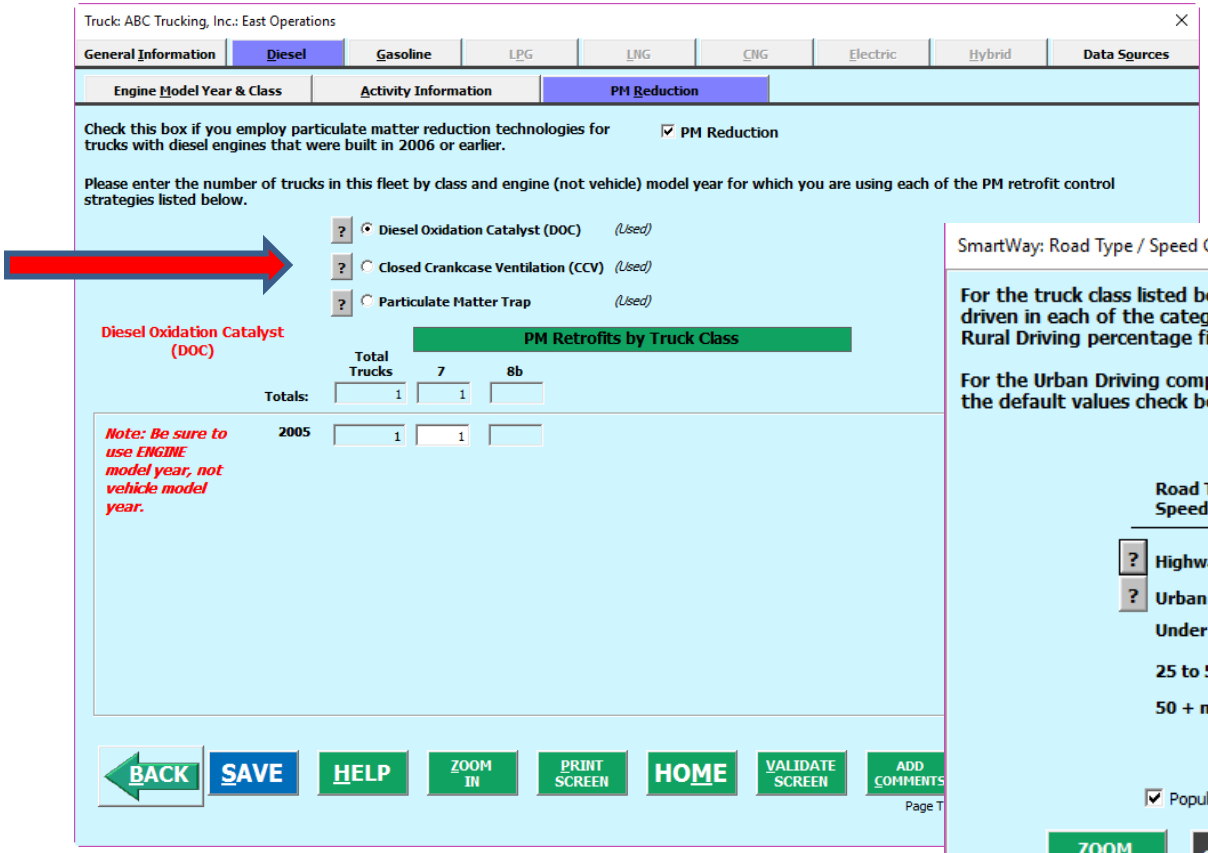
- Biodiesel or ethanol usage
- Road Type/Speed categories & Idling
- For PM only: PM Reduction equipment

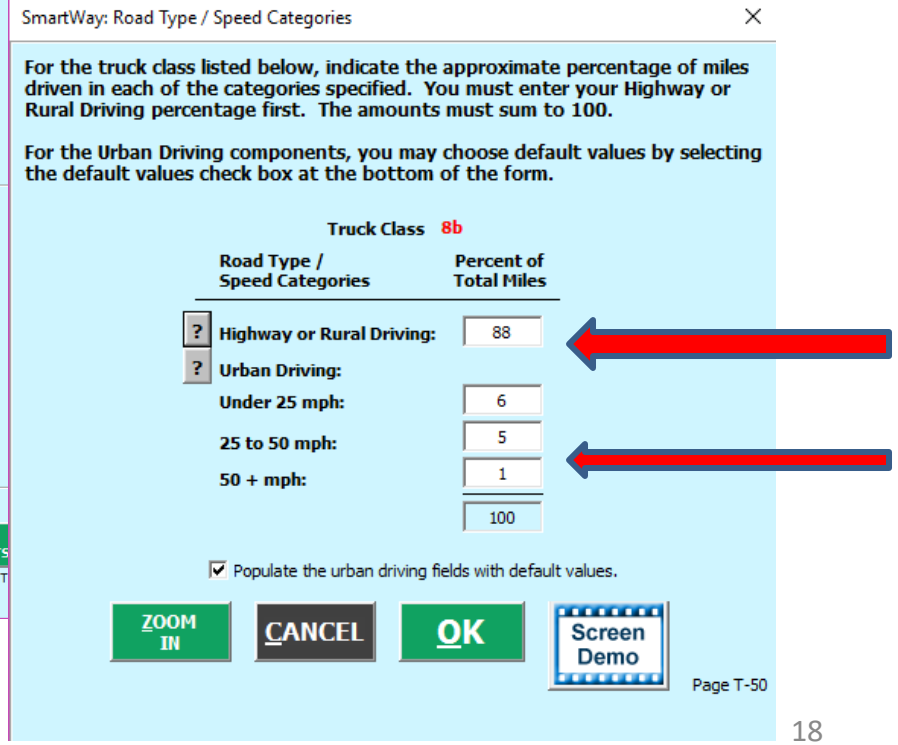


SmartWay Rankings: How we do it.

Your NOx and PM g/mile scores are also impacted by:

- 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





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**

Truck: ABC Trucking, Inc.: East Operations

General Information | Diesel | Gasoline | LPG | LNG | CNG | Electric | Hybrid | Data Sources

Engine Model Year & Class | Activity Information | PM Reduction

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.

Diesel	Totals/Average: All Classes	Input Data: by Truck Class: 7	8b
Total Miles Driven (exact values)	8,985,864	1,497,896	7,487,968
Revenue Miles Driven (exact values)	8,551,855	1,450,893	7,100,962
Empty Miles Driven (exact values)	434,009	47,003	387,006
Gallons of Diesel Used, incl. Biodiesel & Reefer (exact values)	1,755,865	207,969	1,547,896
MPG check! -->		7.2	4.8
Miles per truck check! -->		59,916	124,799
Gallons of Biodiesel (B100 Equivalents)	10,979	Input Biodiesel	Allocate Diesel Using class MPG
Average Payload (tons) - Cargo Weight Only One ton = 2000 lbs	16.93	9.3	18.46
		Payload Calculator	Payload Calculator
Truck Cargo Volume (cubic feet)	3,322	2,510	3,485
		Volume Calculator	Volume Calculator
Average Used Cargo Volume % (excluding empty miles)	90.67	89	91
Road Type / Speed Categories		13 / 11 / 4 / 72*	6 / 5 / 1 / 88*
* Indicates that default speed distributions were selected for urban road types.		Enter Speeds	Enter Speeds
Average Annual Idle Hours per Truck	756	821	729
		Idling Hours Calculator (All Classes)	

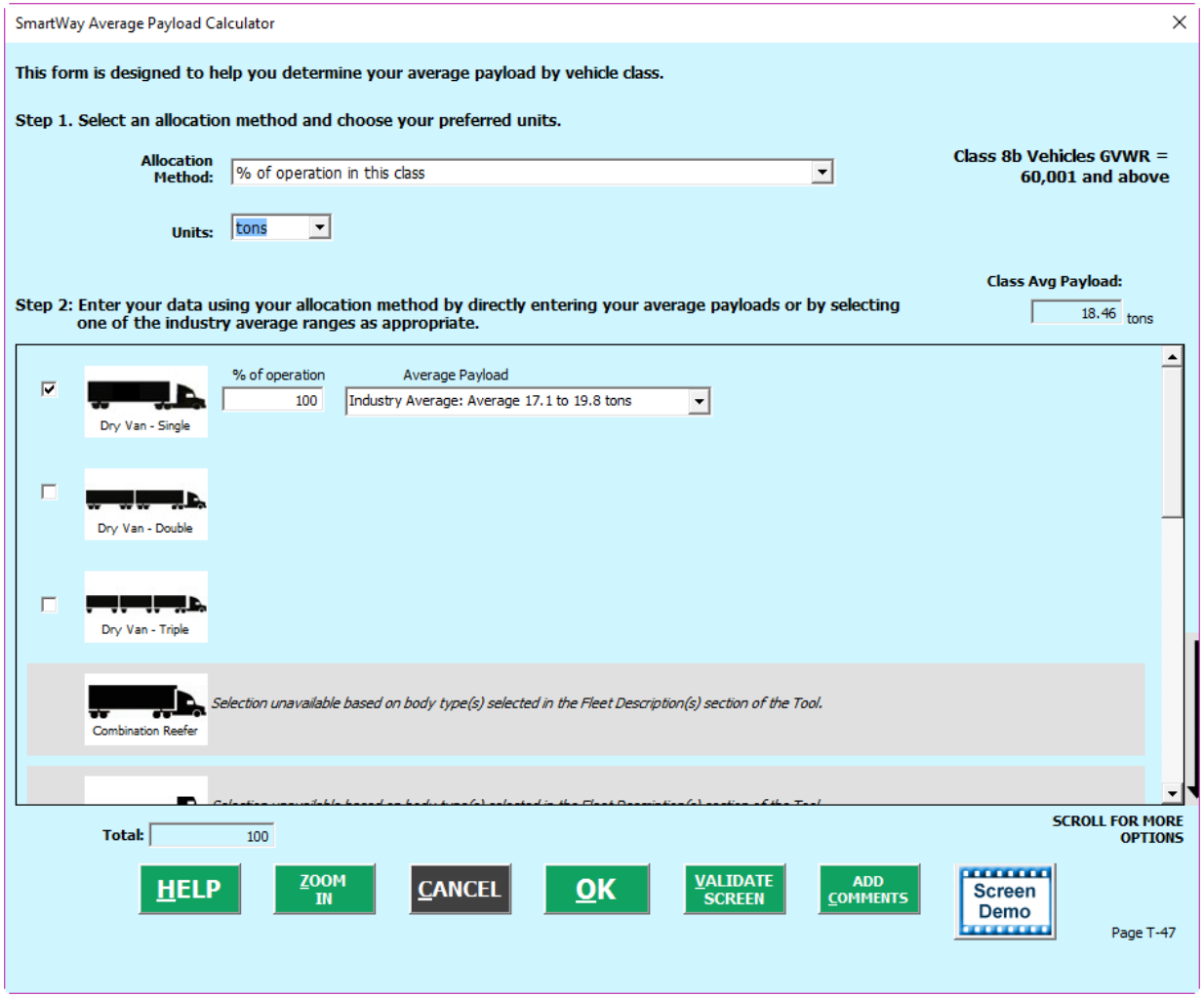
BACK | SAVE | HELP | ZOOM IN | PRINT SCREEN | HOME | VALIDATE SCREEN | ADD COMMENTS | Screen Demo | NEXT

Page T-27

SmartWay Rankings: How we do it.

