## U. S. Environmental Protection Agency Diesel Emissions Reduction Act (DERA) Grant Program Supplemental Application Template

### Burden Statement for EPA Form: 5900-681

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#### Instructions

Per grant agreement terms and conditions, this reporting template should be submitted 1) quarterly (or biannually, depending on the grant's Terms and Conditions) throughout the project period of performance and 2) a Final Report (120-days after) the completion of the grant period. Information that is submitted on quarterly (or biannually, depending on the grant's Terms and Conditions) reports should NOT be changed in future quarterly (or biannually, depending on the grant's Terms and Conditions) report submissions unless approved by EPA. Please only update information for the specific quarter (or biannual, depending on the grant's Terms and Conditions) in which this report is being submitted. The grant recipient only needs to fill out shaded cells highlighted blue with a diagonal pattern (///). Cells highlighted orange are simply for informative purposes and/or automated from other tabs in this spreadsheet. Please complete tabs in this workbook according to the instructions below.

Note: This workbook uses a variety of conditional formatting, data validations, and cell protections. The protections are not locked with a password.

Excel Workbook <u>Tab</u>	<u>Definition</u>
1. Instructions	Basic instructions for all worksheets in this reporting workbook.
2. Fleet Description	The tab should be completed based upon the proposed workplan fleet sheet submitted as part of the DERA application. Please refer to additional information on field definitions in tab 4 (Data Dictionary).
3. Infrastructure	The tab should be completed based upon the proposed workplan submitted as part of the DERA application. Please refer to additional information on field definitions in tab 4 (Data Dictionary).
4. Data Dictionary	Please refer to the dictionary on this tab for support in completing the Fleet Description (tab 2) and Infrastructure Description (tab 3).

# U. S. Environmental Protection Agency Diesel Emissions Reduction Act (DERA) Grant Program Fleet Description

INSTRUCTIONS: This Fleet Description should detail all vehicles and engines impacted under the project. The fields below align with EPA's Diesel Emission Quantifier (DEQ), a requirement for the application posseription is broken into two sections: 1) Current Vehicle and Engine Information and 2) New Vehicle and Engine Upgrade Information. All rows of data are required, unless specified as not being applicationary) for additional guidance on each field.

Each vehicle/engine group column below can represent one or more similar pieces of equipment operating in the same fleet. You can copy and paste additional columns as needed to capture all vehicle Note: Individual marine vessels must be listed in separate vehicle/engine group columns. If both auxiliary and propulsion engines on an individual vessel are part of a project, these different engine type \*Fields that contain the symbol (\*) will not populate dropdown options until preceding field is selected.

Table 1. CURRENT	VEHICLE AND EN	GINE INFORMATION	1							
Table 1a. Basic Fle	et Information			Table 1b. Curre	nt Vehicle Infor	mation				
Vehicle	Group Name	Fleet Owner	Publicly or Privately Owned (select from dropdown)	Equipment Type (select from dropdown)	*Target Fleet (select from dropdown)	Vehicle Class (onroad vehicles, as defined in data dictionary)	Vehicle or Engine Group Sector	Vocation	Vehicle Identification Number (VIN) (Use Capital Letters)	
Example Vehicle	Sample	Company A	Publicly Owned	Onroad	Transit Bus	Class 6	Municipal	Other	1234567891011	
Vehicle 1 Vehicle 2 Vehicle 3 Vehicle 4 Vehicle 5 Vehicle 6 Vehicle 7 Vehicle 8 Vehicle 9 Vehicle 10 Vehicle 11 Vehicle 12 Vehicle 13 Vehicle 14										

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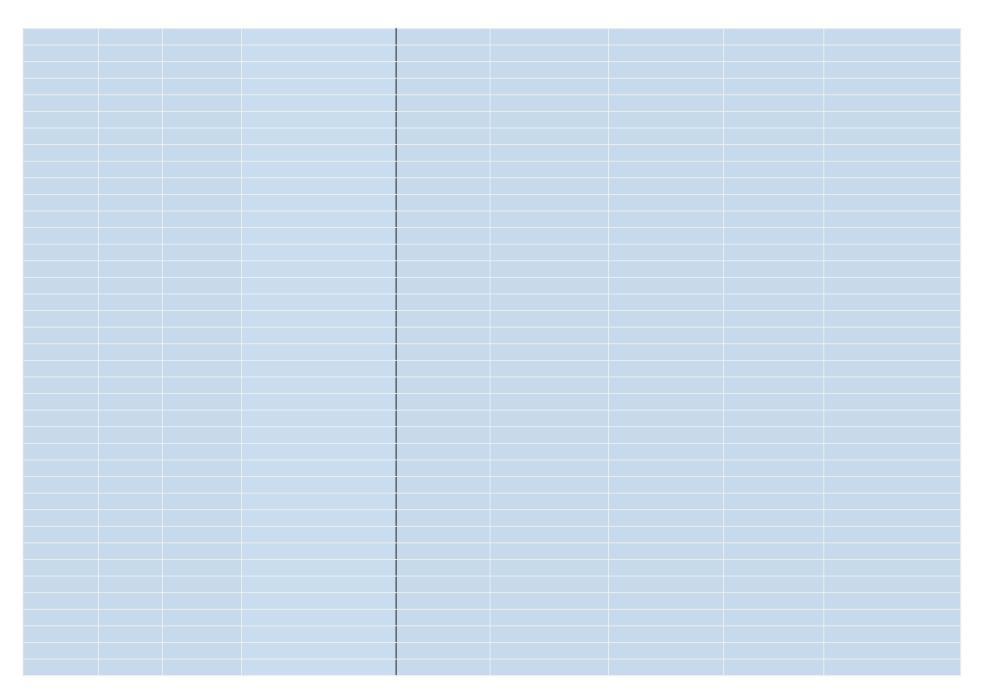
ation, workplan, and final reports as part of program grant requirements. The Fleet Description should be updated quarterly with all vehicle and engine upgrades completed. This Fleet cable to the Equipment Type or Target Fleet. These exceptions are highlighted in parentheses in the table below. Please refer to the Fleet Description data definitions on tab 4 (Data

e/engine groups. Please indicate in the Financial Information row the fiscal year of funds used for the activity described within the table. es must be listed in separate vehicle/engine group columns.

				Table 1c. Current	Engine Information		<u> </u>	
Vehicle Make	Vehicle Model	Baseline Vehicle Model Year	Baseline Vehicle GVWR (if original vehicle replaced)	Engine Serial Number(s)	Engine Make	Engine Model	Engine Model Year	Engine Tier (nonroad, locomotive, and marine only)
Ford	Taurus	1994	16,001	4548154	ABC	ABC	1995	Tier 2

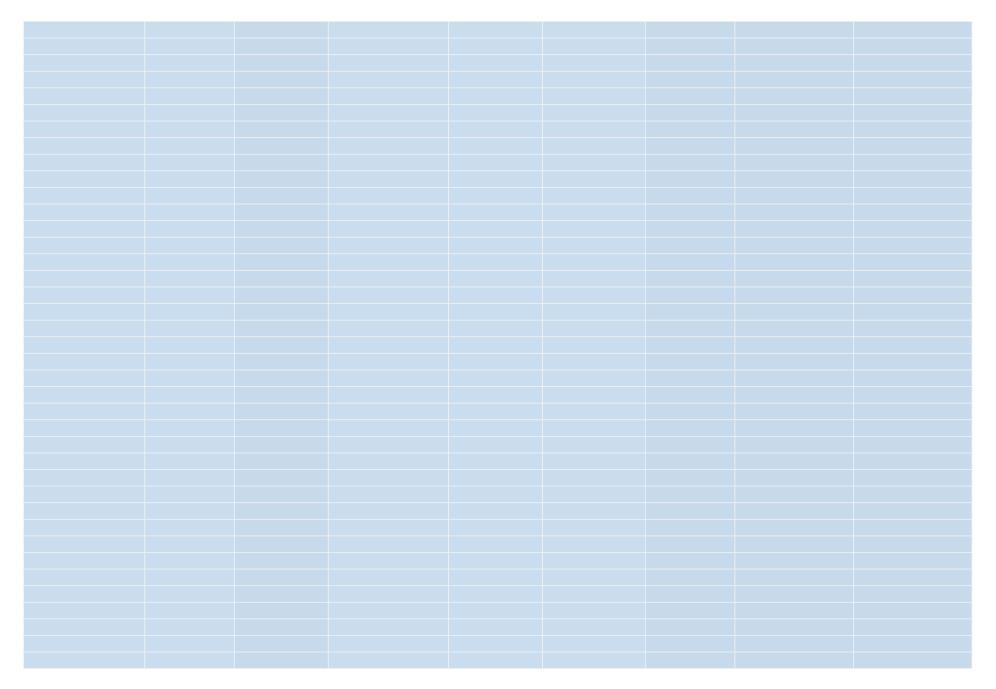
2. Fleet Description Page 6 of 110





<b>Tier 4 Standards</b> (Tier 4 only)	Engine After- Treatment Technology (Tier 4 nonroad only)	Engine Horsepower	Engine Cylinder Displacement (liters/cylinder; marine only)	Engine Number of Cylinders (# of cylinders per engine; marine only)	Engine Total Displacement (liters per engine; marine only)	Engine Family Name (if unregulated, then N/A)	Baseline Engine Fuel Type (select from dropdown)	Total # of Propulsion Engines (per vessel; marine only)
N/A	No DPF, Yes SCR	660	5.0 <= size <15.0	N/A	N/A	N/A	ULSD (diesel)	N/A

