

AGENCY: ENVIRONMENTAL PROTECTION AGENCY (EPA)

TITLE: Clean Diesel Funding Assistance Program FY 2019

ACTION: Request for Applications (RFA)

RFA NUMBER: EPA-OAR-OTAQ-19-01

CATALOG OF FEDERAL DOMESTIC ASSISTANCE (CFDA) NO: 66.039

IMPORTANT DATES

Thursday, December 20, 2018	RFA OPENS
Tuesday, March 26, 2019	RFA CLOSSES – APPLICATIONS DUE
April-May 2019	ANTICIPATED NOTIFICATION OF SELECTION
June-October 2019	ANTICIPATED AWARD

The closing date and time of this announcement is **Tuesday, March 26, 2019, at 11:59 p.m. Eastern Time (ET)**. Application packages must be submitted electronically to EPA through Grants.gov (www.grants.gov) no later than **Tuesday, March 26, 2019, at 11:59 p.m. (ET)** to be considered for funding.

SUMMARY: EPA’s Office of Transportation and Air Quality is soliciting applications nationwide for projects that achieve significant reductions in diesel emissions, particularly from fleets operating at or servicing goods movement facilities located in areas designated as having poor air quality. Further, priority for funding will be given to projects which result in outcomes that benefit affected communities, those that engage affected communities with respect to the design and performance of the project, and those which can demonstrate the ability to promote and continue efforts to reduce emissions after the project has ended.

Eligible diesel emissions reduction solutions include verified emissions control technologies such as engine retrofits, cleaner fuels, and engine upgrades, verified idle reduction technologies, verified aerodynamic technologies and low rolling resistance tires, certified engine replacements, and/or certified vehicle or equipment replacement.

Eligible diesel vehicles, engines and equipment may include buses, Class 5 – Class 8 heavy-duty highway vehicles, marine engines, locomotives and nonroad engines, equipment or vehicles used in construction, handling of cargo (including at a port or airport), agriculture, mining or energy production (including stationary generators and pumps).

Eligible entities include regional, state, or local agencies, tribal governments (or intertribal consortia) and native villages, or port authorities, which have jurisdiction over transportation or air quality, and nonprofit organizations or institutions that: a) represent or provide pollution reduction or educational services to diesel fleets or b) have, as their principal purpose, the promotion of transportation or air quality.

Summary of What EPA Will Fund

- **Verified Engine Retrofit Technologies:** EPA will fund up to 100% of the cost
- **Verified Engine Upgrades and Certified Remanufacture Systems:** EPA will fund up to 40% of the cost
- **Verified Cleaner Fuels and Additives:** EPA will fund the cost differential between the eligible cleaner fuel and conventional diesel fuel if the cleaner fuel is used in combination, and on the same vehicles, with other eligible vehicle/engine technologies funded under this RFA.
- **Verified Idle Reduction Technologies:**
 - **Verified On-Highway Idle Reduction Technologies:** EPA will fund up to 100% of the cost (labor and equipment) for verified idle reduction technologies if combined on the same vehicle with eligible verified engine retrofit technologies. EPA will fund up to 25% of the cost of stand-alone idle reduction technology installations.
 - **Verified Locomotive Idle Reduction Technologies:** EPA will fund up to 40% of the cost
 - **Marine Shore Connection Systems:** EPA will fund up to 25% of the cost
 - **Electrified Parking Spaces:** EPA will fund up to 30% of the cost
- **Verified Aerodynamic Technologies and Low Rolling Resistance Tires:** EPA will fund up to 100% of the cost (labor and equipment) of verified aerodynamic technologies or verified low rolling resistance tires if the technology is combined on the same vehicle with a new eligible verified engine retrofit technology funded under this RFA.
- **Certified Engine Replacement:** EPA will fund: up to 40% of the cost of a diesel or alternative fueled engine (including hybrids) certified to EPA emission standards; up to 50% of the cost of an engine certified to meet CARB's Optional Low-NO_x Standards; up to 60% of the cost of a zero tailpipe emission power source.
- **Certified Vehicle/Equipment Replacement:** EPA will fund: up to 25% of the cost of a replacement vehicle or piece of equipment powered by a diesel or alternative fueled engine (including hybrids) certified to EPA emission standards; up to 35% of the cost of a replacement vehicle or piece of equipment powered by an engine certified to meet CARB's Optional Low-NO_x Standards; up to 45% of the cost of a replacement vehicle or piece of equipment powered by a zero tailpipe emission power source.
 - **Replacement of Drayage Trucks:** EPA will fund up to 50% of the cost.
- **Certified Clean Alternative Fuel Conversion:** EPA will fund up to 40% of the cost.

NOTE: If you intend to name a contractor (including an individual consultant) or a subrecipient as a project partner or otherwise in your application, EPA recommends that you carefully review, and comply with, the directions contained in the “Contracts and Subawards” clause found under Section IV.G., “Additional Provisions for Applicants Incorporated into the Solicitation.”

FUNDING / AWARDS

EPA anticipates awarding approximately \$40 million in DERA funding under this announcement. Awards will be issued and managed through EPA's Regional Offices. EPA anticipates awarding 2 to 8 cooperative agreements per EPA Region, subject to the availability of funds, the quality of applications received, and other applicable considerations.

TABLE OF CONTENTS

TITLE: Clean Diesel Funding Assistance Program FY 2019	1
I. FUNDING OPPORTUNITY DESCRIPTION	4
A. Background	4
B. Scope of Work	4
C. EPA Strategic Plan Linkage, Anticipated Outputs/Outcomes and Performance Measures	17
D. Statutory Authority	20
II. AWARD INFORMATION	21
A. What is the amount of funding available?	21
B. Partial Funding	22
C. How many agreements will EPA award in this competition?	22
D. What is the project period for awards resulting from this solicitation?	22
E. Funding Type	22
III. ELIGIBILITY INFORMATION	23
A. Eligible Entities	23
B. Mandatory and Voluntary Cost Share	24
C. Threshold Eligibility Criteria	27
D. Funding Restrictions	28
IV. APPLICATION AND SUBMISSION INFORMATION	35
A. Project Location for Application Submission	35
B. Requirement to Submit Through Grants.gov and Limited Exception Procedures	36
C. Grants.gov Application Submission Instructions (see Appendix A)	37
D. Content of Application Submission	37
E. Submission Date and Time	40
F. Information Sessions	40
G. Additional Provisions for Applicants Incorporated into the Solicitation	40
H. How to Fund Projects and Partnerships	40
V. APPLICATION REVIEW INFORMATION	40
A. Evaluation Criteria	41
B. Review and Selection Process	44
C. Other Factors	45
D. Additional Provisions for Applicants Incorporated Into the Solicitation	45
VI. AWARD ADMINISTRATION INFORMATION	45
A. Award Notices	45
B. Administrative and National Policy Requirements	46
C. Reporting Requirement	46
D. Disputes	46
E. Additional Provisions for Applicants Incorporated Into the Solicitation	46
VII. AGENCY CONTACTS	46
APPENDIX A – Grants.gov Application Submission Instructions	48
APPENDIX B – Project Narrative Instructions, Format, and Content	51
APPENDIX C – Quantifying Environmental Outcomes	65
APPENDIX D – Mandated Measures Justification	69
APPENDIX E – How to Fund Projects and Partnerships	78
APPENDIX F – Application Submission Checklist	82

I. FUNDING OPPORTUNITY DESCRIPTION

A. Background

Reducing emissions from diesel engines is one of the most important air quality challenges facing the country. Despite EPA's diesel engine and fuel standards for new engines, the nearly ten million legacy diesel engines already in use continue to emit large amounts of NO_x and PM_{2.5}, which contribute to serious public health problems, including asthma, lung cancer and various other cardiac and respiratory diseases. These problems result in thousands of premature deaths, millions of lost work days, and numerous other negative health impacts every year.

To protect public health and air quality by addressing these diesel emissions, the U.S. Environmental Protection Agency (EPA) established the National Clean Diesel Campaign (NCDC). NCDC promotes clean air strategies by working with manufacturers, fleet operators, air quality professionals, environmental and community organizations and state and local officials to reduce diesel emissions. NCDC supports EPA's goal of furthering environmental justice by prioritizing emissions reductions in areas receiving disproportionate impacts from diesel fleets to provide an environment where all people enjoy the same degree of protection from environmental and health hazards.

The Diesel Emissions Reduction Act (DERA), codified at 42 U.S.C. 16131 *et seq.*, authorizes EPA to offer funding assistance to eligible entities on a competitive basis. Fiscal Year (FY) 2008 was the inaugural year of funding for the DERA program, and since then EPA has awarded funds for over 530 grant projects and 390 rebate projects to reduce diesel emissions nationwide. Specific information on these funded projects can be found at: www.epa.gov/cleandiesel/clean-diesel-national-grants-awarded and www.epa.gov/cleandiesel/clean-diesel-rebates-issued-2012-2017.

Through this Request for Applications (RFA), EPA is announcing a competitive funding opportunity for projects that achieve significant reductions in diesel emissions from mobile sources. The agency anticipates awarding approximately \$40 million in DERA grant funding under this announcement to eligible entities. Awards will be issued and managed through EPA's Regional Offices. EPA anticipates awarding 2 to 8 cooperative agreements per EPA Region, subject to the availability of funds, the number and quality of applications received, and other applicable considerations.

B. Scope of Work

A single application may target multiple fleets, fleet types and/or diesel emissions reduction solutions.

- 1. Eligible Diesel Vehicles, Engines and Equipment:** Projects may include, but are not limited to, diesel emissions reduction solutions from the following heavy-duty diesel emissions source types:

- a. Buses^{1,2};
- b. Medium-duty or heavy-duty trucks³;
- c. Marine Engines;
- d. Locomotives; and
- e. Nonroad engines, equipment or vehicles used in:
 - 1) Construction;
 - 2) Handling of cargo;
 - 3) Agriculture;
 - 4) Mining; or
 - 5) Energy production (including stationary generators and pumps).

Please see Section III.D. Funding Restrictions, for additional information on vehicle and engine eligibility.

Transport Refrigeration Units (TRUs) are eligible nonroad equipment. Please refer to the FY 2019 DERA TRU Factsheet available under Supporting Documents at www.epa.gov/cleandiesel/clean-diesel-national-grants#rfa for specific information on eligible TRU projects.

- 2. **Eligible Diesel Emissions Reduction Solutions:** Projects must include one or more of the following diesel emissions reduction solutions that utilize a certified engine configuration and/or a verified technology.
 - a. **Diesel Engine Retrofit Technologies:** Diesel engine retrofits are one of the most cost-effective solutions for reducing diesel engine emissions. Retrofits include pollution control devices installed in the exhaust system, such as diesel oxidation catalysts (DOCs) and diesel particulate filters (DPFs), or systems that include closed crankcase ventilation (CCV) filtration systems. Older, heavy-duty diesel vehicles that will not be scrapped, retired or replaced for several years are good candidates for retrofits.

This funding can cover up to 100% of the cost (labor and equipment) for an eligible verified diesel engine retrofit technology. The eligible cost of retrofits includes the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the

¹ For the purposes of this RFA, buses include school buses of Type A, B, C and D. To be eligible as a school bus a vehicle should meet the definition of a school bus as defined by the National Highway Transportation Safety Administration. This definition includes but is not limited to: 1) A bus that is used for purposes that included carrying students to and from school or related events on a regular basis; 2) Be identified with the words “School Bus”; and 3) Be painted National School Bus Glossy Yellow.

² For the purposes of this RFA, buses include and medium and heavy-duty transit buses (see footnote 3, below).

³ For the purposes of this RFA, medium heavy-duty and heavy heavy-duty highway vehicles are defined as Class 5 through Class 8: Class 5 (16,001 -19,500 lbs GVWR); Class 6 (19,501 - 26,000 lbs GVWR); Class 7 (26,001 - 33,000 lbs GVWR); Class 8a (33,001 - 60,000 lbs GVWR); Class 8b (60,001 lbs GVWR and over).

equipment functional, including related labor expenses. Examples of eligible retrofit costs include, but are not limited to: DPF cleaning machines, spare DPFs for maintenance rotation, replacement CCV filters, mechanic training, and filter cleaning contracts.

A list of eligible, EPA verified diesel engine retrofit technologies is available at: www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel; a list of eligible, California Air Resources Board (CARB) verified diesel engine retrofit technologies is available at: www.arb.ca.gov/diesel/verdev/vt/cvt.htm. The types (e.g., DOC, DPF, etc.) of retrofits proposed for funding under this category must exist on one of these lists for the specific vehicle/engine application specified in the application at the time of application submission to EPA. If selected for funding, the actual engine retrofit technologies used by the grant recipient must be specifically named on EPA or CARB's Verified Technologies lists at the time of acquisition and used only for the vehicle/engine applications specified on the list, to be eligible for funding. EPA suggests that each applicant requesting diesel particulate filters consult with retrofit suppliers to confirm that the proposed vehicles/engines and their duty-cycles are good candidates for DPFs.

Please see Section III.D. Funding Restrictions, for additional information on the eligibility of verified diesel engine retrofit technologies.

- b. Engine Upgrades and Remanufacture Systems:** Generally, an engine upgrade involves the removal of parts on an engine during a rebuild and replacement with parts that cause the engine to represent an engine configuration which is cleaner than the original engine. Some nonroad and marine engines can be upgraded to reduce their emissions by applying manufacturer upgrades that are diesel engine retrofits currently verified by EPA or CARB as a package of components demonstrated to achieve specific levels of emissions reductions. Some locomotives and marine engines can be upgraded through the application of a certified remanufacture system that is used to rebuild the engine to represent a cleaner engine configuration. Engine upgrades may not be available for all engines, and not all upgrades may achieve an emissions benefit. Applications for upgrades should include a discussion of the availability of engine upgrade kits/systems and indicate the pre- and post-project emission standard levels of the engines to demonstrate that the upgrade will result in a significant emissions benefit.

Funding can cover up to 40% of the cost (labor and equipment) of an eligible nonroad, locomotive or marine engine upgrade. To be eligible for funding, the upgrade must either be a verified retrofit as described above, or a certified remanufacture system that will result in a significant emissions benefit by rebuilding the engine to a cleaner engine configuration. For an engine to be eligible for an upgrade, the engine must be currently operating and performing its intended function. If a certified remanufacture system for a locomotive includes a full engine replacement, the funding restrictions in Section III.D.6 (Fleet Expansion) will apply. If a certified remanufacture system is applied at the time of rebuild, funds under this award cannot be used for the entire cost of the engine rebuild, but only for the cost of the certified remanufacture system and associated labor costs for installation.

A list of eligible, EPA verified engine upgrade technologies is available at: www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel. Lists of certified remanufacture systems for locomotives and marine engines are available at: www.epa.gov/compliance-and-fuel-economy-data/engine-certification-data, and additional information on remanufacture systems, are available at: www.epa.gov/vehicle-and-engine-certification/remanufacture-systems-category-1-and-2-marine-diesel-engines. Engine upgrades proposed for funding under this category must exist on one of these lists for the specific vehicle/engine application specified in the application at the time of application submission to EPA. If selected for funding, the actual engine upgrades used by the grant recipient must be specifically named on EPA's list of certified remanufacture systems or EPA or CARB's Verified Technologies lists at the time of acquisition and used only for the vehicle/engine applications specified on the lists, to be eligible for funding.

Please see Section III.D. Funding Restrictions, for additional information on the eligibility of engine upgrades and remanufacture systems.

- c. Cleaner Fuels and Additives:** Eligible cleaner fuels and additives are limited to those verified by EPA and/or CARB to achieve emissions reductions when applied to an existing diesel engine. EPA will not fund stand-alone cleaner fuel/additive use. For new or expanded use, this funding can cover the cost differential between the cleaner fuel/additive and conventional diesel fuel if that cleaner fuel is used in combination, and on the same vehicle, with a new eligible verified engine retrofit or an eligible engine upgrade or an eligible certified engine replacement or an eligible certified vehicle/equipment replacement funded under this RFA, as described in this Section.

A list of eligible, EPA-verified cleaner fuels and additives is available at: www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel; a list of eligible, CARB-verified cleaner fuels and additives is available at: www.arb.ca.gov/diesel/verdev/vt/cvt.htm. The types of fuels and additives (e.g., biodiesel, cetane enhancers) proposed for funding under this category must exist on one of these lists for the specific vehicle/engine application specified in the application and used only for the vehicle/engine applications specified on the list to be eligible for funding.

Please see Section III.D. Funding Restrictions, for additional information on the eligibility of cleaner fuels and additives.

- d. Idle Reduction Technologies:** An idle reduction project is generally defined as the installation of a technology or device that reduces unnecessary idling of diesel vehicles or equipment and/or is designed to provide services (such as heat, air conditioning, and/or electricity) to vehicles and equipment that would otherwise require the operation of the main drive or auxiliary engine(s) while the vehicle is temporarily parked or remains stationary. The reduction in idling will conserve diesel fuel and must also lower emissions.

Lists of eligible, EPA verified idle reduction technologies are available at: www.epa.gov/verified-diesel-tech/smartway-technology. The types of idle reduction technologies proposed for funding under this category must exist on this list for the vehicle/engine application specified in the application at the time of application submission to EPA. The technology categories include: Auxiliary power units and generator sets, battery air conditioning systems, thermal storage systems, electrified parking spaces (truck stop electrification), fuel operated heaters, shore connection systems and alternative maritime power, shore connection systems for locomotives, and automatic shutdown/start-up systems for locomotives. The actual idle reduction technologies used must be specifically named on EPA's SmartWay Verified Technologies list at the time of acquisition and used only for the vehicle/engine applications specified on the list, to be eligible for funding.

- 1) **Locomotive Idle Reduction Technologies:** Funding can cover up to 40% of the cost (labor and equipment) of eligible verified idle reduction technologies for locomotives.
- 2) **Electrified Parking Spaces:** Electrified Parking Spaces (EPS), also known as Truck Stop Electrification (TSE), operates independent of the truck's engine and allows the truck engine to be turned off as the EPS system supplies heating, cooling, and/or electrical power. The EPS system provides off-board electrical power to operate either:
 - an independent heating, cooling, and electrical power system, or
 - a truck-integrated heating and cooling system, or
 - a plug-in refrigeration system that would otherwise be powered by an engine.

Funding can cover up to 30% of the cost (labor and equipment) of eligible electrified parking space technologies, including the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment functional. Examples of eligible EPS costs include, but are not limited to, the purchase and installation of electrical infrastructure or equipment to enable heating, cooling, and the use of cab power for parked trucks, or to enable the use of power for transport refrigeration units (TRUs) and auxiliary power systems at distribution centers, intermodal facilities, and other places where trucks congregate. Examples of ineligible costs for EPS include but are not limited to: on-board auxiliary power units and other equipment installed on trucks; equipment and services unrelated to heating and cooling (e.g., telephone, internet, television, etc.); TRUs; electricity costs; and operation and maintenance costs.

- 3) **Marine Shore Power Connection Systems:** Shore power systems allow maritime vessels to "plug into" an electrical power source instead of using diesel main or auxiliary engines while at port. This funding can cover up to 25% of the cost (labor and equipment) of eligible marine shore power connection systems, including the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment functional. Examples of eligible marine shore power connection costs include but are not limited to various components such as cables, cable management

systems, shore power coupler systems, distribution control systems, transformers, grounding switches, service breakers, capacitor banks, and power distribution. Funding may support new installations, or expansions of existing shore power systems. Examples of ineligible costs for marine shore power connection systems include, but are not limited to, shipside modifications to accept shore-based electrical power, electricity costs, and operation and maintenance costs. Due to the unique nature and custom design of marine shore power connection systems, EPA will review and approve the marine shore power connection system proposed by the applicant on a case-by-case basis.

- a) Marine Shore Power Criteria:** Projects are eligible for funding on the condition that the following criteria are satisfied:
 - i.** Applicants must attest to compliance with international shore power design standards (ISO/IEC/IEEE 80005-1:2012 High Voltage Shore Connection Systems or the IEC/PAS 80005-3:2014 Low Voltage Shore Connection Systems).
 - ii.** Shore power connection systems must be supplied with electricity from the local utility grid.
 - iii.** Demonstration that the proposed system has the capacity, demand, and commitment to be utilized for more than 1,000 MW-hours per year. Smaller projects will be considered if the applicant can demonstrate cost/benefits.
 - iv.** If the project application is selected for funding, the final design of the marine shore power connection system will require specific EPA approval prior to purchase and installation.
 - v.** Applicants must commit to reporting usage information to EPA for five years after the system is operational.
 - vi.** Shore power capable vessels docked at a berth where shore power is available must be required to turn off the vessel's engines and utilize the shore power system, with limited exceptions for extreme circumstances.
- b) Marine Shore Power Project Description:** Applicants proposing marine shore power connection systems should provide a project description that includes, but is not limited to:
 - i.** the annual number of ship visits to berth where the shore power system is to be installed;
 - ii.** average hoteling (or idling) time per visit; and
 - iii.** information about the fleet of vessels that has, or will have, the ability to use the shore-side connection system, including:
 - the estimated annual number of ship visits to the shore power enabled berth that will utilize the shore power system;
 - estimated annual hoteling hours using shore power system;
 - fuel type and average sulfur content of fuel used in the auxiliary engines for each vessel;
 - auxiliary engine and boiler information for each vessel;
 - estimated annual hoteling load requirements (MW-hours);
 - iv.** any documented commitment of visits and hours by the fleet of vessels that has, or will have, the ability to use the shore-side connection system; and

v. estimated emissions reductions based on the methodology in Appendix C.

- 4) **Highway Idle Reduction Technologies:** Funding can cover up to 100% of the cost (labor and equipment) for verified idle reduction technologies installed on long haul Class 8 trucks and school buses, if combined on the same vehicle with the new installation of one or more of the Verified Engine Retrofit Technologies funded under this RFA, as described in this Section. Funding can cover up to 100% of the cost (labor and equipment) for verified idle reduction technologies installed on long haul Class 8 trucks and school buses with model year 2006 or older engines that have been previously retrofitted with a verified emission control device. Funding can cover up to 25% of the cost (labor and equipment) of stand-alone installations of eligible, verified idle reduction technologies on long-haul trucks and school buses.

Please see Section III.D. Funding Restrictions, for additional information the eligibility of idle reduction technologies.

- e. **Aerodynamic Technologies and Verified Low Rolling Resistance Tires:** To improve fuel efficiency, long haul Class 8 trucks can be retrofitted with aerodynamic trailer fairings or the fairings can be provided as new equipment options. Certain tire models can provide a reduction in NO_x emissions and fuel savings, relative to the “standard” new tires for long haul Class 8 trucks, when used on all axles.

