2023 SmartWay Online Truck Tool: All Carriers

User Guide

U.S. Version 1.0
(Data Year 2022)

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U.S. Version 1.0
(Data Year 2022)

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

EPA-420-B-23-002
January 2023

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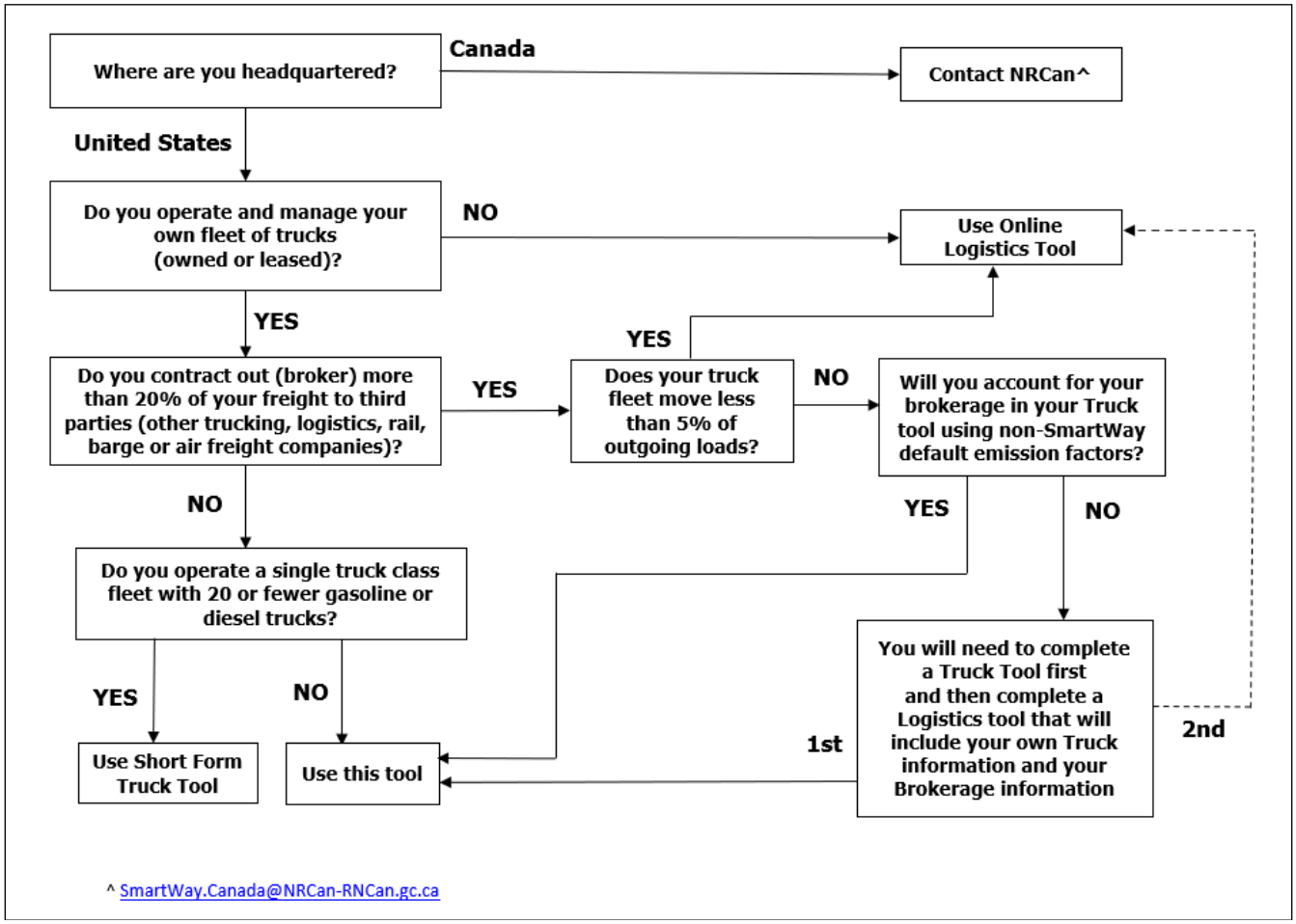
Pre-Checklist – Before Getting Started

IS THIS THE RIGHT SMARTWAY TOOL FOR ME?

WARNING:

******Before proceeding, use this chart to make sure you are choosing the right tool for your operations! ******

Figure 1: Tool Selection Diagram



This Guide describes the SmartWay Online Truck Tool for all carriers (referred to as the OTT in this document), which can be used by all SmartWay truck carriers.

If 20% or more of your freight, based on ton-miles, is brokered out to third parties (including other trucking companies, logistics providers, rail, barge or air freight carriers) you can enter your brokerage activity either in this tool, or in a separate Logistics Tool available later in the year. Please review the Tool Selection Diagram above for further details regarding reporting your brokerage activity.

Certain smaller truck fleets meeting the following criteria may use the SmartWay Online Truck Tool Short Form, also accessible through the SmartWay Partner Portal:

- Fleet size of 20 or fewer trucks;
- Operate a single truck weight class (e.g., all Class 6 or Class 8b);
- Only use gasoline and/or diesel fuel;
- Less than 20% of freight is brokered based on ton-miles.

If you have questions regarding which SmartWay Tool to use, contact your Partner Account Manager (PAM), the SmartWay Transport Partnership at 1-734-214-4767 or email smartway_transport@epa.gov.

WHAT IS THE SMARTWAY TRANSPORT PARTNERSHIP?

Launched in 2003, the SmartWay Transport Partnership is a public/private collaboration between the EPA and the freight industry to improve fuel efficiency, improve environmental performance, and encourage supply chain sustainability.

Six types of freight transport companies can join SmartWay.

- Freight shippers
- Logistics companies (including 3PLs/4PLs[1])
- Truck carriers
- Rail carriers
- Barge carriers
- Air carriers

Tools are provided for each of the six freight transport company types. The SmartWay Tools:

- Assess freight operations
- Calculate carbon dioxide (CO_2), nitrogen oxide (NO_x), Particulate Matter (PM), and Black Carbon (BC) emissions, and

[1] 3PLs/4PLs: Third party logistics/fourth-party logistics companies

- Allow partners to track fuel-efficiency and emission reductions.

SmartWay ranks Partners' efficiency and environmental performance based on the information reported in the tools and recognizes superior performance through the SmartWay Excellence Awards and the SmartWay High Performers list.

WHY DO TRUCK CARRIERS JOIN THE SMARTWAY TRANSPORT PARTNERSHIP?

The SmartWay Transport Partnership provides truck carriers with ways to reduce the environmental impact of their freight operations and address costs. Designed with and for the freight sector, the SmartWay Transport Partnership delivers solutions to marketplace needs and challenges. With access to the latest in EPA-tested technologies and peer-provided success stories, carriers that join the SmartWay Transport Partnership can gain a better understanding of their environmental footprint, potentially improve their energy efficiency, and assert their corporate leadership.

Additionally, SmartWay Partners are associated with an internationally recognized and respected brand that symbolizes cleaner, more efficient transportation choices.

HOW DO TRUCK CARRIERS JOIN THE SMARTWAY TRANSPORT PARTNERSHIP?

Truck Carriers join SmartWay by completing one of the SmartWay Truck Carrier Tools (either the Short Form or the online version for all carriers). Truck Carriers with completed tools approved by SmartWay are known as "SmartWay Truck Carrier Partners."

When a truck carrier submits a Truck Carrier Tool to EPA, they agree to the requirements stipulated in the SmartWay Truck Carrier Partnership Agreement, notably that they will measure and honestly report the emissions performance of their company annually and provide supporting documentation to EPA upon request.

All SmartWay Truck Carrier Partners agree to complete and submit a SmartWay Truck Carrier Tool to:

- define company composition
- characterize company activity
- benchmark their fleet
- track annual changes in performance

Upon approval of a Truck Carrier Tool submission, truck carriers are identified as SmartWay Truck Carrier Partners on EPA's website and on the SmartWay Partner List used to identify companies that meet SmartWay's annual requirements. The carrier will also receive information on how to access its current SmartWay Registration Document.

HOW DO I JOIN IF MY PARENT COMPANY HAS MULTIPLE FLEETS?

Companies that join the SmartWay Partnership should include all their fleets and trucks in their submission. If a company wishes to list multiple fleets in the OTT, it should list these fleets as they would be identified and hired by its customers. "Internal use only" fleets invisible to a customer usually should not be listed separately.[2] Companies will be listed at the Company level in the SmartWay Partner list on the SmartWay website, and each defined fleet will appear as a separate entity in the SmartWay carrier list file that customers use to identify which fleets they do business with in the SmartWay Shipper and/or Logistics Tools.

Vehicles used only for internal operations, such as load switching, should not be listed as separate fleets. Rather, those vehicles' activity should be included along with those of the customer-facing fleet they serve. If these vehicles serve as a distinct internal use fleet whose activity cannot be readily assigned to any one customer-facing fleet, they should be omitted from the tool.