2. Fleet Description Page 10 of 110



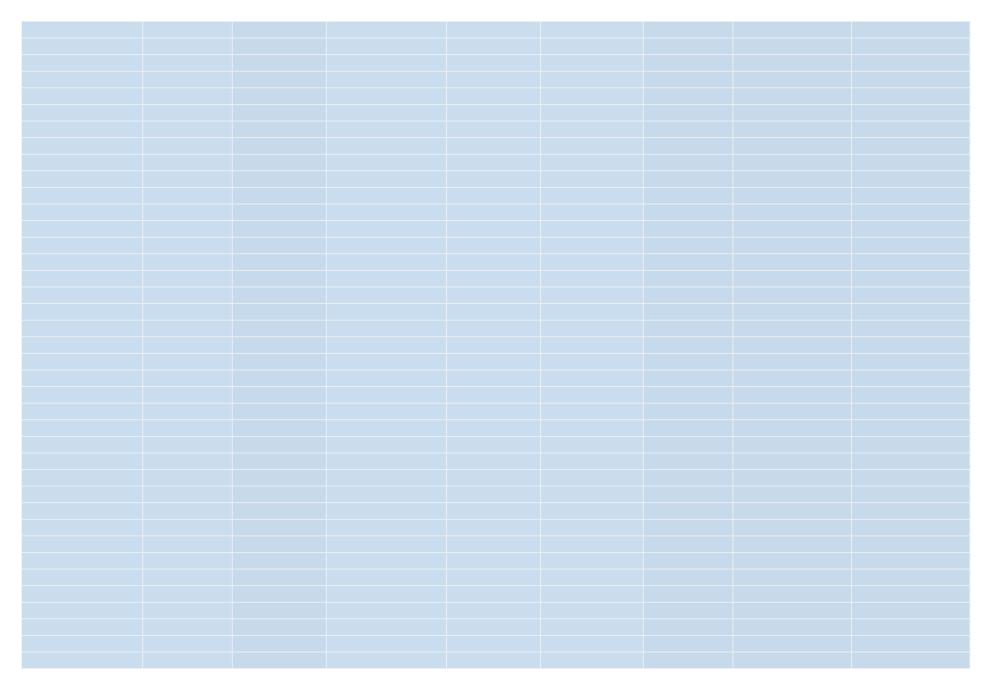
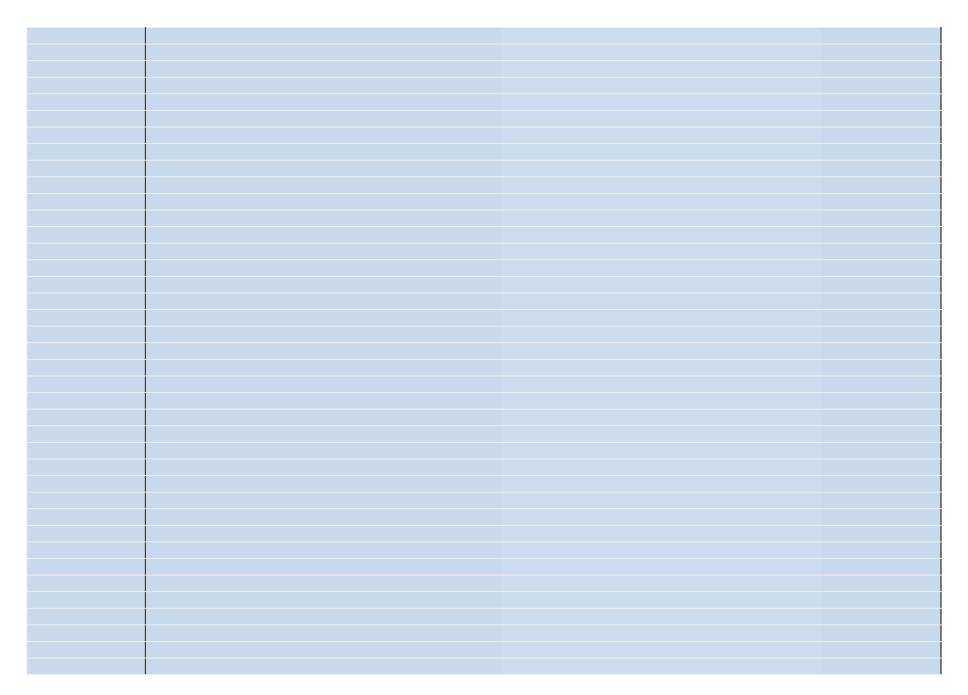
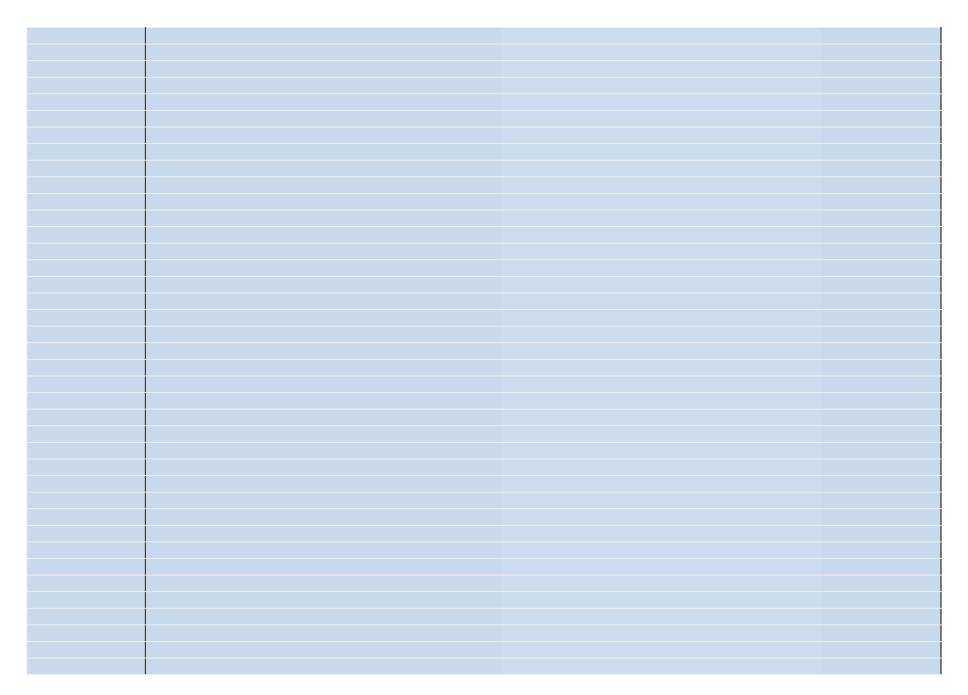


	Table 1d. Current Ann	ual Vehicle Activity Da	ta				
Total # of Auxiliary Engines (per vessel; marine only)	Annual Amount of Fuel Used (gallons/year per engine for nonroad and marine; gallons/year per vehicle for onroad and locomotives)	Annual Usage Hours (hours per year per engine; includes idling hours; nonroad, locomotive, and marine only)	Current Odometer (in miles)	Annual Miles Traveled (miles per vehicle; on- highway only)	Annual Idling Hours (hours per engine; on- highway only)	Annual Hoteling Hours (hours per year per engine; class 8 long-haul combination only)	Remaining Life of Baseline Engine/Vehicle (years per engine; total # of years of engine life remaining at time of upgrade action)
N/A	6000	3000	150000	12000	1500	N/A	3

2. Fleet Description Page 14 of 110



2. Fleet Description Page 15 of 110



2. Fleet Description Page 16 of 110

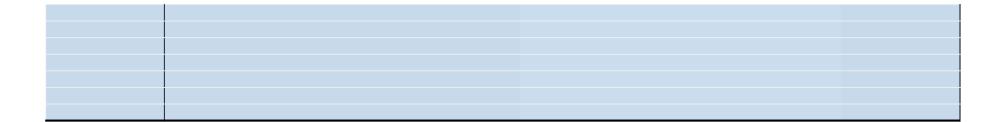
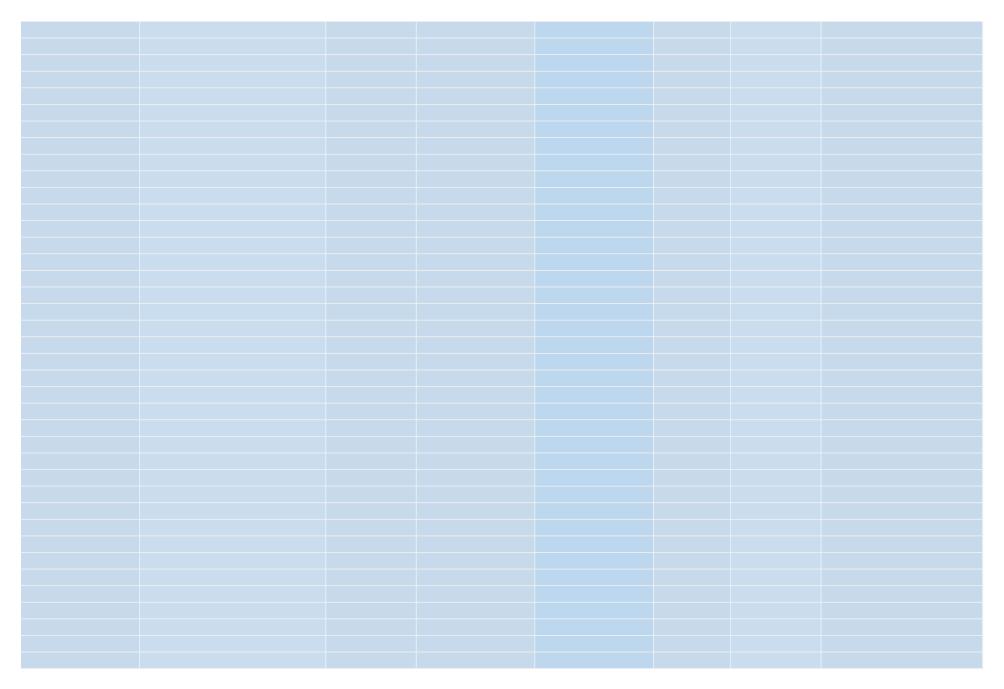
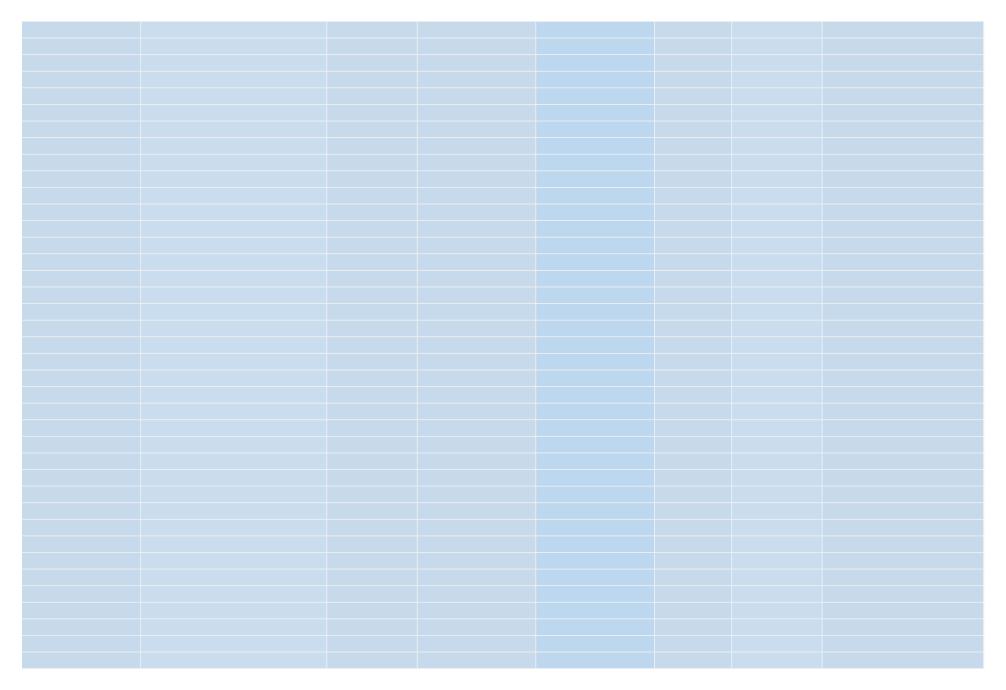