A list of eligible, EPA verified aerodynamic technologies is available at: www.epa.gov/verified-diesel-tech/smartway-verified-list-aerodynamic-devices, and includes:

- 1) gap fairings that reduce the gap between the tractor and the trailer to reduce turbulence;
- 2) trailer side skirts that minimize wind under the trailer; and
- 3) trailer rear fairings that reduce turbulence and pressure drop at the rear of the trailer.

A list of EPA verified low rolling resistance tires is available at: www.epa.gov/verified-diesel-tech/smartway-verified-list-low-rolling-resistance-lrr-new-and-retread-tire, and includes both dual tires and single wide tires (single wide tires replace the double tire on each end of a drive or trailer axle, in effect turning an "18" wheeler into a "10" wheeler). Low rolling resistance tires can be used with lower-weight aluminum wheels to further improve fuel savings, however aluminum wheels are not eligible for funding under this RFA.

The actual technologies/tires used by the grant recipient must be specifically named on EPA’s SmartWay Verified Technologies list at the time of acquisition and used only for the vehicle/engine applications specified on the list, in order to be eligible for funding.

EPA will not fund stand-alone aerodynamic technologies or low rolling resistance tires. Funding can cover up to 100% of the cost (labor and equipment) for verified aerodynamic technologies or verified low rolling resistance tires installed on long haul

Class 8 trucks, if combined on the same vehicle with the new installation of one or more of the Verified Engine Retrofit Technologies funded under this RFA, as described in this Section.

Note: Low rolling resistance tires are not eligible for funding where these types of tires have already been installed on the truck.

Please see Section III.D. Funding Restrictions, for additional information the eligibility of aerodynamics and tires.

- f. Engine Replacement:** Engine Replacement includes, but is not limited to, diesel engine replacement with an engine certified for use with diesel or a clean alternative fuel, diesel engine replacement with a zero tailpipe emissions power source (grid, battery or fuel cell⁴), and/or diesel engine replacement with an electric generator(s) (genset). Zero tailpipe emissions engine replacements do not require EPA or CARB certification.

The eligible cost of engine replacement includes the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment functional, including related labor expenses. Charges for equipment and parts on engine replacement projects are only eligible for funding if they are included in the certified engine configuration and/or are required to ensure the effective installation and functioning of the new technology but are not part of typical vehicle or equipment maintenance or repair. Examples of ineligible engine replacement costs include, but are not limited to: tires, cabs, axles, paint, brakes, and mufflers. For engine replacement with battery, fuel cell, and grid electric, examples of eligible engine replacement costs include, but are not limited to: electric motors, electric inverters, battery assembly, direct drive transmission/gearbox, regenerative braking system, vehicle control/central processing unit, vehicle instrument cluster, hydrogen storage tank, hydrogen management system, fuel cell stack assembly, and the purchase and installation of electrical infrastructure or equipment to enable the use of power. Examples of ineligible costs include, but are not limited to, electricity, and operation and maintenance costs.

- 1) Locomotive, Marine, and Nonroad Diesel Vehicles and Equipment:
 - a) Funding can cover up to 40% of the cost (labor and equipment) of replacing a diesel engine with a 2019 model year or newer engine certified to EPA emission standards. Previous engine model year engines may be used if the engine is certified to the same emission standards applicable to the engine in EMY 2019. Nonroad, locomotive, and marine engine emission standards are on EPA's website at: www.epa.gov/emission-standards-reference-guide/epa-emission-standards-nonroad-engines-and-vehicles.
 - b) Funding can cover up to 60% of the cost (labor and equipment) of replacing a diesel engine with a zero tailpipe emissions power source.

⁴ Hydrogen fuel cells are only eligible for engine replacements for eligible urban transit buses, shuttle buses, and drayage trucks, as defined in this RFA.

2) Highway Diesel Vehicles:

- a) Funding can cover up to 40% of the cost (labor and equipment) of replacing a diesel engine with a 2016 model year or newer engine certified to EPA emission standards. Highway engine emission standards are on EPA's website at: www.epa.gov/emission-standards-reference-guide/epa-emission-standards-heavy-duty-highway-engines-and-vehicles.
- b) Funding can cover up to 50% of the cost (labor and equipment) of replacing a diesel engine with a 2016 model year or newer engine that is certified to CARB's Optional Low-NO_x Standards of 0.1 g/bhp-hr, 0.05 g/bhp-hr, or 0.02 g/bhp-hr NO_x. Engines certified to CARB's Optional Low NO_x Standards may be found by searching CARB's Executive Orders for Heavy-duty Engines and Vehicles, found at: www.arb.ca.gov/msprog/onroad/cert/cert.php.
- c) Funding can cover up to 60% of the cost (labor and equipment) of replacing a diesel engine with a zero tailpipe emissions power source.

Please see Section III.D. Funding Restrictions, for additional information on the eligibility of engine replacements.

- g. Vehicle and Equipment Replacements:** Nonroad and highway diesel vehicles and equipment, locomotives, and marine vessels can be replaced under this program with newer, cleaner vehicles and equipment that operate on diesel or alternative fuels and use engines certified by EPA and, if applicable, CARB to meet a more stringent set of engine emission standards. Replacement includes, but is not limited to, diesel vehicle/equipment replacement with newer, cleaner diesel, zero tailpipe emission (grid, battery or fuel cell⁵), hybrid or alternative fuel vehicles/equipment. Zero tailpipe emissions vehicles and equipment do not require EPA or CARB certification.

The eligible cost of a vehicle/equipment replacement includes the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment functional. The cost of additional "optional" components or "add-ons" that significantly increase the cost of the vehicle may not be eligible for funding under the grant; the replacement vehicle should resemble the replaced vehicle in form and function. For grid electric powered equipment replacements, examples of eligible replacement costs include, but are not limited to, the purchase and installation of electrical infrastructure or equipment to enable the use of power. Examples of ineligible costs include, but are not limited to, electricity, and operation and maintenance costs.

1) Locomotives, Marine Vessels and Nonroad Diesel Vehicles and Equipment:

- a) Funding can cover up to 25% of the cost of a replacement locomotive, marine vessel, or nonroad vehicle or piece of equipment powered by a 2019 model year or newer engine certified to EPA emission standards. Previous engine model year engines may be used if the engine is certified to the same emission standards

⁵ Hydrogen fuel cell vehicles and equipment are only eligible as replacements for eligible transit buses, shuttle buses, drayage trucks, terminal tractors/yard hostlers, stationary generators and forklifts, as defined in this RFA.

applicable to EMY 2019. Nonroad, locomotive and marine engine emission standards are on EPA's website at: www.epa.gov/emission-standards-reference-guide/epa-emission-standards-nonroad-engines-and-vehicles.

- b) Funding can cover up to 45% of the cost of a new, zero tailpipe emissions locomotive, marine vessel, or nonroad vehicle or piece of equipment.
- 2) Highway Diesel Vehicles and Buses (other than Drayage):
- a) Funding can cover up to 25% of the cost of a replacement vehicle powered by a 2016 model year or newer engine certified to EPA emission standards. Highway engine emission standards are on EPA's website at: www.epa.gov/emission-standards-reference-guide/epa-emission-standards-heavy-duty-highway-engines-and-vehicles.
 - b) Funding can cover up to 35% of the cost of a replacement vehicle powered by a 2016 model year or newer engine certified to meet CARB's Optional Low-NO_x Standards of 0.1 g/bhp-hr, 0.05 g/bhp-hr, or 0.02 g/bhp-hr NO_x. Engines certified to CARB's Optional Low NO_x Standards may be found by searching CARB's Executive Orders for Heavy-duty Engines and Vehicles, found at: www.arb.ca.gov/msprog/onroad/cert/cert.php.
 - c) Funding can cover up to 45% of the cost of a new, zero tailpipe emissions replacement vehicle.
- 3) Drayage Vehicles: Funding can cover up to 50% of the cost of a replacement drayage truck powered by a 2013 model year or newer certified engine.
- a) Definition of Drayage Truck: A "Drayage Truck" means any Class 8 (GVWR greater than 33,000) highway vehicle operating on or transgressing through port or intermodal rail yard property for the purpose of loading, unloading or transporting cargo, such as containerized, bulk or break-bulk goods.
 - b) Drayage Operating Guidelines: If an application for the replacement of drayage trucks is selected for funding, the grant recipient will be required to establish guidelines to ensure that any existing truck replaced with grant funds has a history of operating on a frequent basis over the prior year as a drayage truck, and to ensure any new truck purchased with grant funds is operated in a manner consistent with the definition of a drayage truck, as defined above. For an example of sample guidelines, see www.epa.gov/cleandiesel/clean-diesel-national-grants#rfa.
 - c) Required/Scheduled Maintenance: EPA will fund the required/scheduled vehicle maintenance, as specified in the owner's manual, which is necessary to meet the warranty requirements for diesel particulate filters installed on drayage trucks. Funding for required maintenance is available for the duration of the project period.

Please see Section III.D. Funding Restrictions, for additional information on the eligibility of vehicle and equipment replacements.

- h. Clean Alternative Fuel Conversions:** Conventional, original equipment manufacturer (OEM) highway diesel vehicles and engines that are altered to operate on alternative

fuels such as propane or natural gas are classified as aftermarket clean alternative fuel conversions. Clean alternative fuel conversions are accomplished by applying a certified or compliant alternative fuel conversion “kit” to an existing highway diesel engine.

Funding can cover up to 40% of the cost (labor and equipment) of an eligible certified or compliant clean alternative fuel conversion. Eligible conversions are limited to those systems that have been certified by EPA and/or CARB, and those systems that have been approved by EPA for Intermediate-Age engines. EPA’s lists of “Certified Conversion Systems for New Vehicles and Engines” and “Conversion Systems for Intermediate-Age Vehicles and Engines” are available at www.epa.gov/vehicle-and-engine-certification/lists-epa-compliant-alternative-fuel-conversion-systems; CARB’s list of “Approved Alternate Fuel Retrofit Systems” are available at: www.arb.ca.gov/msprog/aftermkt/altfuel/altfuel.htm.

To be eligible for funding, conversion systems for engine model years 1995-2006 must achieve at least a 30% NO_x reduction and a 10% PM reduction from the applicable certified emission standards of the original engine. To be eligible for funding, conversion systems for engine model years 2007 and newer must achieve at least a 20% NO_x reduction with no increase in PM from the applicable certified emission standards of the original engine. Applications for clean alternative fuel conversions should include a discussion of the availability of conversion systems and indicate the pre- and post-project emission standard levels of the engines to demonstrate that the conversions result in the required emissions benefit.

Most states require the use of EPA approved systems. Vehicles operating in California, and other States that require CARB approved aftermarket systems, must follow conversion rules issued by CARB. Compliance with applicable state law is the sole responsibility of the fleet owner.

Please see Section III.D. Funding Restrictions, for additional information on the eligibility of clean alternative fuel conversions.

- 3. DERA Programmatic Priorities:** The principal objective of the assistance to be awarded under this program is to achieve significant reductions in diesel emissions in terms of tons of pollution produced and reductions in diesel emissions exposure from vehicles, engines and equipment operating at or servicing goods movement facilities located in areas designated as having poor air quality. Further, priority for funding may be given to projects which address the needs and concerns of affected communities, those that engage affected communities with respect to the design and performance of the project, and those which can demonstrate the ability to promote and continue efforts to reduce emissions after the project has ended. All applications will be evaluated to determine the extent and quality to which they meet the DERA programmatic priorities through the specific evaluation criteria described below and in Section V.A.

- a. Priority Location – Areas of Poor Air Quality:** Under Section V.A, Criterion #2.A and B, priority will be given to projects that are located in areas of poor air quality and that have the highest emissions from diesel engines.

The term “project location” as used in this RFA refers to the primary area where the affected vehicles/engines operate, or the primary area where the emissions benefits of the project will be realized. If a single application includes vehicles operating in more than one area the workplan should indicate where each vehicle operates and the amount (%) of time spent in each area.

A list of priority areas that will receive points under Section V.A, Criterion #2.A and B of this RFA can be found at: www.epa.gov/cleandiesel/clean-diesel-national-grants#rfa. Vehicles or equipment proposed for funding under this RFA must be operated a majority of the time in one of the priority counties listed in order to receive points under Section V.A, Criterion #2.A and B of this RFA. These counties were identified as priority locations for the DERA program because they are:

- 1) Designated, as of the release date of this RFA, as Nonattainment Areas or Maintenance Areas for the following National Ambient Air Quality Standards. Data is sourced from EPA’s Green Book of Nonattainment Areas for Criteria Pollutants. (<https://www.epa.gov/green-book>).
 - a) PM_{2.5} 1997 Standard (Annual: 15 µg/m³, 24-hour: 65 µg/m³)
 - b) PM_{2.5} 2006 Standard (Annual: 15 µg/m³, 24-hour: 35 µg/m³)
 - c) PM_{2.5} 2012 Standard (Annual: 12 µg/m³, 24-hour: 35 µg/m³)
 - d) Ozone (O₃) 2008 Standard (8-hour: 0.075ppm)
 - e) Ozone (O₃) 2015 Standard (8-hour: 0.070ppm)
- 2) Where all or part of the population is exposed to more than 2.0 µg/m³ of diesel particulate matter emissions. Data is sourced from the 2011 National-Scale Air Toxics Assessment (www.epa.gov/national-air-toxics-assessment/2011-national-air-toxics-assessment).

- b. Priority Location – Goods Movement Facilities:** Under Section V.A, Criterion #2.C, priority will be given to projects based on whether the vehicles/engines/equipment targeted for diesel emissions reductions are located at, or service, goods movement facilities such as:

- 1) ports and airports (e.g. places alongside navigable water with facilities for the loading and unloading of passengers and/or cargo from ships, ferries, and other vessels; places from which aircraft operate that have paved runways and terminals which include cargo, baggage and/or passenger-movement operations; places where foreign goods are inspected by customs officers and allowed to pass into and out of a country)
- 2) rail yards (e.g. places at which trains originate or terminate, or at which they are distributed or combined)

- 3) terminals (e.g. freight and passenger stations at the end of carrier lines, or that serve as junctions at any point with other lines, that have facilities for the handling of freight and/or passengers)
 - 4) distribution centers (e.g. facilities that perform consolidation, warehousing, packaging, decomposition and other functions linked with handling freight, often in proximity to major transport routes or terminals, and which generate large amounts of truck traffic)
- c. **Benefits to the Community:** Under Section V.A, Criteria #3, priority will be given to projects which will address the needs and concerns of affected communities, especially any communities or populations that have faced or are facing environmental justice concerns. The term “affected communities,” as defined by the program, are communities, populations, groups, and other interested parties that are, or have been, affected by the environmental and/or other issues that the project is intended to address. The term “environmental justice concerns,” as used in this solicitation, generally relates to issues that have resulted in some minority, low-income, tribal and indigenous communities and/or populations being more adversely, disproportionately and/or historically impacted by environmental issues and problems than other communities because of geography, poverty, income levels and similar types of factors.

The extent that a project will maximize public health benefits depends on both the population, community or group that will experience improvements in air quality due to the project, and the amount of emissions reductions that will take place. Applications should therefore describe both the population, community or group that will be affected by the project and how they will directly benefit from emissions reductions that will result from the project. Applications that can demonstrate how they will directly benefit communities with environmental justice concerns may be evaluated more favorably than others that do not.

Note: Factors potentially indicating disproportionate impacts to communities with environmental justice concerns include, but are not limited to: differential proximity and exposure to environmental hazards; greater susceptibility to adverse effects from environmental hazards (due to genetic predisposition, age, chronic medical conditions, lack of health care access, or poor nutrition); unique environmental exposures because of practices linked to cultural background or socioeconomic status (e.g., subsistence fishing or farming); cumulative effects from multiple stressors; reduced ability to effectively participate in decision-making processes (due to language barriers, inability to access traditional communication channels, or limited capacity to access technical and legal resources); and degraded physical infrastructure, such as poor housing, poorly maintained public buildings (e.g., schools), or lack of access to transportation.

- d. **Community Engagement and Partnerships:** Under Section V.A, Criteria #4, priority will be given to projects which engage affected communities with respect to the design and performance of the project and which obtain support from project partners to more effectively perform the project. The term “affected communities” as defined by the program are communities, populations, groups, and other interested parties that are, or

have been, affected by the environmental and/or other issues that the project is intended to address. Applicants will be evaluated based on the extent and quality of the applicant's efforts and plans for incorporating input from affected communities throughout the design and performance of the project, and/or whether their design of the proposed project involved and incorporated input from affected communities. Community engagement and partnership efforts should include various organizations representing a broad spectrum of the community; examples include local residents, grassroots, neighborhood, school, faith-based, city council, business, local government, and other organizations. Applications that can demonstrate recent involvement of project partners and community members working together on projects may be evaluated more favorably than others. Applications with letters of commitment that demonstrate strong, long-term involvement throughout the project from a variety of project partners may also be evaluated more favorably than others.

e. Project Sustainability: Under Section V.A, Criteria #5, priority will be given to projects which can demonstrate the ability of the applicant and project partners to promote and continue efforts to reduce emissions after EPA funding for this project has ended. Specifically, applications will be evaluated on whether the applicant and/or its project partners:

- 1) have demonstrated the implementation of idle-reduction policies, the implementation of contract specifications requiring the use of cleaner, more efficient vehicles and equipment; the development and maintenance of mobile source equipment inventories, a documented commitment to continue to identify and address air quality issues in the affected community, or the implementation of other strategies to promote and continue efforts to reduce emissions.
- 2) have developed in the past five years or have a documented commitment to developing before the end of the project period, a publicly available baseline mobile source emission inventory for PM_{2.5} and/or NO_x, or refinement of an existing mobile source emissions inventory that was completed before 2014.
- 3) have developed in the past five years or have a documented commitment to developing before the end of the project period, a publicly available long-term air quality plan with specific PM_{2.5} and/or NO_x emission reduction goals, or refinement of an existing air quality plan that was completed before 2014.
- 4) have developed in the past five years or have a documented commitment to developing before the end of the project period, a publicly available "Community Engagement Plan" for meaningful engagement of the affected communities regarding either the environmental and/or other issues that the project is intended to address, or to specifically inform the policies, specifications, inventories, commitments, and other strategies outlined above.

C. EPA Strategic Plan Linkage, Anticipated Outputs/Outcomes and Performance Measures

Pursuant to Section 6a of EPA Order 5700.7, "Environmental Results under EPA Assistance Agreements," EPA must link proposed assistance agreements with the Agency's Strategic Plan.

EPA also requires that grant applicants and recipients adequately describe environmental outputs and outcomes to be achieved under assistance agreements (see EPA Order 5700.7, Environmental Results under Assistance Agreements, www.epa.gov/sites/production/files/2015-03/documents/epa_order_5700_7a1.pdf).

- 1. Linkage to EPA Strategic Plan:** The activities to be funded under this announcement support EPA’s FY 2018-22 Strategic Plan. Awards made under this announcement will support Goal 1, “Core Mission: Deliver real results to provide Americas with clean air, land, and water, and ensure chemical safety,” Objective 1.1, “Improve Air Quality.” Under this objective, EPA will “Work with states and tribes to accurately measure air quality and ensure that more Americans are living and working in areas that meet high air quality standards.” Applicants must explain in their application how their project will further this objective.

Please read EPA’s FY 2018-2022 Strategic Plan (www.epa.gov/planandbudget/strategicplan) for more information.

EPA also requires that grant applicants adequately describe environmental outputs and outcomes to be achieved under assistance agreements (see EPA Order 5700.7A1, Environmental Results under Assistance Agreements, www.epa.gov/sites/production/files/2015-03/documents/epa_order_5700_7a1.pdf).

Applicants must include specific statements describing the environmental results of the proposed project in terms of well-defined outputs and, to the maximum extent practicable, well-defined outcomes that will demonstrate how the project will contribute to the priorities described above. Specifically, the proposed activities must reduce emissions from diesel fleets, thereby reducing local and regional air pollution of criteria pollutants and air toxics.

- 2. Outputs:** The term “output” means an environmental activity, effort and/or associated work product related to an environmental goal and objective that will be produced or provided over a period of time or by a specified date. Outputs may be quantitative or qualitative but must be measurable during an assistance agreement funding period.

Expected outputs from the projects to be funded under this announcement include, but are not limited to:

- number of replaced or retrofitted engines/vehicles/equipment; and/or
- hours of idling reduced.

Other potential outputs may include, but are not limited to:

- engaging affected communities with respect to the design and performance of the project;
- the project’s inclusion in a broader-based environmental or air quality plan;
- the implementation of contract specifications requiring the use of cleaner vehicles and equipment;
- a documented commitment to continue to identify and address air quality issues in the affected community;

- a publicly available community engagement plan for meaningful engagement of the affected communities regarding either the environmental and/or other issues that the project is intended to address;
- adoption of an idle reduction policy;
- providing support to clean diesel coalitions by sharing information, working with interested fleets, and addressing specific geographic needs;
- number of subawards; and/or
- dissemination of project/technology information via list serves, websites, journals and outreach events.

Progress reports and a final report will also be required outputs, as specified in Section VI.C “Reporting Requirement,” of this RFA.

- 3. Outcomes:** The term “outcome” means the result, effect or consequence that will occur from carrying out an environmental program or activity that is related to an environmental or programmatic goal or objective. Outcomes may be qualitative and environmental, behavioral, health-related or programmatic in nature, but must also be quantitative. They may not necessarily be achievable within an assistance agreement funding period.

Expected outcomes from the projects to be funded under this announcement include, but are not limited to:

- tons of pollution reduced over the lifetime of the vehicles/engines/equipment, specifically:
 - fine particulate matter (PM_{2.5}),
 - nitrogen oxides (NO_x),
 - carbon monoxide (CO) and carbon dioxide (CO₂), and/or
 - volatile organic compounds (VOCs).
- tons of pollution reduced annually;
- lifetime total project cost effectiveness for NO_x and PM_{2.5};
- lifetime capital cost effectiveness for NO_x and PM_{2.5};
- net reduction in gallons of diesel fuel used;
- benefits to the communities affected by the project, including improvements to human health and the environment, the local economy, social conditions, and the welfare of residents in such communities.

Other potential outcomes may include, but are not limited to:

- community engagement and partnership;
- improved ambient air quality;
- health benefits achieved;
- changes in driver behavior regarding idling practices;
- an increased understanding of the environmental or economic effectiveness of the implemented technology;
- increased public awareness of project and results;
- widespread adoption of the implemented technology;

- demonstration and deployment of zero and near-zero emission vehicles and engines; and/or
- emissions reductions along freight transportation corridors.

