Instructions for Submitting
Technology-Specific Information for Idling Reduction Technology for Trucks

Submitting this information is part of the SmartWay verification process. Please make sure to review the additional requirements and steps on the website.

If you have any questions, contact the Technology Assessment Center (Tech\_Center@epa.gov).

# Requirements for Verification

To be verified, the product must be fully presented, all aspects of the product must be disclosed and documented to EPA and the device must also be installed in accordance with verification criteria.

The device must be:

* Designed for Class 8 long haul heavy duty tractor trailer with a sleeper cab;
* Able to provide idle reduction service for no less than eight hours; and
* Currently commercially available.

# Confidential Business Information

If any of this information is considered confidential business information (CBI), please label it as confidential. If you include CBI in your application, please also provide an additional copy of your application with the confidential information removed. If an item below is not part of or related to your technology please indicate it is not applicable, “N/A”. If components are supplied by other manufactures, please indicate your supplier(s) and if they are EPA verified.

# Qualifications

In order for your product(s) to be evaluated for possible inclusion on EPA’s idling reduction technologies list and/or the federal excise tax exemption list, you must provide the documentation below:

## Signed Documentation

To be qualified for verification, you must submit signed documentation to verify you are either the original equipment manufacturer (OEM) or authorized representative of the OEM therefore responsible for the design and performance of the device or system to be verified. Only the OEM or authorized representative of the OEM may apply for verification. Vendors do not qualify for verification. The device or system will be listed under the OEM company name with the specific model of the device within the category for which it has qualified for verification (i.e., auxiliary power unit, fuel operated heater, battery air conditioning system, thermal storage system or electrified parking space/truck stop electrification). The OEM or representative is the primary point of contact and responsible for all related verification, performance and legal requirements and responsibilities.

Please provide any applicable licenses, registrations or certifications to do business in the United States of America, the number of years in business, a brief business history in this field as well as the locations, service centers or dealerships where your device or system is to sold, rented, leased and serviced. Please provide any applicable web site addresses for your device.

## Declarative Statement

U.S. Department of Transportation regulations require that:

***Motor carriers must ensure that all devices installed on Commercial Motor Vehicles conform to the Federal Motor Carrier Safety Regulations, 49 CFR 393, Parts and Accessories Necessary for Safe Operation. Those regulations of particular concern to users of Auxiliary Power Units are contained in Section 393.28, Section 393.30, and SubPart E of Part 393. These requirements dictate the specifications of installation of wiring and fuel systems for equipment.***

Please provide a declarative statement signed by an officer of your company as to whether or not your device complies with the above and any applicable USDOT requirements. As applicable, each device to be considered for verification must meet this qualification. The statement should include the name and model and any distinct applicable alpha-numeric identification for each device or system to be considered for verification.

## Technical and Performance Summary Information

Provide the technical and performance summary information requested below (as applicable):

Provide the information required in the summary table format as follows:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Company/ Model** | **Product Type** | **Diesel Engine (as applicable)** | **Electrical Output** | **Heats Truck****Engine Coolant** | **Air Conditioning****Output (Btu/hr) /Duration** | **Heat****Output****(Btu/hr)/Duration** | **L x H x W****(inches)****Weight (lbs)** | **Retail Cost/ Term of Warranty** |
|  |  |  |  |  |  |  |  |  |

Provide a brief written description (no more than 1-2 paragraphs) of each device or system to be verified, include a brief overview its capabilities, operation, installation requirements and any available options. Specify the product(s) type:

1. **Auxiliary Power Unit (APU; diesel-fueled) and/or Generator Set (Gen Set),**
2. **Fuel Operated Heater (FOH; a.k.a., Direct Fired Heater),**
3. **Battery Powered Air Conditioning System (BAC) (or Battery Powered APU),**
4. **Thermal Storage System (TSS), or**
5. **Electrified Parking Spaces (EPS; a.k.a., Truck Stop Electrification or TSE or “Shorepower”).**

Additionally, as applicable, provide information on the length of time your product provides heating (at 32 degrees Fahrenheit, ambient) or cooling (at 102 degrees Fahrenheit, ambient) to either the sleeper bunk and/or cabin of the tractor and/or engine coolant or preheating.

# General Device Information

1. Please provide a complete and full description of the device or system to be verified. For a product to be verified, it must look, operated and perform as described and documented to EPA. If any of the information supplied to EPA is considered confidential business information (CBI), please label it as such (see the information above on CBI). If you include CBI in your application, please also provide an additional copy of your application with the confidential information removed.

2. Provide the typical payback time for this device (i.e., the ROI/ return on investment) for the device or system to be verified.

3. Indicate or provide a flow chart of how the device or system is being distributed in the U.S. including a list of the dealerships and/or service facilities in the U.S. Indicated in the flow chart how any required maintenance or warranty services are being provided and honored (or when these plan to be provided) to potential buyers. Indicated any and all consumer services and protections you have available for buyers.

# Test Data, Specifications and Operations

If an item below is not a part of or related to your technology please indicate it is not.

## Test data

Please provide fuel savings and emissions reductions test data, preferably from an EPA 1065 compliant laboratory or test facility, related to this technology, including all configurations, applications and available options to be verified:

1. Indicate if actual in-use (i.e., on road) or lab (i.e., environmental test chamber) tests were conducted including the test conditions, number of test runs and results; also include ambient, chamber and vehicle temperature, humidity levels, solar loading and accessory or hotel loads tested with and without air conditioning and/or heating, with and without any applicable after treatment, noise level tests in and outside of vehicle, and any other relevant test data and conditions.
2. Include the name and location of your test facility, type of testing and equipment used, methodology used, any applicable standards, test sequence data, emissions and fuel measurements, type of test vehicle(s) used including the model year(s), and indicate the soak time/engine speed (e.g., PEMS, PFD system, hot and cold ambient, de-greening and warm-up periods, as applicable, engines with or without SCR or EGR, SAE J1321, SAE J1503; fuel flow meter, gravimetric or carbon balance method to test for fuel consumption - where there are issues such as pulsation of flow measurements, back pressure, etc.).

1. Provide test data or other information that provides an estimate of the fuel savings (i.e., gallons per hour) and emissions reductions achieved including for PM, NOx, CO, CO2 and HC as well as energy performance tests, as applicable. Indicate if any engines used are road or non-road and if they are EPA or CARB certified as required.

1. Indicate if a Type I test was conducted to demonstrate the difference between a vehicle with and without your system.

1. Indicate if you followed the "APU-model" and verified the benefit(s) of a representative device relative to a representative baseline? How does you device compare to a typical APU which requires diesel fuel combustion?

## Specifications

Please provide a complete list all relevant parts and components and how they each relate to the function, performance and durability of the device or system. Please include a brief scientific analysis on how your device or system reduces emissions. If components are supplied by other manufactures, please indicate your supplier(s) and if they are EPA verified or certified as required:

1. If the engine or other components are EPA or California Air Resources Board (CARB) certified, please provide all the relevant certification supporting and qualifying information related to those processes.
2. Include diagrams, photos and/or illustrations of your device or system including the full and complete installation and service manual. Include the device and system dimensions and total volume, size charts for different engine sizes, horse power and Tier level ratings, and materials used in construction, operation and service of the device and system.
3. Include if the device or system is "vehicle based" (i.e., performs the same in any class 8, heavy duty, long-haul tractor with a sleeper cab) or is it “integrated,” (i.e., integrated to a specific vehicle or model of vehicle in such a way that it cannot be moved to another vehicle) and/or will there be significant differences in design, function, performance, and service based on factors such as the size of the sleeper bunk and/or cabin, height of the roof, with or without a bunk curtain, with or without an insulated curtain or windows or other differences in between various tractor or truck model years, designs and/or configurations.

## Operations

Include all applicable measurements including how many Btu/hr, Kilowatts hr or Hz , gal/hr, hp/horse power, as applicable are delivered for heating and/or cooling, additional electricity for hotel loads and other basic accessory power needs such as a mini-refrigerator, television, microwave, computer, etc. and for how long/duration. Provide information on the amount of time or continuous service the unit can provide under normal operation conditions (i.e., the conditions to which the device or system was designed to operate and perform) and indicate if there are operating conditions that exceed the maximum capacity of the device.

Additionally for devices or systems with electronic control units, please provide the following:

1. Detailed description of all electronic strategies, algorithms, look-up tables, and identification of all inputs and outputs to applicable control unit.
2. Complete description of the monitoring system(s) and indicate if the monitoring system is included with each installation. (EPA may require a monitoring system with each installation if deemed appropriate).

# Verifying the Accuracy of Information Submitted

Note: The information submitted must be accurate, verifiable, and associated with the devices and or systems submitted for EPA verification. If any of the submitted information is found to be inaccurate or incomplete the products may be removed from further consideration for verification. Intentionally submitting false information to the U.S. government is a criminal violation of the False Statements Act, Title 18 U.S.C. section 1001.