The Payload calculator can help you determine your Average Payload

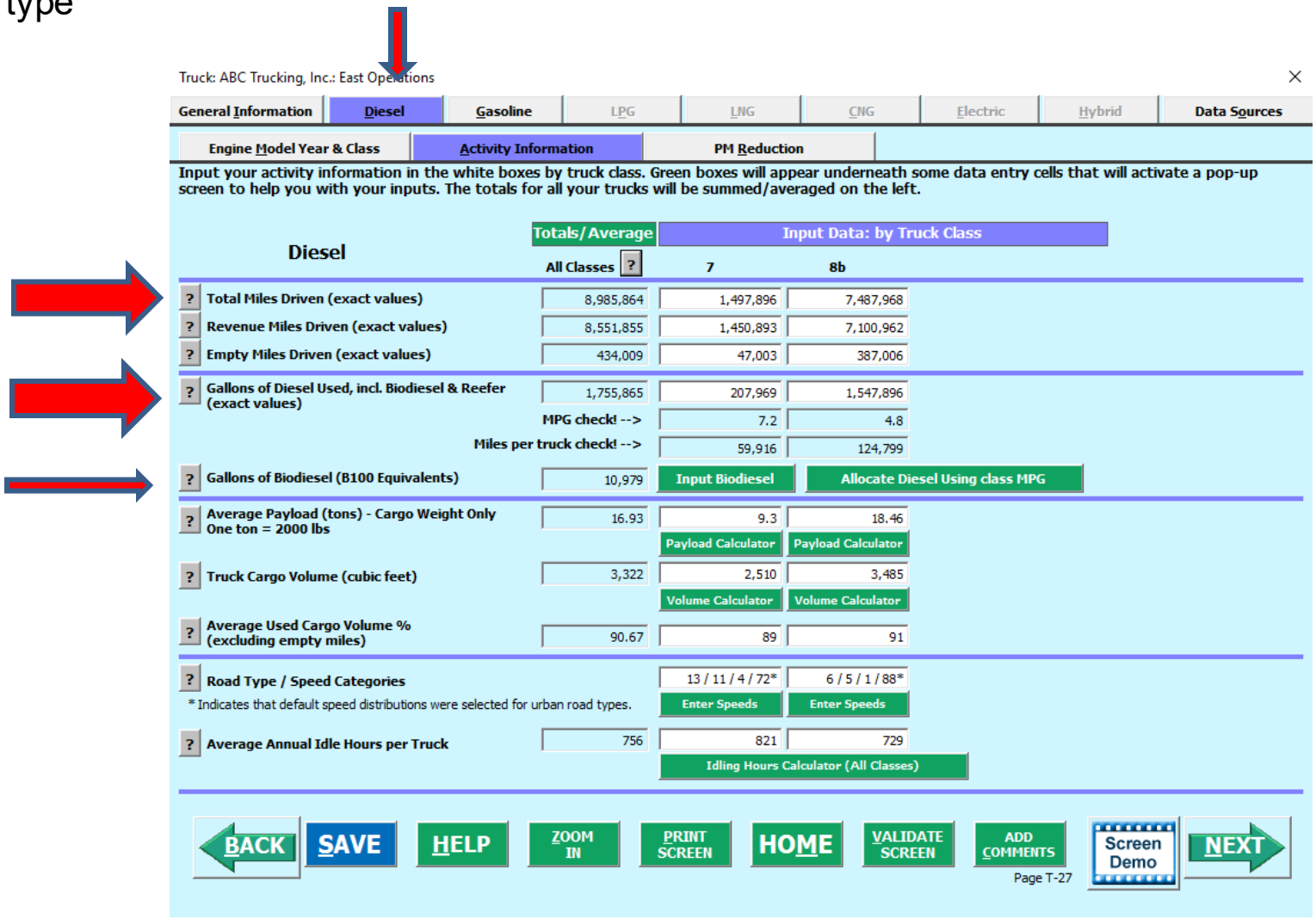
- If you know your average payload it will be more accurate than the calculator and best practice is to know your payloads



SmartWay Rankings: How we do it.

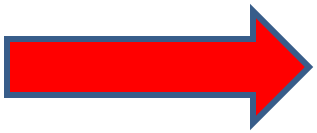
Your CO2 g/mile score is **mostly** determined by:

- Fuel burned and total miles travelled
- Fuel type



SmartWay Rankings: How we do it.

Your CO2 **g/ton-mile** score is based on the mass of emissions determined by the previous inputs and adjusted by **Average Payload**



Truck: ABC Trucking, Inc.: East Operations

General Information | Diesel | Gasoline | LPG | LNG | CNG | Electric | Hybrid | Data Sources

Engine Model Year & Class | Activity Information | PM Reduction

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.

Diesel	Totals/Average: All Classes	Input Data: by Truck Class: 7	8b
Total Miles Driven (exact values)	8,985,864	1,497,896	7,487,968
Revenue Miles Driven (exact values)	8,551,855	1,450,893	7,100,962
Empty Miles Driven (exact values)	434,009	47,003	387,006
Gallons of Diesel Used, incl. Biodiesel & Reefer (exact values)	1,755,865	207,969	1,547,896
MPG check! -->		7.2	4.8
Miles per truck check! -->		59,916	124,799
Gallons of Biodiesel (B100 Equivalents)	10,979	Input Biodiesel	Allocate Diesel Using class MPG
Average Payload (tons) - Cargo Weight Only One ton = 2000 lbs	16.93	9.3	18.46
		Payload Calculator	Payload Calculator
Truck Cargo Volume (cubic feet)	3,322	2,510	3,485
		Volume Calculator	Volume Calculator
Average Used Cargo Volume % (excluding empty miles)	90.67	89	91
Road Type / Speed Categories		13 / 11 / 4 / 72*	6 / 5 / 1 / 88*
* Indicates that default speed distributions were selected for urban road types.		Enter Speeds	Enter Speeds
Average Annual Idle Hours per Truck	756	821	729
		Idling Hours Calculator (All Classes)	

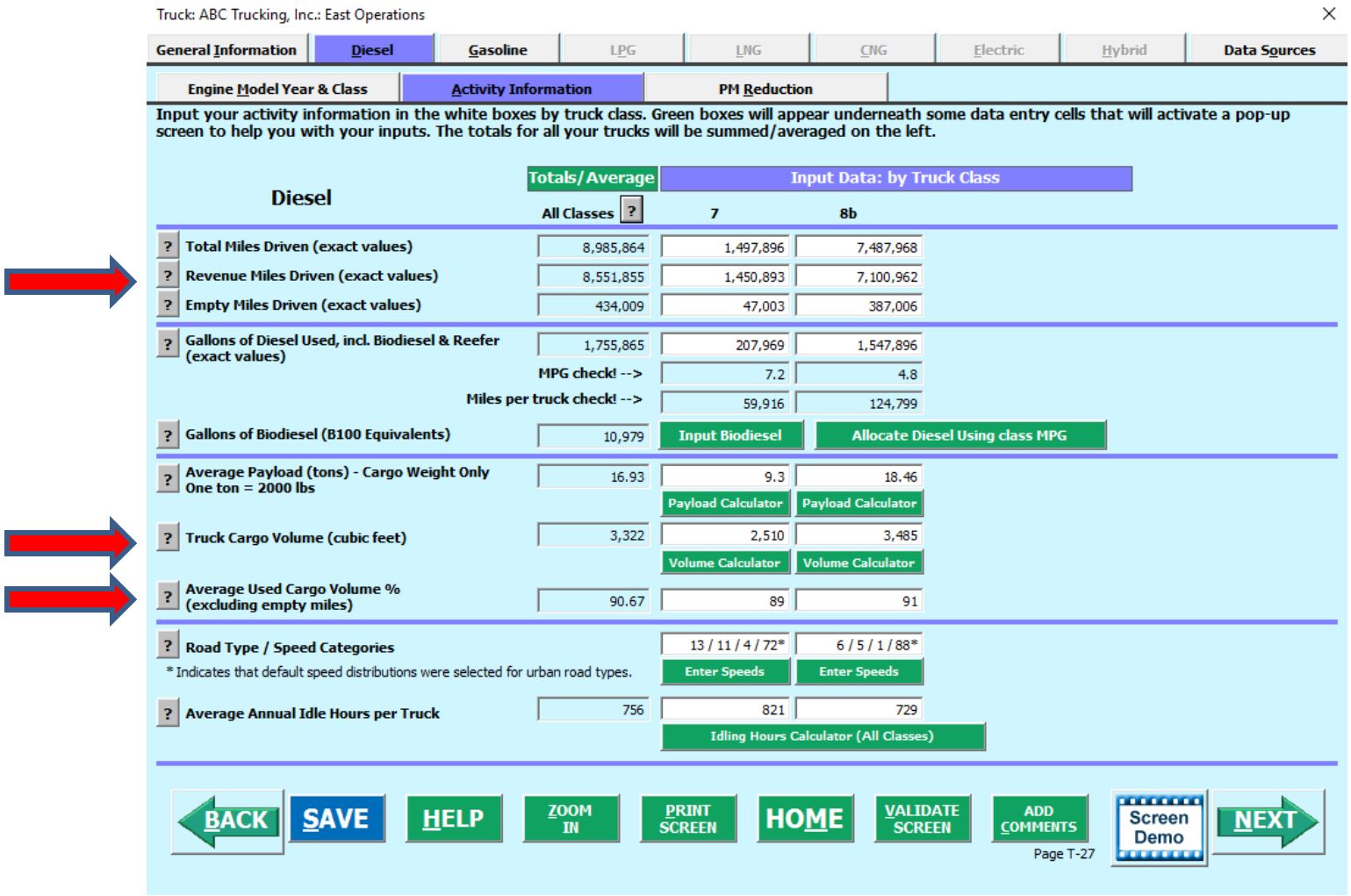
BACK | SAVE | HELP | ZOOM IN | PRINT SCREEN | HOME | VALIDATE SCREEN | ADD COMMENTS | Screen Demo | NEXT

Page T-27

SmartWay Rankings: How we do it.

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

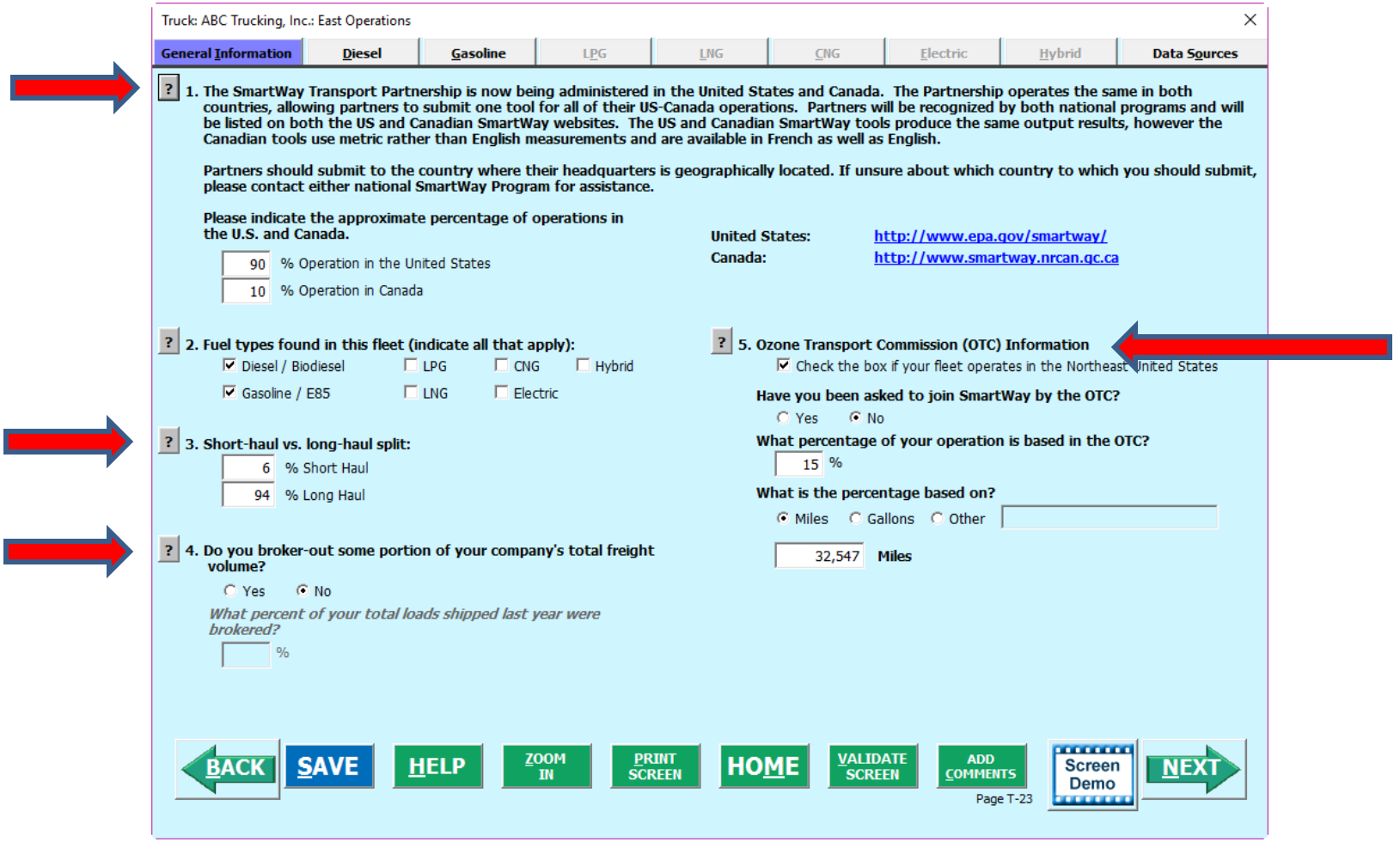
- Revenue miles, and Volumetric information



SmartWay Rankings: How we do it.