Table 1e. Place of Perfo		e of Performance					Secondary Place of Performance
<b>State</b> (select from dropdown)	*County (select from dropdown)	City(s)	Percent of Time Operated in County (enter value 0-1)	Zip Code(s)	State (select from dropdown)	* <b>County</b> (select from dropdown)	City(s)
AZ	Maricopa County	Phoenix	85%	85364	AZ	Yuma County	Yuma

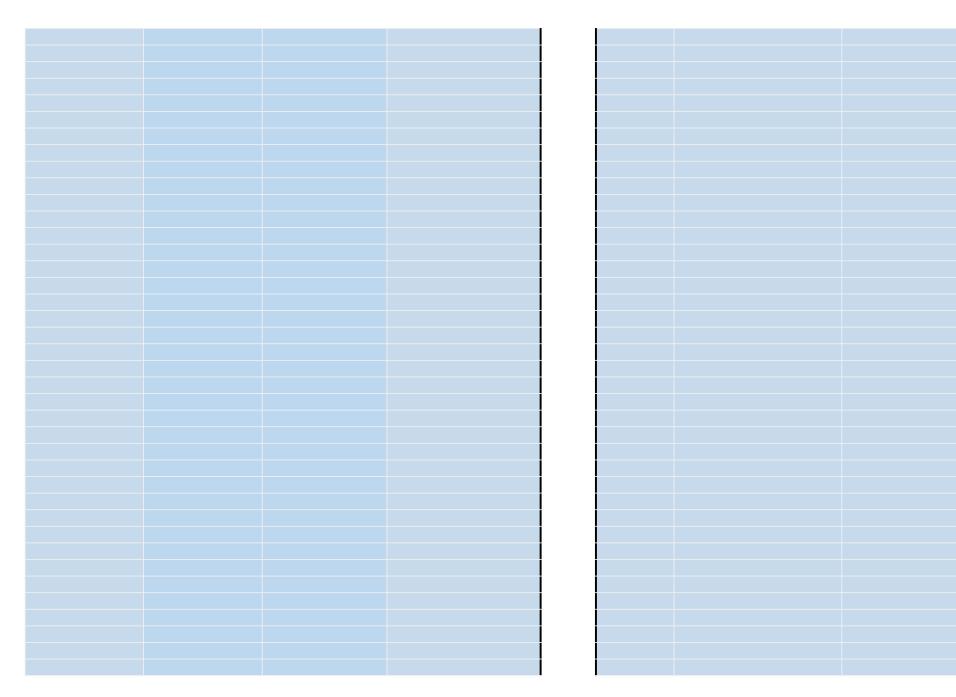




(if applicable)		Additional Location	Additional Location Details (if applicable)			
Percent of Time Operated in County (enter value 0-1)		Additional Counties where Vehicle Operates	% of time operated in each Additional County			
15%	85364	Pima County, AZ; La Paz County, AZ	5% in Pima; 5% in La Paz			

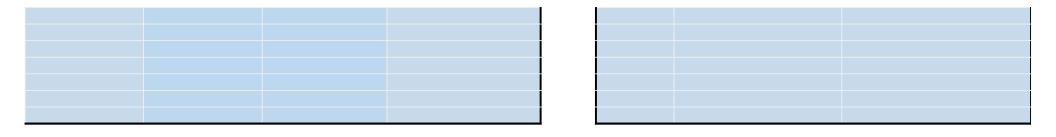
Table 2. NEW VEHICLE AND ENGINE UPGRADE INFORMATION  Table 2a. Upgrade Information							
ear of Upgrade Action	<b>Upgrade Type</b> (select from dropdown)	*Upgrade Specific (select from dropdown after selecting Upgrade Type)					
2018	Emission_Control_Devices	Diesel Oxidation Catalyst + Diese Particulate Filter					

2. Fleet Description Page 22 of 110



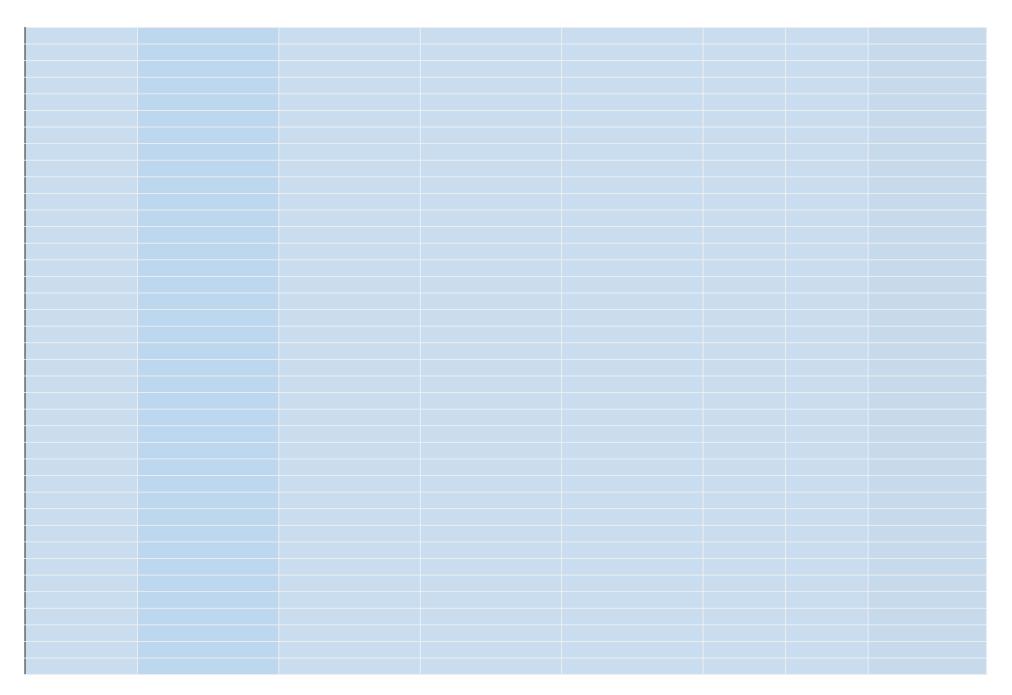


2. Fleet Description Page 24 of 110



### Table 2b. Vehicle Replacement and/or Upgrade Information

Class (onroad vehicles, as defined in data dictionary; select from dropdown)	Vehicle Identification Number (VIN) for New Vehicle (if original vehicle replaced) (Use Capital Letters)	New Vehicle Fuel Type (if original vehicle replaced; select from dropdown)	New Vehicle Manufacturer (if original vehicle replaced)	<b>New Vehicle Model</b> (if original vehicle replaced)	New Vehicle Model Year (if original vehicle replaced)	New Vehicle GVWR (if original vehicle replaced)	Upgrade or Replacement Vehicle/Equipment Cost only Per Unit
Class 6	1234567890ABCDE	Hybrid	New Vehicle Manufacturer Co.	Model Name or #	2023	16001	\$ 150,000.00



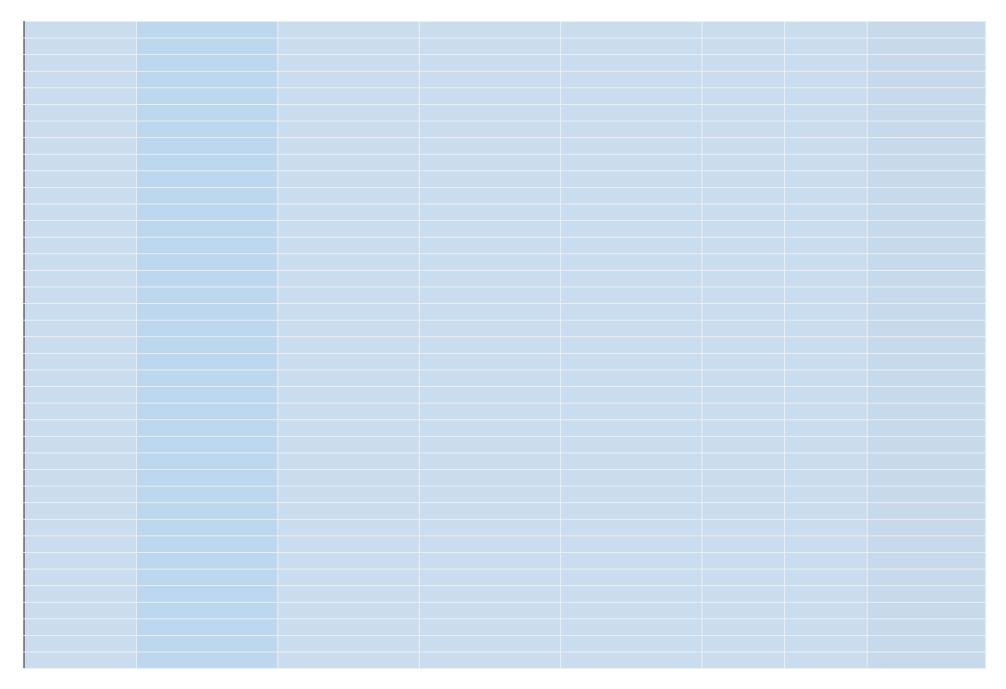
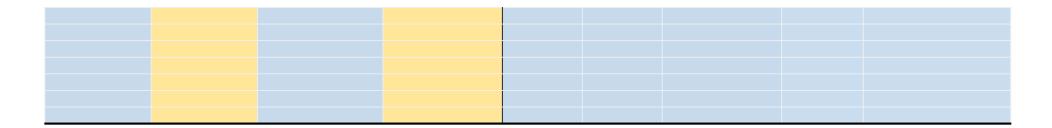