4. Performance Measures. The applicant should also develop performance measures they expect to achieve through the proposed activities and describe them in their application. These performance measures will help gather insights and will be the mechanism to track progress concerning successful processes and output and outcome strategies and will provide the basis for developing lessons to inform future recipients. It is expected that the description of performance measures will directly relate to the projects outcomes and outputs, including but not limited to:

- oversight of project partners, subrecipients, and/or contractors and vendors;
- tracking and reporting project progress on expenditures, purchases, and other fiscal activities;
- tracking and reporting actual accomplishments versus proposed outputs/outcomes and proposed timelines/milestones;
- tracking and reporting project progress on installations/replacements by maintaining an accurate Project Fleet Description; and
- measuring and reporting on outcomes by maintaining an accurate Project Fleet Description and using EPA’s Diesel Emissions Quantifier. Efforts should be made to track, measure and report the actual vehicle miles traveled, hours of use/operation, and fuel use for all vehicles and equipment involved in the project.

The following are questions to consider when developing output and outcome measures of quantitative and qualitative results:

- What are the measurable short term and longer term results the project will achieve?
- How does the plan measure progress in achieving the expected results (including outputs and outcomes) and how will the approach use resources effectively and efficiently?

D. Statutory Authority

The Diesel Emissions Reduction National Program (DERA) is authorized by Title VII, Subtitle G of the Energy Policy Act of 2005 (Public Law 109-58), as amended and reauthorized by the Diesel Emissions Reduction Act of 2010 (Public Law 111-364) and subsequent appropriations acts and codified at 42 USC 16131 *et seq.* DERA authorizes the award of grants to reduce diesel emissions and diesel emissions exposure, particularly from fleets operating in areas designated by the Administrator as poor air quality areas. While EPA has authority under DERA to support grant programs, EPA’s authority to obligate grant funds is subject to the availability of appropriated funds.

II. AWARD INFORMATION

A. What is the amount of funding available?

EPA anticipates awarding approximately \$40 million under this announcement, subject to the availability of funds, the quantity and quality of applications received, and other applicable considerations. The total available funding is dispersed amongst the ten EPA Regional Offices by formula based on: 1) the percentage of the total population that is living in PM_{2.5} and Ozone nonattainment areas that is attributable to the region, and 2) the percentage of the total NO_x and diesel PM emissions from mobile sources that is attributable to the region.

Applicants must request funding from the EPA regional office which covers their geographic project location. The term “project location” as used in this RFA refers to the primary area where the affected vehicles/engines operate, or the primary area where the emissions benefits of the project will be realized. The geographic boundaries for each EPA regional office are defined in Section IV.A of the RFA. **Each application should have the EPA Region from which they are requesting funding clearly listed on the Cover Page of the Project Narrative. Each application may only request funding from one EPA regional office.**

Applicants can submit a total of three (3) applications overall under this solicitation. More than one (1) application may be submitted to the same EPA Region, or applicants may submit applications to multiple EPA Regions. However, each application must be for a different project and must be submitted separately. An applicant cannot submit two applications that both request funding for the same project (i.e. the same target fleet or group of fleets). If an applicant submits more than three (3) applications to EPA, or more than one (1) application requests funding for the same project, the applicant will be contacted prior to EPA review of any of the applications to determine which application(s) the applicant will withdraw from the competition. A single application may target multiple fleets, fleet types and/or diesel emissions reduction solutions.

Table 1. Funding Limits by Region

Region	Maximum Federal Funding Request Per Application
1	\$1,000,000
2	\$2,500,000
3	\$2,500,000
4	\$2,000,000
5	\$3,000,000
6	\$2,500,000
7	\$1,500,000
8	\$2,400,000
9	\$4,000,000
10	\$1,000,000

The amount of federal funding requested by an applicant must not exceed the amount specified for each Region in column 2 of Table 1, above. Applications requesting EPA funding in excess of the amount specified above will not be considered.

In appropriate circumstances, EPA may incrementally fund applications by funding phases of proposed projects. If an applicant is selected for incremental funding, EPA and the applicant will negotiate a final workplan, timeline and budget which has clearly delineated activities or phases with separate budget estimates for each activity/phase of a project within the project period. A portion of the total requested funding will be awarded at the beginning of the project period for the specified activities/phases. Subject to the availability of funds, and other applicable considerations, additional funding may be awarded later as an incremental budget amendment to fund the remaining activities/phases of the project.

B. Partial Funding

In appropriate circumstances, EPA reserves the right to partially fund applications by funding discrete portions of proposed projects. If EPA decides to partially fund an application, it will do so in a manner that does not prejudice any applicants or affect the basis upon which the application was evaluated and selected for award, thereby maintaining the integrity of the competition and selection process.

C. How many agreements will EPA award in this competition?

It is anticipated that approximately 2-8 cooperative agreements per Region will be made from this announcement subject to the availability of funds, the quantity and quality of applications received, and other applicable considerations.

EPA reserves the right to make additional awards under this announcement, consistent with Agency policy and other applicable considerations, if additional funding becomes available after the original selections. Any additional selections for awards will be made no later than six months from the date of the original selections.

In addition, EPA reserves the right to reject all applications and make no awards under this announcement or to make fewer awards than anticipated.

D. What is the project period for awards resulting from this solicitation?

The estimated project period for awards resulting from this solicitation is expected to begin on July 1, 2019, with an expected project completion date of June 30, 2021.

E. Funding Type

The funding for selected projects will be in the form of a cooperative agreement. Cooperative agreements provide for substantial involvement between the EPA Project Officer and the selected applicants in the performance of the work supported. Although EPA will negotiate

precise terms and conditions relating to substantial involvement as part of the award process, the anticipated substantial federal involvement for these projects may include:

- close monitoring of the successful applicant’s performance to verify the results proposed by the applicant;
- collaboration during performance of the scope of work;
- in accordance with 2 CFR 200.317 and 2 CFR 200.318, review of proposed procurement;
- approving qualifications of key personnel (EPA will not select employees or contractors employed by the award recipient); and
- review and comment on reports prepared under the cooperative agreement (the final decision on the content of reports rests with the recipient).

III. ELIGIBILITY INFORMATION

A. Eligible Entities

Under this solicitation, only the following entities are eligible to apply for assistance, in accordance with 42 U.S.C. 16131 and CFDA 66.039:

1. A regional, State, or local agency, tribal government (or intertribal consortium) or native village, or port authority, which has jurisdiction over transportation or air quality⁶.
2. A nonprofit organization or institution that:
 - a. represents or provides pollution reduction or educational services to persons or organizations that own or operate diesel fleets; or
 - b. has, as its principal purpose, the promotion of transportation or air quality.

Non-profit organization, as defined by 2 CFR 200.70, means any corporation, trust, association, cooperative or other organization that: (1) is operated primarily for scientific, educational, service, charitable or similar purposes in the public interest; (2) is not organized primarily for profit; and (3) uses its net proceeds to maintain, improve and/or expand its operations.

Note that 2 CFR Part 200 specifically excludes the following types of organizations from the definition of “non-profit organization” because they are separately defined in the regulation: (i) institutions of higher education; and (ii) state, local and federally-recognized Indian tribal governments. While not considered to be a “non-profit organization(s)” as defined by 2 CFR 200.70, Institutions of Higher Education are, nevertheless, eligible to submit applications under this RFA to the extent they fall within the definition above. Hospitals operated by state, tribal, or local governments or that meet the definition of nonprofit at 2 CFR 200.70 are also eligible to apply. For-profit colleges, universities, trade schools, and hospitals are not eligible to apply.

For-profit organizations are not an eligible entity for this funding opportunity. Additionally, non-profit organizations described in Section 501(c)(4) of the Internal Revenue Code that engage in lobbying activities as defined in Section 3 of the Lobbying Disclosure Act of 1995 are not eligible to apply.

⁶ School districts, municipalities, metropolitan planning organizations (MPOs), cities and counties are all generally eligible entities under this assistance agreement program to the extent that they fall within this definition.

For the purposes of this RFA, “intertribal consortium” is defined as a partnership between two or more tribes that is authorized by the governing bodies of those tribes to apply for and receive assistance under this program. Intertribal consortia are eligible to receive assistance under this program only if the consortium demonstrates that all members of the consortium meet the eligibility requirements for the program and authorize the consortium to apply for and receive assistance by submitting to EPA documentation of (1) the existence of the partnership between Indian tribal governments, and (2) authorization of the consortium by all its members to apply for and receive the assistance.

Please note that although tribes are eligible to apply for funding under this RFA, the National Clean Diesel Campaign also expects to issue a separate FY 2019 DERA Tribal Competition Request for Applications (RFA) in 2019. Please visit the following webpage for more information and updates: www.epa.gov/cleandiesel/clean-diesel-national-grants#rfa.

B. Cost-Sharing and Leveraged Funds

Any form of cost share, mandatory or voluntary, must be included in the Budget Detail portion of the Work Plan, and the application must describe how and when the applicant will obtain the cost share and how the cost share funding will be used. Applicants may use their own funds or other sources for cost share if the standards of 2 CFR Part 200, as applicable, are met. If the proposed cost share is to be provided by a named project partner, a letter of commitment is required. Only eligible and allowable costs may be used for cost share. Other federal grants may not be used as cost share under this RFA unless the statute authorizing the other federal funding provides that the federal funds may be used to meet a cost share requirement on a federal grant. Please note: DERA funds may not be used to meet mandatory cost-sharing requirements for projects funded with environmental mitigation funds. Further, environmental mitigation funds may not be used to meet non-federal mandatory cost share requirements of any DERA grant.

- 1. Mandatory Cost Share Requirement:** Projects involving engine upgrades, idle reduction technologies, marine shore connection systems, electrification parking space technologies, engine replacements, or vehicle/equipment replacements, as defined in Sections I.B.2. b, d, f, and g of this RFA, are subject to the following funding limitations and mandatory cost share requirements:
 - a. Engine Upgrades and Remanufacture Systems:** EPA will fund up to 40% of the cost (labor and equipment) of an eligible engine upgrade or remanufacture system (i.e. applicants are responsible for cost-sharing at least 60% of the cost).
 - b. Highway Idle Reduction Technologies:** EPA will fund up to 100% of the cost (labor and equipment) for eligible idle reduction technologies if combined on the same vehicle with eligible verified engine retrofit technologies. EPA will fund up to 25% of the cost (labor and equipment) of stand-alone eligible idle reduction technologies on long-haul trucks and school buses (i.e. applicants are responsible for cost-sharing at least 75% of the cost).
 - c. Locomotive Idle Reduction Technologies:** EPA will fund up to 40% of the cost (labor and equipment) of an eligible idle reduction technology on a locomotive (i.e. applicants are responsible for cost-sharing at least 60% of the cost).

- d. Marine Shore Connection Systems: EPA will fund up to 25% of the cost (labor and equipment) of an eligible marine shore connection system (i.e. applicants are responsible for cost-sharing at least 75% of the cost).
- e. Electrified Parking Space Technologies: EPA will fund up to 30% of the cost (labor and equipment) of an eligible electrified parking space technology (i.e. applicants are responsible for cost-sharing at least 70% of the cost).
- f. Engine Replacement: EPA will fund up to 40% of the cost (labor and equipment) of an eligible engine replacement with an engine certified to EPA emission standards (i.e. applicants are responsible for cost-sharing at least 60% of the cost). EPA will fund up to 50% of the cost (labor and equipment) of an eligible engine replacement with an engine certified to CARB's Optional Low-NO_x Standards (i.e. applicants are responsible for cost sharing at least 50% of the cost). EPA will fund up to 60% of the cost (labor and equipment) of an eligible engine replacement with a zero tailpipe emission power source (i.e. applicants are responsible for cost sharing at least 40% of the cost).
- g. Vehicle/Equipment Replacement:
 - 1) Locomotive and Nonroad Diesel Vehicles and Equipment: EPA will fund up to 25% of the cost of an eligible vehicle or piece of equipment powered by an engine certified to EPA emission standards (i.e. applicants are responsible for cost-sharing at least 75% of the cost). EPA will fund up to 45% of the cost of an eligible zero tailpipe emission vehicle or piece of equipment (i.e. applicants are responsible for cost-sharing at least 55% of the cost).
 - 2) Highway Diesel Vehicles: EPA will fund up to 25% of the cost of an eligible vehicle powered by an engine certified to EPA emission standards (i.e. applicants are responsible for cost-sharing at least 75% of the cost). EPA will fund up to 35% of an eligible vehicle powered by an engine certified to meet CARB's Optional Low-NO_x Standards (i.e. applicants are responsible for cost-sharing at least 65% of the cost). EPA will fund up to 45% of the cost of an eligible zero tailpipe emission vehicle (i.e. applicants are responsible for cost-sharing at least 55% of the cost).
 - 3) Drayage Vehicle Replacement: EPA will fund up to 50% of the cost of an eligible drayage truck powered by a 2013 model year or newer certified engine (i.e., applicants are responsible for cost-sharing at least 50% of the cost).
- h. Clean Alternative Fuel Conversion: EPA will fund up to 40% of the cost (labor and equipment) of an eligible certified or compliant clean alternative fuel conversion (i.e., applicants are responsible for cost-sharing at least 60% of the cost).

Applications that include projects to which these mandatory cost share requirements apply must demonstrate, by the application submission date, on the SF-424 Application for Federal Assistance, on the SF-424A Budget Information, and in the Project Narrative how the applicant will be able to meet these minimum mandatory cost share requirements if they are selected for an award, **or the application may be disqualified during the threshold eligibility review.** Specifically, the mandatory cost share funds must be indicated in at least one of the following blocks in Section 18, Estimated Funding, on the SF-424: b. Applicant; c. State; d. Local; or e. Other. The mandatory cost shared funds must also be indicated in Section A, Section B line 6.d, and Section C of the SF-424A.

- 2. Voluntary Cost Share:** Under this solicitation, voluntary cost sharing is when an applicant voluntarily proposes to legally commit to provide costs or contributions to support the project when a mandatory cost share is not required, or when the applicant proposes to provide more than the required cost share. Applicants who propose to use a voluntary cost share **must** include the costs or contributions for the voluntary cost share in the project budget on the SF-424. If an applicant proposes a voluntary cost share, the following apply:
- A voluntary cost share is subject to the match provisions in the grant regulations 2 CFR Part 200 as applicable.
 - A voluntary cost share may only be met with eligible and allowable costs.
 - The recipient may not use other sources of federal funds to meet a voluntary cost share unless the statute authorizing the other federal funding provides that the federal funds may be used to meet a cost share requirement on a federal grant.

The recipient is legally obligated to meet any proposed voluntary cost share that is included in the approved project budget. If the proposed voluntary cost share does not materialize during grant performance, then EPA may reconsider the legitimacy of the award and/or take other appropriate action as authorized by 2 CFR Part 200, as applicable. Applications will not be evaluated based on the inclusion of Voluntary Cost Share under this RFA.

- 3. Other Leveraged Funds:** Other leveraged funds are resources contributed to the project that are not identified as a mandatory or voluntary cost share and are not part of the total project cost under the grant award. This form of leveraging may include funding from another federal grant (if authorized), from an applicant's own resources, or resources from other third-party sources, and do not need to be eligible and allowable project costs under the EPA assistance agreement.

It is appropriate to include other leveraged funds in the budget if the applicant is proposing to implement a rebate program for equipment and vehicle purchases. EPA funds may be used to issue a rebate up to the funding limitations listed in Section III.B.1, above. In the budget, the EPA funds for the rebate are appropriately listed under the Other budget category as "Participant Support Costs." However, the program participant's share of the vehicle that is not covered by the rebate is not considered a mandatory nor voluntary cost share; the program participant's share of the vehicle that is not covered by the rebate is considered other leveraged funds.

For example, EPA will fund up to 25% of the cost of an eligible vehicle powered by an engine certified to EPA emission standards. If a truck owner purchased a new truck for \$100,000 they could receive a rebate for \$25,000. In the budget, the rebate (e.g. \$25,000) is appropriately listed under the Other budget category as "Participant Support Costs." The program participant's share of the vehicle (e.g. \$75,000) is considered other leveraged funds.

Other leveraged funds should NOT be included in the official grant project budget (i.e. the SF424 and SF424A), however the Budget Detail section of the Project Narrative should account for other leveraged funds where Participant Support Costs are included in the budget. Please see Appendix B for a sample Budget Detail, and Appendix E for more information on Participant Support Costs.

If applicants propose to provide other leveraged funds, EPA expects them to make the effort to secure the leveraged resources described in their applications. If the proposed leveraging does not materialize during grant performance, then EPA may reconsider the legitimacy of the award and/or take other appropriate action as authorized by 2 CFR Part 200, as applicable. Applications will not be evaluated based on the inclusion of Other Leveraged Funds under this RFA.

C. Threshold Eligibility Criteria

These are requirements that if not met by the time of application submission will result in elimination of the application from consideration for funding. Only applications from eligible applicants (see Section III.A of this RFA) that meet these threshold eligibility criteria will be evaluated against the ranking criteria in Section V.A of this RFA. If necessary, EPA may contact applicants to clarify threshold eligibility questions prior to making an eligibility determination. Applicants deemed ineligible for funding consideration because of the threshold eligibility review will be notified within 15 calendar days of the ineligibility determination.

1. Application Content and Submission

- a.** Applications must substantially comply with the application submission instructions and application content requirements set forth in Section IV and Appendix B of this RFA or else they will be rejected.
- b.** Where a page limit is expressed in Section IV and Appendix B of this RFA with respect to the Project Narrative, pages in excess of the page limitation will not be reviewed.
- c.** Applications must be submitted through [Grants.gov](https://www.grants.gov) as stated in Section IV of this announcement (except in the limited circumstances where another mode of submission is specifically allowed for as explained in Section IV) on or before the application submission deadline published in Section IV of this announcement. Applicants are responsible for following the submission instructions in Section IV of this announcement to ensure that their application is timely and properly submitted.

Applications submitted after the submission deadline will be considered late and deemed ineligible without further consideration unless the applicant can clearly demonstrate that it was late due to EPA mishandling or because of technical problems associated with [Grants.gov](https://www.grants.gov) or relevant [SAM.gov](https://www.sam.gov) system issues. An applicant's failure to timely submit their application through [Grants.gov](https://www.grants.gov) because they did not timely or properly register in [SAM.gov](https://www.sam.gov) or [Grants.gov](https://www.grants.gov) will not be considered an acceptable reason to consider a late submission.

- 2.** Applications must further EPA's current priorities for improving air quality, which focus on improving air quality to ensure more Americans are living and working in areas that meet high air quality standards. (See Section I.C.)
- 3.** Ineligible activities: If an application is submitted that includes any ineligible tasks or activities, that portion of the application will be ineligible for funding and may, depending on the extent to which it affects the application, render the entire application ineligible for funding. For example, applications that do not include one or more of the eligible diesel

vehicles, engines and equipment as defined in Section III.D of the RFA, or that do not include one or more of the eligible diesel emissions reduction solutions as defined in Sections I.B.2 and III.D of this RFA, are not eligible and will not be reviewed.

4. Applications which request EPA assistance funds above the applicable regional amounts specified in Section II.A of this RFA are not eligible and will not be reviewed.
5. Applications which request EPA assistance funding from more than one EPA regional office are not eligible and will not be reviewed.
6. Applicants can submit a total of three (3) applications overall under this solicitation. Each application must be for a different project and must be submitted separately. An applicant cannot submit two applications that both request funding for the same project (i.e. the same target fleet or group of fleets). If an applicant submits more than three (3) applications to EPA, or more than one (1) application requests funding for the same project, the applicant will be contacted prior to EPA review of any of the applications to determine which application(s) the applicant will withdraw from the competition. A single application may target multiple fleets, fleet types and/or diesel emissions reduction solutions.
7. Applications that do not demonstrate compliance with the mandatory cost share requirements described in Section III.B.1 of this RFA are not eligible and will not be reviewed.

D. Funding Restrictions

If a submitted application includes any of the following ineligible activities, that portion of the application will be ineligible for funding and may render the entire application ineligible for funding.

1. **Federal Matching Funds:** No funds awarded under this RFA shall be used for matching funds for other federal grants unless expressly authorized by statute. Likewise, a recipient may not use federal funds as cost share funds for projects under this RFA, including funds received under EPA's State Clean Diesel Emissions Reduction Programs and federal Supplemental Environmental Project (SEP) funds.
2. **Expenses Incurred Prior to the Project Period:** Except for eligible pre-award costs as defined in 2 CFR 200.458 and as authorized by 2 CFR 200.309 and 2 CFR 1500.8, no funds awarded under this RFA shall be used to cover expenses incurred prior to the project period set forth in any assistance agreement funded under this RFA. Additionally, except for eligible pre-award costs as defined above, expenses incurred prior to the project period set forth in any assistance agreement funded under this RFA are not eligible as a cost share.
3. **Emissions Testing:** No funds awarded under this RFA shall be used for emissions testing and/or air monitoring activities (including the acquisition cost of emissions testing equipment), or research and development.

- 4. Fueling Infrastructure:** No funds awarded under this RFA shall be used for fueling infrastructure, such as that used for the production and/or distribution of biodiesel, compressed natural gas, liquefied natural gas, and or other fuels.
- 5. Mandated Measures:** Pursuant to 42 U.S.C. 16132(d)(2), no funds awarded under this RFA shall be used to fund the costs of emissions reductions that are mandated under federal law. The restriction applies when the mandate takes effect (the effective date) for any affected vehicles, engines or equipment. This restriction does not apply to a mandate in a State Implementation Plan approved by the Administrator under the Clean Air Act. Voluntary or elective emissions reduction measures shall not be considered “mandated,” regardless of whether the reductions are included in the State Implementation Plan.

Specifically, projects involving locomotives and marine engines are not eligible for funding if the emissions reductions are required by EPA’s locomotive and marine rule, “Control of Emissions of Air Pollution from Locomotives and Marine Compression-Ignition Engines Less than 30 liters per Cylinder.” Also, projects involving stationary engines will not be considered for funding if the emissions reductions proposed for funding are required by EPA’s RICE rule, “National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63 Subpart ZZZZ). Applications which include locomotives and/or marine engines and/or stationary engines must provide EPA a clear and concise justification for why/how the proposed emissions reduction is not subject to the Restriction for Mandated Measures. The justification must clearly demonstrate that:

- the target engines are exempt from any federal requirements; or
- emissions reductions funded under the Program will be implemented prior to the effective date of any applicable federal requirements; and/or
- emissions reductions funded under the Program will not be used to satisfy any applicable federal requirements, but instead are in excess of (above and beyond) those required by the applicable mandate.

Sufficient information must be provided to support the justification, including maintenance records, if applicable.