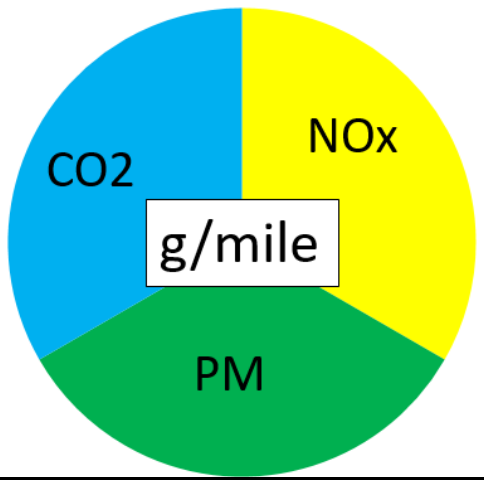
Some Data Points are **not used** in calculating your scores but are included for SmartWay data evaluation

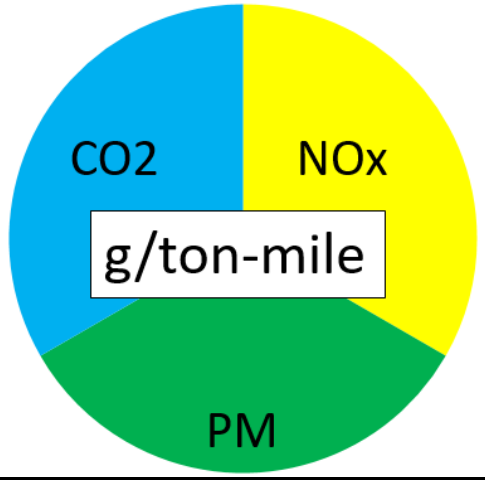
- % Operation US/Canada, Short-Long haul split, Brokerage, OTC information



SmartWay Rankings: How we do it.

- Now that we have fleet information and activity data we can rank SmartWay Partner fleets
  - For each SmartWay category we have six performance metrics
  - Each performance metric has 5 rank levels (1-5)
  - This allows each fleet in every category to be fairly ranked with its peers



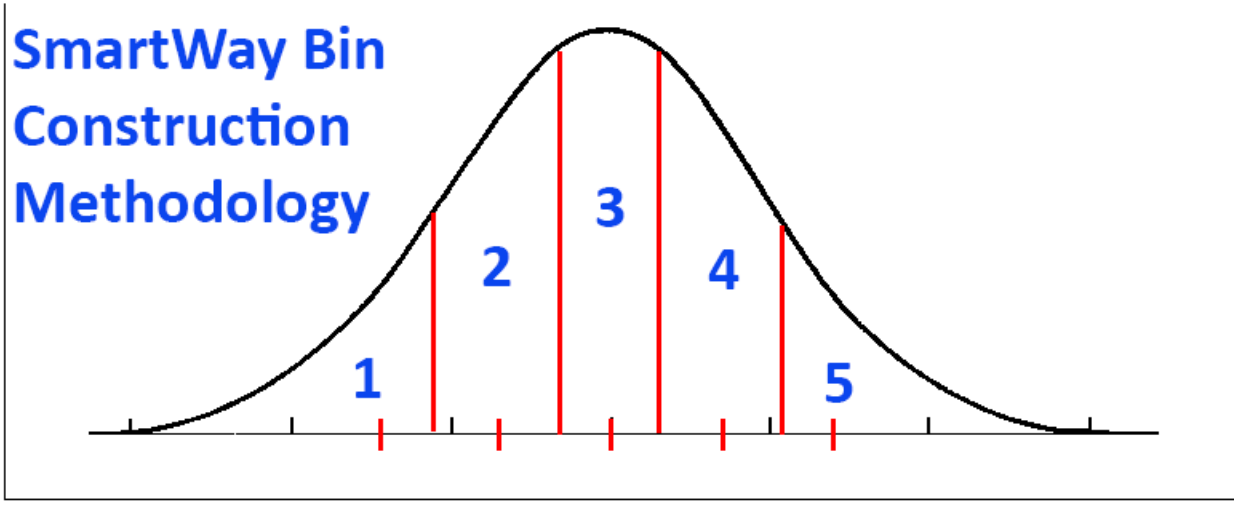


2018 SmartWay Carrier Categories and Data Specificity

TRUCK	Dry Van & Chassis	Reefer and Reefer Chassis	Flatbed	Tanker	Heavy & Bulk	Auto Carrier	Moving	Specialized & Utility	Mixed
Dray	Dray 5 Performance Levels								
Truckload	Truckload DryVan 5 Performance Levels	Reefer 5 Performance Levels	Flatbed 5 Performance Levels	Tanker 5 Performance Levels	Heavy & Bulk 5 Performance Levels	Auto Carrier 5 Performance Levels	Moving 5 Performance Levels	Specialized & Utility 5 Performance Levels	Mixed 5 Performance Levels
Expedited	Expedited 5 Performance Levels								
LTL	LTL 5 Performance Levels								
Package	Package Delivery 5 Performance Levels								
Mixed	Mixed								Less than 75% in any category

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)

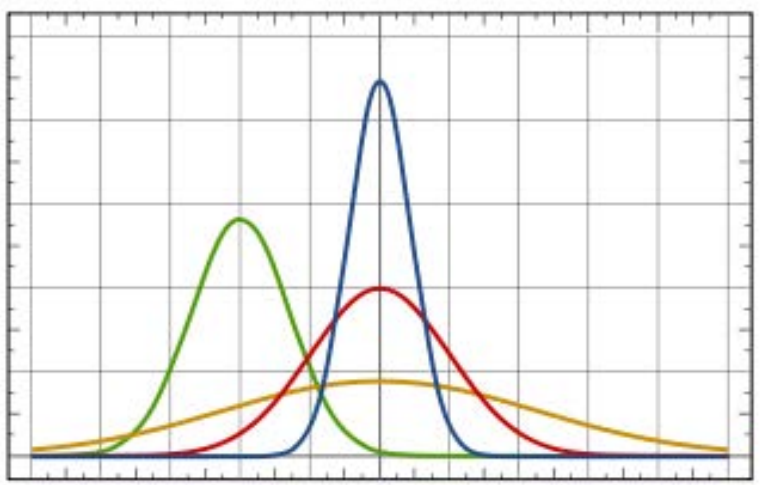


SmartWay Rankings: How we do it.

- 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 — 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=g/ton-mile

								Performance Rankings and Emission Factors											
								Grams per Mile						Grams per Ton-mile					
Carrier Fleet Name	Mode	SmartWay Ranking Category	Fleet Type	SCAC	MCN	US DOT	Canadian NSC	g/m CO2 Rank	g/m CO2	g/m NOx Rank	g/m NOx	g/m PM Rank	g/m PM	g/tm CO2 Rank	g/tm CO2	g/tm NOx Rank	g/tm NOx	g/tm PM Rank	g/tm PM
101 Transport, Inc.	Truck	TL/Dry Van	For-Hire	OZOT	625894	1705392	N/A	3	1600	4	7	5	0.086	2	81.5	5	0.445	3	0.007
1527530 Ontario Inc./M&M Carriers	Truck	TL/Dry Van	For-Hire	MNMR		1159500	142970520	3	1600	4	7	2	0.026	3	90.5	4	0.355	2	0.003
1541335 Ontario Inc./Road Link Xpress	Truck	TL/Dry Van	For-Hire	ROAD	N/A	1063823	143440740	5	1800	3	5	2	0.026	4	99.5	3	0.265	1	0.0005
1628939 Ontario Ltd. o/a P&D Freightlines	Truck	TL/Dry Van	For-Hire	PDGH	521737	1360591	N/A	3	1600	2	3	2	0.026	2	81.5	2	0.175	1	0.0005
1st Express Inc.	Truck	TL/Dry Van	For-Hire	FSEP	181440	284589	N/A	1	1400	2	3	4	0.066	3	90.5	3	0.265	2	0.003
2210310 Ontario Inc./Dynamic Freight Haulers	Truck	TL/Dry Van	For-Hire	DFHR	691346	1937937	N/A	4	1700	4	7	5	0.086	5	108.5	5	0.445	5	0.015
2241552 Ontario Inc / Skyway Carrier	Truck	TL/Dry Van	For-Hire	SWYC	N/A	230633	N/A	5	1800	1	1	1	0.006	5	108.5	1	0.085	1	0.0005
2322819 Ontario Inc./Right Service Right Choice	Truck	TL/Dry Van	For-Hire	TTWT	N/A	N/A	173-333-054	3	1600	2	3	5	0.086	4	99.5	3	0.265	3	0.007
3NT, LLC.	Truck	TL/Dry Van	For-Hire	THLL	716290	2042543	N/A	3	1600	1	1	1	0.006	2	81.5	1	0.085	1	0.0005
5/D Express, Inc	Truck	TL/Dry Van	For-Hire	FDRP	488737	1243083	N/A	3	1600	2	3	2	0.026	3	90.5	2	0.175	2	0.003
6233317 Canada Inc. DBA Rockwell Truck Line	Truck	TL/Dry Van	For-Hire	RKWT	797845	2333669	148783160	2	1500	3	5	5	0.086	1	72.5	3	0.265	4	0.011
6350658 Canada Inc.	Truck	TL/Dry Van	Private	STFW	852013	2465329	179734309	3	1600	1	1	1	0.006	3	90.5	1	0.085	1	0.0005
9108-1950 Quebec inc dba Via Trans International	Truck	TL/Dry Van	Private	VTIL	471471	1175764	60331659	3	1600	1	1	1	0.006	1	72.5	1	0.085	1	0.0005
A&M Transport, Inc.: Dry Van Fleet	Truck	TL/Dry Van	For-Hire	ALKM	217072	344894	N/A	3	1600	3	5	4	0.066	3	90.5	3	0.265	2	0.003
A&S Services Group, LLC	Truck	TL/Dry Van	For-Hire	ANSW,AS	164166	1880751	N/A	5	1800	3	5	2	0.026	5	108.5	3	0.265	2	0.003
A.C. Trucking, Inc.: 12073707	Truck	TL/Dry Van	For-Hire	AKGM	196190	281881	N/A	3	1600	3	5	2	0.026	1	72.5	3	0.265	2	0.003
A.D. Transport Express, Inc.	Truck	TL/Dry Van	For-Hire	ADXR	195625	0269605	N/A	3	1600	2	3	2	0.026	5	108.5	3	0.265	2	0.003
A.N. Webber, Inc.	Truck	TL/Dry Van	For-Hire	WANQ	147008	76507	N/A	3	1600	2	3	2	0.026	2	81.5	2	0.175	2	0.003
A/T Transportation, LLC.	Truck	TL/Dry Van	For-Hire	AUCR	N/A	1486485	N/A	3	1600	2	3	5	0.086	4	99.5	2	0.175	3	0.007
A1 Trucking LLC	Truck	TL/Dry Van	For-Hire	AONA	874455	2519373	2519373	4	1700	2	3	2	0.026	2	81.5	2	0.175	2	0.003
AC Leasing Company Inc.	Truck	TL/Dry Van	For-Hire	ACWH	156691	264128	N/A	2	1500	5	9	5	0.086	1	72.5	5	0.445	5	0.015
ACS Logistics Transportation Inc.	Truck	TL/Dry Van	For-Hire	OFNS	548067	1450334	129295853	3	1600	5	9	5	0.086	2	81.5	5	0.445	5	0.015
AGI Transport Inc.	Truck	TL/Dry Van	For-Hire	AGTE	569163	1525204	153 767 479	2	1500	2	3	3	0.046	2	81.5	2	0.175	2	0.003
ALB Express Inc.	Truck	TL/Dry Van	For-Hire	ALBK	803750	2348464	N/A	5	1800	4	7	2	0.026	3	90.5	4	0.355	2	0.003
ALTL Inc	Truck	TL/Dry Van	For-Hire	ALLM	154127	169025	N/A	3	1600	2	3	3	0.046	3	90.5	2	0.175	2	0.003
AM International (TFI 11, S.E.C.): AM International	Truck	TL/Dry Van	Dedicated	AMJO	S/O	1257162	61668976	4	1700	2	3	2	0.026	2	81.5	2	0.175	2	0.003
AMC Express, Inc.	Truck	TL/Dry Van	For-Hire	AMCM	789656	2313051	N/A	1	1400	5	9	5	0.086	1	72.5	5	0.445	5	0.015
ARD Express Inc.	Truck	TL/Dry Van	For-Hire	ARXK	588686	1590621	N/A	1	1400	5	9	5	0.086	1	72.5	5	0.445	3	0.007

