



Commonwealth of Massachusetts
Massachusetts Department of Environmental Protection

One Winter Street
Boston, MA 02108

Request for Information (RFI):

Volkswagen Settlement Eligible Mitigation Actions

April 20, 2018

UNSPSC: 25-17-00; 25-17-37; 25-17-50; 25-19-00

Interested parties to this Request for Information (RFI) are invited to respond to any or all of the questions in this document, which is being issued by the Massachusetts Department of Environmental Protection (MassDEP).

Responses to this RFI shall serve solely to assist MassDEP to understand both the technology and the interest of the general public, non-public entities, and potential vendors with respect to utilizing the eligible funding available through the Volkswagen Settlement with regard to the solicited information and/or to inform MassDEP in connection with the development of a future solicitation. This RFI does not in any way obligate or require MassDEP to issue or amend a solicitation or to include any of the RFI provisions or responses in any potential future solicitations. Responding to this RFI is entirely voluntary, and will in no way affect MassDEP's consideration of any proposal that may be submitted in response to any subsequent solicitation, nor will it serve as an advantage or disadvantage to any future bidder in the course of any solicitation that may be subsequently issued or amended. This RFI is not a contract or a contract solicitation.

Any responses to this RFI that are submitted to MassDEP shall become the property of MassDEP and will be maintained by and made accessible to outside parties at the discretion of MassDEP. All responses to this RFI will be public records under the Commonwealth's Public Records Law, M.G.L. c. 66, §10, regardless of any confidentiality notices set forth on such RFI responses.

I. Purpose

On behalf of the Commonwealth of Massachusetts, the Massachusetts Department of Environmental Protection (MassDEP) is issuing this Request for Information (RFI) in order to obtain data and feedback on how Massachusetts should expend its funding portion from the 2017 legal settlement (the VW Settlement) with Volkswagen and its subsidiaries (collectively Volkswagen or VW)¹. Specifically, MassDEP seeks to:

- 1) understand the current interest in and feasibility of implementing the VW Settlement's Eligible Mitigation Actions (EMAs) that pertain to on-road, non-road, locomotive and marine diesel engines and light-duty zero emission vehicle supply equipment in Massachusetts;
- 2) acquire data on existing and planned future model engines, vehicles, vessels and equipment; emission reduction potentials and quantification methods; costs and other aspects of those EMAs;
- 3) acquire information from potential vendors and others on projected equipment availability, and delivery and installation timelines; and
- 4) inform MassDEP's development of the VW Settlement's required Beneficiary Mitigation Plan, as well as future project solicitations.

Knowledgeable persons in the diesel, alternate fuel, electric (including fuel cell) vehicle/engine and emission reduction community are encouraged to respond to this RFI. Governmental and non-governmental entities, including private businesses, that may be interested in applying for funding for eligible EMAs are invited to respond and provide data on their fleets. Respondents should note that any fleet data provided will be used by MassDEP only for planning purposes, and that a response to this RFI is not an application for funding. Through MassDEP, the Commonwealth intends to solicit applications for funding in the future for one or more EMAs after the Beneficiary Mitigation Plan and other necessary steps have been completed.

Massachusetts plans to incorporate the information received in response to this RFI in its decision making regarding the use of the VW funds. The Commonwealth will consider all EMAs offered in the VW settlement, giving particular attention to those EMAs that promote electrification of the state's transportation network, equitable geographic distribution, and reduction of greenhouse gases (GHG).

Responding to this RFI is entirely voluntary and will in no way affect the Commonwealth's consideration of any proposal submitted in response to a solicitation that may be subsequently issued or amended.

¹ Volkswagen AG, Audi AG, Porsche Cars of North America, Inc., Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC Dr. Ing. h.c. F. Porsche AG, and Porsche Cars North America, Inc.

II. Authority

This RFI is issued in accordance with M.G.L. c. 7, §22 and the regulations promulgated thereunder at 801 CMR 21.00 *et seq.*, specifically 801 CMR 21.03. This RFI is posted on www.commbuys.com, the procurement website of the Commonwealth of Massachusetts, as required. In addition, the RFI is posted on the MassDEP website, at the following link: <https://www.mass.gov/guides/volkswagen-diesel-settlements-environmental-mitigation>.