- 6. Fleet Expansion:** Funding under this RFA cannot be used for the purchase of vehicles, engines, or equipment to expand a fleet. Engine, vehicle, and equipment replacement projects are eligible for funding on the condition that the following criteria are satisfied:
 - a.** To be eligible for replacement, the vehicle, engine, or equipment must be fully operational and in current, regular service.
 - b.** The replacement vehicle, engine, or equipment will continue to perform similar function and operation as the vehicle, engine, or equipment that is being replaced.
 - c.** The replacement vehicle, engine, or equipment will be of similar type and gross vehicle weight rating or horsepower as the vehicle, engine, or equipment being replaced.
 - 1)** Nonroad: Horsepower increases of more than 25 percent will require specific approval by EPA prior to purchase, and the applicant may be required to pay the additional costs associated with the higher horsepower equipment.

- 2) Highway: The replacement vehicle must not be in a larger weight class than the existing vehicle (Class 5, 6, 7, or 8). The engine's primary intended service class must match the vehicle's weight class (i.e. a LHD diesel engine is used in a vehicle with GVWR 16,001 – 19,500 pounds, a MHD diesel engine is used in a vehicle with a GVWR of 19,501 – 33,000 pounds, and an HHD diesel engine is used in a vehicle with a GVWR greater than 33,000 pounds.) Exceptions may be granted for vocational purposes, however the GVWR must stay within 10 percent of the engine's intended service class and any exceptions will require specific EPA approval prior to purchase.
- d. The vehicle, equipment, and/or engine being replaced must be scrapped or rendered permanently disabled within ninety (90) days of being replaced.
 - 1) If a 2010 engine model year (EMY) or newer vehicle is replaced, the 2010 EMY or newer vehicle may be retained or sold if the 2010 EMY or newer vehicle will replace an 1996-2009 EMY vehicle, and the 1996-2009 EMY vehicle will be scrapped. It is preferred that the scrapped unit currently operates within the same project location(s) as the 2010 EMY or newer vehicle currently operates, however alternative scenarios will be considered. The term "project location" as used in this RFA refers to the primary area where the affected vehicles/engines operate, or the primary area where the emissions benefits of the project will be realized. All existing and replacement vehicles are subject to the funding restrictions in this section of the RFA. All equipment must operate within the United States. Under this scenario, a detailed scrappage plan must be submitted and will require prior EPA approval.
 - 2) If a Tier 2 or Tier 3 locomotive, marine, or nonroad vehicle, equipment and/or engine is replaced, the units may be retained or sold if they will replace a similar, lower Tiered unit, and the lower Tiered unit will be scrapped. It is preferred that the scrapped unit currently operates within the same project location(s) as the original Tier 2 or 3 unit currently operates, however alternative scenarios will be considered. The term "project location" as used in this RFA refers to the primary area where the affected vehicles/engines operate, or the primary area where the emissions benefits of the project will be realized. All existing and replacement equipment are subject to the funding restrictions in this section of the RFA. All equipment must operate within the United States. Under this scenario, a detailed scrappage plan must be submitted and will require prior EPA approval.
 - 3) Cutting a three-inch by three-inch hole in the engine block (the part of the engine containing the cylinders) is the preferred scrapping method. Other acceptable scrappage methods may be considered and will require prior EPA approval
 - 4) Disabling the chassis may be completed by cutting through the frame/frame rails on each side at a point located between the front and rear axles. Other acceptable scrappage methods may be considered and will require prior written approval from the EPA Project Officer.
 - 5) Evidence of appropriate disposal is required in a final assistance agreement report submitted to EPA and includes digital photos of the engine tag (showing serial number, engine family number, and engine model year), the destroyed engine block, and cut frame rails or other cut structural components, as applicable. Evidence also includes a signed certificate of destruction (to be provided by the EPA Project Officer), or alternative documentation as approved by the EPA Project Officer.

- 6) Equipment and vehicle components that are not part of the engine or chassis may be salvaged from the unit being replaced (e.g. plow blades, shovels, seats, tires, etc.). If scrapped or salvaged engines, vehicles, equipment, or parts are to be sold, program income requirements apply.
 - 7) For tire replacement projects, the original tires should be scrapped according to local or state requirements, or the tires can be salvaged for reuse or retreading. If salvaged tires are sold, program income requirements apply.
- 7. Single-Wide Wheels:** No funds awarded under this RFA shall be used for the purchase of single-wide wheels except where a fleet is retrofitting from standard dual tires to SmartWay-verified single-wide low rolling resistance tires. In this case, the cost of single-wide wheels would be acceptable as additional equipment necessary to use the SmartWay-verified technology.
- 8. Auxiliary Power Units:** No funds awarded under this RFA shall be used for the purchase of APUs or generators for vehicles with engine model year 2007 or newer.
- 9. Replacement Technologies:** No funds awarded under this RFA shall be used for the purchase of engine retrofits, idle reduction technologies, low rolling resistance tires or advanced aerodynamic technologies if similar technologies have previously been installed on the truck or trailer.
- 10. Highway Model Year:** No funds awarded under this RFA shall be used to retrofit (including idle reduction technologies and aerodynamics and tires), convert, or replace a transit bus, medium-duty, or heavy-duty highway vehicle with engine model year 1995 and older, or to retrofit engine model year 2007 and newer with DOCs or DPFs, or retrofit engine model year 2010 and newer with SCR, or replace engine model year 2010 or newer with other than zero tailpipe emission or low-NO_x. Refer to Table 2 for further explanation.
- a. Clean Alternative Fuel Conversion: No funds awarded under this RFA shall be used to purchase certified/approved conversion systems that do not meet the following criteria:
 - 1) Existing engine model 1996-2006: Conversion kit must be certified or approved to achieve at least a 30% NO_x reduction and a 10% PM reduction from the applicable certified emission standard of the original engine.
 - 2) Existing engine model 2007 and newer: Conversion kit must be certified or approved to achieve at least a 20% NO_x reduction with no increase in PM from the applicable certified emission standards of the original engine.

Table 2: Medium and Heavy-Duty Trucks, Transit Buses, and School Buses Funding Restrictions

Current Engine Model Year (EMY)	DOC +/- CCV	DPF	SCR	Verified Idle Reduction, Tires, or Aerodynamics	Vehicle or Engine Replacement: EMY 2016+ (2013+ for Drayage)	Vehicle or Engine Replacement: EMY 2016+ Zero Emission or Low-NO _x	Clean Alternative Fuel Conversion
older - 1995	No	No	No	No	No	No	No
1996 - 2006	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2007 - 2009	No	No	Yes	Yes*	Yes	Yes	Yes
2010 - newer	No	No	No	Yes*	No	Yes	Yes

* Auxiliary Power Units and generators are not eligible on vehicles with EMY 2007 or newer.

11. Nonroad Operating Hours: Engine hours may be combined to reach the thresholds below where two units will be scrapped and replaced with a single unit.

- a. Agricultural Pumps: No funds awarded under this RFA shall be used to retrofit, replace or upgrade agricultural pumps that operate less than 250 hours per year.
- b. All Other Nonroad Engines: No funds awarded under this RFA shall be used to retrofit, replace, or upgrade all other nonroad engines that operates less than 500 hours per year.

12. Nonroad Model Year and Tier: No funds awarded under this RFA shall be used to retrofit, upgrade or replace a nonroad engine that is 50 HP or less and engine model year 2005 or older, or between 51-300 HP and engine model year 1995 or older, or 301 HP or greater and engine model year 1985 or older. Refer to Table 3 for further explanation.

- a. Equipment and Vehicle Replacement: No funds awarded under this RFA shall be used to replace nonroad vehicles and equipment with vehicles/equipment powered by unregulated, Tier 1, or Tier 2 compression ignition (CI) engines. Vehicles/equipment powered by Tier 3 and Tier 4 interim (4i) CI engines are allowed when Tier 4 final CI engines are not yet available from the OEM for 2019 model year vehicles/equipment under the Transition Program for Equipment Manufacturers (TPEM). No funds awarded under this RFA shall be used to replace nonroad vehicles and equipment with vehicles/equipment powered by unregulated or Tier 1 nonroad large spark-ignition (SI) engines.
- b. Engine Replacement: No funds awarded under this RFA shall be used to replace nonroad engines with Tier 3 or lower CI engines. No funds awarded under this RFA shall be used to replace nonroad engines with Tier 1 or lower SI engines.

Table 3. Nonroad Engine Funding Restrictions

Current Engine Horsepower	Current Engine Model Year (EMY) and Tier	Vehicle/Equipment Replacement: EMY 2019+					Verified Retrofit
		Compression Ignition			Spark Ignition	Zero Emission	
		Tier 0-2	Tier 3-4i	Tier 4	Tier 2		
0-50	2006 and Newer; Unregulated – Tier 2	No	No	Yes	Yes	Yes	Yes
51-300	1996 and Newer; Tier 0 – Tier 2	No	Yes*	Yes	Yes	Yes	Yes
51-300	1996 and Newer; Tier 3	No	No	Yes	Yes	Yes	Yes
301+	1986 and Newer; Tier 0 – Tier 2	No	Yes*	Yes	Yes	Yes	Yes
301+	1986 and Newer; Tier 3	No	No	Yes	Yes	Yes	Yes
Current Engine Horsepower	Current Engine Model Year (EMY) and Tier	Engine Replacement: EMY 2019+**				Verified Engine Upgrade	
		Compression Ignition		Spark Ignition	Zero Emission		
		Tier 0-3	Tier 4	Tier 2			
0-50	2006 and Newer; Unregulated – Tier 2	No	Yes	Yes	Yes	Yes	
51-300	1996 and Newer; Tier 0 – Tier 3	No	Yes	Yes	Yes	Yes	
301-750	1986 and Newer; Tier 0 – Tier 3	No	Yes	Yes	Yes	Yes	
751+	1986 and Newer; Tier 0 – Tier 2	No	Yes	Yes	Yes	Yes	

*Tier 3 and Tier 4 interim (4i) allowed for vehicle/equipment replacement only when Tier 4 final is not yet available from OEM for 2019 model year equipment under the Transition Program for Equipment Manufacturers (TPEM).

**Previous engine model year engines may be used for engine replacement if the engine is certified to the same emission standards applicable to EMY 2019.

13. Locomotive and Marine Operating Hours: No funds awarded under this RFA shall be used to retrofit, replace, upgrade or install idle reduction technologies on locomotive or marine engines that operate less than 1,000 hours per year. Engine hours may be combined to reach the 1000-hour threshold where two engines will be scrapped and replaced with a single engine.

14. Marine Engine Tier: No funds awarded under this RFA shall be used to replace or upgrade Tier 3 and Tier 4 marine engines and vessels with other than zero tailpipe emission technology, or to replace marine engines with a Tier 2 or lower CI marine engine. Refer to Table 4 for further explanation.

Table 4: Marine Engines Funding Restrictions

Current Engine Tier	Engine & Vessel Replacement: EMY 2019+ *				Certified Remanufacture System	Verified Engine Upgrade
	Compression Ignition		Spark Ignition	Zero Emission		
	Tier 1-2	Tier 3-4				
Unregulated – Tier 2	No	Yes	Yes	Yes	Yes	Yes
Tier 3 - 4	No	No	No	Yes	No	No

*Previous engine model year engines may be used if the engine is certified to the same emission standards applicable to EMY 2019.

15. Marine Shore Connection: No funds awarded under this RFA shall be used for marine shore connection system projects that are expected to be utilized less than 1,000 MW-hr/year.

16. Locomotive Engine Tier: No funds awarded under this RFA shall be used to replace any locomotive or locomotive engine with a Tier 3 or lower locomotive or engine. No funds awarded under this RFA shall be used to replace Tier 2+ line-haul locomotives or locomotive engines. No funds awarded under this RFA shall be used to install Automatic Engine Start-Stop technologies on locomotives currently certified to Tier 0+ or higher. Refer to Table 5 for further explanation.

Table 5: Locomotive Engines Funding Restrictions

Current Locomotive Tier	Engine & Locomotive Replacement: EMY 2019+* or Zero Emission			Verified Retrofit	Idle-Reduction Technology	Certified Remanufacture System
	Tier 0+ - 3	Tier 4	Zero Emission			
Unregulated - Tier 2	No	Yes	Yes	Yes	Yes**	Yes
Tier 2+ switcher	No	Yes	Yes	Yes	Yes**	Yes
Tier 2+ line haul	No	No	No	Yes	Yes**	Yes
Tier 3 – Tier 4	No	No	No	No	No	No

*Previous engine model year engines may be used if the engine is certified to the same emission standards applicable to EMY 2019.

**Automatic Engine Start-Stop technologies are only eligible to be installed on locomotives currently certified to Tier 0 or unregulated.

Note: Tier 0+, Tier 1+, and Tier 2+. Tier 3, and Tier 4 represent locomotives manufactured or under the more stringent Tier standards promulgated under the 2008 (current) locomotive and marine rule. Tier 0, Tier 1, and Tier 2 represent locomotives originally manufactured or remanufactured under the less stringent Tier standards promulgated in 1997.

17. Locomotive Shore Connection: No funds awarded under this RFA shall be used for locomotive shore connection system projects that are expected to be utilized less than 1,000 hours/year.

IV. APPLICATION AND SUBMISSION INFORMATION

A. Project Location for Application Submission

Applicants must request funding from the EPA regional office which covers their geographic project location. The term “project location” as used in this RFA refers to the primary area where the affected vehicles/engines operate, or the primary area where the emissions benefits of the project will be realized. The geographic boundaries for each EPA regional office are defined below. For long-distance fleets, the applicant should decide which Region best covers the geographic project location and provide justification as to why that Region was selected - whether it is the Region where the fleet is based, or the Region where the fleet operates the majority of the time, or other factors that would justify award in that region. **Each application should clearly list the EPA regional office from which they are requesting funding on the Cover Page of the Project Narrative. Each application may only request funding from one EPA regional office.**

The geographic boundaries for each EPA regional office are:

- Region 1 is accepting applications for projects located within Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.
- Region 2 is accepting applications for projects located within New Jersey, New York, Puerto Rico and the U.S. Virgin Islands.
- Region 3 is accepting applications for projects located within Delaware, Maryland, Virginia, Pennsylvania, West Virginia, and the District of Columbia.
- Region 4 is accepting applications for projects located within Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee.
- Region 5 is accepting applications for projects located within Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin.
- Region 6 is accepting applications for projects located within Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.
- Region 7 is accepting applications for projects located within Iowa, Kansas, Missouri, and Nebraska.
- Region 8 is accepting applications for projects located within Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

- Region 9 is accepting applications for projects located within California, Arizona, Nevada, Hawaii, Guam, American Samoa and the Commonwealth of the Northern Mariana Islands.
- Region 10 is accepting applications for projects located within Washington, Oregon, Idaho and Alaska.

A map showing Clean Diesel Collaboratives with EPA Regions and Contacts is available here: www.epa.gov/cleandiesel/contact-us-about-clean-diesel.

B. Requirement to Submit Through Grants.gov and Limited Exception Procedures

Applicants, except as noted below, must apply electronically through Grants.gov under this funding opportunity based on the Grants.gov instructions in this announcement and Appendix A. If an applicant does not have the technical capability to apply electronically through Grants.gov because of limited or no internet access which prevents them from being able to upload the required application materials to Grants.gov, the applicant must contact OGDWaivers@epa.gov or the address listed below in writing (e.g., by hard copy, email) *at least 15 calendar days prior to the submission deadline under this announcement* to request approval to submit their application materials through an alternate method.

Mailing Address:

OGD Waivers
 c/o Jessica Durand
 USEPA Headquarters
 William Jefferson Clinton Building
 1200 Pennsylvania Ave., N. W.
 Mail Code: 3903R
 Washington, DC 20460

Courier Address:

OGD Waivers
 c/o Jessica Durand
 Ronald Reagan Building
 1300 Pennsylvania Ave., N.W.
 Rm # 51278
 Washington, DC 20004

In the request, the applicant must include the following information:

- Funding Opportunity Number (FON)
- Organization Name and Unique Entity Identifier (e.g., DUNS)
- Organization's Contact Information (email address and phone number)
- Explanation of how they lack the technical capability to apply electronically through Grants.gov because of 1) limited internet access or 2) no internet access which prevents them from being able to upload the required application materials through Grants.gov.

EPA will only consider alternate submission exception requests based on the two reasons stated above and will timely respond to the request – all other requests will be denied. If an alternate submission method is approved, the applicant will receive documentation of this approval and further instructions on how to apply under this announcement. Applicants will be required to submit the documentation of approval with any initial application submitted under the alternative method. In addition, any submittal through an alternative method must comply with all applicable requirements and deadlines in the announcement including the submission deadline and requirements regarding application content and page limits (although the documentation of approval of an alternate submission method will not count against any page limits).

If an exception is granted, it is valid for submissions to EPA for the remainder of the entire calendar year in which the exception was approved and can be used to justify alternative submission methods for application submissions made through December 31 of the calendar year in which the exception was approved (e.g., if the exception was approved on March 1, 2018, it is valid for any competitive or non-competitive application submission to EPA through December 31, 2018). Applicants need only request an exception once in a calendar year and all exceptions will expire on December 31 of that calendar year. Applicants must request a new exception from required electronic submission through grants.gov for submissions for any succeeding calendar year. For example, if there is a competitive opportunity issued on December 1, 2018 with a submission deadline of January 15, 2019, the applicant would need a new exception to submit through alternative methods beginning January 1, 2019.

Please note that the process described in this section is only for requesting alternate submission methods. All other inquiries about this announcement must be directed to the Agency Contact listed in Section VII of the announcement. Queries or requests submitted to the email address identified above for any reason other than to request an alternate submission method will not be acknowledged or answered.

C. Grants.gov Application Submission Instructions (see Appendix A)

Your organization's authorized official representative (AOR) must submit your complete application electronically to EPA through Grants.gov (www.grants.gov) no later than **Tuesday, March 26, 2019 by 11:59 p.m. Eastern Time (ET)**.

We recommend that you try to submit your application to Grants.gov at least **three days prior** to the deadline. **It is essential to allow sufficient time to ensure that your application is properly submitted to Grants.gov BEFORE the due date.**

Please see **Appendix A** for full Grants.gov submission instructions.

D. Content of Application Submission

The application package *must* include all of the following materials:

- 1. Grant Application Forms.** Please complete the forms as appropriate.

- a. **Standard Form 424, *Application for Federal Assistance***. Please note that the organizational Dun and Bradstreet (D&B) Data Universal Number System (DUNS) number must be included on the SF-424. Organizations may obtain a DUNS number at no cost by calling the toll-free DUNS number request line at 1-866-705-5711.
 - b. **Standard Form 424A, *Budget Information – Non-Construction Programs***
 - c. **Standard Form 424B, *Non-Construction Programs***
 - d. **EPA Form 4700-4, *Pre-Award Compliance Review Report for All Applicants Requesting Federal Financial Assistance***
 - e. **Key Contacts Form**
2. **Project Narrative.** The project narrative must explicitly describe how the proposed project meets the guidelines established in Sections I-III of this announcement (including the threshold eligibility criteria in Section III.C) and must address each of the evaluation criteria set forth in Section V.A. The Project Narrative includes the Cover Page and Work Plan and cannot exceed a maximum of 12 single-spaced typewritten pages—excess pages will not be reviewed.

The Project Narrative must substantially comply with the specific instructions, format and content as defined in **Appendix B**. A sample format for the Project Narrative may be downloaded at: www.epa.gov/cleandiesel/clean-diesel-national-grants#rfa.

3. **Applicant Fleet Description:** The purpose of the Applicant Fleet Description is to describe in detail the specific vehicles and engines targeted for emissions reductions as well as the diesel emissions reduction solution(s) to be implemented under the proposed project. **Information provided in the Applicant Fleet Description will be used to help determine project eligibility based on the funding restrictions identified in Section III.D of this RFA and for evaluation purposes as described below.**

Applicants must describe, to the extent possible, the fleet(s) targeted for the proposed project, including: target fleet type (e.g., Long Haul Combination, Long Haul Single Unit, Refuse Hauler, School bus, Short Haul Combination, Short Haul Single Unit, Transit Bus, Agriculture, Construction, Ports and Airports, Railyard, Stationary, Locomotive, Marine, Other), number of vehicles, vehicle class or equipment type, serial/VIN of engine/vehicle, engine make, engine model, engine model year, engine family name, horsepower, displacement, current tier level, fuel type, amount of fuel used, annual miles travelled or annual usage rate, annual idling hours and annual hoteling hours, remaining life at time of upgrade, and year in which the vehicle would normally be retired or sold by the fleet own if not for the grant activities (normal attrition year).

Applicants must describe, to the extent possible, the diesel emissions reduction solution(s) applied to each targeted vehicle/engine, including (where applicable): year of upgrade action, new upgrade technology type, new upgrade make, new upgrade model, new engine family name, new engine model year, new horsepower, new displacement, new tier level or emission standards, new fuel type, annual idling hours and hoteling hours reduced, annual diesel gallons reduced, and upgrade unit and installation costs. This information should be presented in a table format. This information does not count towards the 12-page limit.

A sample format for the Applicant Fleet Description may be downloaded at: www.epa.gov/cleandiesel/clean-diesel-national-grants#rfa.

Applicants will be scored under Section V.A, Criterion #9, Applicant Fleet Description, on the degree to which detailed information is provided within the Applicant Fleet Description. The information provided within the Applicant Fleet Description should be used to estimate the anticipated emissions reductions from the project and should be consistent with the information presented in the Project Narrative (see **Appendix C** for additional information on calculating emissions reductions).

- 4. Emissions Reduction Calculations:** Applicants should follow the instructions in **Appendix C** of this announcement for calculating emissions reductions. Applicants must include a printout of their Diesel Emissions Quantifier (DEQ) results spreadsheet showing DEQ results and inputs as an attachment to their application. If alternative methods are used, applicants must thoroughly describe and document their emissions reduction calculation methods in an attachment to the Project Narrative. This information does not count towards the 12-page limit.
- 5. Cost Share Commitment Letters:** If applicable, project partners who are providing in-kind or monetary assistance must demonstrate their specific commitment to meet the proposed cost share. Letters should be addressed to the applicant organization and included as attachments to the application. Please do not ask partners to submit letters directly to EPA. This information does not count towards the 12-page limit.
- 6. Partnership Letters:** If applicable, letters that demonstrate strong, long-term involvement throughout the project from a variety of project partners are encouraged. Letters should specifically indicate how project partners and supporting organizations will participate in or directly assist in the design and performance of the project, or how obtaining support from project partners will allow the applicant to more effectively perform the project. Letters should be addressed to the applicant organization and included as attachments to the application. Please do not ask partners to submit letters directly to EPA. This information does not count towards the 12-page limit.
- 7. Mandated Measures Justification Supporting Information:** If applicable, the application must include a clear and concise justification in Section 1 of the Project Narrative, for why/how the emissions reductions proposed for funding are not subject to the Restriction for Mandated Measures under this RFA. **Applicants must provide sufficient detail and information to support the justification, including maintenance schedules and history, if applicable.** Please see **Section III.D.7** and **Appendix D** for more information. This supporting information should be provided as an attachment and does not count towards the 12-page limit.

Please refer to the Application Submission Checklist in **Appendix E** to ensure that all required information is included in your application package.

E. Submission Date and Time

The closing date and time for submission of applications is **Tuesday, March 26, 2019 by 11:59 p.m. Eastern Time (ET)**. Applications submitted after the closing date and time will not be accepted.

F. Information Sessions

EPA will host two Information Sessions regarding this Request for Applications via teleconference/webinar, based on the schedule below. EPA will attempt to answer any appropriate questions in these public forums. Information for the webinars can be found at: www.epa.gov/cleandiesel/clean-diesel-national-grants#rfa.

Sessions

Tuesday, January 8, 2019 at 3:00 p.m. (ET)

Wednesday, January 9, 2019 at 2:00 p.m. (ET)

Questions and answers from these webinars will also be posted in the FAQ document located at www.epa.gov/cleandiesel/clean-diesel-national-grants#rfa.

G. Additional Provisions for Applicants Incorporated into the Solicitation

Additional provisions that apply to this solicitation and/or awards made under this solicitation, including but not limited to those related to confidential business information, contracts and subawards under grants, and application assistance and communications, can be found at www.epa.gov/grants/epa-solicitation-clauses. **These, and the other provisions that can be found at the website link, are important, and applicants must review them when preparing applications for this solicitation.** If you are unable to access these provisions electronically at the website above, please communicate with the EPA contact listed in this solicitation to obtain the provisions.

H. How to Fund Projects and Partnerships

There are several ways DERA recipients may implement projects and fund project partners depending on the roles and responsibilities of each. These include direct implementation, subawards, and participant support costs. Please refer to **Appendix E** of this RFA for detailed guidance on these funding options and how to correctly categorize these costs in the workplan budget.

V. APPLICATION REVIEW INFORMATION

Only eligible entities whose applications meet the threshold criteria in Section III of this RFA will be evaluated according to the criteria set forth below. **Applicants must explicitly address these criteria as part of their application package submittal, following the content requirements set forth in Appendix B.** Each application will be rated using a point system. Applications will be evaluated based on a total of 130 points possible.

A. Evaluation Criteria

Criteria	Points
Total Possible Points	130
<p><u>1. Project Summary and Approach:</u> Under this criterion, applications will be evaluated based on the extent and quality of the applicant’s project summary and overall approach. Specifically, EPA will evaluate:</p> <p>A. (5 points) Whether the application includes a detailed project description, including information on vehicles and technologies; roles and responsibilities, and timeline and milestones as described in Appendix B of the RFA.</p> <p>B. (5 points) Whether the application includes a well-conceived strategy for achieving the anticipated results associated with the project; and</p> <p>C. (5 points) Whether the application sets forth a reasonable time schedule for the execution of the tasks associated with the project and for achieving the project goals and objectives by project end.</p>	15
<p><u>2. Project Location:</u> Under this criterion, applications will be evaluated based on the project location. Specifically, whether:</p> <p>A. (10 points) Projects are located in an Ozone or PM_{2.5} Nonattainment or Maintenance area, as described in Section I.B.3.a.1.</p> <p>B. (5 points) Projects are located in an area where all or part of the population is exposed to diesel PM greater than 2.0 µg/m³, as described in Section I.B.3.a.2.</p> <p>C. (5 points) Projects target vehicles located at, or that service, goods movement facilities such as: ports, rail yards, terminals, or distribution centers, as described in Section I.B.3.b.</p> <p>The term “project location” as used in this RFA refers to the primary area where the affected vehicles/engines operate, or the primary area where the emissions benefits of the project will be realized. Partial points may be awarded for sub-factors A, B and C under this criterion depending on how much of the project occurs in the priority areas.</p>	20
<p><u>3. Benefits to the Community:</u> Under this criterion, applicants will be evaluated based on the quality and extent to which their application demonstrates how the proposed project will address the needs and concerns of affected communities, especially any communities or populations that have faced or are facing environmental justice concerns (as defined in Section I.B.3.c of the RFA).</p>	5

<p><u>4. Community Engagement and Partnerships:</u> Under this criterion, applicants will be evaluated based on the extent and quality of their efforts and plans for engaging affected communities with respect to the design and performance of the project and obtaining support from project partners to more effectively perform the project, as described in Section I.B.3.d of the RFA.</p>	<p>5</p>
<p><u>5. Project Sustainability:</u> Under this criterion, applications will be evaluated based whether the applicant and/or its project partners:</p> <p>A. (5 points) Have demonstrated the implementation of idle-reduction policies, the implementation of contract specifications requiring the use of cleaner, more efficient vehicles and equipment, the development and maintenance of mobile source equipment inventories, a documented commitment to continue to identify and address air quality issues in the affected community, or the implementation of other strategies to promote and continue efforts to reduce emissions as described in I.B.3.e of the RFA.</p> <p>B. (5 points) Have developed in the past five years or have a documented commitment to developing before the end of the project period, a publicly available baseline mobile source emissions inventory for PM_{2.5} and/or NO_x, or refinement of an existing mobile source emissions inventory that was completed before 2014.</p> <p>C. (5 points) Have developed in the past five years or have a documented commitment to developing before the end of the project period a publicly available long-term air quality plan with specific PM_{2.5} and/or NO_x emissions reduction goals, or refinement of an existing air quality plan that was completed before 2014.</p> <p>D. (5 points) Have developed in the past five years or have a documented commitment to developing before the end of the project period, a publicly available “Community Engagement Plan” for meaningful engagement of the affected communities regarding either the environmental and/or other issues that the project is intended to address, or to specifically inform the policies, specifications, inventories, commitments, and other strategies outlined in Sections I.B.3.e.1 and 2 of this RFA.</p>	<p>20</p>
<p><u>6. Environmental Results – Outputs, Outcomes and Performance Measures:</u> Under this criterion, applicants will be evaluated based on:</p> <p>A (5 points) The extent to which the project will achieve significant reductions in diesel emissions. Applicants should follow the instructions in Appendix C and must include a printout of their DEQ inputs and results (or alternative methods) as an attachment.</p>	<p>25</p>

<p>B. (5 points) The lifetime total project cost effectiveness for PM_{2.5} and NO_x, and the lifetime capital cost effectiveness for PM_{2.5} and NO_x . Applicants should follow the instructions in Appendix C to calculate the cost effectiveness for PM_{2.5} and NO_x reductions.</p> <p>C. (5 points) The extent and quality to which the applicant identifies and quantifies other expected project outputs and outcomes, including those identified in Section I.C.2 and 3 of the RFA.</p> <p>D. (5 points) The performance measures proposed by the applicant and how they will be used to help track and measure the applicant’s progress towards achieving the expected outputs and outcomes as described in Section I.C.4 of the RFA.</p> <p>E. (5 points) The effectiveness of the applicant’s plan for tracking and measuring its progress toward achieving the expected project outputs and outcomes as described in Section I.C.4 of the RFA.</p>	
<p><u>7. Programmatic Capability and Past Performance:</u> Under this criterion, applicants will be evaluated based on their ability to successfully complete and manage the proposed project considering their:</p> <p>A. (5 points) Past performance in successfully completing and managing the assistance agreements identified in the Project Narrative as described in Section 7 of Appendix B of the RFA.</p> <p>B. (5 points) History of meeting the reporting requirements under the assistance agreements identified in the Project Narrative as described in Section 7 of Appendix B of the RFA, including whether the applicant submitted acceptable final technical reports under those agreements and the extent to which the applicant adequately and timely reported on their progress towards achieving the expected outputs and outcomes under those agreements and if such progress was not being made whether the applicant adequately reported why not;</p> <p>C. (5 points) Organizational experience and plan for timely and successfully achieving the objectives of the proposed project; and</p> <p>D. (5 points) Staff expertise and qualifications, staff knowledge, and resources or the ability to obtain them, to successfully achieve the goals of the proposed project.</p> <p>Note: In evaluating applicants under items A and B of this criterion, the Agency will consider the information provided by the applicant and may also consider relevant information from other sources including agency files and prior/current grantors (e.g., to verify and/or supplement the information supplied by the applicant). If you do not have any relevant or available past performance or</p>	<p>20</p>

<p>reporting information, please indicate this in the application and you will receive a neutral score for these sub-factors (items A and B above-a neutral score is half of the total points available in a subset of possible points). If you do not provide any response for these items, you may receive a score of 0 for these sub-factors.</p>	
<p>8. Budget: Under this criterion, applicants will be evaluated based on:</p> <p>A. (5 points) Their approach, procedures, and controls for ensuring that awarded grant funds will be expended in a timely and efficient manner.</p> <p>B. (5 points) Whether costs are reasonable to accomplish the proposed goals, objectives, and measurable environmental outcomes; and</p> <p>C. (5 points) Whether the proposed budget provides a detailed breakout of the approximate funding used for each major activity.</p> <p>An applicant’s budget and Budget Narrative must account for both federal funds and any non-federal funds (e.g., any required or voluntary cost share/match if applicable). Applicants must precisely describe in their Budget Narrative how they will account for any required or voluntary cost share/match, if applicable, and what role EPA funding will play in the overall project.</p>	<p>15</p>
<p>9. Applicant Fleet Description: Under this criterion, applicants will be evaluated on the extent and quality to which detailed information on the target fleet (vessel(s), vehicle(s), engine(s) and/or equipment) is provided in the Applicant Fleet Description, as described in Section IV.D.3 of the RFA.</p>	<p>5</p>

B. Review and Selection Process

Assistance agreements funded under this announcement will be awarded and managed by each of EPA’s ten regional offices. Applications submitted through Grants.gov will be distributed by EPA’s Office of Air and Radiation to the appropriate EPA regional office for review. Applications will be reviewed by regional review panels and assistance agreements funded under this announcement will be awarded and managed by each of EPA’s ten regional offices.

Applications will first be evaluated by the applicable region against the threshold factors listed in Section III.C of this RFA. Only those applications which meet all of the threshold factors will be evaluated by regional review panels using the evaluation criteria listed above. Each application will be given a numerical score and will be rank-ordered by the regional review panels.

Preliminary funding recommendations will be provided to the EPA regional Approving or Selection Officials based on these reviews and rankings.

C. Other Factors

Final funding decisions will be made by the appropriate EPA regional Approving or Selection Official based on the rankings and preliminary recommendation of the appropriate EPA regional review panel. In making the final funding decisions, the EPA regional Approving or Selection Official may also consider sector (fleet type) diversity, technology diversity, geographic diversity, number and size of awards, and Agency and programmatic priorities.

D. Additional Provisions for Applicants Incorporated Into the Solicitation

Additional provisions that apply to this solicitation and/or awards made under this solicitation including the clause on Reporting and Use of Information Concerning Recipient Integrity and Performance can be found at [EPA Solicitation Clauses](#). **These, and the other provisions that can be found at the website link, are important, and applicants must review them when preparing applications for this solicitation.** If you are unable to access these provisions electronically at the website above, please communicate with the EPA contact listed in this solicitation to obtain the provisions.

VI. AWARD ADMINISTRATION INFORMATION

A. Award Notices

Following evaluation of applications, all applicants will be notified regarding their status.

- 1. Successful Applicants:** EPA anticipates notification to successful applicants will be made via electronic or postal mail by May 30, 2019. The notification will be sent to the original signer of the application or the project contact listed in the application. This notification, which informs the applicant that its application has been selected and is being recommended for award is not an authorization to begin work. The official notification of an award will be made by the Regional Grants Management Office.

Applicants are cautioned that only a grants officer is authorized to bind the Government to the expenditure of funds; selection does not guarantee an award will be made. For example, statutory authorization, funding or other issues discovered during the award process may affect the ability of EPA to make an award to the applicant. The award notice, signed by the EPA grants officer, is the authorizing document and will be provided through electronic or postal mail. The successful applicant may need to prepare and submit additional documents and forms (e.g. work plan), which must be approved by EPA, before the grant can officially be awarded. The time between notification of selection and award of a grant can take up to 90 days or longer.

- 2. Unsuccessful Applicants:** EPA anticipates notification to unsuccessful applicant(s) will be made via electronic or postal mail by May 30, 2019. The notification will be sent to the original signer of the Standard Form 424, Application for Federal Assistance.

B. Administrative and National Policy Requirements

A listing and description of general EPA Regulations applicable to the award of assistance agreements may be viewed at: www.epa.gov/grants/policy-regulations-and-guidance-epa-grants.

C. Reporting Requirement

Quarterly progress reports and a detailed final report will be required. Quarterly reports summarizing technical progress, planned activities for the next quarter and a summary of expenditures are required. The final report shall be submitted to EPA within 90 calendar days of the completion of the period of performance. The final report must include: summary of the project or activity, outputs, outcomes, environmental results, advances achieved and costs of the project or activity. In addition, the final report shall discuss the problems, successes, and lessons learned from the project or activity that could help overcome structural, organizational or technical obstacles to implementing a similar project elsewhere. The schedule for submission of quarterly reports will be established by EPA, after the grants are awarded. Award recipients may be provided with additional information and guidance on reporting performance measures and project progress after award.

D. Disputes

Assistance agreement competition-related disputes will be resolved in accordance with the dispute resolution procedures published in 70 FR (Federal Register) 3629, 3630 (January 26, 2005) located on the web at: www.epa.gov/grants/dispute-resolution-procedures. Copies of these procedures may also be requested by contacting the person listed in Section VII of this announcement.

E. Additional Provisions for Applicants Incorporated Into the Solicitation

Additional provisions that apply to this solicitation and/or awards made under this solicitation, including but not limited to those related to DUNS, SAM, copyrights, disputes, and administrative capability, subrecipients and contractors (including individual consultants), can be found at: www.epa.gov/grants/epa-solicitation-clauses. **These, and the other provisions that can be found at the website link, are important, and applicants must review them when preparing applications for this solicitation.** If you are unable to access these provisions electronically at the website above, please communicate with the EPA contact listed in this solicitation to obtain the provisions.

VII. AGENCY CONTACTS

For further information, contact:

U.S. Environmental Protection Agency
ATTN: Faye Swift, DERA Grants and Policy Team Leader
OAR, Office of Transportation and Air Quality
WJ Clinton Building North

1200 Pennsylvania Ave., NW (6406A)
Washington, DC 20460

Phone: (202) 343-9147

Email: swift.faye@epa.gov

All applicants are encouraged to review the Frequently Asked Questions (FAQ) document posted at www.epa.gov/cleandiesel/clean-diesel-national-grants#rfa for further clarification of this Request for Applications. EPA will respond to additional questions from individual applicants regarding threshold eligibility criteria, administrative issues related to the submission of the application, and requests for clarification about any of the language or provisions in the announcement through the FAQ document.

Applicants may email written questions to: cleandiesel@epa.gov. Please type “RFA Question” in the subject line of your email. All questions submitted via email by 4:00 p.m. ET each Friday during the RFA open period will be answered and posted in the FAQ document the following week. The deadline for submitting questions via email is Friday, March 15, 2019 at 4:00 p.m. ET. The estimated final posting of the FAQ document will be Wednesday, March 20, 2019 at 4:00 p.m. ET.

APPENDIX A - Grants.gov Application Submission Instructions

The electronic submission of your application must be made by an official representative of your institution who is registered with [Grants.gov](https://www.grants.gov) and is authorized to sign applications for Federal assistance. For more information on the registration requirements that must be completed in order to submit an application through [Grants.gov](https://www.grants.gov), go to www.grants.gov and click on “Applicants” on the top of the page and then go to the “Get Registered” link on the page. If your organization is not currently registered with Grants.gov, please encourage your office to designate an Authorized Organization Representative (AOR) and ask that individual to begin the registration process as soon as possible. Please note that the registration process also requires that your organization have a Unique Entity Identifier (e.g. DUNS number) and a current registration with the System for Award Management (www.SAM.gov) and the process of obtaining both could take a month or more. Applicants must ensure that all registration requirements are met in order to apply for this opportunity through Grants.gov and should ensure that all such requirements have been met well in advance of the submission deadline. Registration on Grants.gov, SAM.gov, and DUNS number assignment is FREE.

Applicants need to ensure that the AOR who submits the application through [Grants.gov](https://www.grants.gov) and whose Unique Entity Identifier (e.g., DUNS number) is listed on the application is an AOR for the applicant listed on the application. Additionally, the DUNS number listed on the application must be registered to the applicant organization’s SAM account. If not, the application may be deemed ineligible.

To begin the application process under this grant announcement, go to [Grants.gov](https://www.grants.gov) and click on “Applicants” on the top of the page and then “Apply for Grants” from the dropdown menu and then follow the instructions accordingly. Please note: To apply through Grants.gov, you must use Adobe Reader software and download the compatible Adobe Reader version. For more information about Adobe Reader, to verify compatibility, or to download the free software, please visit [Adobe Software Compatibility Information on Grants.gov](https://www.adobe.com/reader/compatibility).

You may also be able to access the application package for this announcement by searching for the opportunity on Grants.gov. Go to [Grants.gov](https://www.grants.gov) and then click on “Search Grants” at the top of the page and enter the Funding Opportunity Number, EPA-OAR-OTAQ-19-01, or the CFDA number, CFDA 66.039, in the appropriate field and click the Search button.

Please Note: All applications must now be submitted through Grants.gov using the “Workspace” feature. Information on the Workspace feature can be found at the [Grants.gov Workspace Overview Page](https://www.grants.gov/workspace).

Application Submission Deadline: Your organization’s AOR must submit your complete application package electronically to EPA through [Grants.gov](https://www.grants.gov) no later than **Tuesday, March 26, 2019 by 11:59 p.m. ET**. Please allow for enough time to successfully submit your application and allow for unexpected errors that may require you to resubmit.

Please submit *all* of the application materials described below using the Grants.gov application package accessed using the instructions above.

Application Materials

The following forms and documents are required under this announcement, as described in Section IV.C and Appendix B of the RFA:

Mandatory Documents:

- Application for Federal Assistance (SF-424)
- Budget Information for Non-Construction Programs (SF-424A)
- Standard Form 424B, Non-Construction Programs
- EPA Form 4700-4 – Pre-award Compliance Review Report
- EPA Key Contacts Form
- Project Narrative, including Budget Detail (Project Narrative Attachment Form)
- Applicant Fleet Description (Other Attachments Form)
- Emissions Reduction Calculations (Other Attachments Form)

Optional Documents:

- Cost Share Commitment Letters (Other Attachments Form)
- Partnership Letters (Other Attachments Form)
- Mandatory Measures Justification Supporting Information (Other Attachments Form)
- Resumes (Other Attachments Form)

The “Other Attachments Form” is listed under mandatory documents but should be used to attach both mandatory documents as well as any optional documents. Applications submitted through grants.gov will be time and date stamped electronically. If you have not received a confirmation of receipt from EPA (not from grants.gov) within 5 days of the application deadline, please contact Faye Swift, at (202) 343-9147. Failure to do so may result in your application not being reviewed.

Technical Issues with Submission

1. Once the application package has been completed, the “Submit” button should be enabled. If the “Submit” button is not active, please call [Grants.gov](https://www.grants.gov) for assistance at 1-800-518-4726. Applicants who are outside the U.S. at the time of submittal and are not able to access the toll-free number may reach a Grants.gov representative by calling 606-545-5035. Applicants should save the completed application package with two different file names before providing it to the AOR to avoid having to re-create the package should submission problems be experienced or a revised application needs to be submitted.

2. Submitting the application. The application package must be transferred to [Grants.gov](https://www.grants.gov) by an AOR. The AOR should close all other software before attempting to submit the application package. Click the “submit” button of the application package. Your Internet browser will launch and a sign-in page will appear. **Note: Minor problems are not uncommon with transfers to Grants.gov. It is essential to allow sufficient time to ensure that your application is submitted to Grants.gov BEFORE the due date identified in Section IV of the solicitation.** The support desk operates 24 hours a day, seven days a week, except Federal Holidays.

A successful transfer will end with an on-screen acknowledgement. **For documentation**

purposes, print or screen capture this acknowledgement. If a submission problem occurs, reboot the computer – turning the power off may be necessary – and re-attempt the submission. Note: Grants.gov issues a “case number” upon a request for assistance.

3. Transmission Difficulties. If transmission difficulties that result in a late transmission, no transmission, or rejection of the transmitted application are experienced, and following the above instructions do not resolve the problem so that the application is submitted to [Grants.gov](https://www.grants.gov) by the deadline date and time, follow the guidance below. The Agency will make a decision concerning acceptance of each late submission on a case-by-case basis. All emails, as described below, are to be sent to swift.faye@epa.gov with the FON in the subject line. If you are unable to email, contact Faye Swift at (202) 343-9147. Be aware that EPA will only consider accepting applications that were unable to transmit due to Grants.gov or relevant [www.SAM.gov](https://www.sam.gov) system issues or for unforeseen exigent circumstances, such as extreme weather interfering with internet access. Failure of an applicant to submit timely because they did not properly or timely register in [SAM.gov](https://www.sam.gov) or [Grants.gov](https://www.grants.gov) is not an acceptable reason to justify acceptance of a late submittal.

a. If you are experiencing problems resulting in an inability to upload the application to [Grants.gov](https://www.grants.gov), it is essential to call Grants.gov for assistance at 1-800-518-4726 before the application deadline. Applicants who are outside the U.S. at the time of submittal and are not able to access the toll-free number may reach a Grants.gov representative by calling 606-545-5035. **Be sure to obtain a case number from Grants.gov.** If the problems stem from unforeseen exigent circumstances unrelated to Grants.gov, such as extreme weather interfering with internet access, contact Faye Swift at (202) 343-9147.

b. Unsuccessful transfer of the application package: If a successful transfer of the application cannot be accomplished even with assistance from [Grants.gov](https://www.grants.gov) due to electronic submission system issues or unforeseen exigent circumstances, and you have already attempted to resolve the issue by contacting Grants.gov, send an email message to swift.faye@epa.gov prior to the application deadline. **The email message must document the problem and include the Grants.gov case number as well as the entire application package in PDF format as an attachment.**

c. Grants.gov rejection of the application package: If a notification is received from [Grants.gov](https://www.grants.gov) stating that the application has been rejected for reasons other than late submittal promptly send an email to swift.faye@epa.gov with the FON in the subject line within one business day of the closing date of this solicitation. The email should include any materials provided by Grants.gov and attach the entire application in PDF format.

Please note that successful submission through Grants.gov or via email does not necessarily mean your application is eligible for award.

APPENDIX B – Project Narrative Instructions, Format, and Content

Instructions: The Project Narrative must substantially comply with the instructions, format and content defined below. It must also address the evaluation criteria in Section V.A of the RFA.

The Project Narrative, including the Cover Page (which is recommended not to exceed one page) and Workplan as described below, must not exceed a maximum of 12 single-spaced typewritten pages. Pages in excess of the 12-page limit will not be considered.

A Project Narrative template is available for use at: www.epa.gov/cleandiesel/clean-diesel-national-grants#rfa. Applicants are not required to use the template but are encouraged to do so.

Cover Page: It is recommended that the cover page does not exceed one page. The cover page must include the following information:

- **EPA Region:** Specify the EPA Regional Office from which you are requesting funding (Regions 1 – 10). See Sections I.B.3.a and b, II.A, and IV.A of the RFA for information.
- **Project Title**
- **Applicant Information**
 - Applicant (Organization) Name
 - Address (Street, City, State, Zip)
 - Office Phone and Fax Numbers
 - Contact Name, Email address and Website (if applicable)
 - DUNS number
- **Eligible Entity:** Using the criteria outlined under Section III.A of this RFA, explain how you are an eligible entity.
- **Budget Summary:** Summarize the information in the Budget Detail portion of this Project Narrative:

EPA Funding	Voluntary Cost Share	Mandatory Cost Share	Total Project Cost	Other Leveraged Funds

- **Vehicle/Equipment Type:** Specify vehicle and equipment type(s) from the following list.

<ul style="list-style-type: none"> ▪ Agriculture ▪ Airport Ground Support ▪ Construction ▪ Cargo Handling ▪ Drayage ▪ Emergency ▪ Locomotive and Rail ▪ Long Haul ▪ Marine 	<ul style="list-style-type: none"> ▪ Mining ▪ Municipal/Utility ▪ Refuse/Recycling ▪ School bus ▪ Short Haul ▪ Stationary Generator ▪ Transit/Public Transportation ▪ Transport Refrigeration Unit ▪ Other (specify)
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- **Type of Upgrade:** Specify the types of technologies that will be used in the project from the following, as referenced in Section I.B.2.
 - Aerodynamic Devices (specify types)
 - Engine Retrofit Technologies (specify types)
 - Fuel Options (specify types)
 - Idling Control Strategies (specify types)
 - Engine Replacement (specify types)
 - Vehicle Replacements (specify types)
 - Engine Upgrade Kits (specify types)
- **Short Project Description:** Briefly describe your project (1-2 sentences), especially noting the number of vehicles for each type of fleet, and the technology used. Example description: Retrofit 40 school buses with DPFs. In addition, replace the engines in 10 nonroad construction vehicles with Tier 4 diesel engines, and install DPFs and bunk heaters on 20 Class 8 long-haul trucks.
- **Project Location:** Briefly describe the primary area(s) where the affected vehicles/engines operate, or the primary area(s) where the emissions benefits of the project will be realized.

Work Plan Applicants must ensure that the Work Plan addresses the evaluation criteria in Section V.A of this announcement by using the section numbers and headings and subsection numbers and headings below which correspond with the evaluation criteria in Section V.A of this RFA.

Section 1. Project Summary and Approach

This section of the work plan should contain a detailed project description, including the following information:

A. VEHICLES AND TECHNOLOGIES:

- A description of the eligibility, number, types and typical use, and ownership of vehicles, engines and/or equipment targeted for emissions reductions, including the remaining life of the target engines (estimate of total number of years of engine life remaining at the time of upgrade action, regardless of ownership) and the normal attrition year (year in which the target engines would normally be retired/sold by the fleet owner if not for the grant).
- A discussion of how the applicant has weighed the available/eligible technology options for the target fleet and has arrived at the chosen diesel emissions reduction solution(s).
- A description of all verified and/or certified technologies to be used or funded by the applicant.
- A discussion of whom or what organization(s) will retain ownership of any vehicles, engines and/or equipment purchased with funding from this project.
- Applications which include engine replacements and vehicle/equipment replacements must include the applicant’s plans for engine/vehicle/equipment scrapping.
- Applications which include locomotives and/or marine engines and/or stationary engines must include a clear and concise justification for why/how the proposed emissions reductions are not subject to the Restriction for Mandated Measures under this RFA, as described in Section III.D.7 and Appendix D.

- B. **ROLES AND RESPONSIBILITIES:** A discussion of the roles and responsibilities of the Applicant organization and any other project partners, contractors, or subgrantees.
- C. **TIMELINE AND MILESTONES:** A detailed timeline for the project including milestones for specific tasks, such as bidding, procurement, installation and reports. Applicants should schedule time for Final Report preparation into the project timeline.

Section 2. Project Location

This section of the work plan should include a detailed discussion of the project location. The term “project location” as used in this RFA refers to the primary area where the affected vehicles/engines operate, or the primary area where the emissions benefits of the project will be realized. **If a single application includes vehicles operating in more than one area, this section of the work plan should indicate where the vehicles operate and the amount (%) of time spent in each area.**

- A. **NONATTAINMENT AREAS:** Priority will be given to projects located in areas of poor air quality as described in Section I.B.3.a.1 of the RFA. This section of the workplan should indicate whether all or a portion of the project is in one of these areas.
- B. **AIR TOXICS ASSESSMENT AREAS:** Priority will be given to projects located in areas of poor air quality as described in Section I.B.3.a.2 of the RFA. This section of the workplan should indicate whether all or a portion of the project is in one of these areas.
- C. **GOODS MOVEMENT AREAS:** Priority will be given to projects which reduce diesel emissions from vehicle/engines/equipment located at, or that service, goods movement facilities such as: ports, airports, rail yards, terminals, or distribution centers as described in Section I.B.3.b of the RFA. This section of the workplan should indicate whether all or a portion of the project is in one of these areas.

In addition to the narratives above, applicants should complete and include the following table in this section of the workplan.

Project Location					
State:					
County:					
City:					
Congressional District:					
Zipcode:					
Type and Number of Affected Vehicles:					
% of Time					

Vehicles Spend in Area:					
Nonattainment Area:					
Air Toxic Assessment Area:					
Goods Movement:					

Instructions for table:

- State: Enter at least 1 state, but no more than 5
- County: Enter at least 1 county, but no more than 5. Or “statewide”.
- City: Enter at least 1 city name, but no more than 5. If the benefits are statewide, please enter up to 5 city locations as the primary locations of the benefit
- Congressional District: Enter at least 1 Congressional District, but no more than 5 (Enter “00” for a congressional district at large; “98” for DC, PR, VI; 99 for jurisdictions with no representative; 90 for multiple districts, ie. Statewide.
- Zipcode: Enter at least 1 zip code, but no more than 5. If benefit is Statewide, enter up to 5 zip codes as the primary locations of benefit.
- Type and Number of Affected Vehicles: Enter the estimated type and number of affected vehicles that operate within the listed project location.
- % of Time Vehicles Spend in Area: Enter the estimated percentage of time the affected vehicles operated within the listed project location.
- Nonattainment Area: Indicate with an “X” whether the listed project location is an area of poor air quality as described in Section I.B.3.a.1 of the RFA.
- Air Toxic Assessment Area: Indicate with an “X” whether the listed project location in areas of poor air quality as described in Section I.B.3.a.2 of the RFA
- Goods Movement: Indicate whether the listed project location includes good movements facilities by entering: ports, airports, rail yards, terminals, or distribution centers, as described in Section I.B.3.b of the RFA.

Section 3. Benefits to the Community

This section of the work plan should include a detailed discussion of how the proposed project will address the needs and concerns of affected communities, especially any communities or populations that have faced or are facing environmental justice concerns (as defined in Section I.B.3.c of the RFA). The term “affected communities” as defined by the program are communities, populations, groups, and other interested parties that are, or have been, affected by the environmental and/or other issues that the project is intended to address. The term “environmental justice concerns,” as used in this solicitation, generally relate to issues that have resulted in some minority, low-income, tribal and indigenous communities and/or populations being more adversely, disproportionately and/or historically impacted by environmental issues and problems than other communities because of geography, poverty, income levels and similar types of factors.

The extent that a project will maximize public health benefits depends on both the population, community or group that will experience improvements in air quality due to the project, and the amount of emissions reductions that will take place. Applications should therefore describe both the population, community or group that will be affected by the project and how they will directly benefit from the emissions reductions that will result from the project. Applications that can demonstrate how they will directly benefit communities with environmental justice concerns will be evaluated more favorably than others.

Note: Factors potentially indicating disproportionate impacts to communities with environmental justice concerns include, but are not limited to: differential proximity and exposure to environmental hazards; greater susceptibility to adverse effects from environmental hazards (due to genetic predisposition, age, chronic medical conditions, lack of health care access, or poor nutrition); unique environmental exposures because of practices linked to cultural background or socioeconomic status (*e.g.*, subsistence fishing or farming); cumulative effects from multiple stressors; reduced ability to effectively participate in decision-making processes (due to language barriers, inability to access traditional communication channels, or limited capacity to access technical and legal resources); and degraded physical infrastructure, such as poor housing, poorly maintained public buildings (*e.g.*, schools), or lack of access to transportation.

Section 4. Community Engagement and Partnerships

This section of the workplan should include a detailed discussion of applicant's efforts and plans for engaging affected communities with respect to the design and performance of the project and obtaining support from project partners to more effectively perform the project, as described in Section I.B.3.d of the RFA. The term "affected communities" as defined by the program are communities, populations, groups, and other interested parties that are, or have been, affected by the environmental and/or other issues that the project is intended to address. Applicants should discuss their approach for incorporating input from affected communities throughout the design and performance of the project, and/or whether their design of the proposed project involved and incorporated input from affected communities. Community engagement and partnership efforts should include various organizations representing a broad spectrum of the community; examples include local residents, grassroots, neighborhood, school, faith-based, city council, business, local government, and other organizations. Recent involvement of project partners and community members working together on projects should be highlighted. Applications with letters of commitment that demonstrate strong, long-term involvement throughout the project from a variety of project partners may also be evaluated more favorably than others.

Section 5. Project Sustainability

This section of the workplan should include a detailed discussion of the applicant's and/or project partner's ability to promote and continue efforts to reduce emissions after EPA funding for this project has ended, as described in Section I.B.3.e of the RFA.

Applications will be evaluated based on whether the applicant and/or its project partners have demonstrated the implementation of idle-reduction policies, the implementation of contract specifications requiring the use of cleaner vehicles and equipment, the development and maintenance of mobile source equipment inventories, a documented commitment to continue to

identify and address air quality issues in the affected community, or the implementation of other strategies to promote and continue efforts to reduce emissions.

Applications will be evaluated based on whether the applicant and/or its project partners have developed in the past five years or have a documented commitment to developing before the end of the project period, a publicly available baseline mobile source emission inventory for PM_{2.5} and/or NO_x, or refinement of an existing mobile source emissions inventory that was completed before 2014.

Applications will be evaluated based on whether the applicant and/or its project partners have developed in the past five years or have a documented commitment to developing before the end of the project period, a publicly available long-term air quality plan with specific PM_{2.5} and/or NO_x emission reduction goals, or refinement of an existing air quality plan that was completed before 2014.

Applications will also be evaluated on whether the applicant and/or its project partners have developed in the past five years or have a documented commitment to developing before the end of the project period, a publicly available “Community Engagement Plan” for meaningful engagement of the affected communities regarding either the environmental and/or other issues that the project is intended to address, or to specifically inform the policies, specifications, inventories, commitments, and other strategies outlined above.

Where appropriate, please provide URLs to where materials may be found online.]

Section 6. Environmental Results—Outputs, Outcomes and Performance Measures

- A. **OUTPUTS AND OUTCOMES:** This section of the work plan must include a discussion of the outputs and outcomes of the project **as defined in Section I.C.2 and 3 of the RFA.** Specific outputs and outcomes should be included.

Applicants should follow the instructions in **Appendix C** of this announcement for calculating emissions reductions and cost effectiveness. In addition to a narrative discussion of the outputs and outcomes, it is suggested that the applicant fill out and include the following table, or something similar, in this section of the work plan. **At a minimum, annual emissions reductions, lifetime emissions reductions, lifetime total project cost effectiveness for NO_x and PM_{2.5}, and lifetime capital cost effectiveness for NO_x and PM_{2.5} should be included.**

Anticipated Outputs and Outcomes		
Activities	Outputs	Outcomes

Example Outputs and Outcome Table

<i>Anticipated Outputs and Outcomes</i>		
<i>Activities</i>	<i>Outputs</i>	<i>Outcomes</i>

<i>Retrofit 100 school buses</i>	<i># of technology installed = 100 DPFs</i>	<i>Annual Emissions Reduction = 0.714 tons PM_{2.5}</i>
		<i>Lifetime Emissions Reduction = 4.283 tons PM_{2.5}</i>
		<i>Lifetime Total Project Cost Effectiveness = \$235,837/ton PM_{2.5}</i>
		<i>Lifetime Capital Cost Effectiveness = \$233,502/ton PM_{2.5}</i>

Please Note: Applicants must include a printout of their DEQ results spreadsheet showing results and inputs as an attachment to their application. If alternative emissions reduction calculation methods are used, applicants must thoroughly describe and document their methods in an attachment to the Project Narrative. The inputs used for emissions calculations should match the information provided by the applicant in the Applicant Fleet Description.

- B. **PERFORMANCE MEASURES:** In this section of the workplan applicants must describe what performance measurements, timeline of milestones, and/or other means will be used to track, measure and report progress towards achieving the expected outputs and outcomes and how the results of the project will be evaluated, as described in Section I.C.4 of the RFA.
- C. **PERFORMANCE PLAN:** In this section of the workplan applicants must describe their plan for tracking and measuring progress toward achieving the expected project outputs and outcomes, as described in Section I.C.4 of the RFA.

The following are questions to consider when developing output and outcome measures of quantitative and qualitative results:

- What are the measurable short term and longer term results the project will achieve?
- How does the plan measure progress in achieving the expected results (including outputs and outcomes) and how will the approach use resources effectively and efficiently?

Section 7. Programmatic Capability and Past Performance

- A. **PAST PERFORMANCE:** This section of the work plan must include a list of federally funded assistance agreements similar in size, scope and relevance to the proposed project that your organization performed within the last three years. Assistance agreements include federal grants and cooperative agreements but not federal contracts. Please reference no more than three assistance agreements. EPA agreements are preferred. For each agreement listed, include:
 - Project Title
 - Assistance Agreement Number
 - Funding Agency and CFDA Number

This section of the workplan should include a discussion of whether, and how, the applicant was able to successfully complete and manage the listed agreements.

- B. **REPORTING REQUIREMENTS:** This section of the workplan should include a discussion of the applicant’s history of meeting the reporting requirements under the agreements listed above, including submitting acceptable final technical reports and how the applicant documented and/or reported on whether it was making progress towards achieving the expected results (e.g., outputs and outcomes) under those agreements. If the applicant was not making progress, please indicate whether, and how, the applicant documented its reason for the lack of progress.
- C. **ORGANIZATIONAL EXPERIENCE:** This section of the work plan must include information on your organizational experience for timely and successfully achieving the objectives of the proposed project.
- D. **STAFF AND RESOURCES:** This section of the work plan should include information on your staff expertise/qualification, staff knowledge, and resources or the ability to obtain them, to successfully achieve the goals of the proposed project. EPA will not consider the qualifications, experience, and expertise of named subawardees/subgrantees and/or named contractor(s) unless certain conditions/requirements are met. For additional information see Section IV.G of this RFA.

Please Note: In evaluating applicants under the factors as described in Section V.A.7 (A and B) of this RFA, EPA will use the information provided by the applicant and may also consider relevant information from other sources, including information from EPA files and information from current and prior federal agency grantors to verify and/or supplement the information provided by the applicant.

If you do not have any relevant or available past performance or reporting information, please indicate this and you will receive a neutral score for these factors under Section V.A.7 of this RFA. A neutral score is half of the total points available. If you do not provide any response for this item, you may receive a score of zero (0) for these factors.

Section 8. Budget Narrative and Detail

This section of the work plan is a detailed description of the budget found in the SF-424A, and must include a discussion of the applicant’s approach to ensuring proper management of grant funds, a detailed Budget Narrative, as well as the itemized Budget Table below. An applicant’s Budget Table and Budget Narrative must account for both federal funds and any non-federal funds (e.g., any mandatory or voluntary cost share if applicable).

- A. **EXPENDITURE OF AWARDED GRANT FUNDS:** Applicants should provide a detailed discussion of their approach, procedures, and controls for ensuring that awarded grant funds will be expended in a timely and efficient manner.
- B. **BUDGET NARRATIVE:**
- Description of the budget and estimated funding amounts for each work component/task.
 - For applicants that provide a mandatory and/or voluntary cost share, the Budget Narrative must include a detailed description of how the applicant will obtain the cost share and

how the cost share funding will be used. Funds are subject to the regulations governing cost share fund requirements at 2 CFR Part 200. Any form of cost share included in the Budget Detail must also be included on the SF 424 and SF 424A. Please see Section III.B of this RFA for more detailed information on cost share.

- If a proposed cost share is to be provided by a named third-party, a letter of commitment is required.
- There are several ways DERA recipients may implement projects and fund project partners depending on the roles and responsibilities of each. These include direct implementation, subawards, and participant support costs. Please refer to **Appendix E** of this RFA for detailed guidance on these funding options and how to correctly categorize these costs in the workplan budget.

C. BUDGET DETAIL:

- Applicants should use the following instructions, budget object class descriptions, and example table to complete the Budget Detail section of the work plan, adding or deleting additional rows as necessary to accurately reflect the proposed project budget.
- Applicants must **itemize** costs related to personnel, fringe benefits, travel, equipment, installation (labor) supplies, contractual costs, other direct costs (subawards, participant support costs), indirect costs, and total costs.
- For applicants that provide a mandatory and/or voluntary cost share, the Budget Detail must clearly specify the amount of federal funding and the cost share amount for each category. Any form of cost share included in the Budget Detail must also be included on the SF 424 and SF 424A.
- For applicants proposing to implement a rebate program, the rebates are appropriately listed under the Other budget category as “Participant Support Costs.” Please see Appendix E for more information on Participant Support Costs.
- Other leveraged funds should be included in the Budget Detail if the applicant is proposing to implement a rebate program for equipment and vehicle purchases. The program participant’s share of the vehicle that is not covered by the rebate is not considered a mandatory nor voluntary cost share and is not part of the total project cost under the grant award; the program participant’s share of the vehicle that is not covered by the rebate is considered other leveraged funds. Other leveraged funds should NOT be included in the SF424 and SF424A. Please see Section III.B.3 and Appendix E for more information.]

Personnel - List all staff positions by title. Give annual salary, percentage of time assigned to the project, and total cost for the budget period. This category includes only direct costs for the salaries of those individuals who will perform work directly for the project (paid employees of the applicant organization as reflected in payroll tax records). If the applicant organization is including staff time (in-kind services) as a cost share, this should be included as Personnel costs. Personnel costs do not include: (1) costs for services of contractors (including consultants), which are included in the “Contractual” category; (2) costs for employees of subrecipients under subawards or non-employee program participants (e.g. interns or volunteers), which are included in the “Other” category; or (3) effort that is not directly in support of the proposed project, which may be covered by the organization’s negotiated indirect cost rate. The budget detail must identify the personnel category type by

Full Time Equivalent (FTE), including percentage of FTE for part-time employees, number of personnel proposed for each category, and the estimated funding amounts.

Fringe Benefits - Identify the percentage used, the basis for its computation, and the types of benefits included. Fringe benefits are allowances and services provided by employers to their employees as compensation in addition to regular salaries and wages. Fringe benefits may include, but are not limited to the cost of leave, employee insurance, pensions and unemployment benefit plans. If the applicant's fringe rate does not include the cost of leave, and the applicant intends to charge leave to the agreement, it must provide supplemental information describing its proposed method(s) for determining and equitably distributing these costs.

Travel - Specify the mileage, per diem, estimated number of trips in-state and out-of-state, number of travelers, and other costs for each type of travel. Travel may be integral to the purpose of the proposed project (e.g. inspections) or related to proposed project activities (e.g. attendance at meetings). Only include travel costs for employees in the travel category. Travel costs do not include: (1) costs for travel of contractors (including consultants), which are included in the "Contractual" category; (2) travel costs for employees of subrecipients under subawards and non-employee program participants (e.g. trainees), which are included in the "Other" category. Further, travel does not include bus rentals for group trips, which would be covered under the contractual category. Finally, if the applicant intends to use any funds for travel outside the United States, it must be specifically identified. All proposed foreign travel must be approved by EPA's Office of International and Tribal Affairs prior to being taken.

Equipment - Identify each item to be purchased which has an estimated acquisition cost of \$5,000 or more per unit and a useful life of more than one year. Equipment also includes accessories necessary to make the equipment operational. Equipment does not include: (1) equipment planned to be leased/rented, including lease/purchase agreement; or (2) equipment service or maintenance contracts that are not included in the purchase price for the equipment. These types of proposed costs should be included in the "Other" category. Items with a unit cost of less than \$5,000 should be categorized as supplies, pursuant to 2 CFR 200. 94. The budget detail must include an itemized listing of all equipment proposed under the project. If installation costs are included in the equipment costs, labor expenses shall be itemized with the detailed number of hours charged and the hourly wage.
Note: If the applicant has written procurement procedures that define a threshold for equipment costs that is lower than \$5,000 then that threshold takes precedence.

Supplies - "Supplies" means all tangible personal property other than "equipment." The budget detail should identify categories of supplies to be procured (e.g., laboratory supplies or office supplies). Non-tangible goods and services associated with supplies, such as printing service, photocopy services, and rental costs should be included in the "Other" category.

Contractual - Identify each type of proposed contract and specify its purpose and estimated cost. Contractual services (including consultant services) are those services to be

carried out by an individual or organization, other than the applicant, in the form of a procurement relationship. [EPA's Subaward Policy and supplemental Frequent Questions](#) has detailed guidance available for differentiating between contractors and subrecipients. Leased or rented goods (equipment or supplies) should be included in the "Other" category. EPA does not require applicants to identify specific contractors. The applicant should list the proposed contract activities along with a brief description of the anticipated scope of work or services to be provided, proposed duration, and proposed procurement method (competitive or non-competitive), if known. If installation costs are included in the contractual costs, labor expenses shall be itemized with the detailed number of hours charged and the hourly wage. Any proposed non-competed/sole-source contracts in excess of \$3,500 must include a justification. Note that it is unlikely that EPA will accept proposed sole source contracts for goods and services (e.g. consulting) that are widely available in the commercial market. Refer to [EPA's Best Practice Guide for Procuring Services, Supplies, and Equipment Under EPA Assistance Agreements](#) for EPA's policies on competitive procurements and encouraging the use of small and disadvantaged business enterprises.

Other - List each item in sufficient detail for EPA to determine the reasonableness and allowability of its cost. This category should include only those types of direct costs that do not fit in any of the other budget categories. Examples of costs that may be in this category are: insurance; rental/lease of equipment or supplies; equipment service or maintenance contracts; printing or photocopying; participant support costs (i.e. rebates) and subaward costs.

Subawards (e.g., subgrants) and Participant Support Costs are each a distinct type of cost under this category. The term "subaward" means an award of financial assistance (money or property) by any legal agreement made by the recipient to an eligible subrecipient even if the agreement is referred to as a contract. Rebates, subsidies, and similar one-time, lump-sum payments to program beneficiaries for the purchase of eligible emissions control technologies and vehicle replacements are considered to be "Participant Support Costs." Please refer to **Appendix E** of this RFA for detailed guidance on funding projects and partnerships and how to correctly categorize these costs in the workplan budget. "Other" does not include procurement purchases, technical assistance in the form of services instead of money, or other assistance in the form of revenue sharing, loans, loan guarantees, interest subsidies, insurance, or direct appropriations. Subcontracts are not subawards and belong in the contractual category. Applicants must provide the aggregate amount they propose to issue as subaward work or Participant Support Costs as a separate line item in the "Other" category, and a description of the types of activities to be supported. Refer to [EPA's Subaward Policy and supplemental Frequent Questions](#) for additional guidance.

Indirect Charges - If indirect charges are budgeted, indicate the approved rate and base. Indirect costs are those incurred by the grantee for a common or joint purpose that benefit more than one cost objective or project, and are not readily assignable to specific cost objectives or projects as a direct cost. In order for indirect costs to be allowable, the applicant must have a federal or state negotiated indirect cost rate (e.g., fixed, predetermined, final or provisional), or must have submitted an application to the cognizant federal or state agency. Examples of Indirect Cost Rate calculations are shown below:

- Personnel (Indirect Rate x Personnel = Indirect Costs)
- Personnel and Fringe (Indirect Rate x Personnel & Fringe = Indirect Costs)
- Total Direct Costs (Indirect Rate x Total direct costs = Indirect Costs)
- Direct Costs, less distorting or other factors such as contracts and equipment
(Indirect Rate x (total direct cost – distorting factors) = Indirect Costs)

Example Budget Table

Line Item and Itemized Cost	EPA Funding	Voluntary Cost Share	Mandatory Cost Share
(1) Project Manager @ \$40/hr x 10 hrs/wk x 52 wks		\$20,800	
(1) Project Staff @ \$30/hr x 40 hrs/wk x 40 wks	\$48,000		
TOTAL PERSONNEL	\$48,000	20,800	
20% of Salary and Wages	20%(48,000)	20%(20,800)	
- Retirement, Health Benefits, FICA, SUI	\$9,600	\$4,160	
TOTAL FRINGE BENEFITS	\$9,600	\$4,160	
Mileage for PM: 100 mi/mo @ \$.17/mi x 12 mo	\$204		
Mileage for Staff: 200 mi/mo @ \$.17/mi x 12 mo	\$408		
TOTAL TRAVEL	\$612		
25 DOCs + CCV @ \$5000 per unit	\$125,000		
25 DPFs with installation kit @ \$6,000 per unit	\$150,000		
10 New Vehicles @ \$100,000 per unit (25% / 75%)	\$250,000		\$750,000
5 Electric School Bus @ \$200,000 per unit (45% / 65%)	\$450,000		\$650,000
TOTAL EQUIPMENT	\$ 975,000		\$1,400,000
100 Replacement CCV filters @ \$10 per unit	\$1,000		
TOTAL SUPPLIES	\$1,000		
Retrofit Installation Contract	\$10,000		
TOTAL CONTRACTUAL	\$14,000		\$6,000
Subgrant to School District for 10 Bus @ \$100,000 per unit (25% / 75% cost share on buses) plus \$32,000 in personnel/admin costs	\$250,000 \$32,000		\$750,000
Participant Support Costs for 10 Rebates for School Bus Replacement (\$100,000 per bus @ 25% X 10)	\$250,000		
TOTAL OTHER	\$532,000		\$750,000
Federal Negotiated Indirect Cost Rate = 10% (Indirect Rate x Personnel = Indirect Costs)	\$4,800	\$2,080	
TOTAL INDIRECT	\$4,800	\$2,080	

TOTAL FUNDING	\$1,585,012	\$27,040	\$2,156,000
	EPA Funding ⁷	Voluntary Cost Share ⁸	Mandatory Cost Share ⁸
TOTAL PROJECT COST ⁹	\$3,768,052		
Other Leveraged Funds ¹⁰ Rebate Program Participant's Share of School Buses (\$100,000 per bus @ 75% X 10)	\$750,000		

⁷ EPA Funding amount must be included on the SF-42 in Section 18.a and on the SF-424A in: Cell 5(e) under Section A – Budget Summary; and Column (1) under Section B – Budget Categories.

⁸ Voluntary and Mandatory Cost Share funds be included on the SF-424 in Section 18.b-e and on the SF424A in: Cell 5(f) under Section A – Budget Summary; Columns (2) and (3) under Section B – Budget Categories; and Section C – Non-Federal Resources.

⁹ Total Project Cost must be included on the SF-424 in Section 18.g and on the SF-424A in: Cell 5(g) under Section A – Budget Summary; and Column (5), Row k under Section B – Budget Categories.

¹⁰ Other leveraged funds should be included in the Budget Detail if the applicant is proposing to implement a rebate program for equipment and vehicle purchases. The program participant's share of the vehicle that is not covered by the rebate is not part of the total project cost under the grant award; the program participant's share of the vehicle that is not covered by the rebate is considered other leveraged funds. Other Leveraged Funds should NOT be included in the SF424 and SF424A.

Attachments (This information does not count towards the page limit):

Applicant Fleet Description: Mandatory. The application package must also contain an Applicant Fleet Description. See Section IV.D.3 of this RFA for detailed instructions on completing the Applicant Fleet Description. A sample format for the Applicant Fleet Description may be downloaded at: www.epa.gov/cleandiesel/clean-diesel-national-grants#rfa.

Emission Reduction Calculations: Applicants should follow the instructions in **Appendix C** of this announcement for calculating emissions reductions and cost effectiveness. Applicants should include a printout of their Diesel Emissions Quantifier (DEQ) results spreadsheet showing DEQ results and inputs as an attachment to their application. If alternative methods are used, applicants must thoroughly describe and document their methods in an attachment to the Project Narrative. Inputs used for emissions reduction calculations should match the information provided in the Applicant Fleet Description.

Cost Share Commitment Letters: If applicable, project partners who are providing in-kind or monetary assistance must demonstrate their specific commitment to meet the proposed cost share. **Letters should be addressed to the applicant organization and included as attachments to the application. Please do not ask partners to submit letters directly to EPA.**

Partnership Letters: If applicable, letters of support that demonstrate strong, long-term involvement throughout the project from a variety of project partners are encouraged. Letters should specifically indicate how project partners and supporting organizations will participate in or directly assist in the design and performance of the project, or how obtaining support from project partners will allow the applicant to more effectively perform the project. **Letters should be addressed to the applicant organization and included as attachments to the application. Please do not ask partners to submit letters directly to EPA.**

Mandated Measures Justification Supporting Information: If applicable, the application must include a clear and concise justification in Section 1 of the Project Narrative, for why/how the emission reductions proposed for funding are not subject to the Restriction for Mandated Measures under this RFA. **Applicants must provide sufficient detail and information to support the justification, including maintenance schedules and history, if applicable.** Please see **Section III.D.7** and **Appendix D** for more information.

Resumes: Optional. Provide resumes or curriculum vitae for all principal investigators and any other key personnel.

APPENDIX C – Quantifying Environmental Outcomes

Diesel Emissions Reductions for Most Project Types

To estimate the anticipated emissions reductions from your project, use the Diesel Emissions Quantifier (DEQ) found at <https://cfpub.epa.gov/quantifier/index.cfm?action=main.home>. After running the DEQ, results may be downloaded as a spreadsheet showing DEQ results and inputs. Applicants should include a printout of their DEQ results spreadsheet showing DEQ results and inputs as an attachment to their application.

Use the same vehicle/engine data you provided for the Applicant Fleet Description (described in Section IV.D.3 of this RFA) to run the DEQ. Please note you can group similar entries together to minimize the number of DEQ runs required (model year, vehicle miles traveled, idling hours, usage rate, and horsepower). It is recommended that you “Register a New Account” and log in to use the DEQ so that you will have the ability to save scenario information and retrieve it in the future.

From the DEQ results page (example shown below), enter the Annual Amount Reduced After Upgrades, and the Lifetime Amount Reduced After Upgrades for each of the listed pollutants (NO_x, PM_{2.5}, HC, CO, CO₂) in Section 2 “Results – Outputs and Outcomes,” of your work plan.

To calculate CO₂ emissions reductions, you must input an amount for Annual Diesel Gallons Reduced (per engine), Annual Idling Hours Reduced (per vehicle), or Annual Hoteling Hours Reduced (per vehicle) when inputting technology information for the vehicle group.

Cost Effectiveness for Most Project Types

To estimate Total Cost Effectiveness for the project, enter estimated total costs in the Total Project Costs field on the Create New Project page in the DEQ. Total project costs reflect all costs related to this project, including EPA’s share and any voluntary and mandatory cost shares. Total project costs entered into the DEQ should match the total project costs reflected in the Budget Detail and the SF 424.

To estimate Capital Cost Effectiveness for the project, enter the estimated Upgrade Cost per Unit and Labor Cost per Unit on the Add an Upgrade page in the DEQ. Be sure to enter costs for every upgrade/vehicle in your project or else the results will be skewed.

From the DEQ results page (example shown below), enter the Lifetime Capital Cost Effectiveness for NO_x and PM_{2.5}, and the Total Project Cost Effectiveness for NO_x and PM_{2.5} in Section 2 “Results – Outputs and Outcomes,” of your work plan.

For further instruction on using the DEQ, please refer to <https://cfpub.epa.gov/quantifier/index.cfm?action=main.home>. Additional assistance is available by calling the Clean Diesel Helpline at 877-NCDC-FACTS (877-623-2322) or emailing DEQhelp@epa.gov.

Emission Results and Health Benefits for Project: Sample Project

Emission Results Health Benefits

Emission Results ?

Here are the combined results for all groups and upgrades entered for your project.¹

Annual Results (short tons)²	NO_x	PM2.5	HC	CO	CO₂	Fuel³
Baseline for Upgraded Vehicles	7.978	0.636	1.053	3.885	1,300.5	115,600
Amount Reduced After Upgrades	2.841	0.469	0.808	2.667	76.5	6,800
Percent Reduced After Upgrades	35.6%	73.7%	76.7%	68.6%	5.9%	5.9%

Lifetime Results (short tons)²						
Baseline for Upgraded Vehicles	46.414	3.660	6.085	22.447	7,650.0	680,000
Amount Reduced After Upgrades	15.795	2.660	4.637	15.223	612.0	54,400
Percent Reduced After Upgrades	34.0%	72.7%	76.2%	67.8%	8.0%	8.0%

Lifetime Cost Effectiveness (\$/short ton reduced)						
Capital Cost Effectiveness ⁴ (unit & labor costs only)	\$272,237	\$1,616,781	\$927,230	\$282,468	\$7,026	
Total Cost Effectiveness ⁴ (includes all project costs)	\$200,572	\$1,191,174	\$683,142	\$208,110	\$5,177	

¹ Emissions from the electrical grid are not included in the results.
² 1 short ton = 2000 lbs.
³ In gallons; fuels other than ULSD have been converted to ULSD-equivalent gallons.
⁴ Cost effectiveness estimates include only the costs which you have entered.

Remaining Life	doc+ccv: School Bus School Buses	6 years
	dpfs: School Bus School Buses	6 years
	vehicles: School Bus School Buses	6 years
	SB subgrant: School Bus School Buses	6 years
	rebates: School Bus School Buses	4 years
	electric: School Bus School Buses	8 years

Downloading Spreadsheets

- Results may be downloaded as a:
- [Spreadsheet](#) showing DEQ results and your inputs (click on 'yes' if you get an error message).

Alternative Methods

If you are unable to use the DEQ, you may use EPA’s Motor Vehicle Emissions Simulator (MOVES) (www.epa.gov/moves) for calculating emissions reductions.

Other methods may be used as appropriate. If an alternative method is used, you must thoroughly describe and document your methods in an attachment to your Project Narrative.

Diesel Emissions Reductions Above and Beyond any Restriction for Mandated Measures

No funds awarded under this RFA shall be used to fund the costs of emissions reductions that are mandated under federal law. See Section III.D.1 of this RFA for more information on the Restriction for Mandated Measures.

If the project takes place in an affected area, or includes affected vehicles, engines or equipment, emissions reduction benefits shall only be calculated for emissions reductions implemented prior to the effective date of the applicable mandate and/or emissions reduction benefits shall only be calculated for emissions reductions that are in excess of (above and beyond) those required by the applicable mandate.

Option 1: To calculate emissions reduction benefits for emissions reductions implemented prior to the effective date of the applicable mandate the applicant must use the following formula to calculate lifetime emissions benefits that may be claimed.

Follow the instructions above to run the DEQ. From the DEQ results page enter the **Annual Amount Reduced** in the spaces provided below.

NO_x (tons/yr) PM_{2.5}(tons/yr) HC (tons/yr) CO (tons/yr) CO₂ (tons/yr)

Note: These are the Annual results, not the Lifetime Results.

Retrofit Year = _____ Mandate Compliance Year = _____

Multiply the values for each pollutant by the difference of the mandate year and the retrofit year and enter the calculated lifetime emissions for each of the listed pollutants (NO_x, PM_{2.5}, HC, CO, CO₂) in Section 2 “Results,” of your work plan.

For example, if the mandate is slated to occur in 2023 and the retrofit will take place in 2019, then multiply the values above by 4 (2023 - 2019=4) to calculate lifetime emissions that may be claimed prior to the mandate.

Applicants must thoroughly describe and document their methods in an attachment to the Project Narrative.

Option 2: To calculate emissions reduction benefits for emissions reductions that are in excess of (above and beyond) those required by the applicable mandate the applicant must use the following formula to calculate lifetime emissions benefits that may be claimed.

Follow the instructions above to run the DEQ using the target engines and the technologies/emissions reductions that are required by the mandate. From the DEQ results page, enter the **mandated Lifetime Amount Reduced** in the spaces provided below.

NO _x (tons)	PM _{2.5} (tons)	HC (tons)	CO (tons)	CO ₂ (tons)
------------------------	--------------------------	-----------	-----------	------------------------

Then, follow the instructions above to run the DEQ using the target engines and the technologies/emissions reductions that are proposed for the project (i.e. based on the vehicle/engine data you provided for the Applicant Fleet Description). From the DEQ results page, enter the **proposed project Lifetime Amount Reduced** in the spaces provided below.

NO _x (tons)	PM _{2.5} (tons)	HC (tons)	CO (tons)	CO ₂ (tons)
------------------------	--------------------------	-----------	-----------	------------------------

Subtract the mandated values for each pollutant from the proposed project values and then enter the calculated lifetime emissions for each of the listed pollutants (NO_x, PM_{2.5}, HC, CO, CO₂) in Section 2 “Results,” of your work plan.

Applicants must thoroughly describe and document their methods in an attachment to the Project Narrative.

Diesel Emissions Reductions for Marine Shore Power Connection Systems

EPA developed a shore power technology assessment to review the availability of shore power at ports throughout the U.S., and to characterize the technical and operational aspects of shore power systems at U.S. ports. The assessment included compiling technical information working in partnership with ports that have installed shore power. The second part of the assessment presents a new methodology for estimating emissions reductions from shore power systems for vessels docked and connected to shore power. The calculator tool provided with this report can be used to estimate how diesel emissions could be reduced through the use of shore power systems.

The tool uses vessel and activity inputs, as well as the offsetting emissions of electrical power use from shore-side power to calculate emissions reductions.

The report, titled “Shore Power Port Assessment Report,.” and the calculator tool can be found here: www.epa.gov/ports-initiative/shore-power-technology-assessment-us-ports.

Step-by-step instructions to quantify emissions reductions using the recommended approach are provided in Appendix B of the Shore Power Port Assessment Report.

Applicants must thoroughly describe and document their methods in an attachment to the Project Narrative.

APPENDIX D – Mandated Measures Justification

As stated in Section III.D.7 of this RFA, projects involving locomotives and marine engines will not be considered for funding under this RFA if the emissions reductions proposed for funding are required by EPA’s locomotive and marine rule, “Control of Emissions of Air Pollution from Locomotives and Marine Compression-Ignition Engines Less than 30 liters per Cylinder,”. Also, projects involving stationary engines will not be considered for funding under this RFA if the emissions reductions proposed for funding are required by EPA’s RICE rule, “National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63 Subpart ZZZZ).

All applications which include locomotives and/or marine engines and/or stationary engines must include a clear and concise justification in Section 1 of the Project Narrative, for why/how the proposed emissions reduction are not subject to the Restriction for Mandated Measures under this RFA. The justification must clearly demonstrate why/how:

- **the engines are exempt from the requirements of EPA’s rule; or**
- **emissions reductions funded with EPA funds will be implemented prior to the effective date of any applicable requirements under the rule; and/or**
- **emissions reductions funded with EPA funds will not be used to satisfy any applicable requirements under the rule, but are in excess of (above and beyond) those required by the applicable mandate.**

Applicants must provide sufficient information to support the justification, including copies of maintenance records, if applicable. Supporting information should be included as an attachment to the application and does not count towards the 12-page limit.

Applicants are responsible for addressing all applicable parts of the rule in their justification for why/how the emissions reductions proposed for funding are not subject to the Restriction for Mandated Measures under this RFA.

Control of Emissions of Air Pollution from Locomotives and Marine Compression-Ignition Engines Less than 30 liters per Cylinder

What is Sufficient Justification?

For locomotives, the justification must include, but is not limited to:

- The original build date of each locomotive.
- The model year of the existing engines for each locomotive.
- Whether the existing locomotive engines are the original engines that were installed in the locomotive by the locomotive manufacturer at the time of original manufacturer, or whether the original engines were ever replaced or upgraded (prior to the activities that are being proposed for funding). If so, when and what upgrades were made?
- The date that the power assemblies of each existing engine have been replaced, if ever.

As outlined above, and in Section III.D.1 of this RFA, certain locomotives and marine engines are exempt from the rule. This exemption may be based on the age and/or size of the locomotive or marine engines, or on the type or size and/or annual revenue of the owner/operator. In these cases, sufficient justification would include a summary of the rule applicability and an explanation of why each locomotive or marine engine is exempt from the rule. For example:

“EPA’s Marine Remanufacture Program applies only to those commercial marine propulsion and auxiliary diesel engines which meet all of the following criteria:

- *C1 and C2 engines (i.e. per cylinder displacement up to 30 liters);*
- *Greater than 600 kW (800 hp);*
- *Tier 2 and earlier engines; and*
- *Built in model year 1973 or later.*

Engines A, B, and C, as described fully in the previously submitted Applicant Fleet Description, are exempt from the requirements of EPA’s marine rule because all three engines are of original model year 1972. Further, all three of these engines are 600 horsepower engines and are therefore exempt from the rule requirements.

As outlined above, and in Section III.D.1 of the RFA, certain locomotives and marine engines may be subject to the rule requirements, but the applicant may be able to demonstrate that the emissions reduction funded with EPA funds will be implemented prior to the effective date of any applicable requirements under the rule and/or emissions reductions funded with EPA funds will not be used to satisfy any applicable requirements under the rule, but are in excess of (above and beyond) those required by the applicable mandate. In these cases, sufficient justification would include a summary of the rule applicability and an explanation of how the proposed emissions reductions from each locomotive or marine engine meet the criteria listed above. For example:

“Marine Engine D is a commercial C1 marine diesel engine of 900 hp, built in model year 1980, and is unregulated (please see previously submitted Applicant Fleet Description for full engine information including marine engine model and engine family name), therefore this engine is covered by EPA’s Marine Remanufacture Program. We have conducted a thorough search of EPA’s list of remanufacture systems (i.e. “kits”, certified for use with Category 1 and 2 marine diesel engines according to the provisions of 40 CFR Part 1042, Subpart I) listed here www.epa.gov/compliance-and-fuel-economy-data/annual-certification-data-vehicles-engines-and-equipment, and have determined that at this time there are no certified kits available for this engine. Therefore, there are no applicable requirements under the rule for this engine at this time and the emissions reductions proposed for EPA funding are not subject to the Restriction for Mandated Measures under this RFA.

OR

“Marine Engine E is a commercial C1 marine diesel engine of 900 hp, built in model year 1980, and is unregulated (please see previously submitted Applicant Fleet Description for full engine information, including marine engine model and engine family

name), therefore this engine is covered by EPA's Marine Remanufacture Program. We have conducted a thorough search of EPA's list of remanufacture systems (i.e. "kits", certified for use with Category 1 and 2 marine diesel engines according to the provisions of 40 CFR Part 1042, Subpart I) listed here www.epa.gov/compliance-and-fuel-economy-data/annual-certification-data-vehicles-engines-and-equipment, and have determined that at this time there is one certified remanufacture kit available for this engine: [insert kit info].

However, emissions reductions funded with EPA funds will not be used to satisfy any applicable requirements under the rule, but are in excess of (above and beyond) those required by the applicable mandate. [The applicant should include a thorough discussion of the emissions reductions that could be achieved by the application of the certified kit to the existing engine and the emissions reductions that will be achieved by the activities proposed from funding under the grant. The applicant should calculate the difference between the required emissions reductions and the proposed emissions reductions, and should be able to clearly demonstrate that emissions reductions funded with EPA funds are in excess of (above and beyond) those required by the rule.]

Therefore, the emission reductions proposed for EPA funding are not subject to the Restriction for Mandated Measures under this RFA.

Please note that failure to submit the required "Mandated Measured Justification" will render the applicant's entire application ineligible and the application will not be reviewed.

Additional Resources:

- Final Rule: www.gpo.gov/fdsys/pkg/FR-2008-06-30/pdf/R8-7999.pdf
- Fact Sheet: EPA Finalizes More Stringent Emissions Standards for Locomotive Engines and Marine Compression-Ignition Engines:
<https://nepis.epa.gov/Exe/ZyPDF.cgi/P100094D.PDF?Dockey=P100094D.PDF>
- Fact Sheet: Control of Emissions from Idling Locomotives EPA420-F-08-014, may be found at the National Service Center for Environmental Publications (www.epa.gov/nscep).
- Summary of locomotive emission standards:
<https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100OA09.pdf>
- Frequently Asked Questions from Marine Engine Owners and Rebuilders about EPA's Marine Remanufacture Program EPA420-F-09-003, may be found at the National Service Center for Environmental Publications (www.epa.gov/nscep).
- Summary of marine emission standards:
<https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100OA0B.pdf>

- Marine and Locomotive Certified Remanufacture Systems: www.epa.gov/compliance-and-fuel-economy-data/engine-certification-data

The information that follows is provided purely for informational purposes to highlight certain parts of the rule that may be of most interest to applicants, such as applicability, exemptions, and remanufacture requirements. This information is not all-inclusive and is not meant as a substitute for the actual rule. There may be applicability, exemptions, and requirements under the rule that are not highlighted below.

Affected Entities and Engines

Entities potentially affected by this rule are those that manufacture, remanufacture or import locomotives or locomotive engines; and those that own or operate locomotives and companies and persons that manufacture, sell, or import into the United States new marine compression ignition engines, companies and persons that rebuild or maintain these engines, companies and persons that make vessels that use such engines, and the owners/operators of such vessels.

The rule addresses all types of diesel locomotives— line-haul, switch, and passenger rail, and all types of marine diesel engines below 30 liters per cylinder displacement (hereafter referred to as “marine diesel engines”). These engines are used to power a wide variety of vessels, from small fishing and recreational boats to large tugs and Great Lakes freighters. They are also used to generate auxiliary vessel power, including on ocean-going ships.

Locomotives

The rule affects locomotives currently regulated under 40 CFR Part 92 or Part 1033. With some exceptions, the locomotive regulations apply for all locomotives originally built in or after 1973 that operate in the United States.

Class III Railroads are exempt from the remanufacture standards for existing fleets. The rule limits the category of small railroads which are exempt from the Tier 0, 1 and 2 remanufacturing requirements for existing fleets to those railroads that qualify as Class III railroads and that are not owned by a large parent company. Under the current Surface Transportation Board classification system, this exemption is limited to railroads having total revenue less than \$37,108,875 per year in 2017 (www.stb.dot.gov/econdata.nsf/DeflatorFactors?OpenView).

EPA estimates that nearly all of the locomotives in the Class I railroad fleets were originally manufactured in or after 1973 and are already subject to the Tier 0 or later standards.

Intercity passenger or commuter railroads are not included as railroads that are small businesses and are therefore subject to the rule.

Definitions

“new locomotive” or “new locomotive engine” – a locomotive or engine that has never been transferred to an ultimate purchaser or put into service; a locomotive or engine also becomes new

if it is remanufactured or refurbished. Locomotives and engines that were originally manufactured before January 1, 1973 are not considered to become new when remanufactured unless they have been upgraded (as defined by the rule). Locomotives that are owned and operated by a small railroad and that have never been certified (i.e. manufactured or remanufactured into a certified configuration) are not considered to become new when remanufactured.

“remanufacture” - 1) To replace, or inspect and qualify, each and every power assembly (i.e. cylinder) of a locomotive or locomotive engine, whether during a single maintenance event or cumulatively within a five year period; or 2) To upgrade a locomotive or locomotive engine; or 3) To convert a locomotive or locomotive engine to enable it to operate using a fuel other than it was originally manufactured to use; or 4) To install a remanufactured engine or a freshly manufactured engine into a previously used locomotive; or 5) To repair a locomotive engine that does not contain power assemblies to a condition that is equivalent to or better than its original condition with respect to reliability and fuel consumption. Remanufacture also means the act of remanufacturing.

“remanufactured locomotive” - either a locomotive powered by a remanufactured locomotive engine, a repowered locomotive, or a refurbished locomotive.

“upgrade” - one of the following types of remanufacturing: 1) Repowering a locomotive that was originally manufactured prior to January 1, 1973; or 2) Refurbishing a locomotive that was originally manufactured prior to January 1, 1973 in a manner that is not freshly manufacturing; or 3) Modifying a locomotive that was originally manufactured prior to January 1, 1973 (or a locomotive that was originally manufactured on or after January 1, 1973, and that is not subject to the emission standards of this part), such that it is intended to comply with the Tier 0 standards.

“repowered locomotive”- a locomotive that has been repowered with a freshly manufactured engine.

“freshly manufactured locomotive” – a new locomotive that contains fewer than 25 percent (by value) previously used parts (i.e. contains 75% or more brand new parts); includes when an existing locomotive is substantially refurbished including the replacement of the old engine with a freshly manufactured engine.

“refurbished locomotive” - a locomotive which contains more unused parts than previously used parts (i.e. contains 50% to 75% brand new parts). Note: Locomotives built before 1973 become “new” and thus subject to emission standards when refurbished (i.e. are not exempt from the rule requirements due to age of locomotive). In general, the rule requires refurbished switch locomotives to meet the Tier 0+ standards, and refurbished line-haul locomotives to meet Tier 2+/Tier 3 standards, even if the original locomotive was manufactured before 1973.

Remanufactured Locomotives: The rule sets new standards for the existing fleet of Tier 0, Tier 1, and Tier 2 locomotives, to apply at the time of remanufacture, if a certified remanufacture system is available.

To avoid confusion between the old standards and the new standards, EPA has adopted a simple approach whereby a Tier 0 locomotive remanufactured under the more stringent Tier 0 standards adopted in the 2008 (current) rule will be designated a Tier 0+ locomotive. The same approach applies for Tier 1 and Tier 2 locomotives. That is, those remanufactured under the new standards would be called Tier 1+ and Tier 2+ locomotives, respectively. However, in many contexts, including a number of places in the final rule, there is really no need to make distinctions of this sort, as no ambiguity arises. In these contexts, it would be perfectly acceptable to drop the “+” designation and simply refer to Tier 0, 1, and 2 locomotives and standards.

Switch Locomotives: The rule includes standards and other provisions aimed at encouraging the replacement of old high-emitting units with newly-built or refurbished locomotives powered by very clean engines developed for the nonroad equipment market. For example, a provision applicable to switch locomotives allows a streamlined certification process.

Reduction of Locomotive Idling Emissions: The rule requires that an Automatic Engine Stop/Start System (AESS) be used on all new locomotives (see definition of “new locomotive” above).

Voluntary Emissions Reductions: The rules allow locomotive owners to voluntarily subject their pre-1973 locomotives to the Tier 0 standards or to include in the locomotive program low-horsepower locomotives that would otherwise be excluded based on their rated power. Additionally, the rule allows Tier 0 switch locomotives, which are normally not subject to line-haul cycle standards, to be voluntarily certified to the line-haul cycle standards. Also, the rule allows any locomotives to be voluntarily certified to a more stringent tier of standards. In doing so, the locomotives then become subject to the new remanufactured engine standards, at the point of first remanufacture under the new standards.

Marine Engines

The rule (marine existing fleet program) affects marine diesel engines and vessels regulated under 40 CFR Part 94 or Part 1042.

The marine existing fleet program applies only to those commercial marine propulsion and auxiliary diesel engines which meet the following criteria:

- C1 and C2 engines (i.e. per cylinder displacement up to 30 liters);
- Greater than 600 kW (800 HP);
- Tier 2 and earlier engines; and
- Built in model year 1973 or later.

Small vessel operators are exempt from the new standards for existing fleets. The requirements of the marine existing fleet program do not apply to owners of marine diesel engines or vessel operators with less than \$5 million in gross annual sales revenue. This threshold includes annual sales revenue from parent companies or affiliates of the owners/operators.

EPA estimates that about 4 percent of all C1 and C2 engines are subject to the marine existing fleet program and are likely to have certified kits available at the time of remanufacture.

Definitions

“remanufacture” of a marine engine - the removal and replacement of all cylinder liners, either during a single maintenance event or over a five-year period. It should be noted that marine diesel engines are not considered to be remanufactured if the rebuilding process falls short of this definition (i.e. the cylinder liners are removed and replaced over more than a five-year period).

Remanufactured Marine Engines: When an engine is remanufactured, it must be certified as meeting the emission standards for remanufactured engines (by using a certified remanufacture system) unless there is no certified remanufacturing system available for that engine. If there is no certified system available at that time, there is no requirement.

A certified marine remanufacture system must achieve a 25 percent reduction in PM emissions compared to the engine’s measured baseline emissions level (the emissions level of the engine as rebuilt according to the manufacturer’s specification but before the installation of the remanufacture system) without increasing NO_x emissions (within 5 percent).

If several certified systems are available, any of them may be used.

For engines on a rolling rebuild schedule (i.e., cylinder liners are not replaced all at once but are replaced in sets on a schedule of 5 or fewer years, for example 5 sets of 4 liners for a 20-cylinder engine on a 5-year schedule), the requirement is triggered at the time the remanufacture system becomes available, with the engine required to be in a certified configuration when the last set of cylinder liners is replaced. Any remanufacturing that occurs after the system is available needs to use the certified system, including remanufacturing that occurs on a rolling schedule over less than five years following the availability of the remanufacturing system. If the components of a certified remanufacture system are not compatible with the engine’s current configuration, the program allows the owner to postpone the installation of the remanufacture system until the replacement of the last set of cylinder-liners, which would occur no later than five years after the availability of the system. At that time, all engine components must be replaced according to the certified remanufacture system requirements.

In general, remanufactured engines are considered to be “new” engines, and they remain new until sold or placed back into service after the replacement of the last cylinder liner. The standards do not apply for engines that are rebuilt without removing cylinder liners. For a new engine to be placed into service, it must be covered by a certificate of conformity.

Replacement with a Freshly Manufactured Engine: Under the marine diesel engine program, an engine manufacturer is generally prohibited from selling a marine engine that does not meet the standards that are in effect when that engine is produced. However, manufacturers are allowed to produce a new engine which meets an earlier tier of standards if the engine manufacturer makes a determination that an engine compliant with the current standards would not fit a particular vessel.

Specifically, in making the feasibility determination the engine manufacturer is required to consider all previous tiers and use any of their own engine models from the most recent tier that meets the vessel's physical and performance requirements. If an engine manufacturer can produce an engine that meets a previous tier of standards representing better control of emissions than that of the engine being replaced, the manufacturer would need to supply the engine meeting the tier of standards with the lowest emissions levels. For example, if a Tier 1 engine is being replaced after the Tier 3 standards go into effect, the engine manufacturer would have to demonstrate why a Tier 2 as well as a Tier 3 engine cannot be used before a Tier 1 engine can be produced and installed. Similarly, for an engine built prior to 2004, the engine manufacturer would have to demonstrate why a Tier 1, Tier 2, or a Tier 3 engine cannot be used. It should be noted, in the case of Tier 0 engines, that MARPOL Annex VI prohibits replacing an existing engine at or above 130 kW with a freshly manufactured engine unless it meets the Tier 1 standards.

Replacement with an Existing Engine: The remanufacture requirements of the rule apply whether the owner is obtaining an identical existing (used) replacement engine due to an engine failure or through an engine exchange for a periodic engine rebuild. These requirements also apply if a vessel owner is obtaining a different model existing (used) replacement engine, for whatever reason. This means if the existing engine (greater than 600 kW that are built after 1973) that is the replacement engine is rebuilt and has all of its cylinder liners replaced, it will be required to be remanufactured using a certified remanufacture system if one is available for that engine.

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) (40 CFR Part 63 Subpart ZZZZ)

Stationary engine projects, such as energy producing generators and agricultural pumps, will not be considered for funding under this RFA if the emissions reductions proposed for funding are required by EPA's RICE rule, "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63 Subpart ZZZZ). Under the RICE Rule provisions, the compliance requirements may be triggered by replacement or reconstruction of an engine.

Definition: Stationary reciprocating internal combustion engine (RICE) means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

The RICE Rule applies to new and existing engines as described below:

1. Engines greater than 500 HP at a major source of Hazardous Air Pollutants (HAP):
 - o Existing engines if constructed before December 19, 2002
 - o New engines if constructed on or after December 19, 2002
 - o Reconstructed engines if reconstruction began on or after December 19, 2002
2. Engines less than or equal to 500 HP at a major source of HAP and engines or all horsepower located at an area source of HAP:

- Existing engines if constructed before June 12, 2006
- New engines if constructed on or after June 12, 2006
- Reconstructed engines if reconstruction began on or after June 12, 2006

EPA assumes most stationary source projects proposed under this RFA will fall under #2, above.

Sufficient Justification

The applicant must demonstrate that the emissions reductions funded with EPA funds will be implemented prior to the effective date of any applicable requirements under the rule and/or emissions reductions funded with EPA funds will not be used to satisfy any applicable requirements under the RICE Rule but are in excess of (above and beyond) those required by the applicable mandate. In these cases, sufficient justification would include a summary of the rule applicability and an explanation of how the proposed emissions reductions from the target engines are achieved prior to any compliance dates and/or in are in excess of any emissions reductions required by the RICE Rule.

In general, the requirements for existing stationary RICE located at areas sources of HAP (found in Table 2d to Subpart ZZZ of Part 63) include carbon monoxide (CO) limits, maintenance and inspection requirements, and operation limits.

RICE Rule Application Navigation Tool

EPA provides a RICE regulation navigation tool. This tool prompts users by asking questions regarding their stationary diesel engine to help users determine how the RICE measure apply to their case. The DERA program recommends that all applicants applying for projects which include stationary engines use this tool and include the results in their applications.

RICE Rule Navigation Tool Site: www3.epa.gov/ttn/atw/rice/output/quiz.html.

Disclaimer: The content provided in this software tool is intended solely as assistance for potential reporters to aid in assessing requirements for compliance under the RICE Rule. Any variation between the rule and the information provided in this tool is unintentional, and, in the case of such variations, the requirements of the rule govern. Use of this tool does not constitute an assessment by EPA of the applicability of the rule to any particular facility. In any particular case, EPA will make its assessment by applying the law and regulations to the specific facts of the case.

APPENDIX E – How to Fund Projects and Partnerships

There are several ways DERA recipients may implement projects and fund project partners depending on the roles and responsibilities of each. In addition to the information provided below, also refer to the “Partnerships, Contractors and Subawards” guidance in Section IV of the General Solicitation Provisions.

If a DERA grant recipient intends to fund target fleets that they do not own and operate, they have the option to (1) make a **subaward** or (2) provide **participant support costs** to a project partner. Both options can fund a project partner’s equipment and installation costs, but only subawards can fund a project partner’s direct and indirect costs such as personnel and travel. If the DERA grant recipient is only funding a project partner’s equipment and installation costs, they may instead choose to provide participant support costs rather than a subaward in order to avoid the extensive subaward monitoring and management requirements.

Direct Implementation: Where the target fleets are owned and operated by the DERA grant recipient, the recipient may directly implement the project. The recipient is responsible for procuring all vehicles/engine/equipment, and any required contractual services, in accordance with applicable competitive procurement requirements in [2 CFR Part 200](#). The applicant’s/recipient’s budget should reflect only those expenses incurred directly by the recipient organization for personnel, fringe, travel, supplies, equipment, contractual, other, and indirect.

Subawards: DERA grant recipients (i.e. pass-through entities) may make subawards to subrecipients to carry out a portion of the DERA funded program or project. Subawards establish a financial assistance relationship under which the subrecipient’s employees and contractors implement programs and projects to accomplish the goals and objectives of the DERA grant. Under DERA, a non-Federal entity or individual is eligible to receive a subaward even if it is not eligible to receive a DERA grant from EPA directly. While there may be some situations in which a subaward to an individual may be appropriate, those situations are rare.

Note that subawards are different than procurement contracts. Contractors such as equipment suppliers, consulting firms (including individual consultants) or other vendors provide goods and services directly to DERA grant recipients for direct implementation activities. Subrecipients only receive reimbursement for their actual direct or approved indirect costs such that they do not “profit” from the transaction and subrecipients are subject to the same Federal requirements as the pass-through entity. In other grant programs, for-profit entities participating in grant activities are typically contractors rather than subrecipients. However, DERA is one of the few grant programs where it is appropriate for pass-through entities to make subawards to for-profit organizations to purchase and install equipment for that organization’s own use. For example, if a DERA recipient directly implementing a project purchases school buses from a vendor, the appropriate funding instrument is a procurement contract and the transaction is subject to the applicable competitive procurement requirements. Referring to an individual consultant or vendor as a “partner” does not exempt the transaction from competitive procurement requirements.

Alternately, if a DERA recipient provides funding to a school district for the school district to implement its own diesel emissions reduction program for its school bus fleet, the appropriate funding instrument is a subaward. Indicators that the transaction is a subaward include eligible and allowable costs to support the following in addition to the subrecipient vehicle and equipment purchase and installation costs:

- subrecipient personnel and overhead including indirect costs incurred for project management, coordination, procurement, reporting and outreach;
- subrecipient travel costs required for project implementation and oversight; and
- subrecipient contractual costs for design and engineering services.

If a recipient chooses to pass funds from its DERA grant to other entities through subawards, the recipient must comply with applicable provisions of 2 CFR Part 200, the EPA Subaward Policy, and EPA's National Term and Condition for Subawards. Note that under 2 CFR 200.331 there are extensive requirements for subrecipient monitoring and management that apply to pass-through entities. Additionally, Federal requirements including the 2 CFR Part 200 Procurement Standards "flow down" to subrecipients. By accepting a DERA grant, the recipient is certifying that it either has systems in place to comply with the regulatory and EPA policy requirements specified in these provisions, or that the recipient will refrain from making subawards with EPA funding until the required systems are designed and implemented.

EPA's Award Official must approve subawards to for-profit entities and individuals on the basis of either a precise description of the subaward in the EPA approved budget and work plan, or on a transaction by transaction basis. The applicant's/recipient's DERA workplan and budget narrative should include detailed descriptions of any proposed subawards and include cost estimates for subawards as line items under the "Other" budget category. Should a DERA recipient decide to make a subaward that was not described in the approved work plan and budget the recipient must obtain prior written approval from EPA's Award Official for the subaward.

There is no requirement for recipients to compete subawards under DERA, however pass-through entities may choose to select subrecipients competitively provided this practice is consistent with applicable statutes, regulations and the terms of their DERA grants. Recipients may use the subaward template contained in Appendix D of the Subaward Policy to assist them in complying with the "subaward content" requirements, however EPA does not mandate the use of this template.

Participant Support Costs: DERA grant recipients may provide participant support costs to program beneficiaries to enable beneficiaries to participate in the recipient's program or project. Rebates, subsidies, and similar one-time, lump-sum payments to program beneficiaries for the purchase of eligible emissions control technologies and vehicle replacements are considered to be participant support costs. Program beneficiaries rather than the DERA recipient own the new vehicle, engine, or technology.

Program beneficiaries only receive reimbursement for up to the allowable cost share of eligible equipment and installation costs. Participant support costs differ from subawards in that the beneficiary is participating in the DERA recipient's project or program instead of implementing

their own project or program. Program beneficiaries may be individual owner/operators or private or public fleet owners, however program beneficiaries are not employees, contractors or subrecipients of the DERA grant recipient. Program beneficiaries are not subject to the same Federal requirements as the DERA grant recipient or subrecipients. For example, the competitive procurement requirements do not apply to program beneficiaries purchasing vehicles or equipment.

Recipients may also use participant support costs to purchase technologies or vehicles on behalf of program beneficiaries. In some situations, this approach allows DERA recipients to achieve economies of scale and/or take advantage of existing purchase contracts. Competitive procurement requirements apply to the DERA recipient when the recipient takes this approach. For example, a recipient may award a competitive contract to a technology vendor to purchase and install emissions reduction equipment on vehicles owned by program beneficiaries.

Participant support costs for rebates, subsidies or other payments must be supported by guidelines issued by the recipient and approved by EPA, defining the rules, restrictions, timelines, programmatic requirements, reporting and transaction documentation requirements, eligibility, and funding levels that rebate, subsidy or other payment beneficiaries must follow. Allowable rebates, subsidies or other payments must be issued only for eligible activities and within applicable cost share limits as defined in the DERA RFA and the terms of the DERA grant agreement. Additionally, there must be written agreement between recipient or subrecipient and the program beneficiary that:

- Describes the activities that will be supported by rebates, subsidies or other payments;
- Specifies the amount of the rebate, subsidy or payment;
- Identifies which party will have title to equipment (if any) purchased with a rebate or subsidy; and
- Establishes source documentation requirements to ensure proper accounting of EPA funds.

EPA's Award Official must approve participant support costs on the basis of either a precise description of the participant support costs in the EPA approved budget and work plan, or on a transaction by transaction basis. The applicant's/recipient's DERA workplan and budget narrative should include detailed descriptions of any proposed participant support costs and include cost estimates for participant support costs as line items under the "Other" budget category. Should a DERA recipient decide to award participant support costs that were not described in the approved work plan and budget the recipient must obtain prior written approval from EPA's Award Official. Moreover, after a grant is awarded, should a recipient decide to modify the amount approved (upwards or downwards) for participant support costs, prior written approval from EPA's Award Official is also required.

When creating budgets, applicants/recipients must exclude participant support costs from Modified Total Direct Costs (MTDC) for calculation of indirect costs as required by 2 CFR 200.68.

Resources

Best Practice Guide for Procuring Services, Supplies, and Equipment Under EPA Assistance Agreements (<https://www.epa.gov/grants/best-practice-guide-procuring-services-supplies-and-equipment-under-epa-assistance-agreements>)

EPA Subaward Policy with attachments (<https://www.epa.gov/grants/grants-policy-issuance-gpi-16-01-epa-subaward-policy-epa-assistance-agreement-recipients>). Includes:

- EPA Subaward Policy
- Appendix A: Distinctions Between Subrecipients and Contractors
- Appendix B: National Term and Condition for Subawards
- Appendix C: Model Programmatic Subaward Reporting Requirement
- Appendix D: Subaward Agreement Template

APPENDIX F - Application Submission Checklist

The application package *must* include all of the following materials. Use this checklist to ensure that all required materials have been included in your application package.

- Standard Form SF-424, Application for Federal Assistance
- Standard Form SF-424A, Budget Information
- Standard Form 424B – Non-Construction Programs
- EPA Form 4700-4, Pre-Award Compliance Review Report for All Applicants
- Key Contacts Form
- Project Narrative
 - Cover Page
 - Work Plan
 - 1. Project Summary and Approach
 - 2. Project Location
 - 3. Benefits to the Community
 - 4. Community Engagement and Partnerships
 - 5. Project Sustainability
 - 6. Environmental Results – Outputs, Outcomes and Performance Measures
 - 7. Programmatic Capability and Past Performance
 - 8. Budget Narrative and Detail
- Applicant Fleet Description information
- Emissions Reduction Calculations
- Cost Share Commitment Letters, if applicable
- Partnership Letters, if applicable
- Mandated Measures Justification Supporting Information, if applicable
- Resumes, optional