Start Here | All | Auto | Dray | Expd | Flat | HB | LTL | Mix | Mov | Pkg | Reef | Spec. | Tank | TL | Logistics | MM-S | MM-SA | MM-SM | MM-SAM | Rail | Barge

Understanding Your SmartWay Rankings

Swift Transportation: Van

SmartWay category: Truckload Dry Van

		CO2		Oxides of Nitrogen (NOx)		Particulate Matter (PM)	
		g/mile	**g/ton-mile**	**g/mile**	**g/ton-mile**	**g/mile**	**g/ton-mile**
		CO2 is caused by burning fuel. So the less fuel you burn, the more money you save and the less CO2 you emit.		NOx causes Smog, contributes to Ozone Action Days, and Acid Rain. NOx emissions are harmful to both humans and the environement. To improve your score, buy newer trucks		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.	
SmartWay Rank		This score indicates your performance on a mpg basis.	This score indicates your fuel efficiency performance on a per weight basis. Higher payloads will improve your g/ton-mile performance.	This score indicates your efficiency by how much NOx you emit on a per mile basis.	This score indicates your NOx performance on a per weight basis. Higher payloads will improve your g/ton-mile performance.	This score indicates your efficiency by how much PM you emit on a per mile basis.	This score indicates your PM performance on a per weight basis. Higher payloads will improve your g/ton-mile performance.
Congratulations! Top Performance	**1**	★	★	★	★	★	★
Better than Average (But not the best)	**2**						
Average Performance (Middle of the Pack)	**3**						
Less efficient than Average Improvement is Needed	**4**						
Least Efficient Non-competitive Business Model	**5**						

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

Understanding Your SmartWay Rankings

Wile E. Coyote Transportation

SmartWay category: Truckload Dry Van

		CO2		Oxides of Nitrogen (NOx)		Particulate Matter (PM)	
		g/mile	**g/ton-mile**	**g/mile**	**g/ton-mile**	**g/mile**	**g/ton-mile**
		CO2 is caused by burning fuel. So the less fuel you burn, the more money you save and the less CO2 you emit.		NOx causes Smog, contributes to Ozone Action Days, and Acid Rain. NOx emissions are harmful to both humans and the environement. To improve your score, buy newer trucks		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.	
SmartWay Rank		This score indicates your performance on a mpg basis.	This score indicates your fuel efficiency performance on a per weight basis. Higher payloads will improve your g/ton-mile performance.	This score indicates your efficiency by how much NOx you emit on a per mile basis.	This score indicates your NOx performance on a per weight basis. Higher payloads will improve your g/ton-mile performance.	This score indicates your efficiency by how much PM you emit on a per mile basis.	This score indicates your PM performance on a per weight basis. Higher payloads will improve your g/ton-mile performance.
Congratulations! Top Performance	**1**						
Better than Average (But not the best)	**2**	★	★				
Average Performance (Middle of the Pack)	**3**						
Less efficient than Average Improvement is Needed	**4**						
Least Efficient Non-competitive Business Model	**5**			★	★	★	★

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

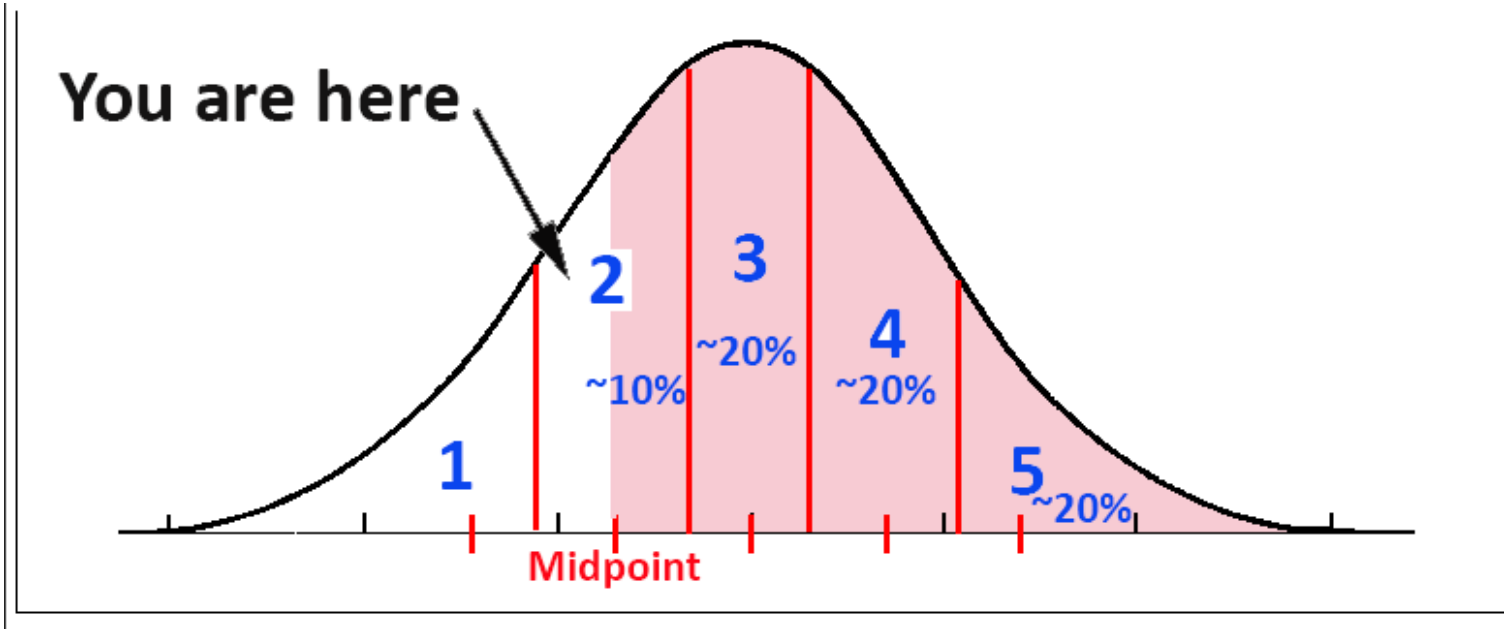
- Example 3: A fleet with all new trucks, with very light loads
  - CO2 g/ton-mile:5
  - CO2 g/mile: 1
  - NOx g/ton-mile: 3
  - NOx g/mile: 1
  - PM g/ton-mile: 3
  - PM g/mile: 1

- 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.

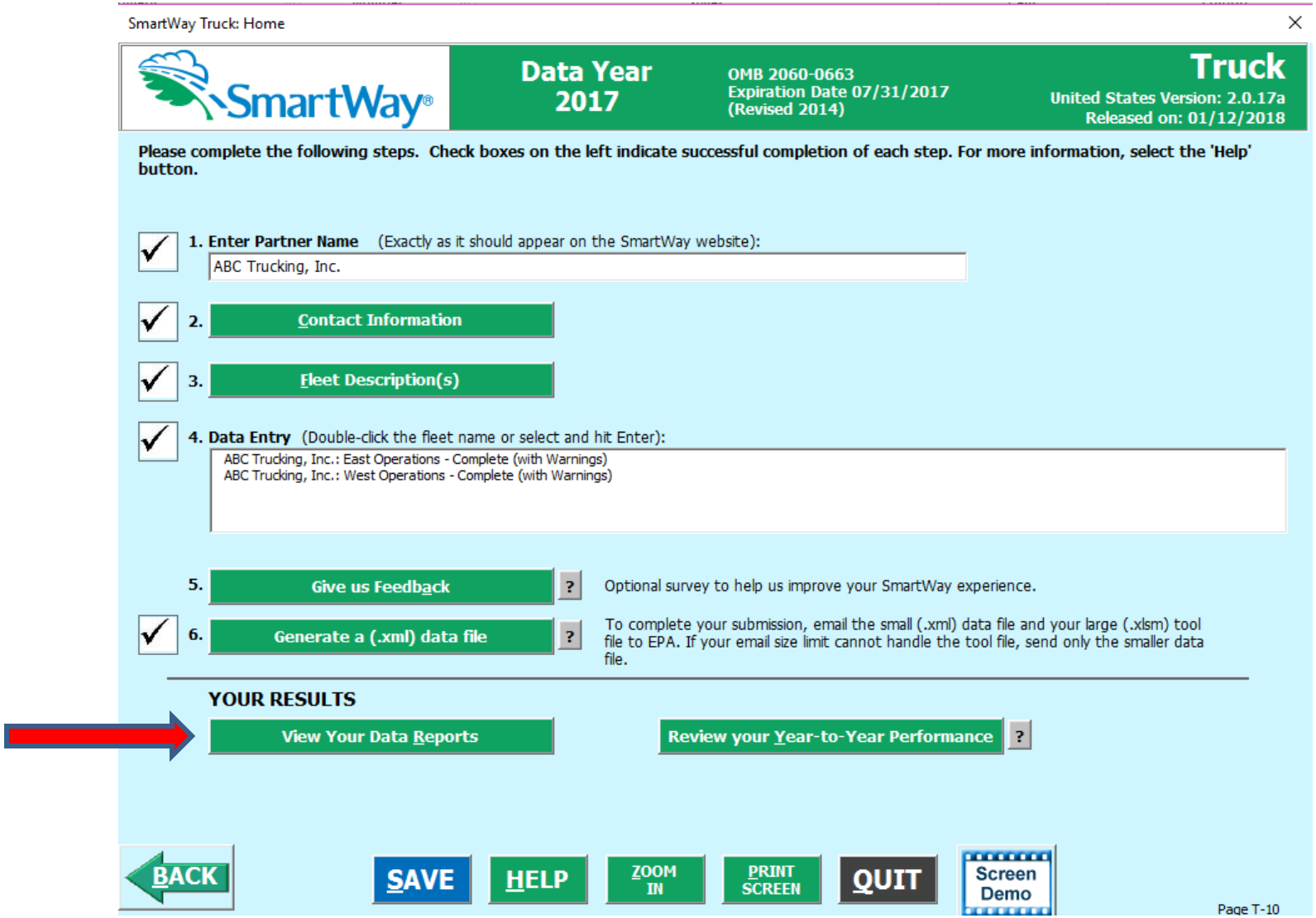


Truck Tool Data Reports

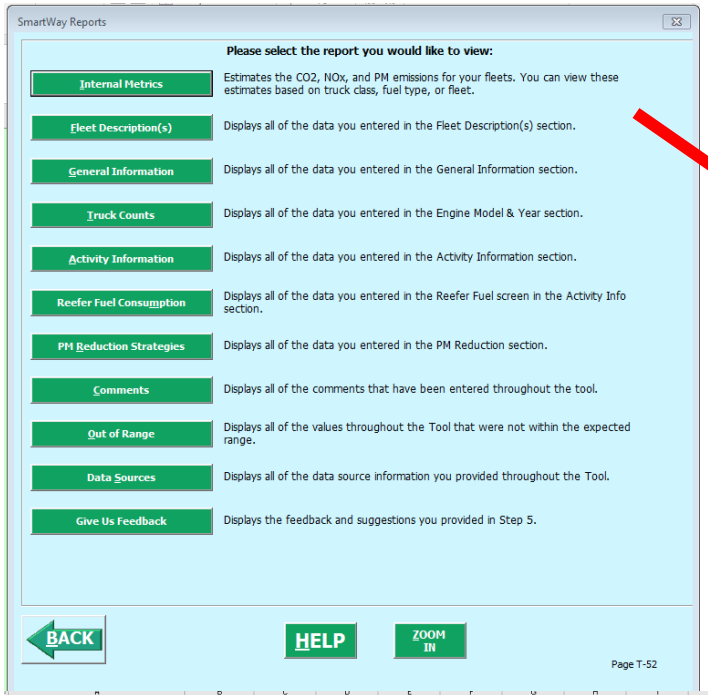
“What you put in is what you get out…”