				Table 2c. New Engine Information (if replaced)					
Upgrade Labor Cost only Per Unit	<b>Total Cost Per Unit</b> (equipment plus labor)	Total Federal Funds Expended Per Unit (\$ of Total Cost per Unit)	Federal Cost Share Expended Per Unit (% of Total Cost per Unit)	New Engine Model Year	New Engine Serial Number	New Engine Tier (nonroad, locomotive, and marine only)	Tier 4 Standards (Tier 4 only)	New Engine After-Treatment Technology (Tier 4 nonroad only)	
\$ 25,000.00	\$ 175,000.00	\$ 50,000.00	28.57%	2018	4548155	Tier 2	N/A	No DPF, Yes SCR	

2. Fleet Description Page 30 of 110



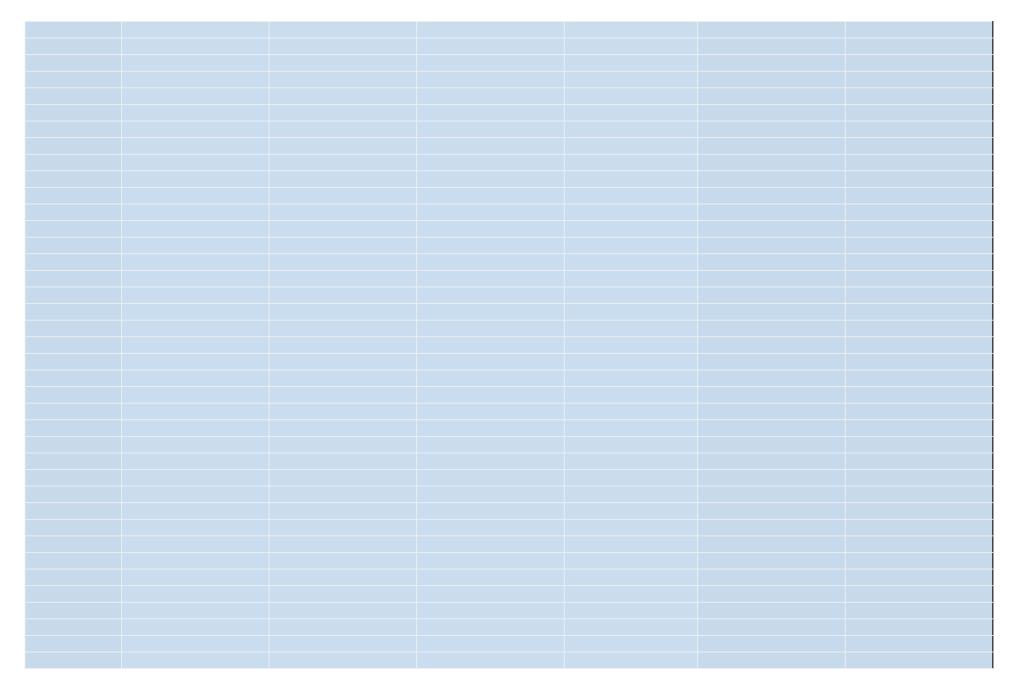




New Engine Horsepower	New Engine Duty Cycle (line-haul locomotive only)	New Engine Cylinder Displacement (liters per cylinder per engine; marine only)	New Engine Total Displacement (liters per engine; marine only)	New Engine Number of Cylinders (per engine; marine only)	New Engine Family Name	New Engine Fuel Type (select from dropdown)
750	N/A	5.0 <= size <15.0	N/A	N/A	ABC	ULSD (diesel)

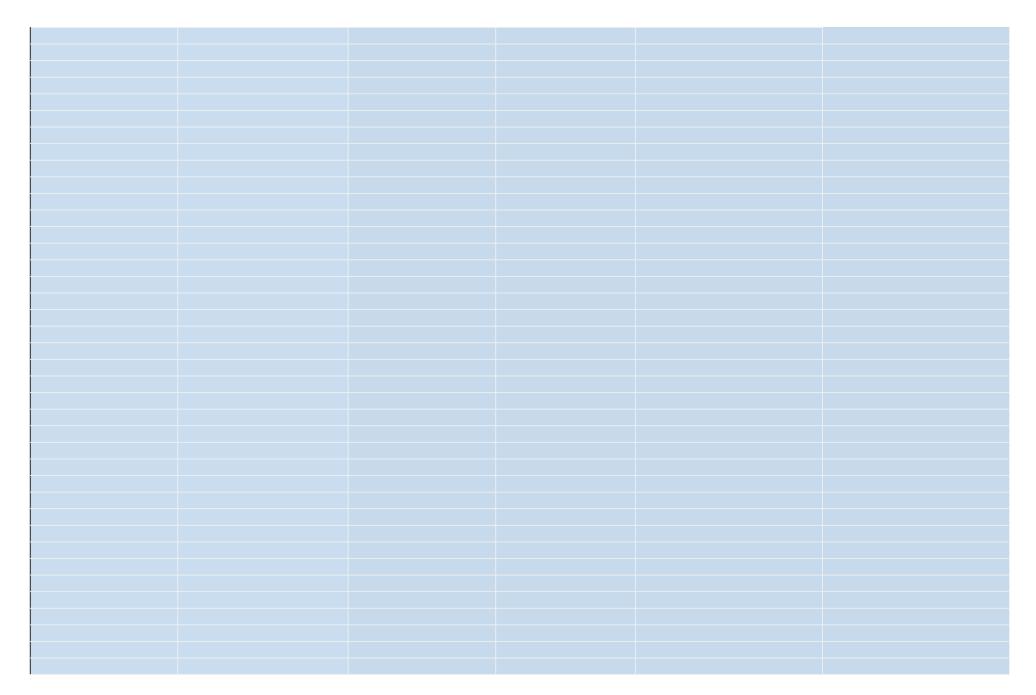
2. Fleet Description Page 34 of 110

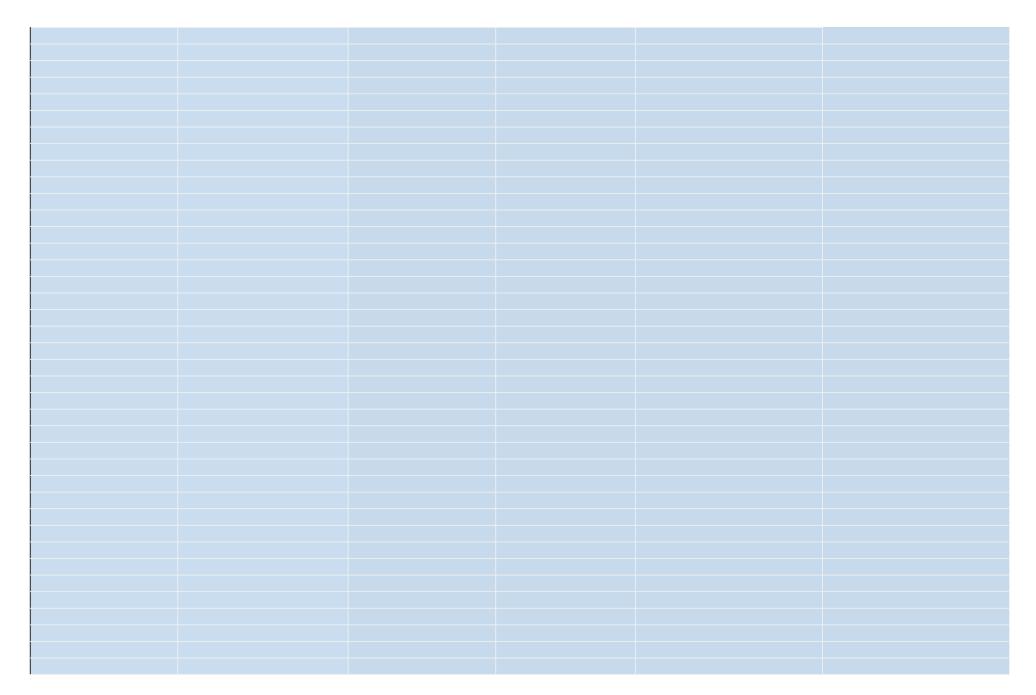




able 2d. New Annual Vehi	cle Activity Data				Table 2e. New Vehicle Battery Info
New Annual Idling Hours (hours per vehicle; on-highway only)	New Annual Hoteling Hours (hours per vehicle; class 8 long-haul combination only)	New Annual Fuel Volume (estimated gallons of fuel/year per engine for new gas, diesel, hybrid, LPG or CNG)	New Vehicle Equipped with Auxiliary Heater? (Yes/No)	Auxiliary Heater Type (if applicable)	Capable of Bidirectional Charging? (if Battery Electric or Hybrid)
N/A	N/A	6000	Yes	Spheros Thermo 300	Yes
				,	

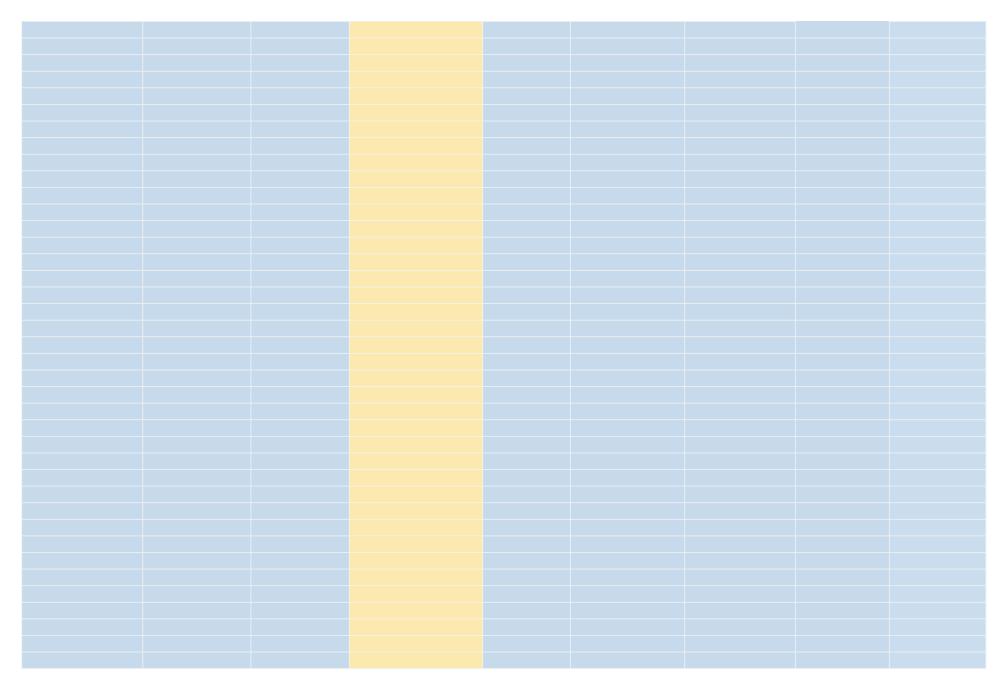
2. Fleet Description Page 38 of 110

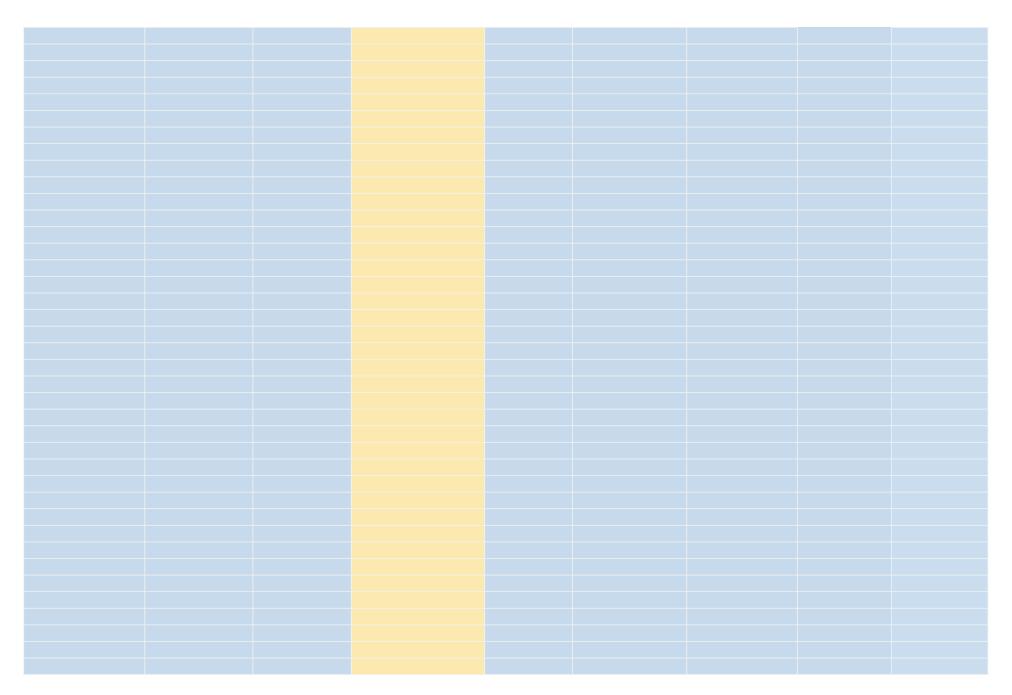




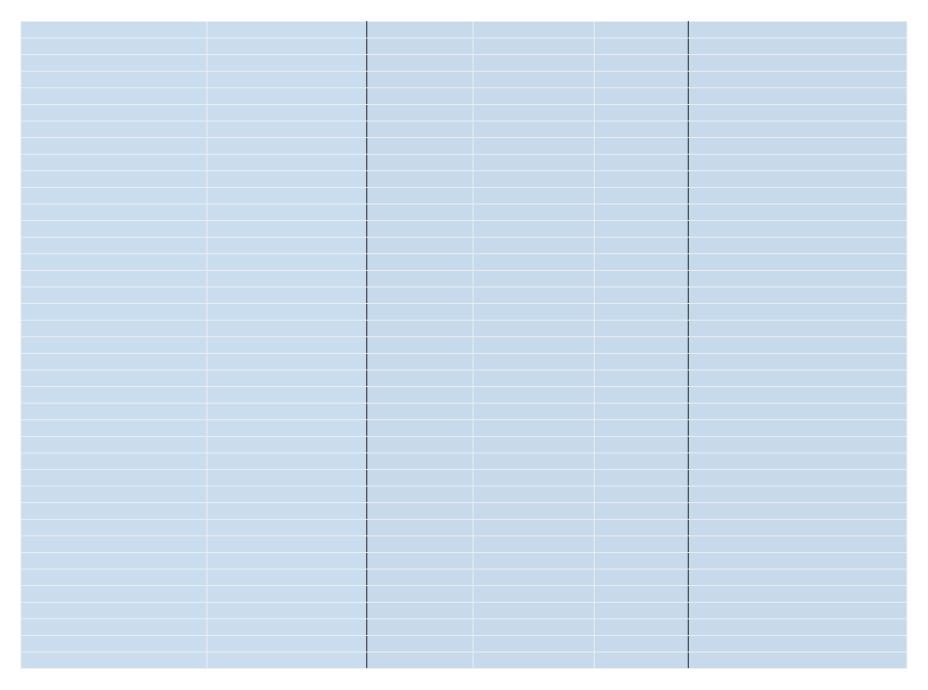
nation (Hybrid & Batt	ery Electric Only)						Table 2f. Battery Warranty Informat	
Manufacturer of Battery Pack	Number of Battery Packs	Battery Capacity per Battery Pack (kWh)	Vehicle or Equipment Total Battery Capacity, (kWh)	Rated Charging Power (kW)	Estimated Range in Miles (for Onroad Battery Electric only)	Estimated Range in Hours (for Nonroad Battery Electric only)	Is the Battery Warranty Included? (for Battery Electric only)	Battery Warranty: Indicate Number o Years Covered (for Battery Electric only)
Battery & Co.	6	90	540	360	200	16	Yes	8

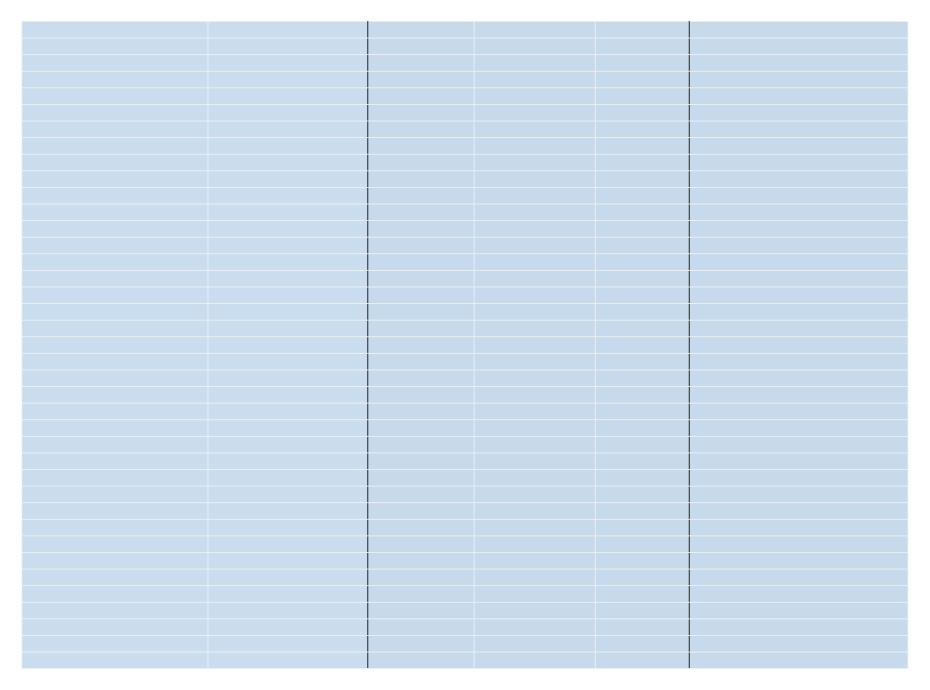
2. Fleet Description Page 42 of 110





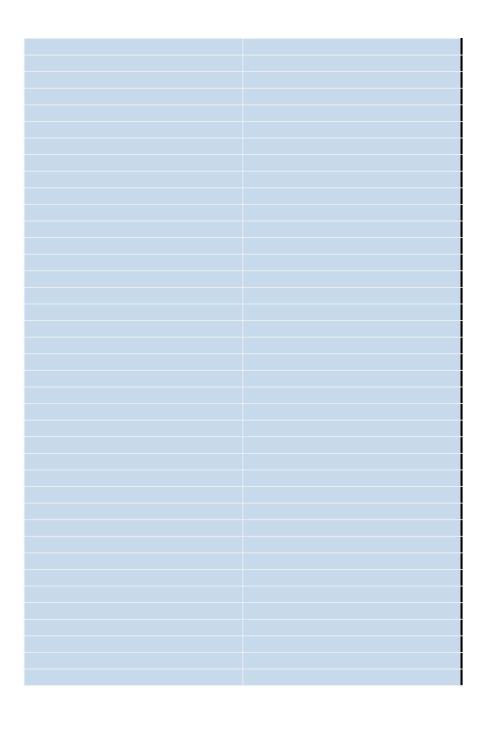
ion		Table 2g. Powertrai	n Warranty Informatio	n	Table 2h. Optional Participation in Future	
Battery Warranty: Number of Miles Covered by Warranty (for Battery Electric only)  Battery Warranty: Total kWh of battery discharge Covered by Warranty (for Battery Electric only)		Powertrain Warranty Included? (Yes/No)	Powertrain Warranty: Number of Years (if included)	Powertrain Warranty: Number of Miles (if included)	Is the vehicle/equipment equipped with Telematics? (Yes/No/Not Sure)	
150000	200000	Yes	5	100000	Yes	



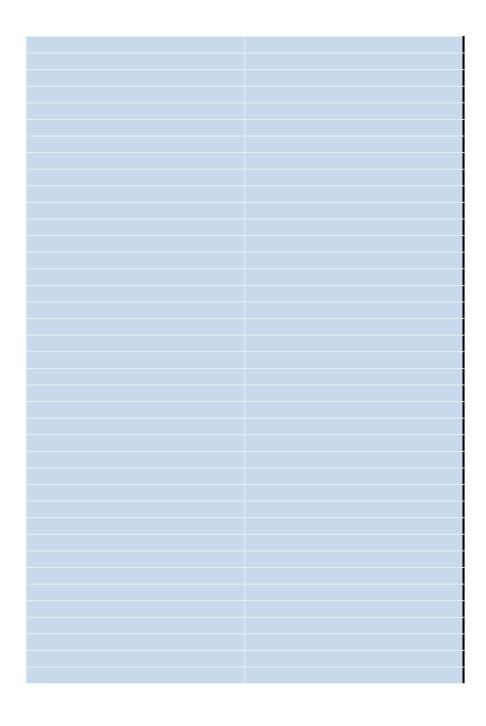


of Transportation Research							
EPA or its partners may contact me about participating in research opportunities to provide vehicle/equipment data that could inform future transportation work. (Yes/No)	If Yes, Telematics Primary Point of contact (Name and email)						
Yes	Sarah Smith; Smith.Sarah@HSD.edu						

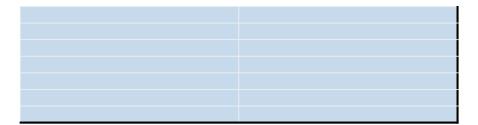
2. Fleet Description Page 50 of 110



2. Fleet Description Page 51 of 110



2. Fleet Description Page 52 of 110



2. Fleet Description Page 53 of 110

## U. S. Environmental Protection Agency Diesel Emissions Reduction Act (DERA) Grant Program

Infrastructure Description

## Instructions

The EVSE Equipment Information (Table 3) should detail all electric vehicle supply equipment (EVSE) and/or supporting infrastructure (Table 4) purchased under the project. Please only fill c however, additional rows may be add as needed to capture all equipment. Please refer to the infrastructure data definitions on Tab 4 (Data Dictionary) for data field definitions. Reminder: *I* other infrastructure projects must comply with Build America, Buy America (BABA) requirements. See below for more information on BABA.

## Build America, Buy America (BABA) requirements

On November 16, 2021, the Infrastructure Investment and Jobs Act ("IIJA"), Pub. L. No. 116-58, which includes the Build America, Buy America Act (BABA), Public Law 116-58, §§ 70901-52, \
2022, all of the iron, steel, manufactured products, and construction materials used in infrastructure project are produced in the United States. If award recipient will be installing, upgrading to the infrastructure project, regardless of whether or not the infrastructure project was the primary basis for the award. Additionally, BABA requirements apply even if the award recipient wholly, for the infrastructure project. For more information, please visit https://www.epa.gov/cwsrf/build-america-buy-america-baba.

Table 3: Electric	able 3: Electric Vehicle Supply Equipment Information										
	Table 3a. EVSE Equipment Info	ormation Overview									
	Type of Charger	If Level 2, is it ENERGY STAR certified	EVSE Manufacturer	EVSE Model	EVSE Manufacture Year	Is the EVSE BABA Compliant?	EVSE Maximum Output Power (kW)				
Example EV Infrastructure	Level 2	Yes	Manufacturer Name	Model Name	2023	Yes - This Infrastructure is BABA Compliant	24				
EVSE Group 1											
EVSE Group 2											
EVSE Group 3											
EVSE Group 4											

EVSE Group 5				
EVSE Group 6				
EVSE Group 7				
EVSE Group 8				
EVSE Group 9				
EVSE Group 10				

Table 4: Shore Po	ower Information									
	Table 4a. Shore Power Equipment Information & Demand Overview									
	Type of Shore Power Connection	Total Voltage Service Provided (select from dropdown)	Total Voltage Service Provided, if not listed	Manufacturer	Model	Manufacture Year	Typical Engine Tier of Vessels Using Shore Power			
Example Shore Power Infrastructure	High voltage shore power connection (HVSC)	6.6 kV	10 kV	Manufacturer Name	Model Name	2023	Tier 1			
Shore Power Group 1										
Shore Power Group 2										
Shore Power Group 3										
Shore Power Group 4										
Shore Power Group 5										
Shore Power Group 6										

Shore Power Group 7				
Shore Power Group 8				
Shore Power Group 9 Shore Power Group 10				
Shore Power Group 10				

re there any other infrastru	re there any other infrastructure projects associated with this grant that are not listed above (e.g. electrified parking space, stationary generator or other stationary equipment)?  no, please leave this section blank. If yes, please provide details in the box below on the infrastructure project and describe how BABA compliance was determined.									
no, please leave this section	blank. If yes, please provide	details in the box below or	the infrastructure project	t and describe how BABA	compliance was determine	ed.				

3. Infrastructure Page 56 of 110

out shaded cells highlighted blue with a diagonal pattern (///); All Level 2 EVSEs must be ENERGY STAR certified. All EVSE and

was signed into law. BABA requires that on or after May 14, g, or replacing "infrastructure," then BABA requirements apply will be using another source of funding, whether in part or

Number of Plugs on EVSE	Is the EVSE Capable of Bidirectional Charging?	Will the Vehicle/Equipment and EVSE be Used for Vehicle to Grid (V2G)?	Number of EVSE Units	EVSE Equipment Cost <i>only</i> Per Unit:	Total Federal Funds Expended Per EVSE Unit	Total Federal Funds Expended for EVSE	Date of EVSE was Manufactured (mm/dd/yyyy)	Date of EVSE Installation (mm/dd/yyyy)
2	No	No	2	\$ 18,000.00	\$ 12,000.00	\$ 24,000.00	3/28/2024	6/28/2024

3. Infrastructure Page 57 of 110

								Table 4b. Location o
Fuel Type of Vessels Using Shore Power	Number of Annual Vessel Calls to Berth where Shore Power Installed	per Vessel Call per	Number of Vessel Berths that can be served by Shore Power Pedestal	Maximum Output Power (kW)	Estimated Annual Total Energy Provided in MW-h	per Shore Power	Number of Shore Power Pedestals	State (select from dropdown)
Marine Gas Oil (MGO, 0.10% S)	500	72	1	24	1 MW-h	2	2	VA

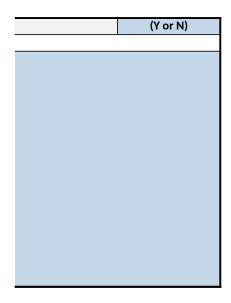


	Table 3b. Location of EV Infrastructure								
Date EVSE Operational (mm/dd/yyyy)	<b>State</b> (select from dropdown)	County (select from dropdown)	City	Zip Code	Street Adress of Charger(s)				
8/28/2024	VA	Arlington County	Alexandria	22305	400 1st Street				

f Shore Power Infrastructur	е				Table 4c. Installation Details	
<b>County</b> (select from dropdown)	City	Zip Code	Port Facility where Shore Power Installed	Who owns the Shore Power Infrastructure?	Total Funds Expended Installation Cost for Shore Power Group	
Arlington County	Alexandria	22305	Port of Guam	Port of Guam	\$ 120,000.00	

		Table 3c. Charging Management Service Provide	3c. Charging Management Service Providers			
Who owns the charger?	Anticipated User(s) of the charger	Name of Charging Management Service Provider (NA if not applicable)	Does the Infrastructure Equipment Cost Include Charging Management Service? (Yes/No)	If Charging Management Service not included in cost, but is acquired, what is the cost and frequency of charges?	Total Funds Expended on Installation Cost	
Walton School District	buses serving Walton School District	Charge Manage & Co.	Yes	\$250 per charger per month	\$ 12,000.00	

3. Infrastructure Page 63 of 110

Tota In:	al Federal Funds Expended stallation Cost for Shore Power Group	Does the Infrastructure Equipment Cost Include Installation?	Description of Installation Work, including all equipment installed	Installation Work Performed By	Date(s) Shore Power Equipment was Manufactured (mm/dd/yyyy)	Date Equipment Installed
\$	70,000.00	No	Upgrades to the electrical panel, wiring, and installation for two DCFC	XYZ Electric Co.	5/25/2023	6/24/2024

## **Installation Information**

Tota	al EPA Funds Expended on Installation Cost	Does the Infrastructure Equipment Cost Include Installation?	Description of Installation Work	Installation Work Performed By	Installation was conducted by an individual who meets the infrastructure electrician requirements as outlined in the program guidance?
\$	7,000.00	No	Upgrades to the electrical panel, wiring, and installation for two DCFC	XYZ Electric Co.	Yes - Certification from EVITP

3. Infrastructure Page 66 of 110

	Table 4d. Shore Power BABA Details			
Date Equipment Fully Operational	Is waiver being used to fulfill BABA compliance for this infrastructure?	Are the Shore Power Equipment, Housing, and all Accessories BABA Compliant?	If No, Partly Compliant, or Unsure, explain	Equipment Cost <i>only</i> Per Shore Power Pedestal:
8/24/2024	No - Infrastructure meets all BABA requirements	Yes - Housing, Wiring, Cables, and All Accessories are BABA Compliant		\$ 18,000.00

	Table 3f. Optional Participation in Future			
Is waiver being used to fulfill BABA compliance for this infrastructure?	Total EPA Funds Expended on EVSE Equipment and Installation	Total Funds Expended on EVSE Equipment and Installation	Federal Cost Share Expended Per Unit (% of Total Cost per EVSE)	EPA or its partners may contact me about participating in research opportunities to provide EVSE data that could inform future transportation work. (Yes/No)
No - Infrastructure meets all BABA requirements	\$31,000.00	\$48,000.00	65%	Yes

3. Infrastructure Page 69 of 110

				Table 4f. Optional Participation in Future
Total Federal Funds Expended Per Shore Power Pedestal	Total Federal Funds Expended for All Shore Power Equipment (total # of pedestals x Federal Funds Expended/pedestal)	Federal Cost Share Expended For Shore Power Equipment	Federal Cost Share for Shore Power Installation	EPA or its partners may contact me about participating in research opportunities to provide EVSE data that could inform future transportation work. (Yes/No)
\$ 12,000.00	\$ 24,000.00	67%	58%	Yes
	\$ -			
	\$ -			
	\$ -			
	\$ -			
	\$ -			
	\$ -			

\$ -		
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of Transportation Research	Table 3g. EVSE Serial Number			
If Yes, Telematics Primary Point of contact (Name and email)	Serial Number: Unit 1	Serial Number: Unit 2	Serial Number: Unit 3	Serial Number: Unit 4
Sarah Smith, Smith.Sarah@hsd.edu	L1-0357-ISO-3240-049390	VX-1263-11C1-2-2310-05642	170182509830170	9124-1GT05-09830170

of Transportation Research	Table 4g. Shore Power Serial Nun	Table 4g. Shore Power Serial Number			
If Yes, Telematics Primary Point of contact (Name and email)	Serial Number: Unit 1	Serial Number: Unit 2	Serial Number: Unit 3	Serial Number: Unit 4	
Sarah Smith, Smith.Sarah@hsd.edu	L1-0357-ISO-3240-049390	VX-1263-11C1-2-2310-05642	170182509830170	9124-1GT05-09830170	

Serial Number: Unit 5	Serial Number: Unit 6	Serial Number: Unit 7	Serial Number: Unit 8	Serial Number: Unit 9
VX-1265-11C1-2-2635-07842	VX-1264-11C1-2-2502-05872	VX-1266-11C1-2-2502-05642	VX-1267-11C1-2-2502-15426	VX-1268-11C1-2-2503-96834

Serial Number: Unit 5	Serial Number: Unit 6	Serial Number: Unit 7	Serial Number: Unit 8	Serial Number: Unit 9
VX-1265-11C1-2-2635-07842	VX-1264-11C1-2-2502-05872	VX-1266-11C1-2-2502-05642	VX-1267-11C1-2-2502-15426	VX-1268-11C1-2-2503-96834

Serial Number: Unit 10	Serial Number: Unit 11	Serial Number: Unit 12	Serial Number: Unit 13	Serial Number: Unit 14
9125-1GT27-0983253	VX-1269-11C1-2-2502-05872	VX-1270-11C1-2-2502-05872	VX-1271-11C1-2-2502-05872	VX-1272-11C1-2-2502-05872

Serial Number: Unit 10	Serial Number: Unit 11	Serial Number: Unit 12	Serial Number: Unit 13	Serial Number: Unit 14
9125-1GT27-0983253	VX-1269-11C1-2-2502-05872	VX-1270-11C1-2-2502-05872	VX-1271-11C1-2-2502-05872	VX-1272-11C1-2-2502-05872

Serial Number: Unit 15	Serial Number: Unit 16	Serial Number: Unit 17	Serial Number: Unit 18	Serial Number: Unit 19
VX-1273-11C1-2-2502-05872	VX-1274-11C1-2-2502-05872	VX-1275-11C1-2-2502-05872	VX-1276-11C1-2-2502-05872	VX-1277-11C1-2-2502-05872

Serial Number: Unit 15	Serial Number: Unit 16	Serial Number: Unit 17	Serial Number: Unit 18	Serial Number: Unit 19
VX-1273-11C1-2-2502-05872	VX-1274-11C1-2-2502-05872	VX-1275-11C1-2-2502-05872	VX-1276-11C1-2-2502-05872	VX-1277-11C1-2-2502-05872

Serial Number: Unit 20	Serial Number: Unit 21	Serial Number: Unit 22	Serial Number: Unit 23	Serial Number: Unit 24
VX-1278-11C1-2-2502-05872	VX-1279-11C1-2-2502-05872	VX-1280-11C1-2-2502-05872	VX-1281-11C1-2-2502-05872	VX-1282-11C1-2-2502-05872

Serial Number: Unit 20	Serial Number: Unit 21	Serial Number: Unit 22	Serial Number: Unit 23	Serial Number: Unit 24
	1			
VX-1278-11C1-2-2502-05872	VX-1279-11C1-2-2502-05872	VX-1280-11C1-2-2502-05872	VX-1281-11C1-2-2502-05872	VX-1282-11C1-2-2502-05872
VX-1278-11C1-2-2502-05872	VX-1279-11C1-2-2502-05872	VX-1280-11C1-2-2502-05872	VX-1281-11C1-2-2502-05872	VX-1282-11C1-2-2502-05872

Serial Number: Unit 25	Serial Number: Unit 26	Serial Number: Unit 27	Serial Number: Unit 28	Serial Number: Unit 29
VX-1283-11C1-2-2502-05872	VX-1284-11C1-2-2502-05872	VX-1285-11C1-2-2502-05872	VX-1286-11C1-2-2502-05872	VX-1287-11C1-2-2502-05872


Serial Number: Unit 25	Serial Number: Unit 26	Serial Number: Unit 27	Serial Number: Unit 28	Serial Number: Unit 29
VX-1283-11C1-2-2502-05872	VX-1284-11C1-2-2502-05872	VX-1285-11C1-2-2502-05872	VX-1286-11C1-2-2502-05872	VX-1287-11C1-2-2502-05872

Serial Number: Unit 30

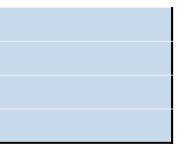
VX-1288-11C1-2-2502-05872

3. Infrastructure PPA Form Number: 5900-681 Page 90 of 110

Serial Number: Unit 30

VX-1288-11C1-2-2502-05872

3. Infrastructure PPA Form Number: 5900-681 Page 91 of 110



3. Infrastructure PPA Form Number: 5900-681 Page 92 of 110

	C
Group Name	
Fleet Owner	
Publicly or Privately Owned?	
Discost De terrores	
Place of Performance	
- State(s):	
- County(s): - City(s):	
- City(s): - Zip Code(s):	
- zip coue(s):	
- % of Time operated in each Zip Code (Total to Equal 100%)	)
Equipment Type	
Target Fleet	
Class	
Vehicle or Engine Group Sector:	
Vocation	
Vehicle Identification Number(s):	
Vehicle Make	
Vehicle Model	
Baseline Vehicle Model Year:	
Engine Serial Number(s) :	
Engine Make:	
Engine Model:	
Engine Model Year:	
Engine Tier (nonroad, locomotive, and marine only):	
Tier 4 Standards (Tier 4 only):	
Engine After-Treatment Technology	
Engine Horsepower:	
Engine Cylinder Displacement (liters/cylinder; marine only):	
Engine Number of Cylinders (# of cylinders per engine):	
Engine Total Displacement (liters per engine: marine only)	

4. Data Dictionary Page 93 of 110

Engine Family Name (if unregulated, then NA):

Baseline Engine Fuel Type:

Total # of Propulsion Engines (per vessel; marine only):

Total # of Auxiliary Engines (per vessel; marine only):

4. Data Dictionary Page 94 of 110

Annual Amount of Fuel Used (gallons/year per engine):

Annual Usage Hours (hours per year per engine; includes idling hours; nonroad, locomotive, and marine only)

Annual Miles Traveled (miles per vehicle; on-highway only):

Annual Idling Hours (hours per engine; on-highway only):

Annual Hoteling Hours (hours per year per engine; class 8 long-haul combination only):

Remaining Life of Baseline Engine/Vehicle (years per engine; total # of years of engine life remaining at time of upgrade action):

Year of Upgrade Action:

Upgrade Type:

Upgrade Specific:

Class (onroad vehicles):

VIN for New Vehicle(s):

Total Cost per Unit (equipment cost plus labor):

Upgrade Equipment Cost only per unit:

Upgrade Labor Cost only per unit:

Total Federal Funds Expended per Unit (\$ Total Cost per Unit):

Federal Cost Share Expended per Unit (% Total Cost per Unit):

New Engine Model Year:

New Engine Tier (nonroad, locomotive, and marine only):

Tier 4 Standards (Tier 4 only):

New Engine After-Treatment Technology (Tier 4 nonroad only):

New Engine Horsepower:

New Engine Duty Cycle (line-haul locomotive only):

New Engine Cylinder Displacement (liters per cylinder per engine; marine only):

New Engine Total Displacement (liters per engine; marine only)

New Engine Number of Cylinders (per engine; marine only):

New Engine Family Name:

New Engine Fuel Type:

Annual Idling Hours Reduced (hours per vehicle; on-highway only):

Annual Hoteling Hours Reduced (hours per vehicle; class 8 long-haul combination only):

New Annual Fuel Volume (estimated gallons/year per engine):

Capable of Bidirectional Charging? (if Battery Electric or Hybrid)

Estimated Range in Miles (for Onroad Battery Electric only)

Battery Capacity per Battery Packs (kWh) (for ZEV only)

Is the Battery Warranty Included? (for Battery Electric only)

Battery Warranty: Indicate Number of Years Covered (for Battery Electric only)

Battery Warranty: Indicate Number of Years Covered (for Battery Electric only)

Battery Warranty: Total kWh of battery discharge Covered by Warranty (for Battery Electric only)

Powertrain Warranty Included?

**Powertrain Warranty: Number of Years** 

Powertrain Warranty: Number of Miles

Is the vehicle/equipment equipped with Telematics?

EPA or its partners may contact me about participating in research opportunities to provide vehicle/equipment data that could inform future transportation work.

If Yes, Telematics Primary Point of contact (Name and email)

4. Data Dictionary Page 96 of 110

Type of Charger

If Level 2, is it ENERGY STAR certified

**EVSE** Manufacturer

EVSE Model

**EVSE Manufacture Year** 

Is the EVSE BABA Compliant?

EVSE Maximum Output Power (kW)

Number of Plugs on EVSE

Is the EVSE Capable of Bidirectional Charging?

Will the Bus and EVSE be Used for V2G?

**EVSE Number of Units** 

**EVSE Equipment Cost only Per Unit:** 

Total Federal Funds Expended Per EVSE Unit

Total Federal Funds Expended for EVSE

Date of EVSE Installation (mm/dd/yyyy)

State

County

City

Zip Code

Street Adress

Who owns the charger?

Does the EVSE serve multiple school districts within this application?

Name of the School District(s) the EVSE will serve (use a colon between school districts)

NCES ID of School District that the EVSE will serve (use a colon between school districts)

Total Funds Expended Installation Cost

Total Federal Funds Expended Installation Cost

Does the Infrastructure Equipment Cost Include Installation?

Description of Installation Work

Installation Work decretely by an individual who meets the infrastructure electrician in which are the infrastructure entrance?

Total Federal Funds Expended Equipment and Installation

4. Data Dictionary Page 98 of 110

Sho

Type of Shore Power Connection

Total Voltage Service Provided

Total Voltage Service Provided, if Not Listed

Manufacturer

Model

Manufacture Year

Typical Engine Tier of Vessels Using Shore Power

Fuel Type of Vessels Using Shore Power

Number of Annual Vessel Calls to Berth where Shore Power Installed

Number of Vessel Berths that can be served by Shore Power Pedestal

Maximum Output Power (kW)

Estimated Annual Total Energy Provided in MW-h

Number of Plugs per Shore Power Pedestal

Number of Shore Power Pedestals

State (select from dropdown)

County (select from dropdown)

City

Zip Code

Port Facility where Shore Power Installed

Who owns the Shore Power Infrastructure?

Total Funds Expended Installation Cost for Shore Power Group

Total Federal Funds Expended Installation Cost for Shore Power Group

Does the Infrastructure Equipment Cost Include Installation?

Description of Installation Work, including all equipment installed

Installation Work Performed By

Date Equipment Installed

Date Equipment Fully Operational

Is waiver being used to fulfill BABA compliance for this infrastructure?

Are the Shore Power Equipment, Housing, and all Accessories BABA Compliant?

If No, Partly Compliant, or Unsure, explain

Equipment Cost only Per Shore Power Pedestal:

Total Federal Funds Expended Per Shore Power Pedestal

Total Federal Funds Expended for All Shore Power Equipment (total # of pedestals x Federal Funds Expended/pedestal)

Federal Cost Share Expended For Shore Power Equipment Federal Cost Share for Shore Power Installation

4. Data Dictionary Page 100 of 110

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EPA or its partners may contact me about participating in research opportunities to provide shore power data that could inform future transportation work. (Yes/No)

If Yes, Primary Point of contact (Name and email)

tionary for support in completing tab 2 (Fleet Description).