III. Background

A. The Volkswagen Settlement

In 2014 an investigation by the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) revealed that Volkswagen had manufactured approximately 590,000 light-duty passenger diesel vehicles for sale in the United States with computer software programmed to deceive and violate vehicle emission tests. Using a special algorithm, VW calibrated the vehicles' emission control equipment to operate only during required tailpipe emissions tests and to shut down at other times of regular operating use. The use of this "defeat device" software on 2009 to 2016 model year VW vehicles resulted in tailpipe emissions of nitrogen oxides (NO_x) that were as much as 40 times greater than the NO_x emission standards established by EPA.

As a result of the probe and subsequent legal action, the U.S. Department of Justice reached a final settlement with VW in October 2017 to address the affected vehicles and the excess NO_x emissions. The VW Settlement requires the creation of a \$2.925 billion Environmental Mitigation Trust (Trust) funded by VW to reduce the air quality impacts of the excess NO_x emissions. Each state and other U.S. entities² receive an allocation of the total amount based on the number of registered vehicles in the state equipped with defeat devices.

The VW Settlement also stipulates that each state must develop a Beneficiary Mitigation Plan (BMP) to describe how it will spend its Trust allocation. The BMP must discuss how the state will implement the EMAs listed in the VW Settlement's Appendix D-2. Eight of these EMAs pertain to certain diesel engine groups such as heavy-duty freight trucks, locomotive switchers, and port cargo handling equipment (CHE), and offer specific strategies for reducing their NO_x emissions, such as replacing a diesel engine with an all-electric engine. The other two EMAs are:

- 1) the purchase and installation of electric vehicle supply equipment (EVSE) for light-duty zero emission vehicles (ZEVs); and
- 2) projects available for funding under the federal Diesel Emissions Reduction Act (DERA).

² The District of Columbia, Puerto Rico and federally recognized Indian tribes.

These EMAs will be discussed in more detail in RFI Section IV.C. below.

B. Massachusetts and the VW Settlement

Based on the estimated 14,000 vehicles equipped with defeat devices in Massachusetts, the Commonwealth will receive \$75,064,424.40 in funding from the VW Settlement. Massachusetts has up to 10 years to spend 80% of its allocation and an additional five years to spend the remaining 20%. The VW Settlement also allows each state to expend up to one-third of its funding in the first year, or up to two-thirds in the first two years.

MassDEP is the designated beneficiary under the VW Settlement and is responsible for developing the Beneficiary Mitigation Plan for Massachusetts.

C. Health and Environmental Effects of NO_x

The Trust funds represent a opportunity for Massachusetts to mitigate the potential health and environmental harm caused by the excess NO_x emitted from the illegal VW vehicles. NO_x contributes to the formation of ground-level ozone and fine particulate matter (PM), both of which are linked to short and long-term respiratory and cardiovascular health effects. One of the primary components of NO_x—nitrogen dioxide (NO₂)—also aggravates respiratory diseases, particularly asthma, and may contribute to childhood asthma development. Environmentally, NO_x emissions contribute to global warming, acid rain formation, and detrimental nutrient overloading in waterways.

IV. The VW Settlement Eligible Mitigation Actions

The primary emission reduction strategies for the engine group-based EMAs include:

- Repowering a diesel engine with a new diesel, alternate fuel (AF), or all-electric engine; and/or
- Replacing an entire vehicle or piece of diesel equipment with a new diesel, AF, or all-electric vehicle or piece of equipment.

AF options include compressed natural gas, propane, and other fuels used alone or in addition to gasoline or diesel fuel such as a diesel electric hybrid. All electric engines include electric engines and hydrogen fuel cells. The technologies, fuels and electric options are further defined in RFI Section IV.A. below.

Some EMAs, such as Class 4 through 7 Local Freight Trucks (Medium Trucks) and Class 4 through 8 School Bus, Shuttle Bus, or Transit Bus (Eligible Buses), allow for both of the above technology approaches and a variety of fuel and non-fuel (i.e., all-electric engines and fuel cells) options. Others, such as airport ground-support equipment (GSE), restrict engine repowers and vehicle and equipment replacement to all-electric engines and electric vehicles and equipment, respectively. Freight switchers have an additional option in which the locomotive engine may be repowered or the switcher replaced with one or more diesel, AF or electric generator sets.

The tug and ferry group allows for the additional option of an engine upgrade with a Certified Remanufacture System or a Verified Engine Upgrade.