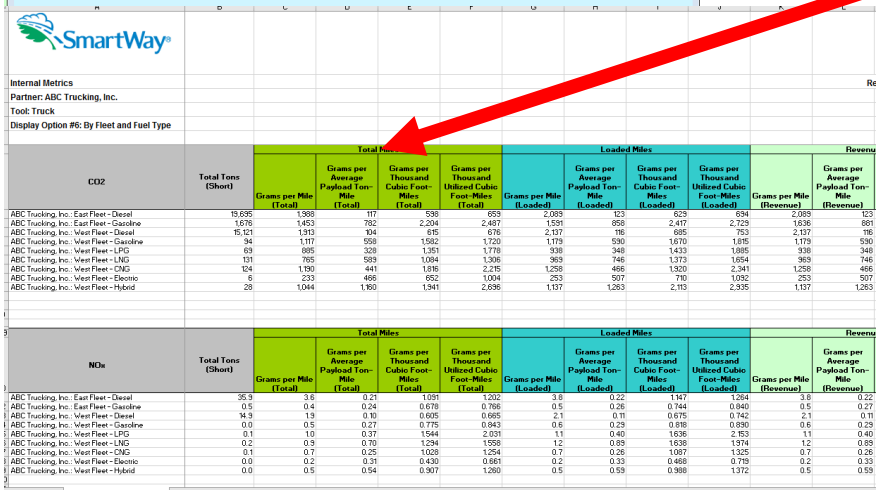
“If you put in the effort, you might as well reap the rewards”

Accessing Your Reports

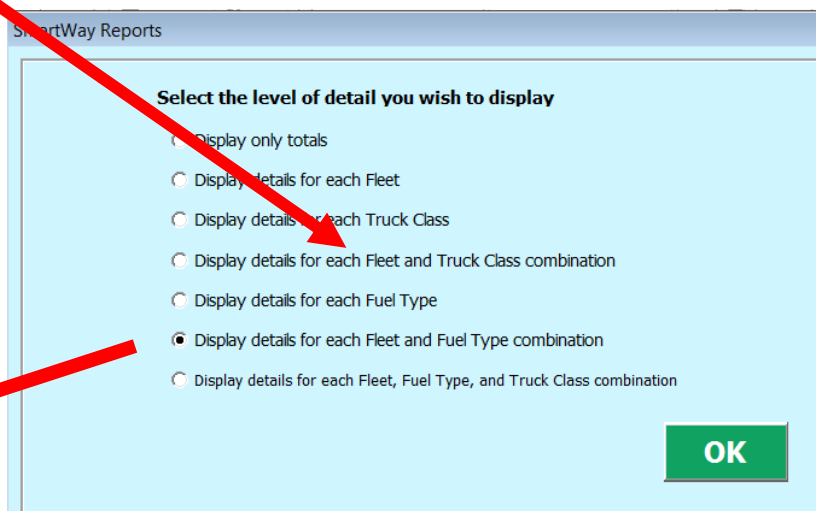


Data Reports

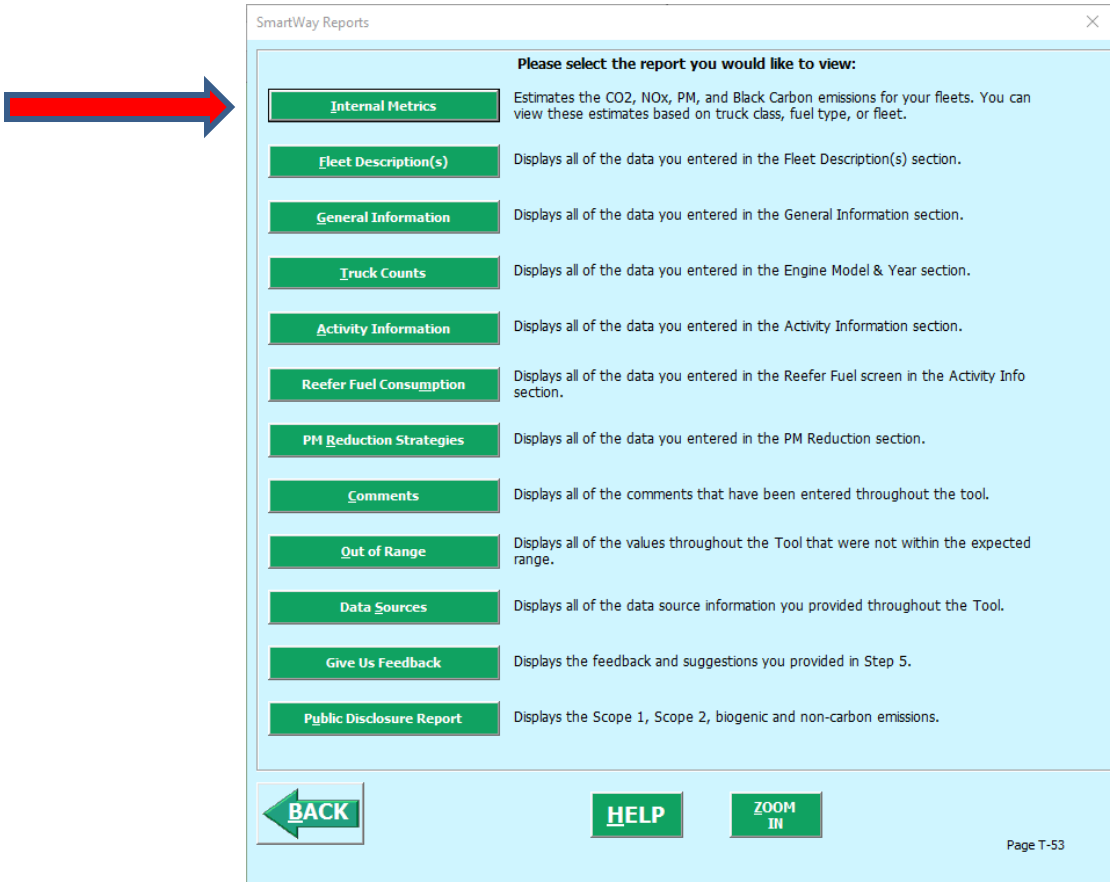




- SmartWay provides a lot of pre-generated reports for you!

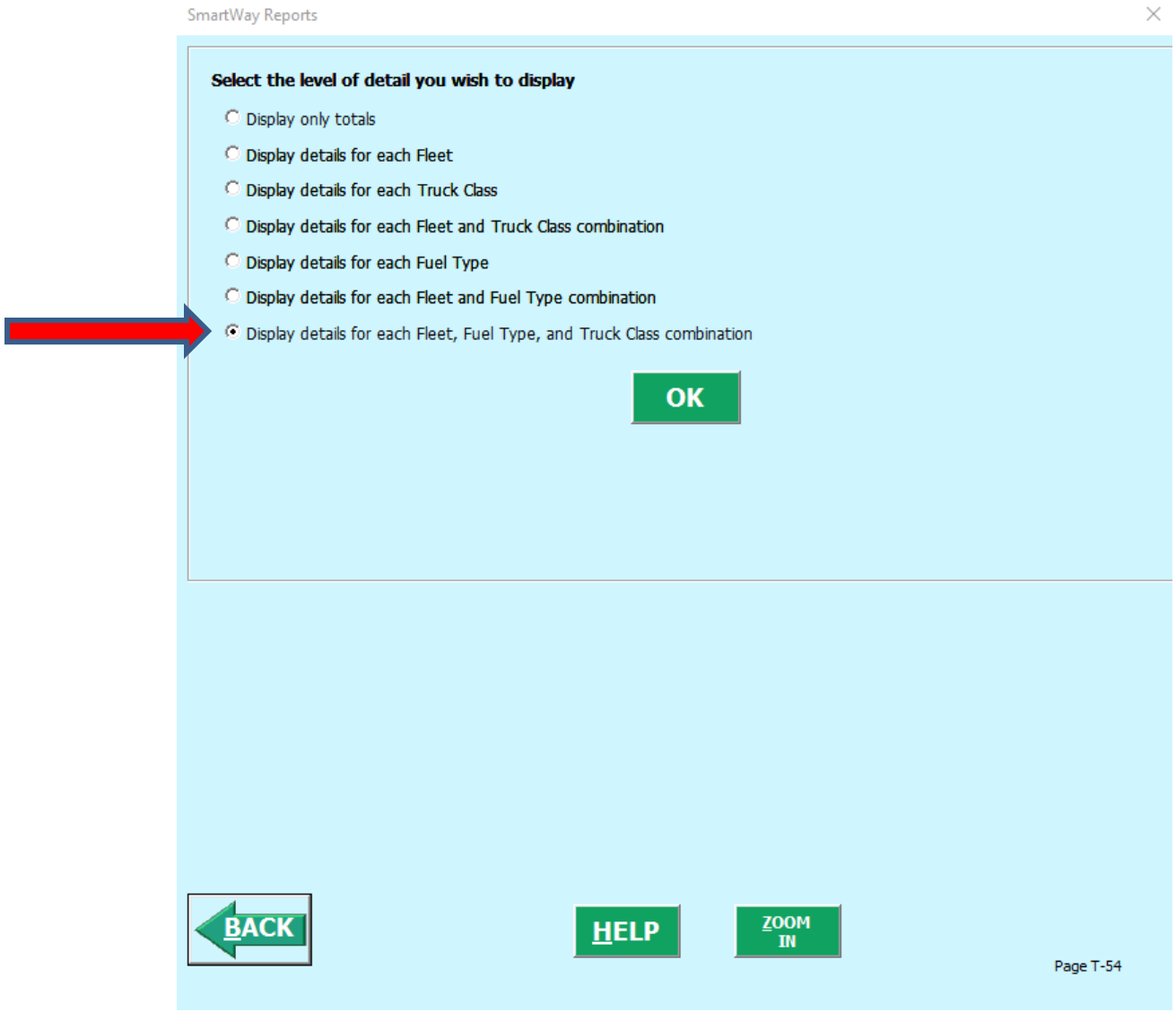


Accessing Your Reports



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

Accessing Your Reports



Accessing Your Reports

Internal Metrics
Partner: ABC Trucking, Inc.
Tool: Truck
Display Option #7: By Fleet, Fuel Type, and Truck Class