# JRRENT VEHICLE AND ENGINE UPGRADE INFORMATION

## **Basic Fleet Information**

Enter the group name of the fleet.

Enter the first and last name of the individual or organization that owns the fleet.

If the vehicles are part of a public fleet or benefit the public (i.e. a private school bus company contracted by a public school; drayage vehicles that serve a port; private construction equipment contracted to a public works project, etc.) enter "Publicly", otherwise enter "Privately".

Enter the next four fields for each vehicle's place(s) of performance.

Enter the two letter postal code for the state in which the vehicle(s) will operate.

Enter the county in which the vehicle(s) will operate.

Enter the city in which the vehicle(s) will operate.

Enter the zip code which the vehicle(s) will operate.

Enter the percent of time the vehicle group operates in each zip code, if there is more than one. For example, 80% of time in 85310 and 20% of time in 85308.

Enter the vehicle type from the dropdown, OnRoad Vehicle, NonRoad Equipment, Locomotive, or Marine.

Select the target fleet from the dropdown menu.

Select from the dropdown menu the Vehicle/Equipment Class for onroad vehicles, as appropriate.

Using the drop down, enter the sector associated with the vehicle or engine group.

Select the vocation type from the dropdown menu.

## **Current Vehicle Information**

Enter the Serial number or VIN number for each engine or vehicle

Enter the manufacturer of the existing vehicle

Enter the model of the existing vehicle

Enter the model year of the existing vehicle.

# **Current Engine Information**

Enter the engine Serial # for each vehicle or engine to be scrapped/replaced.

Enter the manufacturer of the existing Engine.

Enter the model of the existing Engine.

Enter the model year of this engine set.

For REPOWERS AND UPGRADES ONLY, Select from the dropdown menu the Current Tier Level.

For tier 4 only engines, please use the drop down to indicate interim for final.

Enter the appropriate drop down for collection on emission control technologies for the current engine.

Enter the average horsepower of the engine/equipment.

Enter the engine displacement per cylinder in liters.

Enter the number of cylinders per engine.

Enter the engine displacement per cylinder in liters.

Enter the Engine Family name of the existing Engine. NOTE: unregulated engines will not have an Engine Family Name. Engine Optional for Idle Reduction, Aerodynamic Technology, Low Rolling Resistance Tires, and Fuels projects.

Select the type of fuel that is currently being used (prior to any clean diesel activity change).

Enter the total number of propulsion engines on the vessel.

Enter the total number of auxiliary engines on the vessel.

#### Current Annual Vehicle Data

Enter the amount of fuel used in gallons/year.

Enter the average number of hours the equipment is used per year.

Enter the average number of vehicle miles traveled per year per vehicle.

Enter the average number of hours the vehicle idles per year.

Enter the average number of hoteling hours per year, per engine.

Enter the remaining life of baseline engine/vehicle in years at the time of the upgrade action

## NEW VEHICLE AND ENGINE UPGRADE INFORMATION

# **Upgrade Information**

Enter the year in which the upgrade will take place (i.e., if in 2010, you're replacing a 1995 bus with a 2007 bus, the upgrade year is 2010.)

Enter the type of upgrade that will take place from the dropdown menu.

Using the drop down, enter the specific type of upgrade that will take place during the project.

Using the drop down list provided, select the appropriate vehicle class (for onroad vehicles only).

Please enter the vehicle identification numbers for the new vehicle(s) being replaced.

Automated cell that will sum the upgrade equipment cost (row 55) and labor cost (row 56).

Enter the cost of the technology or equipment cost per unit.

Enter the cost of installing or labor cost of the technology per unit.

Enter the federal funds expended in dollars per unit.

Automated cell that will calculate the federal cost share based upon the federal funds expended entered in row 57.

## **New Engine Information**

For REPLACEMENTS AND REPOWERS ONLY, Enter the model year of the new vehicle/engine.

For REPLACEMENTS, REPOWERS AND UPGRADES ONLY, Select from the dropdown menu the new Tier Level.

For tier 4 only engines, please use the drop down to indicate interim for final.

Enter the appropriate drop down for collection on emission control technologies for the new engine.

Enter the new horsepower of the engine or equipment.

Please enter the new engine duty cycle - for line-haul locomotive ONLY.

Enter the new engine displacement per cylinder in liters.

Select from the dropdown menu the displacement per cylinder in liters.

Enter the number of cylinders in the new engine.

For REPLACEMENTS AND REPOWERS ONLY, Enter the Engine Family Name of the new engine.

Select the type of fuel that is for the new engine or vehicle.

# **New Annual Vehicle Data**

For IDLE REDUCTION STRATEGIES ONLY, Enter the average number of idling hours reduced for the engine.

Enter the average number of hoteling hours per year, per engine.

Please enter the new annual fuel volume, in gallons. New Annual Fuel Volume should be from new engine efficiency, not changes in use.

## **Zero Emission Vehicle Data**

Select yes or no into the cell to specify whether the vehicle is capable of bidirectional charging.

Enter the estimated range in miles for the zero-emission vehicle.

Enter the battery capacity in kilowatt-hours for the zero-emission vehicle.

Select yes or no into the cell to specify whether the vehicle battery warranty is included.

If the battery includes a warranty, indicate the number of years the coverage is valid for.

If the battery includes a warranty, indicate the number of miles the coverage is valid for.

If the battery includes a warranty, indicate the total kWh of battery discharge the coverage is valid for.

Select yes or no into the cell to specify whether a powertrain battery warranty is included.

If the powertrain includes a warranty, indicate the number of years the coverage is valid for.

If the powertrain includes a warranty, indicate the number of miles the coverage is valid for.

Select yes or no into the cells it specify whether the vehicle is equipped with telematics.

Select yes or no.

Enter First and Last name and email address.

#### 10. INFRASTRUCTURE

## **EVSE Equipment Information**

Enter the type of charger, either Level 2 (AC charging up to 19.2 kW) or DC Fast Charging.

Confirm and select yes if applicable. Please see https://www.energystar.gov/

Enter the manufacturer of the charging equipment

Enter the model name of the charging equipment.

Enter the year the charging equipment was manufactured.

Select an option. EVSE manufactured on or after July 1, 2024 must be meet BABA requirements.

Enter the maximum power output of the charging equipment, measured in kilowatts.

Enter the number of plugs installed on each unit of the charging equipment.

Select yes or no into the cell to specify whether the charging equipment is capable of bidirectional charging.

Select yes or no into the cell to specify whether the buses and charging equipment will be used for vehicle-to-grid (V2G) services.

Enter the quantity of charging equipment unit

Enter the cost of the charging equipment per unit.

Enter the total Federal funds expend for charging equipment per unit.

No action - autopopulated

Enter the date on which the EVSE is permanently affixed.

#### Location of EV Infrastructure

Select the two letter postal code for the state in which the charging equipment will be located.

Enter the county in which the charging equipment will be located.

Enter the city in which the charging equipment will be located.

Enter the zip code in which the charging equipment will be located.

Enter the street address in which the charging equipment will be located.

Enter the name of the school district or organization that owns the charging equipment.

Select yes or no

Enter the name of the school district in which the EVSE will serve. If it will serve multiple school districts, list all and separate with a colon (e.g., Hampton School District: Edgewood School District).

Enter the name of the National Center for Education Statistics (NCES) ID associated with the school district in which the EVSE will serve. If it will serve multiple school districts, list all NCES IDs and separate with a colon (e.g., 1234567: 7654321).

#### Infrastructure Installation Information

Enter the total installation costs for the charging equipment for the EV infrastructure group column.

Enter the total Federal funds expended for installation costs for the charging equipment for the EV infrastructure group column.

Please enter yes or no into the cell to specify whether the indicated cost of the charging equipment above includes any installation expenses.

Enter a description of the work performed to install the charging equipment, such as design and engineering, trenching, wiring and electrical upgrades, labor, and permitting.

Enter the name(s) of the organization(s) that performed the installation work described above.

Select electrician category

If a waiver is being used to meet BABA compliance requirements, select the waiver type

Automated cell that will calculate the total Federal Funds expended for the charging equipment and installation for an EV Infrastructure Group.

# re Power Equipment Information and Demand Overview

Select the type of shore power connection, either high-voltage (HVSC) or low-voltage (LVSC).

Select the total voltage provided from the dropdown menu, if listed.

Enter the total voltage service provided if the amount is not listed in the dropdown menu.

Enter the manufacturer of the shore power system.

Enter the model name of the shore power system.

Enter the year the shore power system was manufactured.

Select the typical engine tier of vessels using the shore power system.

Select the fuel type of vessels using the shore power system.

Enter the number of annual vessel calls per berth where the shore power system is installed.

Enter the number of vessel berths that can be served by the shore power system.

Enter the maximum power output of the shore power system, measured in kilowatts.

Enter the estimated total annual energy output of the shore power system in megawatt-hours.

Enter the number of available plugs per shore power pedestal installed.

Enter the total number of shore power pedestals installed.

#### Location of Shore Power Infrastructure

Select the state where the shore power system is installed.

Select the county where the shore power system is installed.

Enter the name of the city where the shore power system is installed.

Enter the zip code of the location where the shore power system is installed.

Enter the name of the port facility where the shore power system is installed.

Enter the name of the organization that owns the shore power system.

#### Installation Details

Enter the total cost for installation of the shore power system.

Enter the total amount of federal funds expended for installation of the shore power system.

Select whether or not the equipment cost includes installation of the shore power system.

Describe the work done during installation, including all equipment that became part of the installed shore power system.

List the name of the company (or companies) performing the installation of the shore power system.

Enter the date (or date range) the shore power system was installed.

Enter the date by which the shore power system became fully operational.

Select from the dropdown menu how BABA requirements are being met for the shore power project.

Select from the dropdown menu which parts of the shore power project are BABA compliant.

For the previous column, explain which parts are not compliant or enter N/A.

#### Shore Power Cost Summary

Enter the equipment cost for each shore power pedestal.

Enter the federal funds expended for the equipment in each shore power pedestal.

No action - autopopulated

No action - autopopulated No action - autopopulated

# ptional Participation in Future Transportation Research

Select from the dropdown menu if EPA or its partners may contact you regarding shore power research. If you selected "Yes" for the previous column, please enter your name and e-mail.