A. Definitions Associated with EMAs

Appendix D-2 of the VW Settlement provides specific definitions of some of the terms used in the EMAs:

- *All-Electric* means powered exclusively by electricity provided by a battery, fuel cell or the grid.
- *Alternate Fueled* means an engine, vehicle or piece of equipment which is powered by an engine which uses a fuel different from or in addition to gasoline or diesel fuel (e.g., compressed natural gas (CNG), propane or diesel-electric hybrid).
- *Certified Remanufacture System or Verified Engine Upgrade* means engine upgrades certified or verified by EPA or California Air Resources Board (CARB) to achieve a reduction in emissions.
- *Hybrid* means a vehicle that combines an internal combustion engine with a battery and electric motor.
- *Infrastructure* means the equipment used to enable the use of electric powered vehicles (e.g., electric vehicle charging station).
- *Plug-in Hybrid Electric Vehicle (PHEV)* means a vehicle that is similar to a hybrid but is equipped with a larger, more advanced battery that allows the vehicle to be plugged in and recharged in addition to refueling with gasoline. This larger battery allows the car to be driven on a combination of electric and gasoline fuels.
- *Repower* means to replace an existing engine with a newer, cleaner engine or power source that is certified by EPA and, if applicable, CARB, to meet a more stringent set of engine emission standards. Repower includes, but is not limited to, diesel engine replacement with an engine certified for use with diesel or a clean alternate fuel, diesel engine replacement with an electric power source (grid, battery), diesel engine replacement with a fuel cell, diesel engine replacement with an electric generator(s) (genset), diesel engine upgrades in Ferries/Tugs with an EPA Certified Remanufacture System, and/or diesel engine upgrades in Ferries/Tugs with an EPA Verified Engine Upgrade. All-Electric and fuel cell Repowers do not require EPA or CARB certification.
- *Scrapped* means to render inoperable and available for recycle, and, at a minimum, to specifically cut a 3-inch hole in the engine block for all engines. If any Eligible Vehicle will be replaced as part of an Eligible project, scrapped shall also include the disabling of the chassis by cutting the vehicle's frame rails completely in half.
- *Tier 0, 1, 2, 3, 4* means the corresponding EPA engine emission classifications for nonroad, locomotive and marine engines.
- *Zero Emission Vehicle (ZEV)* means a vehicle that produces no emissions from the on-board source of power (e.g., all-electric or hydrogen fuel cell vehicles).

B. EMA Funding and Cost-Share Requirements

The VW Settlement specifies the maximum allowable percentage funding of an EMA's total cost. The percentage is dependent on the EMA category and whether the recipient is a governmental or non-governmental entity. The Commonwealth may choose to fund less than the maximum allowable percentage. According to Appendix D-2, Massachusetts may fund up to 100% of any technology implemented on a government-owned (GOV) vehicle, vessel or equipment. For technologies on a vehicle, vessel, or equipment owned by a non-governmental (NON-GOV) entity, Massachusetts may, depending on whether the EMA allows for the technology, fund:

- Up to 40% of the cost to repower a diesel engine with a new diesel or AF engine;
- Up to 25% of the cost to purchase a new diesel or AF vehicle (except in the case of port drayage trucks, which is up to 50%);
- Up to 75% of the cost to repower a diesel engine with an all-electric engine; or
- Up to 75% of the cost to purchase a new all electric vehicle.

A government entity, according to Appendix D-2, includes a state or local government agency (including a school district, municipality, city, county, special district, transit district, joint powers authority, or port authority, owning fleets purchased with government funds) and a tribal government or native village.

C. Appendix D-2 EMAs

The ten EMAs in Appendix D-2 are listed below. The table following each EMA description shows the group's specific emission reduction technologies, the costs that could be covered, and the maximum percentage amount Massachusetts could fund for a technology, depending upon whether the applicant is a governmental or non-governmental entity.

1. Class 8 Local Freight Trucks and Port Drayage Trucks (Large Trucks)

Eligible trucks must have 1992-2009 model year engines and a Gross Vehicle Weight Rating (GVWR)³ of 33,001 pounds (lbs.) or more; are used for port drayage, freight, and/or cargo delivery; and operate within Massachusetts. As defined by Appendix D-2, drayage trucks are trucks that haul cargo to and from ports and intermodal rail yards.

³ Appendix D-2 defines GVWR as the maximum weight of the vehicle, as specified by the manufacturer. It includes the total vehicle weight plus fluids, passengers and cargo. The total vehicle weight includes the engine, chassis, body, and fuel.