Report generated on: 02/06/2018
Data Year: 2017

CO2	Total Emissions (Short Tons)	Total Miles				Loaded Miles				Revenue Miles			
		Grams per Mile (Total)	Grams per Average Payload Ton-Mile (Total)	Grams per Thousand Cubic Foot-Miles (Total)	Grams per Thousand Utilized Cubic Foot-Miles (Total)	Grams per Mile (Loaded)	Grams per Average Payload Ton-Mile (Loaded)	Grams per Thousand Cubic Foot-Miles (Loaded)	Grams per Thousand Utilized Cubic Foot-Miles (Loaded)	Grams per Mile (Revenue)	Grams per Average Payload Ton-Mile (Revenue)	Grams per Thousand Cubic Foot-Miles (Revenue)	Grams per Thousand Utilized Cubic Foot-Miles (Revenue)
ABC Trucking, Inc.: East Operations - Diesel - 7	2,333	1,413	152	563	632	1,459	157	581	653	1,459	157	581	653
ABC Trucking, Inc.: East Operations - Diesel - 8b	17,362	2,103	114	604	663	2,218	120	636	699	2,218	120	636	699
ABC Trucking, Inc.: East Operations - Gasoline - 3	652	1,321	943	2,179	2,477	1,386	990	2,287	2,598	1,476	1,054	2,435	2,767
ABC Trucking, Inc.: East Operations - Gasoline - 4	1,020	1,546	663	2,208	2,481	1,750	751	2,500	2,809	1,750	751	2,500	2,809
ABC Trucking, Inc.: West Operations - Diesel - 6	550	1,721	341	1,243	1,429	2,080	412	1,503	1,727	2,080	412	1,503	1,727
ABC Trucking, Inc.: West Operations - Diesel - 8b	14,572	1,922	102	603	693	2,139	113	671	738	2,139	113	671	738
ABC Trucking, Inc.: West Operations - Gasoline - 3	93	1,114	552	1,578	1,715	1,176	582	1,666	1,811	1,176	582	1,666	1,811
ABC Trucking, Inc.: West Operations - LPG - 5	69	885	327	1,351	1,778	938	346	1,433	1,885	938	346	1,433	1,885
ABC Trucking, Inc.: West Operations - LNG - 3	131	765	607	1,084	1,306	969	769	1,373	1,654	969	769	1,373	1,654
ABC Trucking, Inc.: West Operations - CNG - 5	124	1,190	439	1,816	2,215	1,258	464	1,920	2,341	1,258	464	1,920	2,341
ABC Trucking, Inc.: West Operations - Electric - 2b	6	233	466	652	1,004	253	507	710	1,092	253	507	710	1,092
ABC Trucking, Inc.: West Operations - Hybrid - 3	28	1,044	1,099	1,941	2,696	1,137	1,197	2,113	2,935	1,137	1,197	2,113	2,935

NOx	Total Emissions (Short Tons)	Total Miles				Loaded Miles				Revenue Miles			
		Grams per Mile (Total)	Grams per Average Payload Ton-Mile (Total)	Grams per Thousand Cubic Foot-Miles (Total)	Grams per Thousand Utilized Cubic Foot-Miles (Total)	Grams per Mile (Loaded)	Grams per Average Payload Ton-Mile (Loaded)	Grams per Thousand Cubic Foot-Miles (Loaded)	Grams per Thousand Utilized Cubic Foot-Miles (Loaded)	Grams per Mile (Revenue)	Grams per Average Payload Ton-Mile (Revenue)	Grams per Thousand Cubic Foot-Miles (Revenue)	Grams per Thousand Utilized Cubic Foot-Miles (Revenue)
ABC Trucking, Inc.: East Operations - Diesel - 7	4.0	2.4	0.26	0.954	1.072	2.5	0.27	0.985	1.107	2.5	0.27	0.985	1.107
ABC Trucking, Inc.: East Operations - Diesel - 8b	15.0	1.8	0.10	0.523	0.574	1.9	0.10	0.551	0.606	1.9	0.10	0.551	0.606
ABC Trucking, Inc.: East Operations - Gasoline - 3	0.2	0.5	0.33	0.760	0.863	0.5	0.35	0.797	0.906	0.5	0.37	0.849	0.965
ABC Trucking, Inc.: East Operations - Gasoline - 4	0.3	0.4	0.19	0.641	0.720	0.5	0.22	0.726	0.816	0.5	0.22	0.726	0.816
ABC Trucking, Inc.: West Operations - Diesel - 6	0.2	0.8	0.15	0.565	0.649	0.9	0.19	0.682	0.784	0.9	0.19	0.682	0.784
ABC Trucking, Inc.: West Operations - Diesel - 8b	14.6	1.9	0.10	0.605	0.665	2.1	0.11	0.673	0.740	2.1	0.11	0.673	0.740
ABC Trucking, Inc.: West Operations - Gasoline - 3	0.0	0.5	0.25	0.724	0.787	0.5	0.27	0.764	0.831	0.5	0.27	0.764	0.831
ABC Trucking, Inc.: West Operations - LPG - 5	0.1	0.7	0.27	1.125	1.480	0.8	0.29	1.193	1.569	0.8	0.29	1.193	1.569
ABC Trucking, Inc.: West Operations - LNG - 3	0.2	1.0	0.77	1.368	1.649	1.2	0.97	1.733	2.088	1.2	0.97	1.733	2.088
ABC Trucking, Inc.: West Operations - CNG - 5	0.1	0.6	0.23	0.967	1.179	0.7	0.25	1.022	1.246	0.7	0.25	1.022	1.246
ABC Trucking, Inc.: West Operations - Electric - 2b	0.0	0.2	0.31	0.430	0.661	0.2	0.33	0.468	0.719	0.2	0.33	0.468	0.719
ABC Trucking, Inc.: West Operations - Hybrid - 3	0.0	0.5	0.53	0.928	1.289	0.5	0.57	1.011	1.404	0.5	0.57	1.011	1.404

PM2.5	Total Emissions (Short Tons)	Total Miles				Loaded Miles				Revenue Miles			
		Grams per Mile (Total)	Grams per Average Payload Ton-Mile (Total)	Grams per Thousand Cubic Foot-Miles (Total)	Grams per Thousand Utilized Cubic Foot-Miles (Total)	Grams per Mile (Loaded)	Grams per Average Payload Ton-Mile (Loaded)	Grams per Thousand Cubic Foot-Miles (Loaded)	Grams per Thousand Utilized Cubic Foot-Miles (Loaded)	Grams per Mile (Revenue)	Grams per Average Payload Ton-Mile (Revenue)	Grams per Thousand Cubic Foot-Miles (Revenue)	Grams per Thousand Utilized Cubic Foot-Miles (Revenue)
ABC Trucking, Inc.: East Operations - Diesel - 7	0.15	0.093	0.0100	0.0372	0.0418	0.096	0.0104	0.0384	0.0431	0.096	0.0104	0.0384	0.0431
ABC Trucking, Inc.: East Operations - Diesel - 8b	0.14	0.016	0.0009	0.0047	0.0052	0.017	0.0009	0.0050	0.0055	0.017	0.0009	0.0050	0.0055
ABC Trucking, Inc.: East Operations - Gasoline - 3	0.00	0.008	0.0058	0.0133	0.0151	0.008	0.0060	0.0140	0.0159	0.009	0.0064	0.0149	0.0169
ABC Trucking, Inc.: East Operations - Gasoline - 4	0.01	0.014	0.0058	0.0193	0.0217	0.015	0.0066	0.0218	0.0245	0.015	0.0066	0.0218	0.0245
ABC Trucking, Inc.: West Operations - Diesel - 6	0.00	0.009	0.0018	0.0065	0.0075	0.011	0.0022	0.0078	0.0090	0.011	0.0022	0.0078	0.0090
ABC Trucking, Inc.: West Operations - Diesel - 8b	0.11	0.015	0.0008	0.0047	0.0051	0.017	0.0009	0.0052	0.0057	0.017	0.0009	0.0052	0.0057
ABC Trucking, Inc.: West Operations - Gasoline - 3	0.00	0.010	0.0047	0.0135	0.0147	0.010	0.0050	0.0142	0.0155	0.010	0.0050	0.0142	0.0155
ABC Trucking, Inc.: West Operations - LPG - 5	0.00	0.008	0.0030	0.0124	0.0163	0.009	0.0032	0.0131	0.0173	0.009	0.0032	0.0131	0.0173
ABC Trucking, Inc.: West Operations - LNG - 3	0.00	0.009	0.0074	0.0133	0.0160	0.012	0.0094	0.0168	0.0202	0.012	0.0094	0.0168	0.0202
ABC Trucking, Inc.: West Operations - CNG - 5	0.00	0.005	0.0017	0.0071	0.0087	0.005	0.0018	0.0075	0.0092	0.005	0.0018	0.0075	0.0092
ABC Trucking, Inc.: West Operations - Electric - 2b	0.00	0.014	0.0284	0.0398	0.0612	0.015	0.0309	0.0433	0.0665	0.015	0.0309	0.0435	0.0665
ABC Trucking, Inc.: West Operations - Hybrid - 3	0.00	0.008	0.0089	0.0157	0.0218	0.009	0.0097	0.0171	0.0238	0.009	0.0097	0.0173	0.0238

Accessing Your Reports

? This tool has been reviewed by The World Resource Institute for conformance with the GHG Protocol Corporate Standard

Activity Information

Partner: ABC Trucking, Inc.