SmartWay highly recommends developing your list of fleets before beginning your data entry process. Any fleet that a shipper or logistics company could hire directly should be listed as a separate fleet in your tool submission. The best strategy is to have a clear idea of how to define your companies before filling out the tool.

WHAT DATA DO I NEED TO GATHER TO COMPLETE THE ONLINE TRUCK TOOL FOR ALL CARRIERS?

Truck carriers need to gather the following essential information to complete the OTT:

- The official company name EXACTLY as you would like it presented on the EPA website and other EPA communications
- Company contact information
- Contact details for:
  - your Working Contact
  - your Executive Contact (Executive Contact cannot be the same as the Working Contact)
  - your Sustainability and/or Other Contact(s) – these are optional
- Percent split between US/Canada operations
- Quarterly International Fuel Tax Agreement (IFTA) statements[3] (for activity data) for the reporting calendar year
- Fleet details for all fleets you control:

[2] See the Fleet Type discussion for further details.
[3] If applicable – for Class 7, 8a and 8b trucks only.

- Standard Carrier Alpha Code (SCAC), Motor Carrier Number (MCN), US Department of Transportation (DOT) number, and/or Canadian National Safety Code (NSC) number information
- Total inventory of vehicles in your fleet(s), sorted by vehicle class and engine model year, body type, and operational category for the reporting calendar year
- Total miles, revenue miles, and empty miles
- Total diesel, biofuels and/or other fuel use for engine power by truck class
- Reefer fuel use (total or by class)
- Average payload by class
- Average idle hours per truck (short and long-duration)
- Service days per year
- Use of particulate matter control equipment by truck class and engine model year (if applicable)
- Data sources

This data should be provided for all your company's fleets. This data reflects the amount of freight carried by each carrier, the distance that freight is carried, and the fuel consumed to carry the freight.

WHAT IS INCLUDED IN THE SMARTWAY CARRIER PARTNERSHIP AGREEMENT?

To join the SmartWay Transport Partnership as a truck carrier, you must agree to the language on the "Partnership Agreement for Carriers." When you begin working within the online tool, you will be asked to check a box stating that you agree to the terms of the Partnership Agreement. **This agreement must be renewed annually.**

Please review this language with the appropriate personnel within your organization before completing or submitting the Tool to EPA.

Partnership Agreement
for Carriers

With this annual agreement, your company joins the SmartWay Transport Partnership and commits to:

1. Measure and report to EPA, on an annual basis, the emissions performance of your fleet(s) using EPA's SmartWay Carrier Tool(s). Existing fleets will report the 12 months of data for the prior year ending December 31. Newly formed fleets require a minimum of 12 months of operational data.
2. Have your company's name and performance results posted on the SmartWay websites/databases.
3. Upon EPA's request, agree to submit supporting documentation to EPA for any data used to complete the Tool, and agree to submit to an audit of this data.

In return, EPA commits to:

1. Promote company participation in the Partnership by posting Partner names on the SmartWay websites and in related educational, promotional, and media materials. EPA will obtain express written consent from the Partner before using the Partner's name, other than in the context of increasing public awareness of its participation as described here.
2. Provide companies with industry-wide performance benchmark data, as the data becomes available to EPA.
3. Assist Partners in achieving emission and fuel usage reduction goals.

General Terms

1. Either party can terminate this Agreement at any time without prior notification or penalties or any further obligation.
2. EPA agrees not to comment publicly on the withdrawal of specific partners.
3. EPA reserves the right to suspend or revoke Partner status and terminate this Agreement if the Partner defaults under this Agreement or misuses a SmartWay trademark.
4. The Partner consents to EPA disclosing all information collected in the Tool to the United States Environmental Protection Agency (EPA) and to the contractor responsible for hosting the SmartWay database, for the purposes of administering the SmartWay Program and trademarks only.
5. The Partner understands that this Agreement does not constitute authorization to use the SmartWay trademark, and that such authorization can only be obtained by entering into a separate agreement with the EPA.
6. The Partner agrees that it will not claim or imply that its participation in the SmartWay Transport Partnership constitutes EPA's approval or endorsement of anything other than the Partner's commitment to the program. The Partner will not make statements or imply that EPA, or the United States, endorses the purchase and/or sale of the Partner's products and services or the views of the Partner.
7. The annual submission of this SmartWay Tool constitutes agreement to all terms in this Partnership Agreement.

WHAT'S NEW IN THE 2023 ONLINE TRUCK TOOL?

1. The emission factors for NOx, PM and Black Carbon have been updated using EPA's MOVES3.1 emissions model for calendar year 2022. (Note: CO_2 factors remain unchanged.)
2. Before beginning your data collection, you must now identify the last calendar year for which you have full annual (12 months) data. This means that you have data from January of the calendar year through December of the same year. Newly formed fleets require a minimum of 12 months of operational data.
3. Biofuels have been defined to include biodiesel and renewable diesel.
4. The **Is this the Right Tool for Me** screen has been updated to include detailed guidance for entering brokerage activity and for multimodal partners.
5. Partners are limited to defining 20 or fewer truck fleets.
6. Emissions associated with charging battery electric trucks (Scope 2 emissions) are no longer included in the Emissions Report but are presented separately in the Public Disclosure Report. These emissions are also excluded when calculating fleet performance metrics.
7. The previous 'Internal Use Only Fleet' (IUOF) question in the Fleet Characterization section has been replaced with two new 'Fleet Visibility' questions which are asked of users who choose to report their brokerage activity via the Online Logistics Tool (OLT), who identify themselves as multimodal carriers, or who designate their truck fleet as 'Private'. This was done to avoid users accidentally designating their fleets as IUOF which makes their fleet invisible to their customers, and requires the user submit an OLT later in the year to remain in Good Standing.
8. When a fleet is designated as Private it will be invisible to the user's customers and require the user to submit an OLT later in the year to remain in Good Standing.
9. Miscellaneous screen format and text updates to improve tool usability.

The following sections describe the information needed and the process for completing the required sections of the OTT. The OTT **Technical Documentation**[4] explains more about the data sources and calculation methodology used by the Tool; this guide focuses on the essentials for completing the Tool.

Note: The SmartWay online tools should not be accessed using Microsoft Internet Explorer. Please use the most recent version of Chrome, Firefox, or Edge to access the application.

Note: Your online tool session will "time-out" after 30 minutes if you do not interact with the page, and data will be lost for that page. You do not have to complete all steps within two hours, but you must refresh or change the page every two hours to avoid timing out.

Note: If you previously submitted data for the current reporting year using the Online Truck Tool-Short Form and that submission has been approved, you will receive an error message

[4] You can access the OTT Technical Documentation through the SmartWay Partner Portal.

when trying to access the OTT saying "The Online Truck Tool Short Form was used to submit data to EPA and this data has been approved. You cannot use the Online Truck Tool for all carriers unless you contact your Partner Account Manager and have them un-approve the previous submission." If you submitted data using the Short Form and that submission has not been approved, you will receive a warning message saying "The Online Truck Tool-Short Form was used to submit data to EPA, but it has not yet been approved. Are you sure you want to proceed?"

Data Collection Requirements

ESTABLISHING YOUR DATA COLLECTION YEAR

Before beginning your data collection, identify the last calendar year for which you have full annual (12 months) data. This means that you have data from January of the calendar year through December of the same year. Newly formed fleets require a minimum of 12 months of data. For example, a start-up owner operator with one tractor and a dry van trailer would be expected to have run at least 30,000 miles for the year, depending on type of operation. If you do not meet these requirements, please apply once you have the required data.

REQUIRED DATA

To complete the OTT, you will need to compile data regarding your fleet(s) characteristics and activity levels. See **above** for a complete list of required data.

AUTO-POPULATION

As you progress through the Tool, you will see "Auto Populate" buttons on various screens. Selecting these buttons allows partners to automatically load information for the initial steps of the Tool, including Partner Name, Contact Information, and certain fleet information, based on the prior year's submittal. The Auto Population option can save time and ensure naming consistency for your contacts and fleet(s) from year to year. Corrections and revisions may be made on the screen if needed. If you prefer to enter your data manually, you may skip this step.

Tool Screens and Data Entry

INTRODUCTORY SCREENS

Upon opening the Tool, you will see a **Welcome** screen indicating the Partner Name and the current Data Year for reporting.[5] Note the "Data Year" is the year the fleet and activity data correspond to, which is one year prior to the current calendar year. The **Welcome** screen is then followed by the **Is this the Right Tool for Me** screen which presents a series of questions about your company location and fleet operations to ensure you are filling out the correct SmartWay tool (see Figure 1 above). Importantly, if you broker out more than 20% of your total freight activity you must specify whether you will report that activity now using the OTT **or** using the online Logistics which will be available later in the year. If you choose to report your brokerage activity using this tool you only need to enter a single value representing your total brokered activity (in ton-miles, miles, number of loads, or dollars spent), requiring approximately 1 minute of time. However, in this case the OTT will apply "non-SmartWay" emission rates for your brokered activity, which are higher than the emission rates for SmartWay carriers.

You may also account for your brokered freight by filling out this tool for your own trucking operations AND the online Logistics Tool, where you will select and include all the SmartWay carriers you broker freight out to, as well as your own truck fleet. In this case if you do not complete a Logistics Tool on time, you will not be in good standing, your data will not be visible to your partners, and you will be removed from the SmartWay Partner List until the Logistics Tool has been submitted. The higher the percentage of your total freight brokered out to SmartWay partners, the higher the likelihood this option *may* improve your score. The estimated completion time for this option is at least one to four hours.

NOTE: if you are a multimodal carrier that has two or more of your own truck, barge, air, or rail fleets you will need to complete all your carrier tools first, and then complete a Logistics Tool later in the year to account for your combined/mixed operations. You should account for any brokered activity in the Logistics Tool as well, not this Truck Tool.

After answering the questions on the **Right** Tool screen, you may proceed to the next screen to review background material to orient you to the Tool. The background screens provide information on data gathering, tool help and navigation, and the SmartWay Partner Tool Schedule for 2023. These screens may be skipped if you are already familiar with the Tool.

HOME SCREEN

Data entry for the OTT consists of seven steps, shown on the **Home** screen. Complete the steps in order, using the **Save and Continue** buttons at the bottom of each screen to proceed through the Tool. When each step is successfully completed, a checkmark will appear on the **Home** screen.

[5] The Welcome screen also includes the OMB Control Number at the bottom of the screen. OMB numbers are form and information collection numbers assigned by the Office of Management and Budget, authorized under the Paperwork Reduction Act of 1980.

STEP 1: PARTNERSHIP AGREEMENT

Select Step 1 on the **Home** screen to display the **Partnership Agreement for SmartWay Carriers**. Review the details of the partnership agreement in the "What Is Included in The SmartWay Carrier Partnership Agreement?" section above. Users must agree to the Partnership Agreement to proceed to the next step.

STEP 2: COMPANY AND CONTACT INFORMATION

After agreeing to the Partnership terms, select Step 2 on the **Home** screen to proceed.

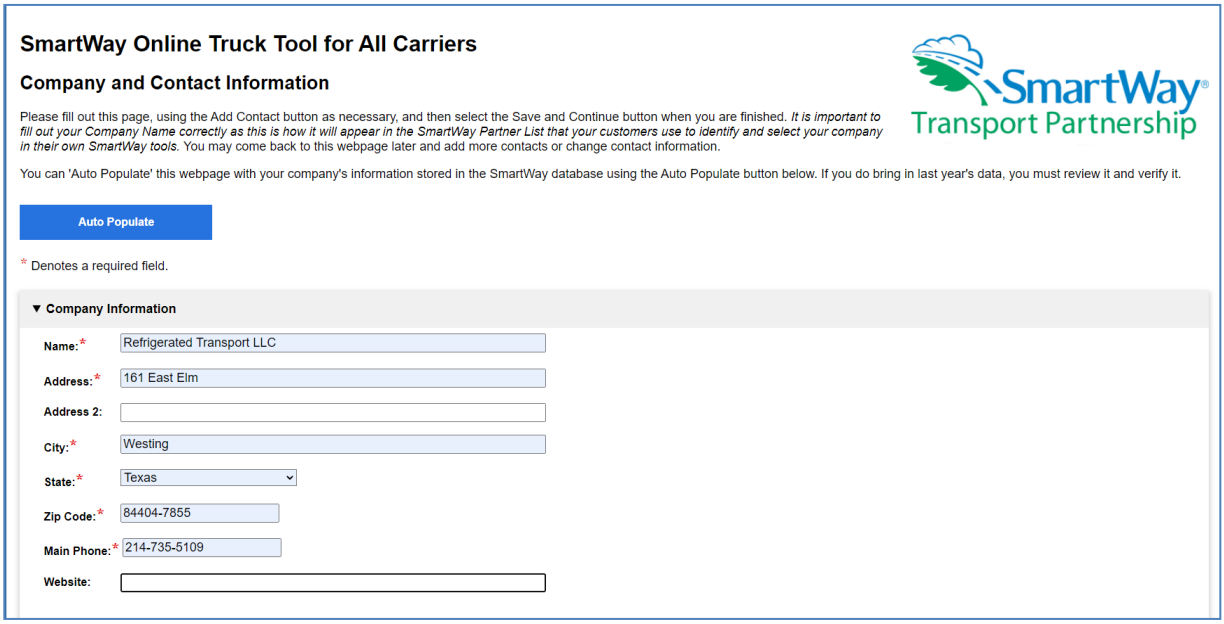
Existing partners may select the Auto Populate button toward the top of the screen to enter the information required for this screen. Otherwise begin by entering your Partner Name, the official name that your customers would recognize for your company—in other words, the name someone hiring you would look for.

Specify your company's official Partner Name, exactly as you want it to appear on the SmartWay website. For example, you may enter:

- ABC Company
- ABC Company, Inc.

Your company will be listed ***exactly*** as you enter it. Therefore, it is important to pay special attention to proper capitalization, abbreviations, annotations, and punctuation.

Figure 2: Company and Contact Information Screen



Each field marked with an asterisk must be filled out. You will not be able to submit the Tool to SmartWay without this information.

If you use the Auto Populate option, please review the Partner Name as it appears on the screen, revising as necessary.

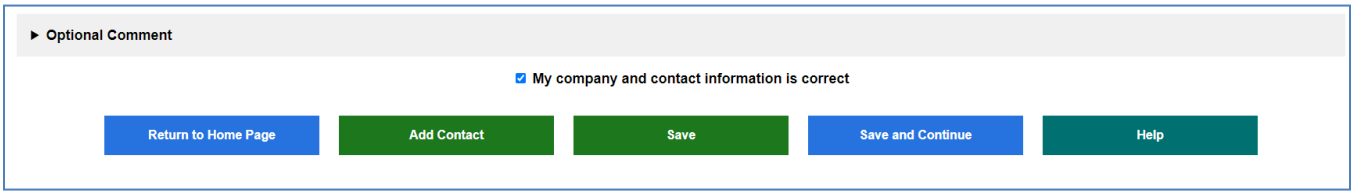
The Tool then asks for:

- **General company information** such as location, web address, phone number, etc.
- **A Working Contact** for any questions about your company's participation and Tool submissions. The **Working Contact** is the individual designated by the Executive Contact to directly interface with SmartWay regarding specific tasks involved in the timely submission of the Tool. The Working Contact is responsible for coordinating the assembly of information to complete/update fleet data; completing and updating the Tool itself; maintaining direct communication with SmartWay; and keeping interested parties within the company apprised of relevant developments with SmartWay. A primary Working Contact can also be the primary or an alternate Sustainability Contact, but you must indicate this by using the checkboxes in the Working Contact section. (NOTE: To ensure that e-mails from SmartWay/EPA are not blocked, new contacts may need to add SmartWay/EPA to their preferred list of trusted sources, often called the "Trusted Sender" list.)
- **An Executive Contact** for participation in recognition events and for authorizing participation in SmartWay. The **Executive Contact** is the company executive who is responsible for agreeing to the requirements in the SmartWay Partnership Annual Agreement, overseeing the Working Contact (as appropriate), and ensuring the timely submission of the Tool to SmartWay. The Executive Contact also represents the company at awards/recognition events. This person should be a Vice President or higher-level representative for the company.
- **Additional contacts (optional)** which may include alternative Working or Executive contacts, Sustainability Managers, Consultants, or other contacts, but may be involved with SmartWay (e.g., press/media contact, fleet manager, etc.). Select the Add Contact button at the bottom of the screen to enter this information.

Note that you MUST provide both Working and Executive Contacts, who must be different, to proceed. SmartWay recommends developing an internal succession plan to make sure that your Tool submission schedule is maintained and the location of SmartWay files are known, if a Working Contact is reassigned, or leaves the company for any reason.

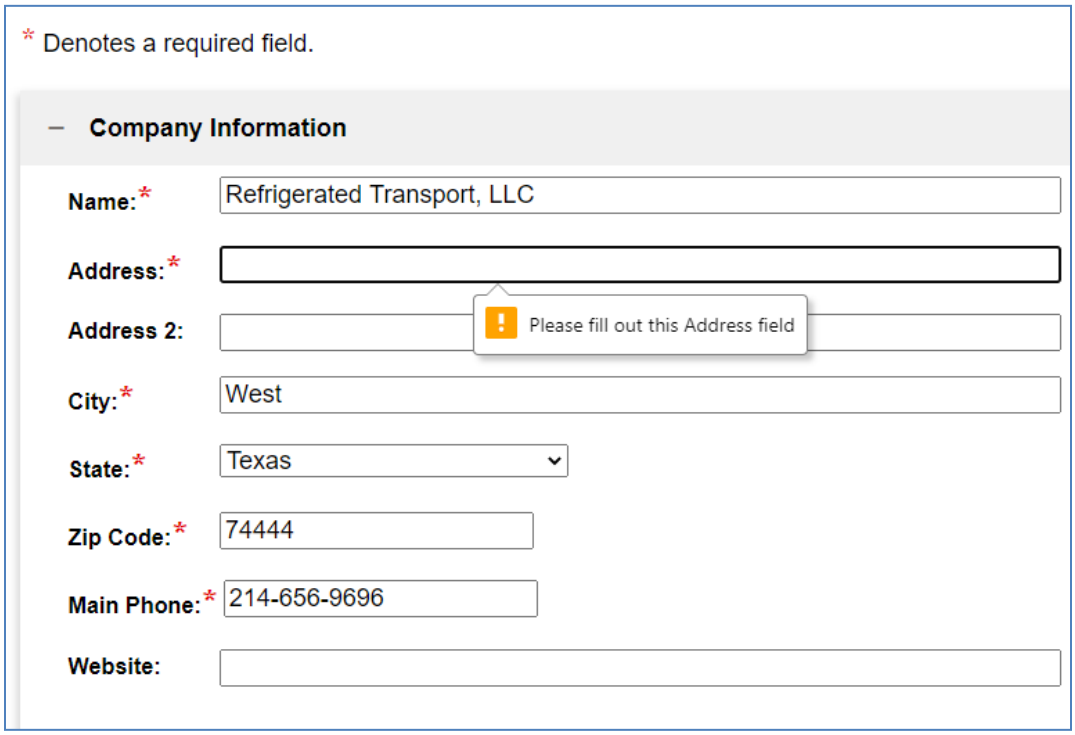
If you use the Auto Populate option, you still must review the Contact Information and revise your entries as needed. When complete, check the "My company and contact information is correct" box at the bottom of the screen.

Figure 3: Auto Population Confirmation Box



You must enter all required fields to proceed to the next step. If a required field is left empty, a message will appear next to the field asking the user to provide the information.

Figure 4: Missing Company and Contact Information Warning



This form also checks for proper formatting for certain fields (ZIP, phone, email) to ensure submissions are valid. Once all data fields are completed correctly, select **Save and Continue** to proceed.

STEP 3: CHARACTERIZE YOUR FLEETS

The OTT tracks fleet-level operations. Most carriers will only need to create one fleet.

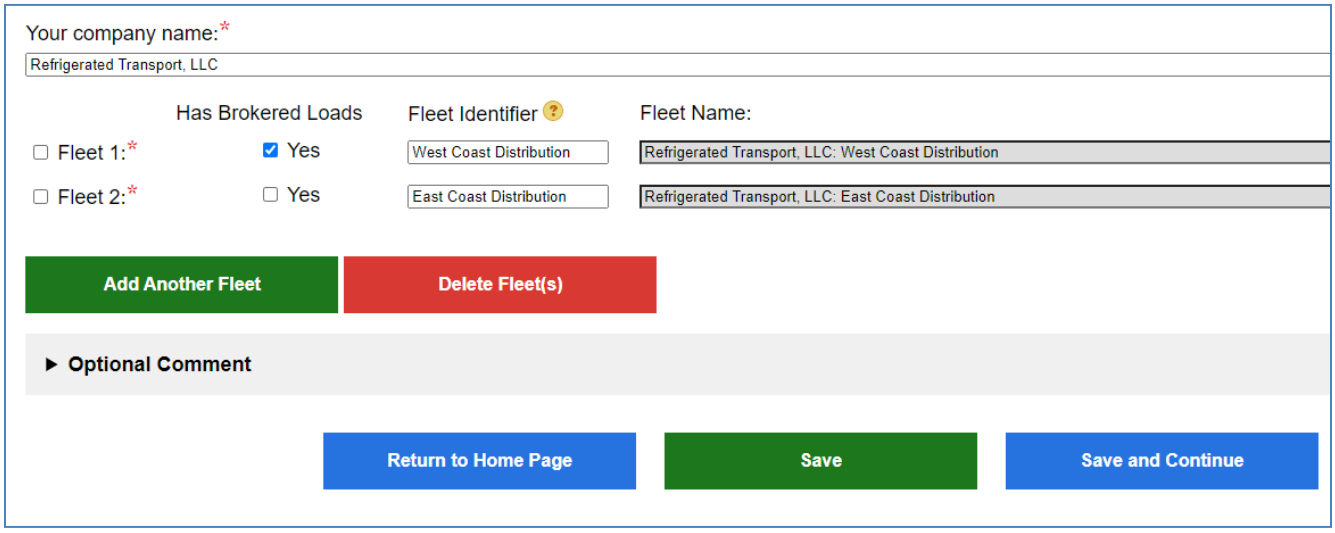
If you have multiple fleets that can be hired by customers, you should create multiple fleet records in the Tool and characterize their operations individually. You should not include internal company fleet definitions or designations—only separate fleets as they would be identified and hired by your customers. OTT users

may create up to 20 fleets. If you need to define more than 20, please contact your Partner Account Manager.

The **Fleet Characterization** portion of the Tool contains the sections listed below. Descriptions for individual entries can be displayed by selecting the question mark next to the data entry field.

- **Name your Fleet(s):** For each fleet that a customer can hire, provide names for each of your fleets. Each Fleet Name will begin with your Partner Name and will include a Fleet Identifier. Use a Fleet Identifier that is recognizable by your customers.
- **Has Brokered Loads:** Check this box if the fleet includes freight that is brokered out.

Figure 5: Fleet Name and Identifier



- **Fleet Identification:** Provide SCAC, MCN, DOT or NSC numbers for fleet identification. If you have a single fleet with multiple SCACs, enter all of them into the SCAC field, separating them with commas.[6] Fill out as many fleet identification fields as possible. At least one identifier is required. Double-check your entries as your customers use this information to find your fleet(s).
- **Operation Categories:** Provide a reasonable estimate of the fleet's split between truckload, less-than-truckload, dray, package delivery, and expedited operations. Percentages must sum to 100.
- **Body Types:** Provide a reasonable estimate of the fleet's split between the following body types. Percentages must sum to 100.
  - Dry van
  - Refrigerated (Reefer)[7]

[6] For SCAC-related questions see http://www.nmfta.org/Pages/ContactUs.aspx for NMFTA contact information.
[7] If you specify reefer body types in your fleet, you must also provide your reefer fuel use in the fleet operations section of the Tool.

- Flatbed
- Tanker
- Chassis containers (pooled and owned)
- Heavy/Bulk hauler
- Auto carriers
- Moving
- Utility[8]
- Special hauler (e.g., Hopper, Livestock, and other specialized carriers)
- NOTE: If you specify activity for Special Haulers, you must enter a description in the text box that appears below this option.

Fleet Type: Define the fleet as "For-Hire," "Private," or "Dedicated".

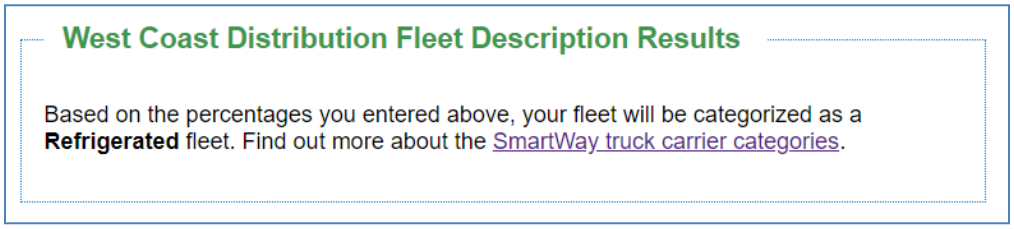
- For-Hire fleets provide truck transportation for cargo belonging to others and is paid for doing so. For example, ABC Trucking hauls freight for twenty shippers. Most trucking companies are for-hire companies.
- Private fleets are owned by a Shipper or Logistics Company. They may or may not include a for-hire component such as contracted back hauls. For example, XYZ Shipper owns XYZ Trucking that hauls freight for XYZ Shipper. All Private fleets (as well as those choosing to report brokerage in the OTT and/or identifying themselves as multimodal partners on the **Right Tool** screen) must answer two questions in the "Fleet Visibility to Customers" section of the **Fleet Description** screen specifying if the fleet will be selected by the partner in their online Logistics Tool or their online Shipper Tool. If the fleet designation is Private or "Yes" is selected for either of the questions in the Fleet Visibility section, the fleet will be designated as an "internal use only" (IUO) fleet that cannot be hired independently. IUO fleets will not be visible to other SmartWay partners in the public carrier listing and cannot be seen or selected by other partners in their Logistics/Shipper tools.
- Dedicated fleets contain a specific set of trucks provided by a for-hire fleet to provide service to a specific Shipper. Partners should only create a dedicated fleet if the Shipper requests that you do so in the SmartWay system, and you are able to separately track all the information necessary to fill out a SmartWay tool for that dedicated fleet. For example, ABC trucking has a set of trucks that are exclusively spec'd and configured for use by XYZ Shipper.

[8] The Utility category encompasses class 2b to 8b vehicles that do not carry typical commercial freight. Examples include garbage, recycle, service, work, dump, landscape, cement, bucket, boom, ambulance, armored, fire, farm, wrecker, and other similar trucks. Because these trucks do not carry traditional freight payload, the user should self-define their payloads to make the emissions per payload efficiency useful to the user. SmartWay will not use the emissions per payload results for the Utility category. Users may experience yellow or red warning labels on the Activity screen due to the unique nature of Utility "payload." In the case of red alerts, simply input text defining your special conditions in the required text boxes that appear.

- **Fleet Brokerage:** Partners that indicated they broker out more than 20% of their freight and would like to enter their brokered activity information in the OTT must indicate which specific fleets have brokered loads, along with the estimated annual brokerage activity level. Brokered activity may be reported in terms of ton-miles (preferred), miles, number of loads, or dollars spent. The OTT also requires a brief description of the data source(s) used to develop the brokerage activity estimate in the text box at the bottom of the section. If you prefer to enter your brokered activity in more detail, you may enter that information using the Online Logistics Tool available later in the year. **DO NOT enter your brokered freight data in both tools.**

After characterizing your fleet, the **SmartWay Category** designation for each fleet will be shown on the bottom right of the second screen, based on your **Operation** and **Body Type** selections. For example, SmartWay Categories include Truckload/Dry Van, LTL, Mixed, etc. Select the "SmartWay truck carrier categories" link for the fleet assignment criteria. Your fleet's performance will be measured against other carriers with the same category designation, so make sure you have characterized your fleet correctly before proceeding.

Figure 6: SmartWay Category Fleet Designation



If you selected the Auto Populate option for this section, you still MUST review the Fleet Characterization Information and revise your entries as needed. When complete, check the "My company and contact information is correct" box at the bottom of the screen.

STEP 4: ENTER FLEET INFORMATION

Next select the fleet name under Step 4 on the **Home** screen to enter detailed activity and fuel consumption data for each of the fleets you identified.

Fuel Type Screen

This screen asks you to provide information regarding fuel types used by your fleet vehicles. Select the fuel type(s) found in this fleet, including:

1. **Diesel:** petroleum diesel and/or biofuels (including biodiesel and renewable diesel)
2. **Gasoline:** conventional and reformulated gasoline, and 85% ethanol (E85)
3. **Liquefied Petroleum Gas (LPG):** also known as LP Gas, Liquid Propane Gas, and propane
4. **Liquefied Natural Gas (LNG)**

5. **Compressed Natural Gas (CNG)**

6. **Electric:** vehicles exclusively using battery electric power

7. **Hybrid:** vehicles with hybrid electric or hydraulic hybrid powertrains, using either gasoline or diesel. If you select hybrid, you must select the fuel type used by the hybrid truck fleet (diesel or gasoline).

If you specified any reefer body types for your fleet under Step 3, you must also identify which fuel types are associated with reefer operation.

You will be asked to enter operation data for each fuel type selected.

Truck Class Screen

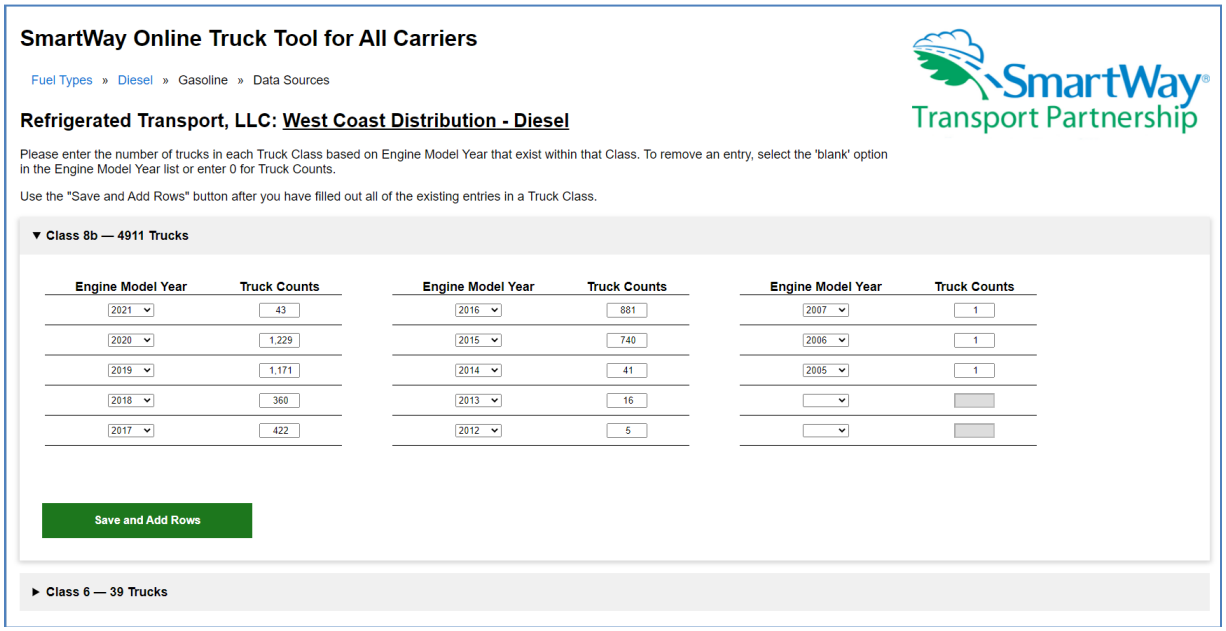
This screen asks you to identify the truck classes for each fleet/fuel type combination. All heavy-duty classes are available, from 2b through 8b.

Model Year and Truck Count Screen

This screen asks you to specify the number of trucks by engine model year for each fleet/fuel type combination. Click on the ">" mark to the left to open the data entry section for each truck class selected. When complete select the "-" mark to close the section. Model year selections range from 1988 to 2023.[9] If an engine was manufactured prior to 1988 select "<1988" from the pulldown menu. If you need additional data entry cells, select the **Save and Add Rows** button.

[9] For electric trucks, specify the motor model year.

Figure 7: Engine Model Year and Truck Count Screen



Mileage and Fuel Consumption Screen

This screen asks you to enter total mileage and fuel consumption estimates by truck class for each fleet/fuel type combination. Enter precise values wherever possible rather than rounded estimates. Fuel consumption estimates should include breakouts for biofuel and reefer fuel if applicable. Follow the instructions below to complete each section.

1. Enter the exact value for total miles driven collectively by this fleet by vehicle class. Include all out- of-route, positioning, empty, and other miles driven.
2. Enter the exact value for the revenue miles—the number of miles your fleet drove that were charged to a customer account.
3. Enter the exact value for the total number of empty miles traveled by your fleet.

Figure 8: Mileage Screen

Refrigerated Transport, LLC: West Coast Distribution - Diesel

Enter your distance and diesel consumption data below. Mileage, diesel used for engine power, and fuel used for refrigeration are all required. Biofuel is optional.

* Denotes a required field.

– **Enter Mileage:**

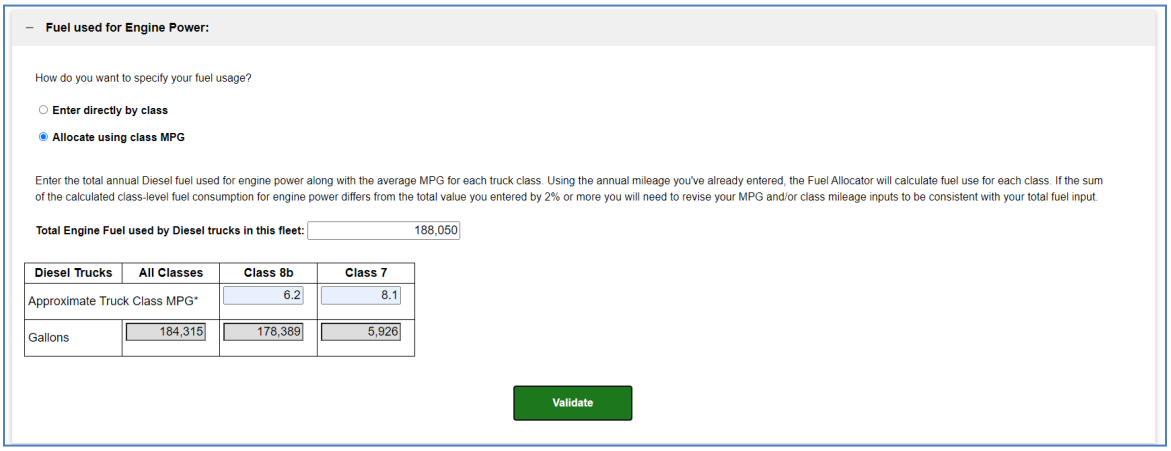
Diesel Trucks	All Classes	Class 8b	Class 7
Total Miles Driven*	1,154,537	1,106,013	48,524
Revenue Miles Driven*	935,613	900,117	35,496
Empty Miles Driven*	110,930	100,045	10,885
Number of Trucks		20	1
Miles Per Truck		55,301	48,524

Validate

4. Enter the exact value for the gallons of fuel used by your fleet for engine power in the reporting period, including any gallons for biofuel blends (biodiesel and/or renewable diesel for diesel vehicles, ethanol for gasoline vehicles).[10] You may enter separate values directly for each truck class. If class-specific consumption is unknown, you may distribute your total fleet fuel consumption using mile per gallon (MPG) estimates for each truck class as shown below. If the gallons calculated using class-level milage and MPG estimates is not within 2% of the total fleet fuel consumption entered, you will be required to revise your MPG and/or fuel consumption entries.

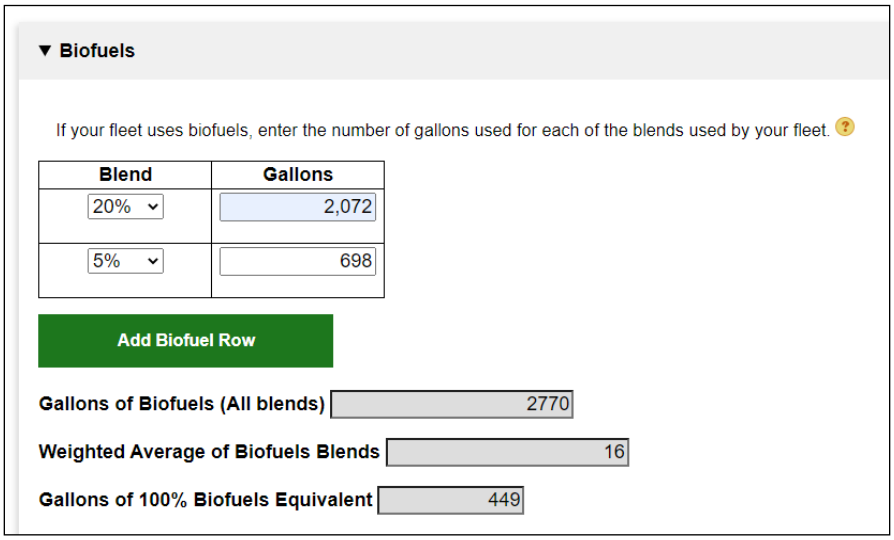
[10] Fuel consumption for CNG may be entered in units of gasoline gallon equivalents, diesel gallon equivalents, or cubic feet. Fuel consumption for LNG may be entered in gasoline or diesel gallon equivalents, physical gallons, or pounds. "Fuel consumption" for electric trucks is expressed in kWhrs rather than gallons.

Figure 9: Engine Fuel Use Screen



5. If the fleet used biofuels during the reporting year, open the **Biofuel** section and specify the gallons of biofuels consumed by blend level.[11] Use the **Add Biofuel Row** button if your fleet used more than one blend level during the year.

Figure 10: Biofuel Use Screen



6. If you specified reefer body types under the **Fleet Characterization** step, an input section for **Fuel Used for Refrigeration** will appear. Three options are available for entering reefer fuel consumption values:

   a. Enter directly by class - Enter the exact value for the gallons of fuel used by your fleet for refrigeration in the past 12-month reporting period in the spaces provided by truck class.

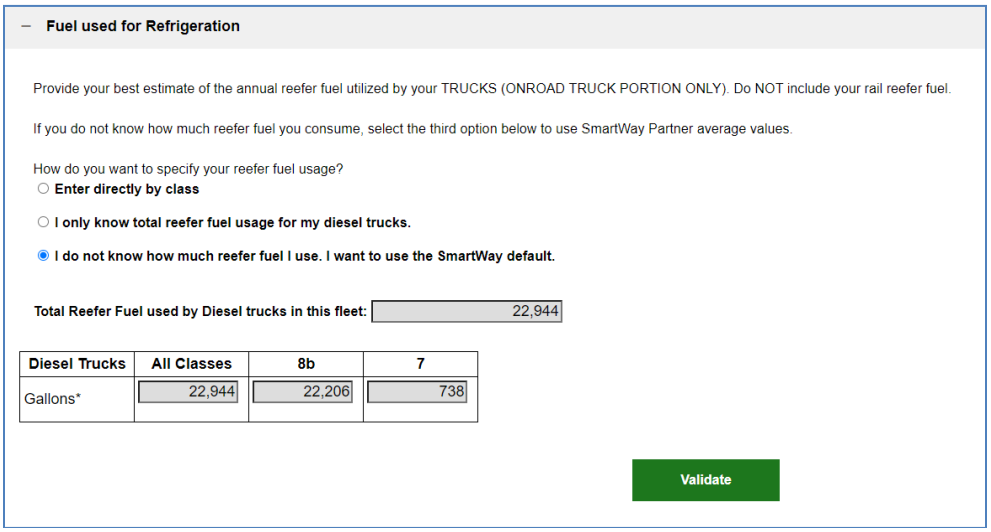
   b. Enter total reefer fuel usage for all trucks - Enter the exact value for the gallons of fuel used by

[11] The OTT includes an analogous screen for gasoline fleets, allowing the user to input gallons of E85 if needed.

all trucks in the fleet for refrigeration in the past 12-month reporting period in the space provided for all truck classes. The total will be distributed across your truck classes proportional to vehicle fuel consumed for engine power. This option will only appear if you specified more than one truck class.

c. Use the SmartWay default - Select this option if you do not know the amount of fuel consumed by your reefer units; the tool will automatically calculate your reefer fuel use based on the average percentage of total fuel used for refrigeration by other SmartWay partners.

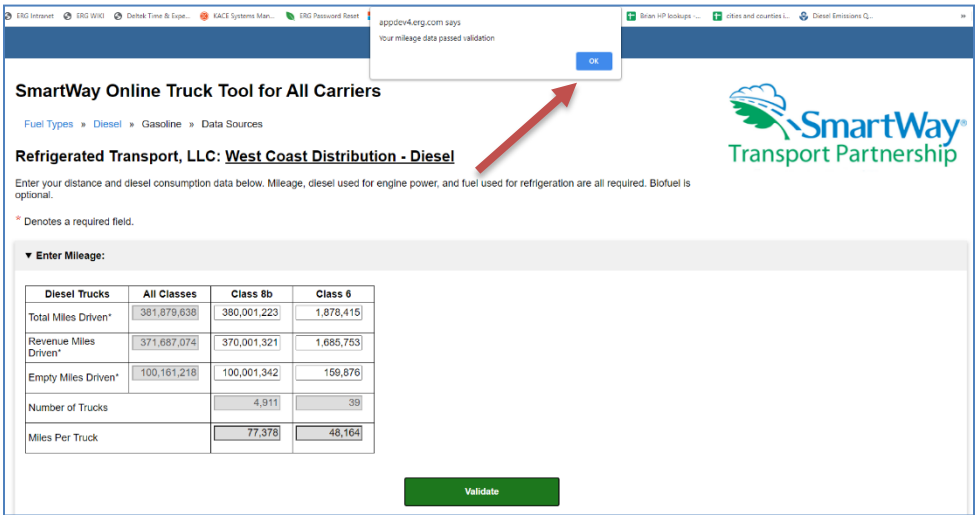
Figure 11: Reefer Fuel Use Screen



Only include truck reefer fuel; ***do NOT include rail reefer fuel in the Tool***. Diesel, LPG, LNG, CNG, and electric trucks are assumed to use diesel reefers, and gasoline trucks to use gasoline reefers. Hybrid reefer trucks are assumed to use that same fuel type for both engine and reefer power. Enter zero for any truck classes/fuel types that do not utilize reefer units.

Once each section is complete select the **Validate** button to check for missing or potentially erroneous values. A "popup" box will then appear at the top of the screen indicating if your entries passed validation or require further review/revision. Click on the **OK** button in the popup box to proceed.

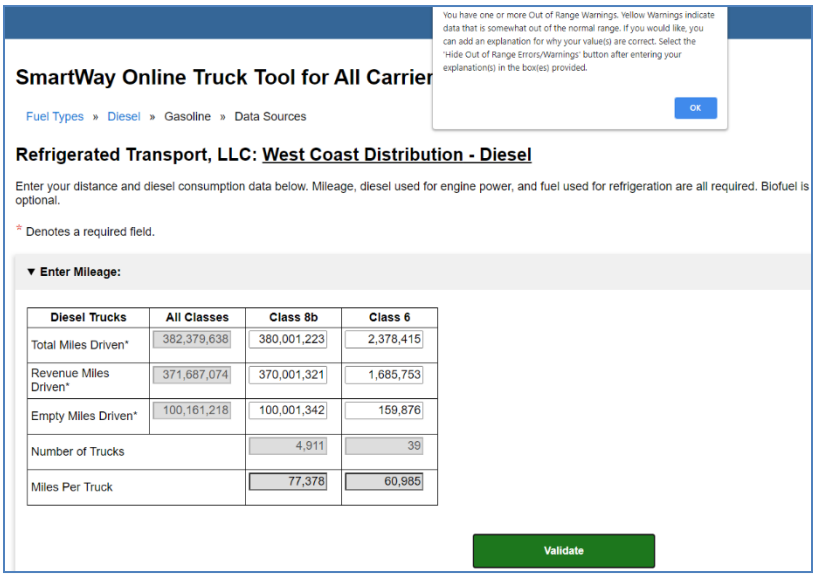
Figure 12: Validation Result Message



All required fields in the Tool are validated. Validation ranges are of three types:

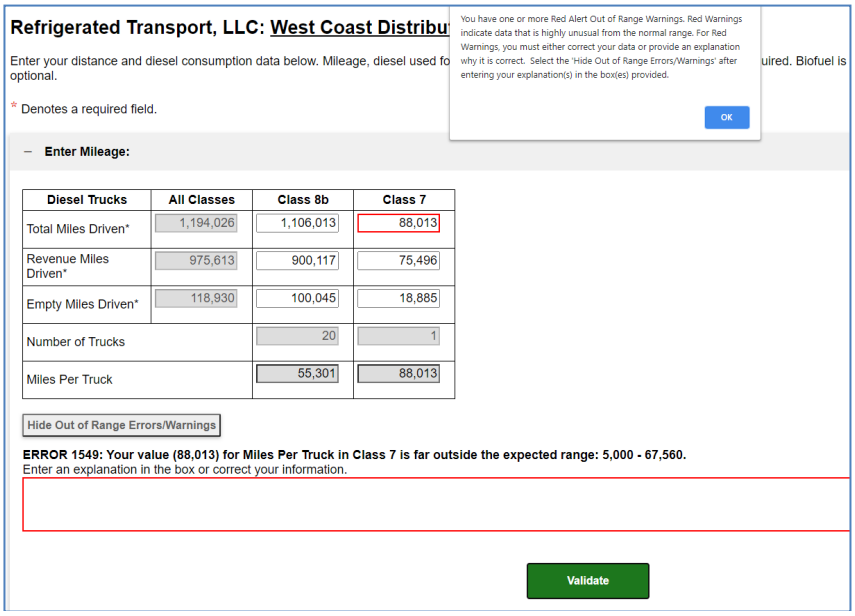
1. A yellow border indicates a "Yellow Alert" where the input or calculated value is notably lower/higher than the expected value. If the value is accurate the user may enter a short description explaining the reason for the entry, but this is not mandatory.

Figure 13: "Yellow" Alert



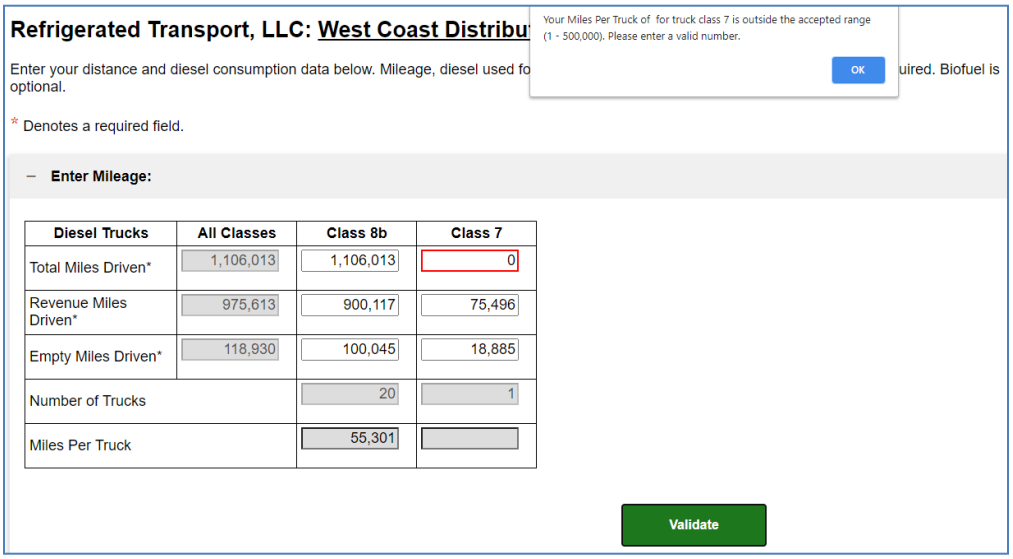
2. A red border indicates a "Red Alert" where the input or derived performance value differs greatly from the expected value. **In this case the user must enter text explaining why the value is accurate**. Once entered, the border will change from red to black on the screen.

Figure 14: "Red" Alert



3. "Absolute errors" exceed values deemed physically possible and must be changed to be accepted by the Tool. A pop-up will appear at the top of the page and the data field will be highlighted in red.

Figure 15: Absolute Error

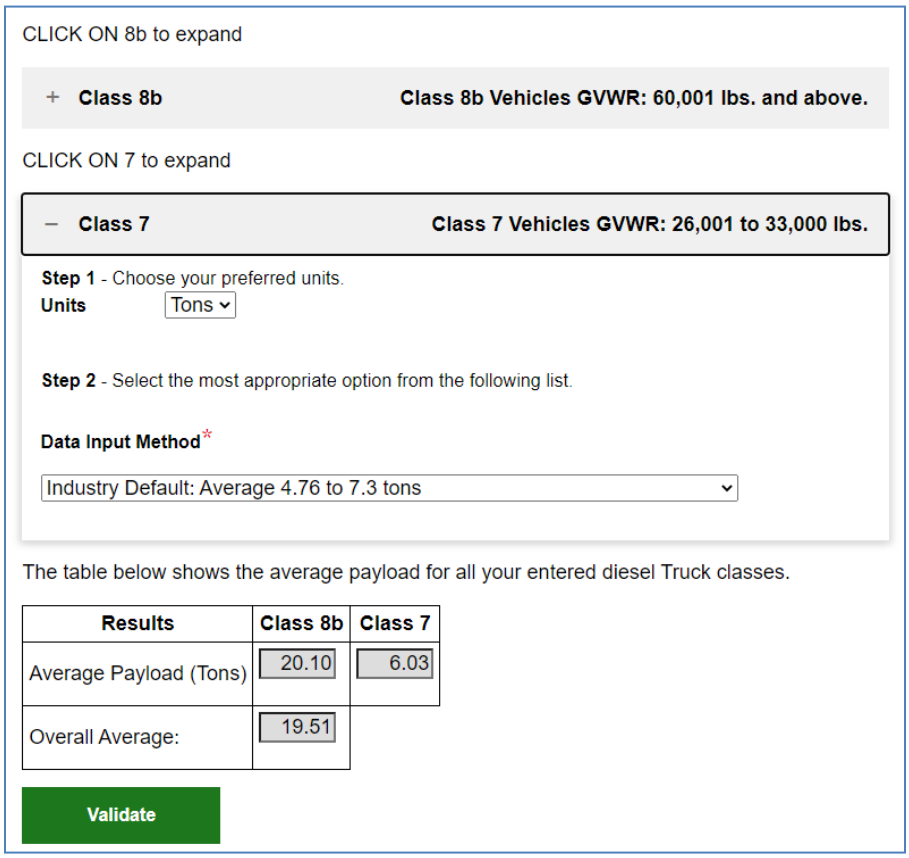


Similar validation checks are applied for payload and idle hour entries.

Average Payload Screen

This screen asks you to enter the average payload per vehicle for each fleet/fuel type combination, broken out by truck class. Default range estimates are available if exact values or your own estimates are not available. Payload can be reported in short tons (2,000 pounds) or pounds. Make sure to include any pallet and packaging weight in your payload estimates.

Figure 16: Payload Data Entry Screen



After entering the average payload for each truck class, select the Validate button at the bottom of the screen to determine if there are any possible errors to correct. If needed, correct your entries and/or enter comments in the popup text boxes to explain your inputs.

Urban Speed Distribution and Idle Hours Screen

This screen asks you to provide information on where and how your trucks operate. First enter the fraction of total miles occurring in urban areas (e.g., surface streets as opposed to restricted access highways) for each truck class. Then enter the percent of urban area operation associated with the three speed categories. If you do not have reasonable estimates for your trucks' speed distributions, select the checkbox above the data entry table to use SmartWay carrier averages.

Figure 17: Urban Speed Distribution Screen

– Urban Speed Distribution

To help determine your emissions, we need to differentiate between:

- **Urban/City Driving** (More stop and go traffic, slower speeds, more frequent accelerations)
- **Highway/Rural Driving** (More steady state speeds, fewer stops, and fewer heavy accelerations)

Enter the **percentage (%)** of **Urban/City Driving** below. (The remainder will be assumed to be Highway/Rural driving.)

	Class 8b	Class 7
Urban/City Driving:*	10	100

Next we need to determine your **average Urban/City speeds**. Enter the percentage of operation in each speed bracket below. These three speed bracket **percentages must add up to 100%.**

☐ **If you do not have good data for this information, check this box and we will use default values for your average Urban/City speed percentages below.**

Speed/Breakdown	Class 8b	Class 7
Urban/City Driving: Under 25 mph*	22	52
Urban/City Driving: 25 to 50 mph*	28	26
Urban/City Driving: Over 50 mph*	50	22
Urban/City Driving: Total Percent	100	100

+ Average Annual Idle Hours per Truck

Return to Home Page | Back | Save and Continue | Help

Next enter the amount of short and long duration idling and annual days of operation per vehicle, for each fleet/fuel type combination by truck class. "Long duration" refers to idling events of more than 60 sequential minutes. Once complete select the **Validate** button to confirm your entries.

Figure 18: Idle Hour Screen

+ Urban Speed Distribution

– Average Annual Idle Hours per Truck

Use this calculator to determine how much your trucks run at idle per year, on average.

- Enter the number of long and short duration idle hours your trucks run per day on average. (Long duration idle includes overnight, or continuous idle for longer than 60-minute intervals. Short duration idling includes idling at stop signs, in traffic, or short delivery stops.)
- Enter the average number of days per year that each truck is in service.
- The number of long duration idle hours per truck and the average number of days on the road cannot be zero.

Diesel	Class 8b	Class 7
Daily Long Duration Idle Hours per Truck (overnight and longer than 60-minute intervals)*	1.0	1.5
Daily Short Duration Idle Hours per Truck (includes idling at stop signs, in traffic, and short delivery stops)*	0.5	1.0
Average Number of Days on the Road per Year*	300	200
Average Annual Idle Hours per Truck	450	500

Validate

PM Reduction Technologies Screen

This screen asks you to identify any pre-2007 diesel engines that have received Particulate Matter traps, closed crankcase ventilation (CCV) systems, and/or diesel oxidation catalyst (DOC) retrofits (description provided below). If your fleet does not employ these devices, you may select **Save and Continue** to proceed. Otherwise open the section(s) associated with the devices (DOC, CCV, or PM trap) installed in your fleet. You will see rows for each engine model year reported prior to 2007. Enter the number of trucks equipped with the device for each model year.

Figure 19: PM Reduction Technology Screen

– **Diesel Oxidation Catalyst (DOC)**

	Total Trucks	Class 8b	Class 7
Totals:	1	1	0
2006	1	1	

– **Closed Crankcase Ventilation (CCV)**

	Total Trucks	Class 8b	Class 7
Totals:	1	1	0
2006	1	1	

– **Particulate Matter Trap**

	Total Trucks	Class 8b	Class 7
Totals:	0	0	0
2006	0		

DOCs are exhaust after-treatment devices that reduce emissions from diesel engines. Typically packaged with the engine muffler, DOCs are widely used as a retrofit technology because they require little or no maintenance. Engine manufacturers have used DOCs in a variety of applications for many years. DOCs consist of a precious metal coated flow-through honeycomb substrate contained in a stainless steel housing. As hot diesel exhaust flows through the substrate, the precious metal coating causes a catalytic reaction that breaks down pollutants. DOCs can be coupled with CCV systems, selective catalytic reduction, or lean NOx catalyst technologies for additional emission reductions.

In many older diesel engines, crankcase emissions, also known as 'blow-by', are released directly from the engine into the atmosphere through a vent or the 'road draft tube.' CCV systems capture the oil in blow-by

gas, return it to the crankcase, then redirect these gaseous emissions back to the intake system for combustion instead of emitting them into the air. Emissions will be further reduced if the CCV is paired with a DOC or particulate trap. CCV systems can help keep engine compartments and components clean and reduce oil usage. As EPA's 2007 Highway Heavy Duty Diesel rule requires that engine manufacturers control crankcase emissions as a part of overall emissions control strategy, most highway engines manufactured since 2007 come equipped with CCV systems.

Particulate Matter Traps, also known as diesel particulate filters (DPFs) are exhaust after-treatment devices that significantly reduce emissions from diesel-fueled vehicles and equipment. DPFs typically use a porous ceramic or cordierite substrate or metallic filter to physically trap particulate matter (PM) and remove it from the exhaust stream. DPFs can be installed on existing vehicles. DPFs may require special mounting or brackets as they are typically heavier than a conventional muffler or DOC. In addition, an electronic back pressure monitoring and driver notification system must be used with a DPF. DPFs use either passive or active regeneration systems to oxidize the PM accumulated in the DPF. Passive filters require operating temperatures high enough to initiate combustion of the collected soot. Active regeneration uses other heat sources, such as fuel burning or electric heaters, to raise a DPF temperature sufficiently to combust accumulated PM. In addition, filters require periodic maintenance to clean out non-combustible materials, such as ash. DPFs work best on engines built after 1995 and before 2007. DPFs can be coupled with CCV systems, selective catalytic reduction or lean NOx catalyst technologies for additional emission reductions.

Note, DOCs and Particulate Matter traps are mutually exclusive control technologies. The tool will not allow you to specify both technologies for the exact same trucks.

Data Sources Screen

Once you have finished entering the activity data for all your fuel types, proceed to the **Data Sources** screen. You will see four spaces to specify your data sources for total miles driven, gallons of fuel used (including biofuel and reefer), average payload (cargo weight only), and other data sources (including idle hours, and road type/speed distribution). Select the ? buttons next to each section for descriptions and examples showing comments, types of information, and the requisite level of detail you should provide.

After completing the data source entries, if your data sources are the same across all your fleets, select **Apply these data sources to all of my fleets** at the bottom of the screen to copy the entries to your other fleets.

To submit your tool to SmartWay, you must now complete the remaining steps on the Home page, including viewing reports and comparing this current submission to last year's submission.

Figure 20: Data Sources Screen

Data Sources for Total Miles Driven*

TMS data are collected for every trip with point to point mileage determined by GPS. The driver is required to key in start and end data for each trip into their handheld dispatch screen. For drivers that do not enter their data, a dispatch reconciliation process is conducted by the Dispatch Supervisor and keyed in before the trip is submitted for IFTA fuel tax calculations and payroll. Recorded start and end data are checked against driver logs on a trip-specific basis (by month) to ensure no mileage is missed. Total Mileage data from the two systems is reconciled to within a variance of less than 0.0005%.

Data Sources for Fuel Used, including Biofuel and Reefer if applicable*

All trucks are equipped with QualComm systems for electronic fuel/mileage reporting via the ECM. We run an annual report for the calendar year from our AS400 system where all data is recorded and maintained to report all mileages and fuel usage at the individual truck and trip level.

Data Sources for Average Payload*

We ran a detail revenue report including freight weights obtained from bills of lading, and our land analysis report (showing the precise number of loads over the calendar year). We then took the total weight for the year and divided by the total number of loads and converted to tons to calculate average payload per load.

Other Data Sources*

Idle Hours: "We used our dispatch software to report the number of loads per day and over the year to estimate total idle time during truck wash/load/unload periods. We then adjusted the idle time estimates for use of customer pumps when unloading, and for facilities with "no idle" policies (where applicable), reducing idle time."

Road Type/Speed Distributions: "Most of the loads in this fleet are hauled to facilities located outside urban cores, and directly off the highway or freeway. Using GPS records we determined that we drive approximately six "urban" (non-highway) miles for every load hauled by looking at the most common locations we load/unload

☐ **Apply these data sources to all of my fleets**

STEP 5: REVIEW YOUR INFORMATION

Before submitting your data to SmartWay you must review four reports to ensure the accuracy and completeness of your entries.

1. **Fleet Report** - This report shows the fleet identification, categorization, and activity information for a fleet. If you have multiple fleets, select a different fleet in the dropdown box and select the Run Report button.
2. **Emissions Report** - This report shows the estimated emissions for your fleet(s), excluding emissions (Scope 2) associated with charging battery electric trucks. You can run the report to display emissions at a variety of aggregation levels (e.g., by fuel type, fleet, or totals across all fleets).
3. **Out of Range Report** - This report shows any validation errors or warnings. If you have multiple fleets, select a different fleet in the dropdown box and select the **Run Report** button.
4. **Public Disclosure Report** - The information in this report has been reviewed by The World Resources Institute for conformance with the GHG Protocol Corporate Standard. This report includes direct vehicle emissions (Scope 1 emissions) as well as emissions associated with charging battery electric trucks (Scope 2 emissions).

After reviewing each report, a check will appear next to the report name. Once all reports have been reviewed select **Return to the Home Page** to proceed.

STEP 6: COMPARE TO PRIOR YEAR SUBMITTAL

This screen provides a side-by-side comparison of the data entered for the current reporting year with that for the prior reporting year (if available). Changes in identification fields such as contact names, phone numbers, SCACs, etc. are flagged with an "X". Changes in activity levels greater than 10 percent (Small Change) and 20 percent (Big Change) are flagged for attention. After reviewing you may return to prior screens to revise your fleet inputs if needed.

After reviewing the Comparison Report, return to the **Home** screen.

STEP 7: SUBMIT YOUR INFORMATION TO EPA

Review the declaration text and check the box indicating you understand and agree to the terms of the agreement. After submitting your SmartWay data, a confirmation screen will appear with information regarding next steps. You should receive an email shortly letting you know if your data passes final review. If you do not receive an email, please check your SPAM or Junk Mail folder to make sure the email was not placed there by your email application.

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https://www.epa.gov/transportation-air-pollution-and- climate-change