EMAs for Class 8 Local Freight Trucks	Costs Covered	Maximum Allowable Funding %	
		GOV	NON-GOV
Repower w/new diesel or AF engine	Engine purchase & installation	100%	40%
Replace w/new diesel or AF vehicle	Vehicle purchase	100%	25% (50% for port drayage)
Repower w/all-electric engine	Engine purchase & purchase & installation of electric charging & fuel cell infrastructure	100%	75%
Replace w/new all-electric vehicle	Vehicle purchase & purchase & installation of electric charging & fuel cell infrastructure	100%	75%

2. Class 4 through 8 School, Shuttle, or Transit Buses

Eligible buses must have model year 2009 or older engines and a GVWR of 14,001 lbs. or more and are used for transporting people. Appendix D-2 defines school buses as Class 4-8 buses sold or introduced into interstate commerce for purposes that include carrying students to and from school or related events, and that may be Type A through D buses. Note that for this EMA group, government buses include privately-owned buses under contract with a public school district.

EMAs for Class 4-8 School, Shuttle or Transit Buses	Costs Covered	Maximum Allowable Funding %	
		GOV	NON-GOV
Repower w/new diesel or AF engine	Engine purchase & installation	100%	40%
Replace w/new diesel or AF vehicle	Vehicle purchase	100%	25%
Repower w/all-electric engine	Engine purchase & purchase & installation of electric charging & fuel cell infrastructure	100%	75%
Replace w/new all-electric vehicle	Vehicle purchase & purchase & installation of electric charging & fuel cell infrastructure	100%	75%

3. Freight Switchers

As defined by Appendix D-2, eligible freight switchers are locomotives that move rail cars around a rail yard (as compared to a line-haul engine that moves freight long-distances); have pre-Tier 4 engines; and operate 1,000 hours or more per year. Pre-Tier 4 switcher engines are model year 2014 and older models. Appendix D-2 defines a generator set (genset) as a switcher locomotive equipped with multiple engines that can turn off one or more engines to reduce emissions and save fuel depending on the load it is moving.

EMAs for Freight Switchers	Costs Covered	Maximum Allowable Funding %	
		GOV	NON-GOV
Repower w/new diesel or AF engine or genset	Engine purchase & installation	100%	40%
Replace w/new diesel or AF switcher and/or genset	Switcher purchase	100%	25%
Repower w/all-electric engine or genset	Engine or genset purchase & purchase & installation of electric charging & fuel cell infrastructure	100%	75%
Replace w/new all-electric switcher and/or genset	Switcher and/or genset purchase & purchase & installation of electric charging & fuel cell infrastructure	100%	75%

4. Ferries/Tugs

Eligible ferries and tugs have unregulated, Tier 1 or Tier 2 marine engines as classified by EPA. As defined by Appendix D-2, tugs are dedicated vessels that push or pull other vessels in ports, harbors and inland waterways (e.g., tugboats and towboats). As noted in the Appendix D-2 definition of a repower, repowers for ferries and tugs include diesel engine upgrades with an EPA or CARB Certified Remanufacture System and/or an EPA or CARB Verified Engine Upgrade.

EMAs for Ferries/Tugs	Costs Covered	Maximum Allowable Funding %	
		GOV	NON-GOV
Repower w/new Tier 3 or 4 diesel or AF engine	Engine purchase & installation	100%	40%
Diesel engine upgrade w/Certified Remanufacture System and/or Verified Engine Upgrade	Engine purchase & installation	100%	40%
Repower w/all-electric engine	Engine purchase & purchase & installation of electric charging & fuel cell infrastructure	100%	75%

5. Shorepower for Ocean-Going Vessels (OGV)

Eligible OGV shorepower are systems that enable a compatible vessel's main and auxiliary engines to remain off while the vessel is at berth. Components eligible for funding are listed in the table. Marine shore power systems must comply with international shore power design standards (ISO/IEC/IEEE 80005-1-2012 High Voltage Shore Connection Systems or IEC/PAS 80005-3:2014 Low Voltage Shore Connection Systems) and should be supplied with power sources from the local utility grid.

EMA for OGV Shorepower	Costs Covered	Maximum Allowable Funding %	
		GOV	NON-GOV
Shore-side system	Cables, cable management systems, shore power coupler systems, distribution control systems, and power distribution	100%	25%

6. Class 4 through 7 Local Freight Trucks (Medium Trucks)

Freight trucks in this category have 1992 through 2009 model year engines, a GVWR between 14,001 and 33,000 lbs., and operate within Massachusetts. As defined by Appendix D-2, local freight trucks are trucks, including commercial trucks, that are used to deliver cargo and freight (e.g., courier services, delivery trucks, box trucks moving freight, waste haulers, dump trucks, concrete mixers).

EMAs for Class 4-7 Local Freight Trucks	Costs Covered	Maximum Allowable Funding %	
		GOV	NON-GOV
Repower w/new diesel or AF engine	Engine purchase & installation	100%	40%
Replace w/new diesel or AF vehicle	Vehicle purchase	100%	25%
Repower w/all-electric engine	Engine purchase & purchase & installation of electric charging & fuel cell infrastructure	100%	75%
Replace w/new all-electric vehicle	Vehicle purchase & purchase & installation of electric charging & fuel cell infrastructure	100%	75%

7. Airport Ground Support Equipment (GSE)

Eligible airport GSE includes Tier 0, Tier 1, or Tier 2 diesel powered equipment; and uncertified, or certified to 3 grams per brake horsepower-hour or higher emissions, spark ignition powered equipment. Appendix D-2 defines airport GSE as vehicles and equipment used at an airport to service aircraft between flights.

EMAs for Airport GSE	Costs Covered	Maximum Allowable Funding %	
		GOV	NON-GOV
Repower w/all-electric engine	Engine purchase & purchase & installation of electric charging & fuel cell infrastructure	100%	75%
Replace w/new all-electric equipment	Equipment purchase & purchase & installation of electric charging & fuel cell infrastructure	100%	75%

8. Forklifts and Port Cargo Handling Equipment (CHE)

As defined by Appendix D-2, eligible forklifts with over 8,000 lbs. lift capacity are nonroad equipment used to lift and move materials short distances and generally have

tines to lift objects. Examples include reach stackers, side loaders and top loaders. Eligible port CHE are rubber-tired gantry cranes, straddle carriers, shuttle carriers, and terminal tractors, including yard hostlers and yard tractors that operate within ports. No model years or emission standard tiers are specified in this group's eligibility requirements.

EMAs for Forklifts and Port CHE	Costs Covered	Maximum Allowable Funding %	
		GOV	NON-GOV
Repower w/all-electric engine	Engine purchase & purchase & installation of electric charging & fuel cell infrastructure	100%	75%
Replace w/new all-electric equipment	Equipment purchase & purchase & installation of electric charging & fuel cell infrastructure	100%	75%

9. Light Duty Zero Emission Vehicle Supply Equipment (EVSE)

Massachusetts can use up to 15% of its Trust funding to support the acquisition, installation and maintenance of equipment for both the electric and hydrogen fuel cell options, including:

- Level 1, Level 2, or fast charging equipment (or analogous successor technologies) that is located in a public place, workplace, or multi-unit dwelling and not at a private residential dwelling that is not a multi-unit dwelling; and
- Light duty hydrogen fuel cell equipment capable of dispensing hydrogen at a pressure of 70 megapascals (MPa) (or analogous successor technologies) that is located in a public place.

Funding cannot be used to purchase or rent real estate, other capital costs (e.g., construction of buildings, parking facilities, etc.) or general maintenance (i.e., maintenance other than of the supply equipment).

EMAs for Light Duty Zero Emission VSE	Maximum Allowable Funding %
Open to public at government-owned property	100%
Open to public at non-government owned property	80%
At workplace not open to general public	60%
At multi-unit dwelling not open to general public	60%

EMAs for Light Duty Hydrogen Fuel Cell VSE	Maximum Allowable Funding %
Open to public and able to dispense at least 250 kg/day	33%
Open to public and able to dispense at least 100 kg/day	25%

10. Diesel Emissions Reduction Act (DERA) Option

Massachusetts may use Trust funds for its match or overmatch of funding for the federal DERA Clean Diesel State Grant, which EPA distributes to states for diesel emission reduction projects. This option would allow MassDEP to use the funds for emission reduction projects not specified in EMAs one through nine but that are otherwise eligible under DERA. Actions available under DERA that are not eligible under the nine EMAs include retrofits, idle reduction technology, electrification of parking spaces at truck stops and engine remanufacture for several engine groups. DERA also allows states to fund projects on engines manufactured in earlier model years than those specified for the EMAs.

The eligibility of the engine groups in EMAs 1-9 and the DERA Option overlap. For example, EMAs #1 and #6 regarding Class 8 Freight Trucks weighing 33,001 lbs. or more and Class 4 through 7 Freight Trucks weighing between 14,001 lbs. and 33,000 lbs., respectively, are similar to DERA's category of Class 5 through 8 Medium and Heavy Duty Highway Vehicles. In this DERA category, the vehicle weight eligibility is 16,001 lbs. and over.

The maximum funding levels for DERA projects also differ from those established for the other EMAs (DERA is most often lower, but sometimes higher). Therefore, the maximum funding level available for a particular project would differ depending on whether it is funded through the DERA EMA vs. another EMA. Information on the DERA Option, including a comparison of the EMAs and the DERA Option eligible actions can be found at <https://www.epa.gov/cleandiesel/vw-settlement-dera-option-supporting-documents>.

V. Response Submission Instructions

Respondents should follow the directions below to submit a response to some or all of the MassDEP Information Requests listed in RFI Section VI below. Please note that MassDEP will not acknowledge or return responses to this RFI.

A. RFI Submission Requirements

1. All responses to this RFI are due by 5:00 p.m. (EDT) on May 18, 2018.
2. Electronic responses via e-mail are preferred, although hard copy responses will be accepted. The subject line of the e-mail containing the response to this RFI should state: "Response to VW RFI."
3. For electronic submissions, MassDEP requests that Respondents compress (i.e., use a zip file) attachments with file sizes exceeding 10 MB to ensure message delivery. The response should be in a format readable by Open Office: text or spreadsheet document; and/or Microsoft: Word or Excel.
4. Responses should be sent to the contact listed in RFI Section V.C.

B. RFI Response Format

1. Respondents to this RFI are highly encouraged to use the electronic spreadsheet posted with this RFI on www.commbuys.com and on MassDEP's webpage at <https://www.mass.gov/guides/volkswagen-diesel-settlements-environmental-mitigation>. The spreadsheet includes two tabs: "Existing equipment" and "New equipment." "Existing equipment" is for data on existing vehicle, vessel, and equipment fleets and engines. "New equipment" is for data on replacement engines or vehicles or equipment.
2. RFI responses must include:
 - a. The name, address, phone number, website, and brief description of the responding individual/entity;
 - b. The name, title, phone number and email address of the entity's contact person for this RFI;
 - c. A description of the entity's experience regarding the information provided in the response;
 - d. A list of States or other jurisdictions in which the entity's products/services have been or are currently being used, if applicable;
 - e. The number of years the entity has been in operation, if applicable;
 - f. The Respondent's name on every page; and,
 - g. A reference to each question the Respondent is answering (e.g., "VI.A.1.", "VI.B.1.a.", "VI.D.6.") and the EMA that is the subject of the response.

C. MassDEP Contact Information

Please direct all communications, questions, and responses to:

Susan Lyon
Massachusetts Department of Environmental Protection
1 Winter St., 6th Floor
Boston, MA 02108
Susan.lyon@state.ma.us

D. Advisories

1. Costs

By submitting a response, Respondents agree that any cost incurred in responding to this RFI, or in support of activities or presentations associated with this RFI, shall be the sole responsibility of the submitting Respondent. MassDEP shall not be held responsible for any costs incurred by Respondents in preparing their respective responses to this RFI.

2. Ownership of Submitted Materials/Public Records

Any responses to this RFI that are submitted to MassDEP become the property of MassDEP and will be maintained by and made accessible to outside parties at the discretion of MassDEP. All responses to this RFI will be public record under the

Commonwealth's Public Records Law, M.G.L. c. 66, §10, regardless of any confidentiality notices set forth on such RFI responses.

3. Contract or Agreement for Services

This RFI is for information gathering purposes only; it is not a formal solicitation for products or services. This RFI is not a contract or a contract solicitation. Submission of a response to this RFI does not create any obligations, contractual or otherwise, on behalf of MassDEP. This RFI does not in any way require MassDEP to issue or amend a solicitation or to include any of the RFI provisions or responses in any existing or future solicitation. Submission of a response to this RFI does not create any type or level of agency or partnership or any employer/employee relationship between the submitting entity and MassDEP.

4. Review Rights

MassDEP reserves the right to have a review performed of any and all responses to this RFI, including materials presented at any presentations. Said review may be conducted by, but is not limited to, officials of MassDEP or any Massachusetts state agency and any independent consultants retained by them.

E. Additional Information

MassDEP retains the right to request additional information or clarification from Respondents. MassDEP may, at its sole discretion, elect to request formal presentations from certain vendors of the products or services detailed in their response submissions.

F. Respondent Questions

Respondents may only make inquiries and request clarification concerning this RFI by written questions via e-mail to the contact listed in RFI Section IV.C. by 5:00 pm (EDT) on April 30, 2018. The subject line of Respondent's e-mail should read "Questions on VW RFI."

Responses to inquiries and clarification questions will be provided electronically to all interested parties via a posting on www.commbuys.com and MassDEP's website. MassDEP will post responses by 5:00 pm (EDT) May 4, 2018. Information will not be provided by telephone or e-mail. MassDEP shall not be bound by any verbal or written information that is not contained within the RFI documents or formally noticed and issued on www.commbuys.com and MassDEP's website.

VI. MassDEP Information Requests

A. Fleet Data

Massachusetts has recently updated its inventory of the diesel vehicles and engines in the state and the estimated fine particulate matter emissions (see <https://www.mass.gov/lists/massdep-emissions-inventories#diesel-particulate-matter-inventories>). MassDEP is seeking the following information and/or data:

- 1. Are there any data gaps on which you can offer information?*
- 2. Please submit data that you would like to share regarding existing fleets that might constitute possible equipment/engines to be replaced under an EMA. Such information should be included on the "Existing equipment" tab of the spreadsheet accompanying this RFI.*

B. Potential Project Priorities

MassDEP is seeking the following information and/or data on potential project priorities:

- 1. Should certain EMAs be prioritized?*
- 2. Should a certain percentage of available funds be reserved for government projects?*
- 3. Should MassDEP prioritize more immediate, shovel-ready projects over future projects that would incorporate advanced technologies or may be available at lower cost?*
- 4. What would be the best way to provide geographic coverage in less populous areas of the state or, for vendors, outside of your regular service area?*
- 5. Should MassDEP reserve funding for emerging technologies for specific EMAs? Which EMA would be most suitable for this and why?*
- 6. Should MassDEP consider pilot or demonstration projects for certain EMAs? If yes, specify the EMA in RFI Section IV.C.*

C. Project Demand

The VW Settlement allows for funding equal to or less than 100% of the cost of EMAs for government-owned engines/vehicles/equipment. MassDEP is seeking the following information and/or data:

- 1. Are there thresholds at which a cost-share requirement would become prohibitive for a government entity? For a non-government entity? Specify whether your response varies by the project types listed under the EMAs in RFI Section IV.C.*
- 2. If you are interested in proposing a project, what other public and private sources funds are available to match and leverage VW settlement funds?*
- 3. What is the anticipated demand for diesel emission reduction projects not eligible under the VW Settlement but otherwise eligible under DERA?*

D. Technology Supply and Timelines

All US states, territories and federally-recognized tribes will receive VW funding and will be implementing one or more EMAs, creating a possible restriction in the supply chain for the new engines, vehicles and equipment. MassDEP is seeking the following information and/or data:

1. *If you have information that you would like to share on the costs and available models of replacement engines, vehicles, EVSE or other equipment, please submit it on the “New equipment” tab of the spreadsheet accompanying this RFI.*
2. *How many replacement engines, vehicles, EVSE or other equipment can be manufactured and delivered for installation in one month? Specify for each EMA in RFI Section IV.C.*
3. *Because of the predicted increase in the number of installations, do you anticipate any backlog or delay in manufacturing or delivery? What can MassDEP do to alleviate any delays?*
4. *What is a typical timeline to repower an engine? Provide time frames from ordering to delivery to installation for each EMA in RFI Section IV.C.*
5. *What is a typical timeline to replace a vehicle or piece of equipment? Provide time frames from ordering to delivery to installation for each EMA in RFI Section IV.C.*
6. *How many engine repowers can be installed in one month?*
7. *What is a typical timeline to install EVSE, including power supply (e.g., trenching, conduit, upgrading electric service/panel)?*
8. *MassDEP recognizes that both government and non-government entities have budget cycles which may impact their ability to apply for and/or utilize EMA funding. Please describe your funding cycle and timeline from initial proposal through funding approval.*

E. Emission Reduction Technologies

The primary technologies that Appendix D-2 allows are engine replacement, repowering, and electrification, although verified engine upgrades and certified remanufactures are allowed under the ferry and tug boat EMA. MassDEP is seeking the following information and/or data:

1. Repowers

- a. *What kinds of problems and/or challenges are associated with repowers? Specify whether the repower is from diesel to a new diesel, AF, or all electric engine.*

2. Verified Engine Upgrades and Certified Remanufactures

- a. *What kinds of problems and/or challenges are associated with verified engine upgrades and certified remanufactures?*

3. Shore Power

- a. *What are the general power needs for an OGV to use shore power (i.e., kilowatts and kilowatt hours)?*
- b. *What are required charging times for an OGV?*
- c. *What are issues associated with shore power for OGVs?*
- d. *Are there specific ports in Massachusetts that are suitable for OGV shore power?*

4. Replacements

- a. *What kinds of problems and/or challenges are associated with replacing a vehicle or piece of equipment? Specify whether the replacement is from a diesel vehicle/equipment to a new diesel, AF, or all electric vehicle/equipment.*

F. Emission Reductions

MassDEP must estimate emission reductions of NO_x, PM_{2.5}, and GHG achieved from implementing the EMAs. MassDEP is seeking the following information and/or data:

1. *Besides EPA's Diesel Emissions Quantifier, what available tool(s) should be used to quantify the anticipated emission reductions from non-road equipment & on-road vehicles?*
2. *What available tool(s) are there to quantify emission reductions from marine engines?*

G. Scrappage

MassDEP is seeking the following information and/or data:

1. *What are the problems and/or challenges associated with scrappage?*
2. *What can MassDEP do alleviate any issues with scrappage?*

H. Light Duty Zero Emission EVSE

MassDEP is seeking the following information and/or data:

1. Electric Vehicle Charging Infrastructure
 - a. *Considering other EVSE programs and efforts in Massachusetts, what types of projects and types of locations should be funded with the VW settlement? How can MassDEP leverage private sector funding to reduce total project costs?*
 - b. *What criteria should MassDEP consider in selecting one electric vehicle charging station project over another?*
 - c. *What are the best methods and/or tools to quantify the costs and/or benefits of installing a charger at a particular site in terms of GHG savings, economic and socioeconomic benefits?*
 - d. *How will fast charging and charging infrastructure technology, and costs change within the next three to five years? Charging times have decreased in the recent past, how will charging times change in the future?*
 - e. *Are there relevant strategies MassDEP should be aware of with respect to managing peak electrical demand? Are there accurate ways to estimate the peak electrical demand emissions or emission reductions associated with EVSE? Are there strategies to reduce impacts of demand charge costs and if so, what are the costs?*
 - f. *Massachusetts is interested in the interoperability of charging stations. What requirements should be required of EVSE providers? What strategies or*

requirements should MassDEP consider to avoid cyber-security vulnerabilities with EVSE charging stations and their connecting networks and interfaces?

g. For EVSE vendors, can the charging station(s) be upgraded in the future to dispense more power should the need arise? Are there new technologies on the horizon that could influence project selection in the future?

2. Hydrogen Fueling Infrastructure

a. Are there locations within the state that would allow for both commercial and public fleet refueling?

b. How will hydrogen fueling infrastructure technology and cost change within the next three to five years?

c. What criteria should MassDEP consider in selecting hydrogen fueling station project(s)?

d. What economically viable partnerships exist or can be created to deploy hydrogen fueling infrastructure in Massachusetts?

I. Other Information

If you have any other information that you believe would be informative to this process, please include that information in your RFI response.

Public Posting of RFI

This RFI has been posted on the Commonwealth of Massachusetts's procurement portal, www.commbuys.com and the MassDEP website, <https://www.mass.gov/guides/volkswagen-diesel-settlements-environmental-mitigation>. If MassDEP finds it necessary to supplement, modify, or interpret any portion of the RFI documents, a written "Amendment" will be posted on www.commbuys.com and the MassDEP website.

MassDEP appreciates your response to this RFI.

Acronyms

AF	Alternate Fueled
CARB	California Air Resources Board
CHE	Cargo Handling Equipment
CNG	Compressed Natural Gas
DERA	Diesel Emissions Reduction Act
EMA	Eligible Mitigation Action
EPA	(U.S.) Environmental Protection Agency
EVSE	Electric Vehicle Supply Equipment
GHG	Greenhouse Gas
GOV	Government
GSE	Ground Support Equipment

GVWR Gross Vehicle Weight Rating
NON-GOV Non-government
NOx Oxides of Nitrogen
OGV Ocean Going Vessel
ZEV Zero Emission Vehicle