Tool: Truck

Report generated on: 02/06/2018

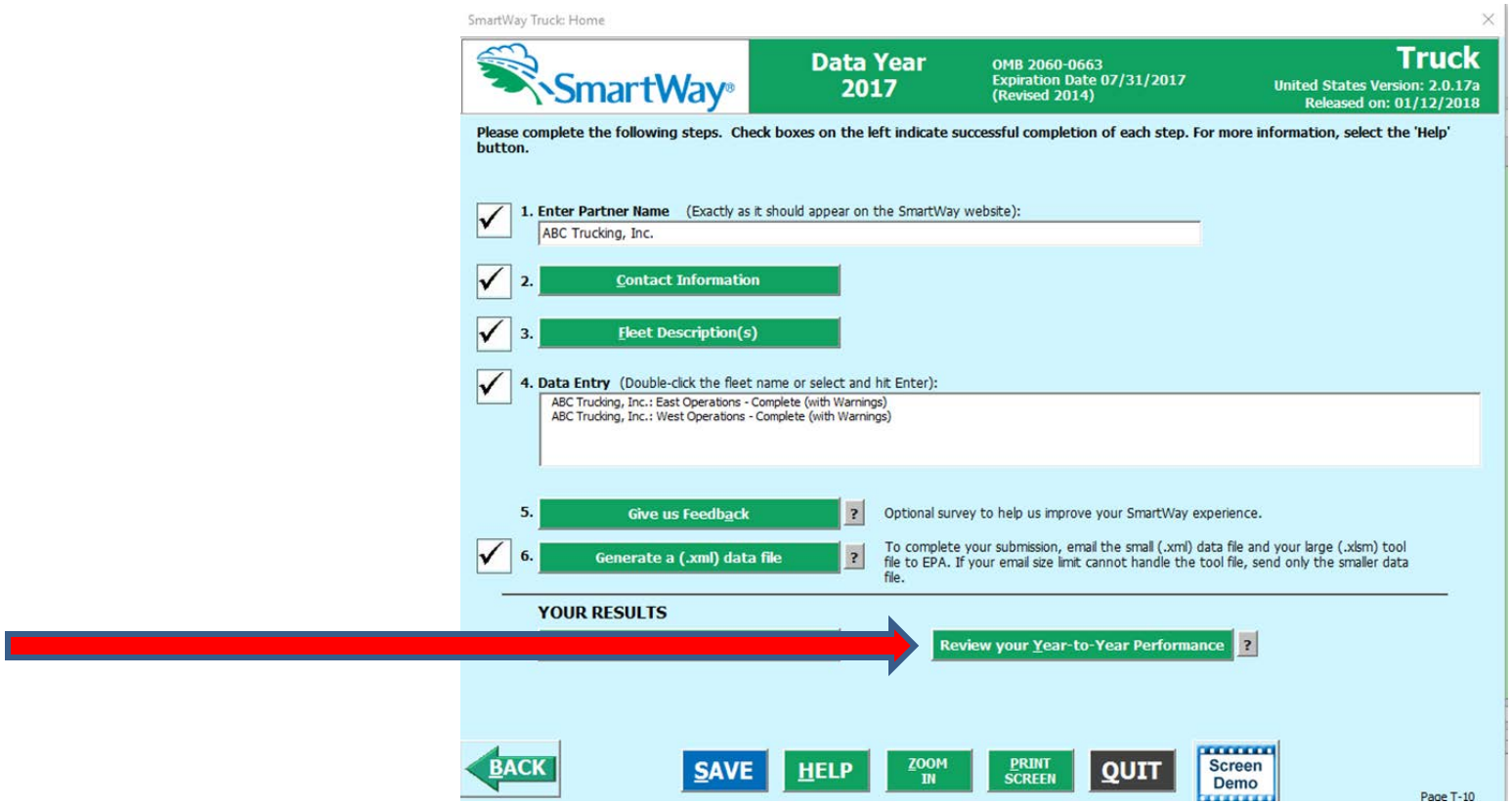
Data Year: 2017

Fleet Name	Fuel Type	Class	Number of Trucks	Fuel (Gallons or kWhr)*	Barrels of Oil**	Barrels of Diesel/ Gasoline	Biofuel (B100/E100 Equiv. Gals.)	Vehicle Efficiency***	Total Annual Miles Driven	Total Annual Revenue Miles	Total Annual Empty Miles	Average Payload (tons/truck)^	Truck Cargo Volume (cu ft/truck)^	Average Used Cargo Volume % ^	% Highway or Rural Driving^	% Urban Driving (Under 25 mph)^	% Urban Driving (25 mph to 50 mph)^	% Urban Driving (Over 50 mph)^	Average Idle Hours (per truck per year)
ABC Trucking, Inc.: East Operations	Diesel	7	25	207,969	20,667	4,921	1,300	7.2	1,497,896	1,450,893	47,003	9.30	2,510	89.00%	72%	13%	11%	4%	821
ABC Trucking, Inc.: East Operations	Diesel	8b	60	1,547,896	153,822	36,624	9,679	4.8	7,487,968	7,100,962	387,006	18.46	3,485	91.00%	88%	6%	5%	1%	729
ABC Trucking, Inc.: East Operations	Gasoline	3	10	68,987	3,631	1,643	0	6.5	447,896	400,894	21,002	1.40	606	88.00%	62%	18%	15%	5%	560
ABC Trucking, Inc.: East Operations	Gasoline	4	15	107,896	5,679	2,569	0	5.5	598,589	528,586	70,003	2.33	700	89.00%	72%	13%	11%	4%	300
Total ABC Trucking, Inc.: East Operations	**All**	**All**	**110**	**1,932,748**	**183,799**	**45,757**	**10,979**	**5.2**	**10,032,349**	**9,481,335**	**525,014**	**15.37**	**3,045**	**90.45%**	**83%**	**8%**	**7%**	**2%**	**676**
ABC Trucking, Inc.: West Operations	Diesel	6	10	48,969	4,897	1,166	0	5.9	289,689	239,682	50,007	5.05	1,384	87.00%	62%	18%	15%	5%	402
ABC Trucking, Inc.: West Operations	Diesel	8b	60	1,298,584	129,858	30,919	0	5.3	6,879,689	6,179,682	700,007	18.86	3,186	91.00%	78%	11%	8%	3%	551
ABC Trucking, Inc.: West Operations	Gasoline	3	15	9,874	520	235	0	7.7	75,987	71,986	4,001	2.02	706	92.00%	74%	13%	10%	3%	245
ABC Trucking, Inc.: West Operations	LPG	5	10	10,582	N/A	N/A	N/A	6.7	70,658	66,652	4,006	2.71	655	76.00%	35%	31%	26%	8%	559
ABC Trucking, Inc.: West Operations	LNG	3	10	26,524	N/A	N/A	N/A	5.8	154,898	122,276	32,612	1.26	706	83.00%	49%	23%	21%	7%	590
ABC Trucking, Inc.: West Operations	CNG	5	15	16,020	N/A	N/A	N/A	5.9	94,666	89,552	5,114	2.71	655	82.00%	32%	32%	27%	9%	428
ABC Trucking, Inc.: West Operations	Electric	2b	2	9,547	N/A	N/A	N/A	2.6	24,879	22,877	2,002	0.50	357	65.00%	N/A	N/A	N/A	N/A	N/A
ABC Trucking, Inc.: West Operations	Gasoline Hybrid	3	4	2,889	152	69	0	8.5	24,589	22,581	2,008	0.95	538	72.00%	35%	30%	26%	9%	233
Total ABC Trucking, Inc.: West Operations	**All**	**All**	**126**	**1,422,989**	**135,427**	**32,389**	**0**	**5.4**	**7,615,055**	**6,815,288**	**799,757**	**17.34**	**2,970**	**90.30%**	**75%**	**12%**	**9%**	**3%**	**473**
ENTIRE PARTNER TOTALS			236	3,355,737	319,226	78,146	10,979	5.3	17,647,404	16,296,623	1,324,771	16.22	3,012	90.38%	80%	10%	8%	2%	568

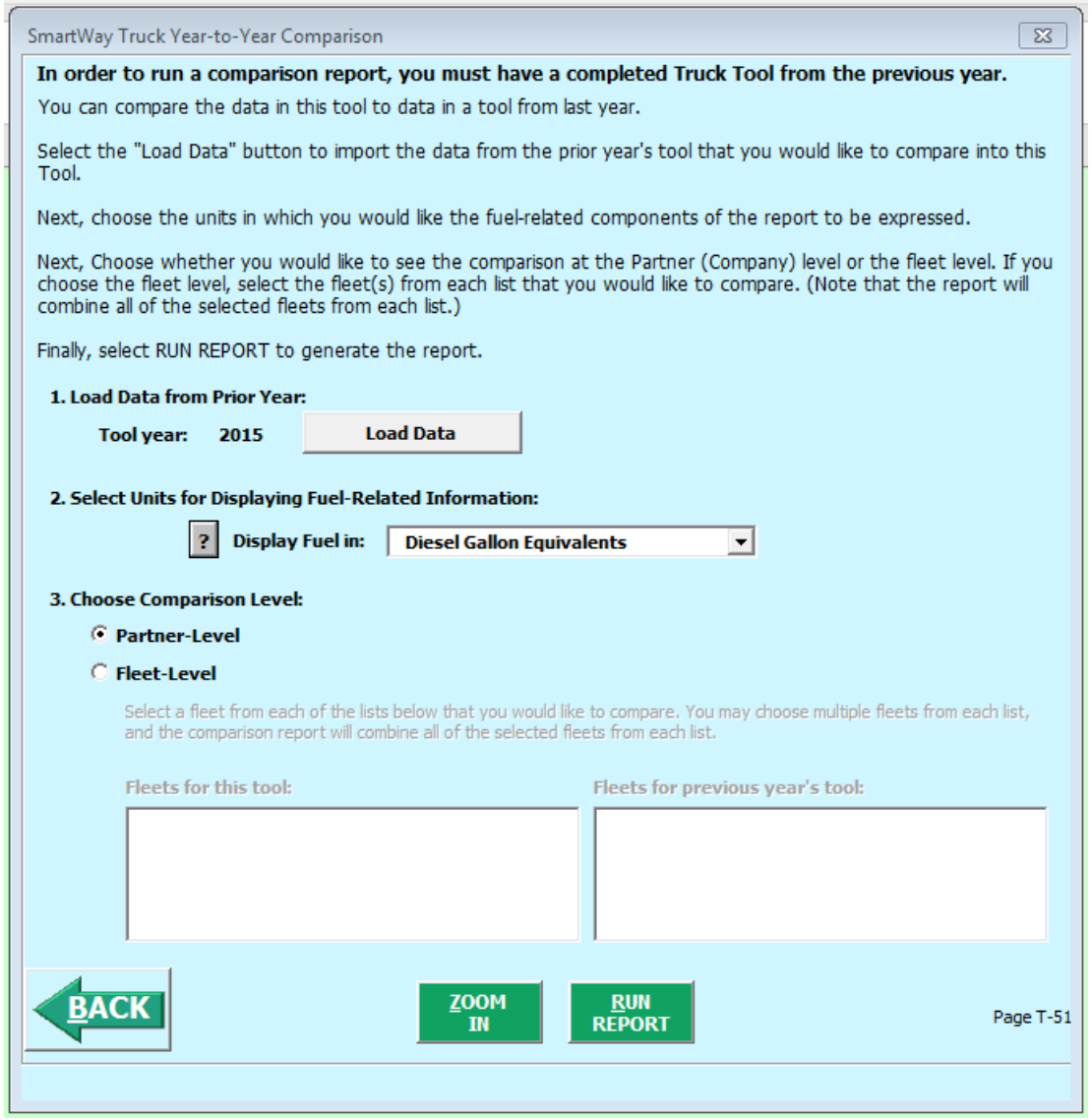
Accessing Your Reports

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

Fleet Name(s)			Webinar Example Truck Tool	Webinar Example Truck Tool
Working Contact:			Ex Ample	Ex Ample
Phone		X	888-881-2364 / 1336	888-555-7897
SCAC(s)			ABCD	ABCD
MCN			#1234567	#1234567
DOT			#123456	#123456
NSC		X	#123456	N/A
Fleet Type			For-Hire	For-Hire
Ranking Category			Flatbed	Flatbed
Body Types			Flatbed(100%)	Flatbed(100%)
MPG	-3.3%	-0.24	6.91	7.15
Miles Per Truck	3.9%	1,834	49,156	47,323
Average Payload (tons/truck)*	-10.8%	-1.8	14.7	16.5
Truck Cargo Volume (cu ft/truck)*	-0.2%	-4	2,232	2,236
Average Used Cargo Volume %*	1.8%	1%	82%	81%
% Highway or Rural Driving*	0.0%	0%	85%	85%
% Urban Driving (Under 25 mph)*	0.0%	0%	7%	7%
% Urban Driving (25 mph to 50 mph)*	0.0%	0%	6%	6%
% Urban Driving (Over 50 mph)*	0.0%	0%	2%	2%
Average Idle Hours (per truck per year)	0.1%	1	778	777
Number of Trucks	-38.0%	-882	1,439	2,321
Class 2b		-	-	-
Class 3	-39.8%	-123	186	309
Class 4		-	-	-
Class 5	-43.4%	-33	43	76
Class 6		-	-	-
Class 7	-36.0%	-215	383	598
Class 8a	-51.7%	-30	28	58
Class 8b	-37.6%	-481	799	1,280
Total Annual Miles Driven	-35.6%	-39,099,825	70,735,722	109,835,547
Total Annual Revenue Miles	-35.8%	-23,558,368	42,204,861	65,763,229
Total Annual Empty Miles	-35.4%	-15,606,400	28,466,127	44,072,527
Fuel (Gallons or kWhr)	-33.4%	-5,130,490	10,231,090	15,361,580
Gallons of Diesel Used, incl. Reefer	-33.4%	-5,130,490	10,231,090	15,361,580

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?

- Shippers have something called Corporate Social Responsibility Reporting…
  - 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?

SmartWay Shipper Tool: BStar Shipping - Retail

Awards/Data Entry Selection | Input Carriers | Activity Data | % SmartWay | Data Display | Shipper Strategies

Instructions | Match My Carriers | Outside Data Import | Export Carriers | Manual Input SmartWay Carriers | Manual Input Non-SmartWay Carriers | Optional Carrier Differentiation

Filter

Carrier Name ? | Address1 | City | State | ZIP | Apply Filter ? | Remove Filter ?

Carrier Mode ? (All) | Ranking Category ? (All) | SCAC ? | MCN ? | DOT ?

Available SmartWay Carriers: 3,337

Carrier Mode	Ranking Category	SCAC	MCN	DOT	Address >>>
AEP River Operations: Captive	Barge				16150 Main Circle Driv
AEP River Operations: Commercial	Barge				16150 Main Circle Driv
Foss Maritime: Foss Atlantic	Barge				1151 Fairview Ave. N
Ingram Barge Company	Barge				4400 Harding Pike
Robin International Transport	Barge				P.O. Box 571
3 Rivers Logistics, Inc	Logistics	TVQI	MC376181	DOT2225931	60 Doughboy Road
A & Z Trucking, Inc.	Logistics	AZTD	MC510449		115 Corporate Drive

Add Selected Carriers to List Below

Press the CTRL button to select multiple items

Selected SmartWay Carriers: 4

Carrier Mode	Ranking Category	SCAC	MCN	DOT
Agmark Logistics, LLC	Logistics	AKFO	MC684924	DOT2244817
Corporate Courier Inc	Truck Package	CCRN	MC359012	DOT806892
Night Train Trucking, Inc	Truck Refrigerated	NTTK	MC361864	DOT813137
Oak Harbor Freight Lines	Truck LTL/Dry Van	OAKH		DOT0008314

Delete Selected Carriers

BACK | NEXT | ZOOM IN | PRINT SCREEN | SAVE | HOME | ADD COMMENTS | HELP | Screen Demo

Page S-18

- 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?

SmartWay Shipper Tool: BStar Shipping - Retail

Awards/Data Entry Selection | Input Carriers | Activity Data | % SmartWay | Data Display | Shipper Strategies

The carrier fleets identified in the previous steps are shown below. Select the "Tag Info" button to show any optional carrier differentiators at the top of this screen, and select the "Close" button to re-display these instructions.

Next, for each carrier, choose a Data Availability option that reflects the information you have for that carrier. Based on the data you provide, the per-carrier emission inventory and emission efficiencies will be displayed in the subsequent tabs. Next, enter the data fields that are appropriate for the Data Availability option you selected. The required fields will be activated (white); other fields will be grayed out.

Once you have completed entering your data, select the "Describe Data Source" button just below these instructions to describe the source of all the information you entered.

Finally, select the % SmartWay tab or the NEXT button to proceed. If the system detects problems with the information you've entered, it will automatically highlight the row number and provide detailed information about the error/warning. Select a highlighted row number for information about errors/warnings for that particular row. You can also run this validation process by selecting the Validate Screen button at the bottom of the screen. A red highlight indicates that data is missing or is significantly higher/lower than the industry average, while a yellow highlight indicates the value is somewhat higher/lower than the industry average. Red highlighted cells must be addressed before proceeding to the next screen, by entering missing values (if applicable) or by double-clicking on the cell to enter a detailed explanation regarding the high/low value. You may also enter text explanations for yellow-highlighted cells, although such entries are optional.

✓ Describe Data Source

Row		Selected Carriers	Carrier Mode	Ranking Category	Data Availability *	Ton-Miles	Total Miles**	^Average Payload
1	Tag Info	Agmark Logistics, LLC	Logistics		a - Ton-miles and Total miles	15,555,555	758,957	20.5
2	Tag Info	Corporate Courier Inc	Truck	Package	a - Ton-miles and Total miles	36,365,899	3,985,896	9.1
3	Tag Info	Night Train Trucking, Inc	Truck	Refrigerated	d - Total miles only	72,126,012	3,658,958	19.7
4	Tag Info	Night Train Trucking, Inc	Truck	Refrigerated	c - Total miles & Avg. Payload	40,294,480	2,154,785	18.7
5	Tag Info	non-SmartWay Logistics Carrier	Logistics		b - Ton-miles & Avg. Payload	23,589,696	1,363,566	17.3
6	Tag Info	non-SmartWay Multi-modal Car	Multi-modal		a - Ton-miles and Total miles	36,857,489	2,063,652	17.9
7	Tag Info	non-SmartWay Truck Carrier	Truck		c - Total miles & Avg. Payload	79,768,744	3,625,852	22
8	Tag Info	Oak Harbor Freight Lines	Truck	LTL/Dry Van	b - Ton-miles & Avg. Payload	325,896,398	38,797,190	8.4

* NOTE about new Data Availability Options

* Data Availability:
a = (Preferred) I know both Ton-miles and Total Miles.
b = I know Ton-miles and Average Payload.
c = I know Total Miles and Average Payload.
d = I know Total Miles only.

Totals

Ton-Miles Total: 630,454,273

Total Miles Total: 56,408,856

Weighted Average Payload: 13.3

** Total Miles = truck, railcar, air, and/or barge-miles (NOT train or tug-miles).

^ Select the 'Validate Screen' button to display/update the Average Payload values.

SELECT "VALIDATE SCREEN" TO CALCULATE WEIGHTED AVG PAYLOAD

BACK | NEXT | ZOOM IN | PRINT SCREEN | SAVE | HOME | VALIDATE SCREEN | ADD COMMENTS | HELP | Screen Demo

Page S-21

- 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?

SmartWay Shipper Tool: BStar Shipping - Retail

Awards/Data Entry Selection | Input Carriers | Activity Data | % SmartWay | Data Display | Shipper Strategies

Emissions Summary | Carrier Performance | Carrier Performance (Ranking Category Detail)

This display allows you to look at your company's emissions-related performance by mode and optional tags. Use the drop-down boxes provided to filter your results. You can display carrier-specific emission factors by choosing the appropriate option from the Display Type drop-down. In addition, if you selected Emissions Footprint and completed the Activity Data screen, you can also display mass emissions in tons per year, as well as the associated category ranking (for non-rail/barge/air carriers). (If you selected % SmartWay Only, this mass emissions and category ranking options are not available.) In viewing your results, use the icon to the left of each mode name to hide/reveal details for that particular mode.

Display Results For:	Display Type	Inbound / Outbound	Domestic / International	Business Unit	ID Code	Internal Shipper Segment 1	Internal Shipper Segment 2
	Emission Factors	All	All	All	All	All	All

Selected Carriers	Ranking Category	CO2 g/mile	CO2 g/ton-mile	NOx g/mile	NOx g/ton-mile	PM10 g/mile	PM10 g/ton-mile	PM2.5 g/mile	PM2.5 g/ton-mile
Logistics Carriers (2)		2,569	558	27.85	4.316	1.435	0.3886	1.416	0.3886
Multi-modal Carriers (1)		2,154	195	21.50	1.700	0.825	0.5170	0.875	0.5170
Truck Carriers (5)		1,743	210	6.91	0.934	0.281	0.0456	0.278	0.0449
Corporate Courier Inc	Package	900	383	3.05	1.500	0.137	0.0810	0.137	0.0810
Night Train Trucking, Inc	Refrigerated	1,840	88	8.40	0.425	0.185	0.0093	0.185	0.0093
Night Train Trucking, Inc	Refrigerated	1,840	88	8.40	0.425	0.185	0.0093	0.185	0.0093
non-SmartWay Truck Carı		2,437	484	29.24	3.330	1.242	0.1680	1.205	0.1630
Oak Harbor Freight Lines	LTL/Dry Van	1,750	166	5.00	0.460	0.220	0.0242	0.220	0.0242
Composite Weighted Average		1,789	231	8.23	1.189	0.344	0.0944	0.343	0.0938

BACK | NEXT | ZOOM IN | PRINT SCREEN | HOME | HELP | Screen Demo

Page S-24

- 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

Survey Question

Question: Do you think SmartWay should **also** have a simple composite score for Shippers who do not understand the 6 component scoring system?

Wile E. Coyote Transportation

SmartWay category: Truckload Dry Van

	CO2		Oxides of Nitrogen (NOx)		Particulate Matter (PM)		Composite Score
	g/mile	**g/ton-mile**	**g/mile**	**g/ton-mile**	**g/mile**	**g/ton-mile**	
	CO2 is caused by burning fuel. So the less fuel you burn, the more money you save and the less CO2 you emit.		NOx causes Smog, contributes to Ozone Action Days, and Acid Rain. NOx emissions are harmful to both humans and the environement. To improve your score, buy newer trucks		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.		Your composite score is an equally weighted combination of all your 6 SmartWay metric scores shown here. Your composite score is an overall indication of how well you are performing in the SmartWay Transport Partnership.
SmartWay Rank	This score indicates your performance on a mpg basis.	This score indicates your fuel efficiency performance on a per weight basis. Higher payloads will improve your g/ton-mile performance.	This score indicates your efficiency by how much NOx you emit on a per mile basis.	This score indicates your NOx performance on a per weight basis. Higher payloads will improve your g/ton-mile performance	This score indicates your efficiency by how much PM you emit on a per mile basis.	This score indicates your PM performance on a per weight basis. Higher payloads will improve your g/ton-mile performance.	
Congratulations! Top Performance 1							
Better than Average (But not the best) 2	★	★					
Average Performance (Middle of the Pack) 3							
Less efficient than Average Improvement is Needed 4							★
Least Efficient Non-competitive Business Model 5			★	★	★	★	

EXAMPLE

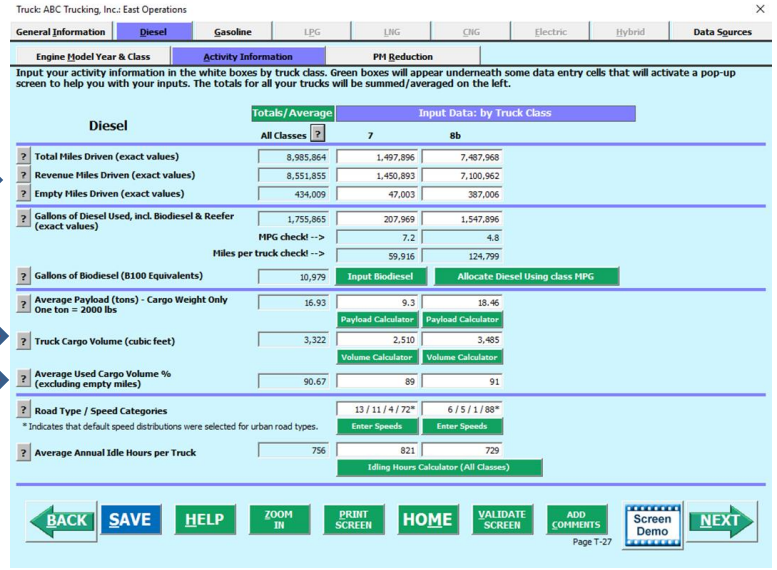
[Your SmartWay scores (1-5) can be viewed at: https://www.epa.gov/smartway/smartway-carrier-performance-ranking](https://www.epa.gov/smartway/smartway-carrier-performance-ranking)

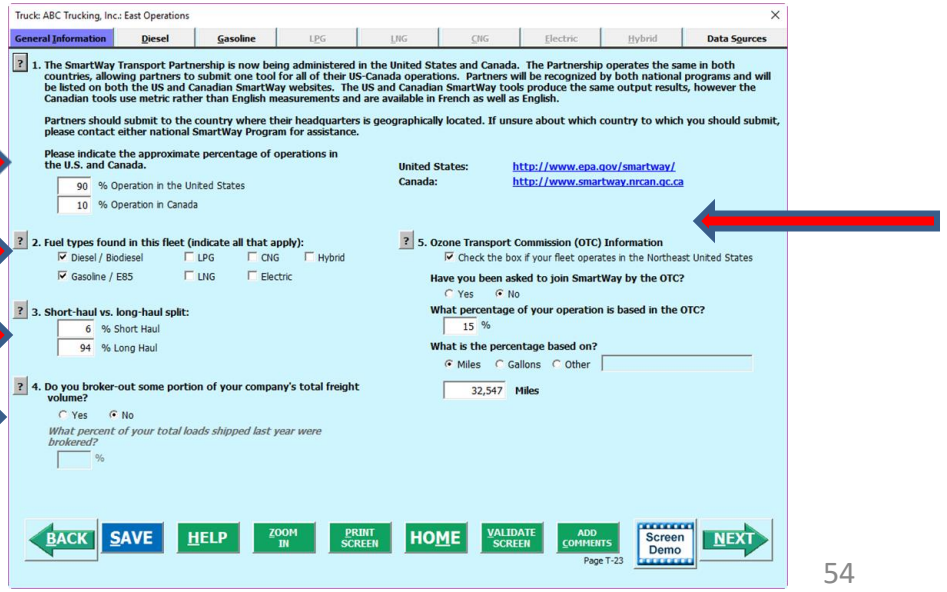
(2+2+5+5+5+5) / 6 = 4

You are close to the top rank for CO2, keep up your improvement efforts. However, your NOx and PM scores are dragging you down; try phasing in newer trucks sooner if possible.

Survey Question

Question: Should SmartWay drop the information collection in the SmartWay Truck Tool that isn't used for specifically for Scoring calculations?





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?

SmartWay℠

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY