

# 2021 Diesel Emissions Reduction Act (DERA) State Grants Program Guide



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

## **SUMMARY**

EPA's Office of Transportation and Air Quality is soliciting proposals from eligible states and territories for participation in the 2021 Diesel Emission Reduction Act (DERA) State Grants. EPA anticipates approximately \$90 million available for all fiscal year 2021 DERA programs. In accordance with DERA, EPA makes 30 percent (approximately \$27 million for fiscal year 2021) of the annual allocation available to states and territories in the form of assistance agreements under the State Grants. Funding can support grant and rebate programs administered by eligible states or territories that are designed to achieve significant reductions in diesel emissions.

The DERA State Grants program is not a competition; it is an allocation process in which the eligible states and territories submit their interest to participate to EPA, and EPA awards a specific allocation by formula, based on the number of states and territories with approved applications that participate. DERA State Grants funding for 2021 will be distributed as a new award rather than a supplemental amendment to prior year funds. In general, states and territories must complete all work on prior year DERA State Grants by September 30, 2021 to receive 2021 grant funding.

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 such as those used in construction, handling of cargo, agriculture, mining or energy production.

Eligible diesel emissions reduction solutions include verified retrofit technologies such as exhaust after-treatment technologies, engine upgrades, and cleaner fuels and additives, verified idle reduction technologies, verified aerodynamic technologies, verified low rolling resistance tires, certified engine replacements and conversions, and certified vehicle or equipment replacement.

All public materials for the DERA State Grants are available at [www.epa.gov/dera/state](http://www.epa.gov/dera/state).

**COVID-19 Update:** EPA is providing flexibilities to applicants experiencing challenges related to COVID-19. Please see the **Flexibilities Available to Organizations Impacted by COVID-19** clause in Section IV of [EPA's Solicitation Clauses](#).

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## **I. OVERVIEW**

This document, the 2021 Diesel Emissions Reduction Act (DERA) State Grants Program Guide, consolidates and streamlines the programmatic requirements applicable to all new DERA State Grant awards receiving 2021 funding.

This document provides information to EPA Regions and to participating states and territories concerning how the Agency intends to exercise its discretion in awarding and managing DERA State Grants for 2021. This guidance is designed to provide national policy on these issues. Some of the statutory provisions described in this document contain legally binding requirements. However, this document does not substitute for those provisions or regulations, nor is it a regulation itself. Thus, it cannot impose legally binding requirements on EPA, states, territories or the regulated community, and may not apply to a particular situation based upon the circumstances. Any decisions regarding a particular situation will be made based on the statutes and regulations, and EPA decision-makers retain the discretion to adopt approaches on a case-by-case basis that differ from this guidance where appropriate.

## **II. STATUTORY AUTHORITY**

Title VII, Subtitle G, Section 793 of the Diesel Emissions Reduction Program (DERA) in the Energy Policy Act of 2005 (codified at 42 U.S.C. 16133) authorizes the U.S. Environmental Protection Agency (EPA) to support grant and rebate programs, administered by eligible states or territories, which are designed to achieve significant reductions in diesel emissions. This program is referred to as both the *State Clean Diesel Grant Program* (the Program) and the *DERA State Grants*. 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.

## **III. ELIGIBLE APPLICANTS**

Eligibility to apply for and receive funds under the Program is limited to the 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands. For the purposes of this document, the term "state" will be used to describe these 56 entities.

EPA presumes that the state agency with jurisdiction over air quality will be the lead agency to receive these funds. If a state's circumstances dictate that another state agency administer the funds, then a letter from the state governor or designee to the Administrator of EPA is required to certify one state agency as the recipient of funds who has the legal and administrative authority to enter into a grant or cooperative agreement with EPA. Upon receipt, EPA will consider that agency the lead agency from that point forward. However, if there is a change, a new governor's letter to the Administrator must be submitted during the renewal process and the new agency would be considered the lead agency for future grants. For fiscal year 2021, the letter to identify an alternate lead agency and provide specific contact information should be sent to the following contacts and be received on or before April 15, 2021. A scan of the signed letter must also be emailed to [DERA@epa.gov](mailto:DERA@epa.gov).

Michael S. Regan  
 Administrator  
 U.S. Environmental Protection Agency  
 1200 Pennsylvania Ave., N.W., Mail Code: 1101A  
 Washington, DC 20460

Cc: Christine Koester, Director  
 Legacy Fleets Incentives and Assessment Center  
 U.S. Environmental Protection Agency  
 1200 Pennsylvania Ave., N.W., Mail Code: 6406A  
 Washington, DC 20460  
 Phone: (202) 343-9689, Fax: (202) 343-2803, Email: [koester.christine@epa.gov](mailto:koester.christine@epa.gov)

#### **IV. 2021 FUNDING SCHEDULE AND PROCEDURES**

**Table 1: 2021 Funding Schedule**

<b>Activity</b>	<b>Date</b>
EPA sends all eligible states the 2021 program materials	<b>March 3, 2021</b>
Deadline for all participating states to submit a Notice of Intent to Participate (NOIP) to EPA via email ( <a href="mailto:DERA@epa.gov">DERA@epa.gov</a> )	<b>March 18, 2021</b>
EPA will inform the states of their final allocation via email	<b>March 24, 2021</b>
Deadline for states to submit Workplan and Budget Narrative and Fleet Description to their EPA Regional Office for review	<b>April 26, 2021</b>
Deadline for participating states to submit their application package to <a href="http://www.Grants.gov">www.Grants.gov</a>	<b>May 26, 2021</b>
Project period for 2021 awards begins. Regional offices will finalize the 2021 Program awards prior to October 1, 2021.	<b>October 1, 2021</b>
Deadline for 2021 projects to be completed	<b>September 30, 2023</b>

**Note:** This schedule is subject to change, updated guidance will be provided directly to states as needed.

#### **V. NOTICE OF INTENT**

- A. Notice of Intent to Participate:** States that want to receive 2021 DERA State Grants funding must submit a Notice of Intent to Participate (NOIP).
- B. Open 2020 and Earlier State Grants:** In general, any state with open DERA State Grants from 2020 or earlier must ensure that the project period of these award ends by September 30, 2021, for the state to receive 2021 funding. This means that vehicles/equipment should be delivered, technologies installed, and all other project work completed by September 30, 2021. If the state has already obligated but not drawn down funds by the grant period end date, it will have to make a final request for a drawdown payment. If the state is unable to complete all the tasks outlined in the work plan and obligate or expend all 2020 and earlier funds by September 30, 2021, the EPA Regional program office can close out the awards and de-obligate the remaining funds so that the state can participate in the 2021 Program.

Alternatively, if a state with an open DERA State Grant award from 2020 or earlier is unable to complete all the tasks outlined in the work plan and obligate or expend all 2020 and earlier funds by September 30, 2021, the state can request a no-cost time extension of the project period. However, a state requesting a no-cost time extension for a currently open DERA State Grant award may not be able to receive 2021 Program funding. Requests to extend previous awards and also receive a new award will be evaluated and approved by the EPA Regional program office on a case-by-case basis. Approval is dependent on the status of the project and unexpended funds, the ability to complete the project in ~6 months, and assurances that completion of the project will not negatively affect the state's ability to implement its 2021 workplan.

- C. Voluntary Match Incentive:** The NOIP must indicate if the state intends to voluntarily contribute funding to the 2021 Program project budget. The NOIP must also indicate the amount and sources of non-federal voluntary matching funds.

If a state provides a voluntary match equal to the base allocation offered by EPA, EPA will provide a matching incentive equal to 50 percent of the base allocation. For example: If EPA offers a base allocation of \$200,000 to the state, the state could contribute \$200,000 of state funding as a voluntary match and the state would receive an additional \$100,000 in EPA funding as a matching incentive. The total project budget would then be \$500,000, not including any mandatory cost-share funds.

The voluntary match may be satisfied by allowable costs incurred by the state (i.e., in-kind contributions), or by cash donations of state funds or private funds. State voluntary matching funds included in the approved project budget are subject to the same terms and conditions and funding limits as the awarded DERA funds. A recipient is legally obligated to expend any voluntary match included in the approved project budget within the project period of that award.

Mandatory cost-share funds provided by the state and/or eligible third parties cannot count towards the state's voluntary matching funds to qualify for the matching incentive. See [Section X](#) for additional information on mandatory cost-share requirements.

- D. Submission of the NOIP:** The Notice of Intent to Participate template, which is available in a fillable Word form ([www.epa.gov/dera/state](http://www.epa.gov/dera/state)), can be submitted in one of two ways: 1) a state can fill out the form electronically or by hand, print and sign the document, scan the document, and return the document via email to [DERA@epa.gov](mailto:DERA@epa.gov); or 2) a state can fill out the form electronically, digitally sign the document, save the document and return via email to [DERA@epa.gov](mailto:DERA@epa.gov). The Notice must be signed by the Environmental Commissioner or other authorized official, but does not need to be emailed from this person directly; the Notice can be emailed from the programmatic contact at the state.
- E. Review of the NOIP:** EPA's Office of Transportation and Air Quality (OTAQ) will forward the Notices to the appropriate EPA Regional Office for review. Regions will work with the states as necessary to resolve any identified issues.

## **VI. ALLOCATION OF FUNDS**

**A. Allocation Formula:** EPA anticipates approximately \$90 million available for the 2021 DERA Programs. In accordance with 42 U.S.C. 16133, subject to the availability of appropriations, EPA makes 30 percent (approximately \$27 million for 2021) of the DERA Program's annual allocation available to states and territories in the form of assistance agreements under the DERA State Grants. This 30 percent is divided: two-thirds is provided as a base allocation and one-third is provided as an incentive to match.

If all 50 states, the District of Columbia, and the five qualifying territories participate in the 2021 program, then the 50 states, the District of Columbia, and Puerto Rico will each receive 1.887 percent of the two-thirds of the funds set aside for the DERA State Grants as a potential base allocation. The remaining territories each qualify for 0.472 percent of the two-thirds of the funds set aside for the State Grants as a potential base allocation. If fewer than all 50 states, the District of Columbia, and the five qualifying territories submit a NOIP in 2021, then the population formula outlined in 42 U.S.C. 16133(c)(2)(B) will be applied to any unclaimed base funds, and these funds will be added to the all participating states' and territories' potential base allocations. In that case, OTAQ will perform the allocation calculation using the U.S. Census Bureau estimated population data for 2010, found at [www.census.gov/2010census/](http://www.census.gov/2010census/). Unclaimed funds from the State Grants will revert to the DERA National Program.

Participating states and territories may choose to voluntarily match the EPA award amount. If a state or territory provides a state match equal to the base allocation awarded by EPA, EPA will provide a matching bonus equal to 50 percent of the base allocation. See [Section V.C](#) for additional information on the voluntary match incentive.

**B. Allocation Notification:** After receiving all NOIPs, OTAQ will calculate the final allocations and notify state contacts via e-mail. States must then complete (1) a Fleet Description spreadsheet with best estimates on the number and type of equipment that will be impacted by the grant and (2) a Workplan and Budget Narrative and send these documents to their EPA Region contacts for review. EPA will review the documents and provide comments so that the state or territory can correct any issues prior to submitting the document in their application on Grants.gov.

## **VII. APPLICATION PACKAGE AND SUBMISSION INFORMATION**

**A. Content of Application Package:** The application package must include all the following materials:

1. **Standard Form (SF) 424**, Application for Federal Assistance
2. **Standard Form (SF) 424A**, Budget Information
3. **Key Contacts Form**

4. **EPA Form 4700-4**, Preaward Compliance Review
5. **Work Plan and Budget Narrative**. States must use the template available at [www.epa.gov/dera/state](http://www.epa.gov/dera/state) to prepare their Work Plan and Budget Narrative. States should only submit this document on grants.gov after it has been reviewed by their regional EPA DERA contacts.
6. **Fleet Description Spreadsheet**. States must use the template available at [www.epa.gov/dera/state](http://www.epa.gov/dera/state). States should only submit this document on grants.gov after it has been reviewed by their regional EPA DERA contacts.

## B. Grants.gov Application Instructions

1. Your organization's authorized official representative (AOR) must submit your complete application package electronically to EPA through Grants.gov ([www.Grants.gov](http://www.Grants.gov)).
2. Follow the steps below to download, complete, and submit an application package through [Grants.gov](http://Grants.gov). The application package contains the required forms listed above.
  - a. Go to [Grants.gov](http://Grants.gov) and then hover your cursor over the "Applicants" tab in the horizontal row of blue tabs. A drop-down list will appear.
  - b. Click on "How to Apply for Grants"
  - c. Click on the red button titled, "Search for Opportunity Package," on the right-hand side of the page
  - d. Search by **Funding Opportunity Number: EPA-CEP-01**
  - e. From the list of Opportunity Package(s) currently available, click on the "Apply" link corresponding with CFDA #: **66.040**
  - f. Click on the red "Apply" button. You should be prompted to log-in. Follow the on-screen instructions to complete the application submission.
  - g. After downloading an application and saving it, you do not need to be online to complete the application
  - h. Complete the required forms listed above, including uploading and attaching your final Work Plan and Budget Narrative and Fleet Description. **Note:** States and territories should have already received approval on their Work Plan and Budget Narrative and Fleet Description from their EPA Region prior to uploading this document in their application. While filling out the application package, be sure to save frequently by clicking the Save button on the cover page of the application package.
  - i. Click the Check Package for Errors button to ensure all the required portions of the application package are complete. Address any errors that are identified before submitting.
  - j. Click the Save & Submit button after completing the application package. The Save & Submit button will not be functional until the application is properly completed with no errors and saved.

**VIII. SCOPE OF WORK**

Title VII, Subtitle G, Section 793 of the Diesel Emissions Reduction Program (DERA) allows states to use funds provided under the DERA State Grants to develop and implement grant and rebate programs in the state as are appropriate to meet state needs and goals relating to the reduction of diesel emissions, subject to the following eligibility limitations and funding priorities.

**A. Project and Budget Period:** 2021 funds will be dispersed as a new award. The project and budget period for 2021 funds will be October 1, 2021 to September 30, 2023.

**B. Eligible Diesel Vehicles, Engines and Equipment:** Projects may include the diesel emissions source type defined in Table 2, below:

**Table 2: Eligible Diesel Vehicles, Engines and Equipment**

School Buses	Includes diesel powered 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.
Transit Buses	Includes Class 5+ diesel powered medium-duty and heavy-duty transit buses.
Medium-duty or heavy-duty trucks	Includes diesel powered medium-duty and heavy-duty highway vehicles with gross vehicle weight rating (GVWR) as defined below: 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 8 (33,001 lbs GVWR and over)
Marine Engines	Includes diesel powered Category 1, 2, and 3 marine engines and vessels.
Locomotives	Includes diesel powered line-haul, passenger, and switch engines and locomotives.
Nonroad engines, equipment or vehicles	Includes diesel powered engines, equipment and vehicles used in construction, handling of cargo (including at ports and airports), agriculture, mining, or energy production (including stationary generators and pumps).

**1. Drayage Trucks:** Eligible heavy-duty trucks include drayage trucks. A “drayage truck” means any Class 8 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. If a state is funding drayage trucks, the state 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. Sample drayage truck guidelines can be found at [www.epa.gov/dera/state](http://www.epa.gov/dera/state).

- 2. Transport Refrigeration Units:** Eligible nonroad equipment includes transport refrigeration units (TRUs). Please see the TRU Factsheet found at [www.epa.gov/dera/state](http://www.epa.gov/dera/state) for information on TRUs and eligible TRU projects.

**C. Eligible Diesel Emissions Reduction Solutions:** Projects must include one or more of the following diesel emissions reduction solutions that use a certified engine configuration and/or a verified technology.

- 1. Vehicle and Equipment Replacements:** Nonroad and highway diesel vehicles and equipment, locomotives, and marine vessels can be replaced with newer, cleaner vehicles and equipment. Eligible replacement vehicles and equipment include those powered by diesel or clean alternative fuel engines (including gasoline), electric generators (gensets), hybrid engines, and zero tailpipe emissions power sources (grid, battery or fuel cell).

To be eligible for funding, vehicles and equipment must be powered by engines certified by EPA and, if applicable, CARB emission standards. Zero tailpipe emissions vehicles and equipment do not require EPA or CARB certification. EPA's annual certification data for vehicles, engines, and equipment may be found at: [www.epa.gov/compliance-and-fuel-economy-data/annual-certification-data-vehicles-engines-and-equipment](http://www.epa.gov/compliance-and-fuel-economy-data/annual-certification-data-vehicles-engines-and-equipment). EPA's engine emission standards may be found at: [www.epa.gov/emission-standards-reference-guide/all-epa-emission-standards](http://www.epa.gov/emission-standards-reference-guide/all-epa-emission-standards). Engines certified by CARB 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](http://www.arb.ca.gov/msprog/onroad/cert/cert.php). Please see the Low-NO<sub>x</sub> Engine Factsheet found at [www.epa.gov/dera/state](http://www.epa.gov/dera/state) for guidance on identifying engines certified to meet CARB's Optional Low NO<sub>x</sub> Standards.

- 2. Engine Replacement:** Nonroad and highway diesel vehicles and equipment, locomotives, and marine vessels can have their engines replaced with newer, cleaner engines. Eligible replacement engines include those certified for use with diesel or clean alternative fuel (including gasoline), electric generators (gensets), hybrid engines, and zero tailpipe emissions power sources (grid, battery or fuel cell).

To be eligible for funding, replacement engines must be certified to EPA or, if applicable, CARB emission standards. However, zero tailpipe emissions engine replacements do not require EPA or CARB certification. EPA's annual certification data for vehicles, engines, and equipment may be found at: [www.epa.gov/compliance-and-fuel-economy-data/annual-certification-data-vehicles-engines-and-equipment](http://www.epa.gov/compliance-and-fuel-economy-data/annual-certification-data-vehicles-engines-and-equipment). EPA's engine emission standards may be found at: [www.epa.gov/emission-standards-reference-guide/all-epa-emission-standards](http://www.epa.gov/emission-standards-reference-guide/all-epa-emission-standards). Engines certified by CARB 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](http://www.arb.ca.gov/msprog/onroad/cert/cert.php).

Please see the Low-NO<sub>x</sub> Engine Factsheet found at [www.epa.gov/dera/state](http://www.epa.gov/dera/state) for guidance on identifying engines certified to meet CARB's Optional Low NO<sub>x</sub> Standards.

- 3. Certified Remanufacture Systems:** Generally, a certified remanufacture system is applied during an engine rebuild and involves the removal of parts on an engine and replacement with parts that cause the engine to represent an engine configuration which is cleaner than the original engine. Some locomotives and marine engines can be upgraded through the application of a certified remanufacture system (i.e. kit). Engine remanufacture systems may not be available for all engines, and not all remanufacture systems may achieve an emissions benefit. Applications for certified remanufacture systems should include a discussion of the availability of engine remanufacture systems and indicate the pre- and post-project emission standard levels of the engines to demonstrate that the upgrade will result in a PM and/or NO<sub>x</sub> emissions benefit. 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 of the kit.

To be eligible for funding, remanufacture systems for locomotives and marine engines must be certified by EPA at the time of acquisition. List of certified remanufacture systems are available at: [www.epa.gov/compliance-and-fuel-economy-data/engine-certification-data](http://www.epa.gov/compliance-and-fuel-economy-data/engine-certification-data), and additional information on remanufacture systems is available at: [www.epa.gov/vehicle-and-engine-certification/remanufacture-systems-category-1-and-2-marine-diesel-engines](http://www.epa.gov/vehicle-and-engine-certification/remanufacture-systems-category-1-and-2-marine-diesel-engines).

- 4. Verified Idle Reduction Technologies:** An idle reduction project is generally defined as the installation of a technology or device that reduces unnecessary idling of diesel engines 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 eligible idle reduction technologies by associated vehicle type are below. To be eligible for funding under (a) through (d) below, these technologies must be on EPA's SmartWay Verified Technologies list ([www.epa.gov/verified-diesel-tech/smartway-technology](http://www.epa.gov/verified-diesel-tech/smartway-technology)) at the time of acquisition.

**a. Long haul Class 8 trucks equipped with sleeper cabs:**

- 1) Auxiliary power units and generator sets
- 2) Battery air conditioning systems
- 3) Thermal storage systems
- 4) Fuel operated heaters (direct fired heaters)
- 5) Electrified parking spaces (truck stop electrification)

**b. School buses:** Fuel operated heaters (direct fired heaters)

**c. Transport refrigeration units:** Electrified parking spaces

Please see the TRU Factsheet found at [www.epa.gov/dera/state](http://www.epa.gov/dera/state) for information on TRUs and eligible TRU projects.

**d. Locomotives:**

- 1) Automatic engine shut-down/start-up systems
- 2) Auxiliary power units and generator sets
- 3) Fuel operated heaters (direct fired heaters)
- 4) Shore power connection systems

No funds awarded under this grant shall be used for locomotive shore connection system projects that are expected to be used less than 1,000 hours/year.

**e. Marine vessels:** Shore power connection systems

Funding may support new installations, or expansions of existing shore power systems. More information on marine shore power connection systems may be found at [www.epa.gov/verified-diesel-tech/learn-about-marine-technology](http://www.epa.gov/verified-diesel-tech/learn-about-marine-technology). To be eligible for funding, marine shore power projects must meet the following criteria:

- 1) 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).
- 2) Shore power connection systems must be supplied with electricity from the local utility grid.
- 3) Demonstration that the proposed system has the capacity, demand, and commitment to be used for more than 1,000 megawatt-hours per year. Smaller projects will be considered if the applicant can demonstrate cost effectiveness.
- 4) Due to the unique nature and custom design of marine shore power connection systems, EPA will review and approve marine shore power connection systems on a case-by-case basis. 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.
- 5) Applicants must commit to reporting usage information to EPA for five years after the system is operational.
- 6) Shore power capable vessels docked at a berth where shore power is available must be required to turn off the vessel's engines and use the shore power system, with limited exceptions for extreme circumstances.
- 7) Applicants proposing marine shore power connection systems will need to include the following information:
  - a) the annual number of ship visits to berth where the shore power system is to be installed;
  - b) average hoteling (or idling) time per visit; and
  - c) 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 use 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 (megawatt-hours);
- d) 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
- e) estimated emissions reductions. Applicants can use the calculator tool found here: calculator tool can be found here: [www.epa.gov/ports-initiative/shore-power-technology-assessment-us-ports](http://www.epa.gov/ports-initiative/shore-power-technology-assessment-us-ports)

**5. Verified Retrofit Technologies:** Diesel engine retrofits are one of the most cost-effective solutions for reducing diesel engine emissions. Retrofits include engine exhaust after-treatment technologies, such as diesel oxidation catalysts (DOCs), diesel particulate filters (DPFs), closed crankcase filtration systems (CCVs), and selective catalytic reduction systems (SCRs). Manufacturer engine upgrades which achieve specific levels of emission reductions by applying a package of components have been verified as retrofits for some nonroad and marine engines. Several systems which convert a conventional diesel engine configuration to a hybrid-electric system have been verified as retrofits for some nonroad and marine engines. Some cleaner fuels and additives have been verified as retrofits by EPA and/or CARB to achieve emissions reductions when applied to an existing diesel engine. Older, heavy-duty diesel vehicles that will not be retired for several years are good candidates for verified retrofit technologies. EPA suggests that fleets proposing to install verified retrofit technologies consult with suppliers to confirm that the proposed vehicles/engines and their duty-cycles are good candidates for the technology.

To be eligible for funding, verified retrofit technologies must be on EPA's ([www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel](http://www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel)) or CARB's (<https://ww2.arb.ca.gov/verification-procedure-currently-verified>) Verified Technologies lists at the time of acquisition, must be used only for the vehicle/engine application specified on the lists, and must meet any applicable verification criteria. EPA will not fund stand-alone cleaner fuel/additive use. To be eligible for funding, verified fuels and additives must be for new or expanded use, and must be 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, vehicle, or equipment replacement funded under this grant.

**6. Clean Alternative Fuel Conversions:** Existing highway diesel engines can be altered to operate on alternative fuels such as propane and natural gas by applying an alternative fuel conversion kit.

To be eligible for funding, alternative fuel conversion systems must be certified by EPA and/or CARB or must be 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](http://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](http://www.arb.ca.gov/msprog/aftermkt/altfuel/altfuel.htm).

To be eligible for funding, conversion systems for engine model years 2006 and earlier must achieve at least a 30% NO<sub>x</sub> 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<sub>x</sub> 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.

**7. Verified Aerodynamic Technologies and Verified Low Rolling Resistance Tires:** To improve fuel efficiency, long haul Class 8 trucks can be equipped with aerodynamic trailer fairings and/or low rolling resistance tires.

To be eligible for funding, technologies must be on EPA’s verified aerodynamic technologies list ([www.epa.gov/verified-diesel-tech/smartway-verified-list-aerodynamic-devices](http://www.epa.gov/verified-diesel-tech/smartway-verified-list-aerodynamic-devices)) and verified list for low rolling resistance new and retread tire technologies list ([www.epa.gov/verified-diesel-tech/smartway-verified-list-low-rolling-resistance-lrr-new-and-retread-tire](http://www.epa.gov/verified-diesel-tech/smartway-verified-list-low-rolling-resistance-lrr-new-and-retread-tire)) at the time of acquisition, must be used only for the application specified on the lists, and must meet any applicable verification criteria. EPA will not fund stand-alone aerodynamic technologies or low rolling resistance tires. To be eligible for funding, these technologies must be combined on the same vehicle with the new installation of an exhaust after-treatment retrofit funded under this grant.

**D. Project Eligibility Criteria:** Existing engines and new vehicles, engines, and technologies must meet the eligibility criteria defined below to be eligible for funding.

**Table 3: Medium and Heavy-Duty Truck, Transit Bus, and School Bus Project Eligibility**

Current Engine Model Year (EMY)	DOC +/- CCV	DPF	SCR	Verified Idle Reduction, Tires, or Aero-dynamics	Vehicle or Engine Replacement: EMY 2019+ (2015+ for Drayage)	Vehicle or Engine Replacement: EMY 2019+ Zero Emission <sup>2</sup> or Low-NO <sub>x</sub> <sup>3</sup>	Clean Alternative Fuel Conversion
older - 2006	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2007 - 2009	No	No	Yes	Yes <sup>1</sup>	Yes	Yes	Yes
2010 - newer	No	No	No	Yes <sup>1</sup>	No	Yes	Yes

<sup>1</sup>Auxiliary power units and generators are not eligible on vehicles with EMY 2007 or newer.

<sup>2</sup>Eligible fuel cell projects are limited to hydrogen fuel cell engine replacements for eligible urban transit buses, shuttle buses and drayage trucks, and hydrogen fuel cell engine replacements for eligible urban transit buses, shuttle buses, and drayage trucks.

<sup>3</sup>Please see the Low-NO<sub>x</sub> Engine Factsheet found at [www.epa.gov/dera/state](http://www.epa.gov/dera/state) for guidance on identifying engines certified to meet CARB’s Optional Low NO<sub>x</sub> Standards.

**Table 4. Nonroad Engine Project Eligibility**

Current Engine Tier	Vehicle/Equipment Replacement: EMY 2019+					Verified Retrofit
	Compression Ignition			Spark Ignition	Zero Emission <sup>3</sup>	
	Tier 0-2	Tier 3-4i	Tier 4	Tier 2		
Unregulated – Tier 2	No	Yes <sup>1</sup>	Yes	Yes	Yes	Yes
Tier 3	No	No	Yes	Yes	Yes	Yes
Tier 4	No	No	No	No	Yes	No
Current Engine Tier	Engine Replacement					Verified Engine Upgrade
	Compression Ignition			Spark Ignition	Zero Emission <sup>4</sup>	
	Tier 0-2	Tier 3-4i	Tier 4	Tier 2		
Unregulated – Tier 2	No	Yes <sup>2</sup>	Yes	Yes	Yes	Yes
Tier 3	No	No	Yes	Yes	Yes	Yes
Tier 4	No	No	No	No	Yes	No

<sup>1</sup>Tier 3 and Tier 4 interim (4i) allowed for vehicle/equipment replacement only when Tier 4 final is not yet available from OEM for 2021 model year equipment under the Transition Program for Equipment Manufacturers (TPEM).

<sup>2</sup>Tier 3 and Tier 4i engines may be used for engine replacement only if Tier 4 is demonstrated to not be available or feasible through a best achievable technology analysis as defined in Section VIII.D.1 below.

<sup>3</sup>Eligible fuel cell projects are limited to hydrogen fuel cell equipment replacements for eligible terminal tractors/yard hostlers, stationary generators, and forklifts.

<sup>4</sup>Fuel cell engine replacement is not eligible.

**Table 5: Marine Engine Project Eligibility**

Engine Category	Engine Horsepower	Current Engine Tier	Engine & Vessel Replacement					Certified Remanufacture System <sup>3</sup>	Verified Engine Upgrade
			Compression Ignition			Spark Ignition (EMY 2019+)	Zero Emission <sup>2</sup>		
			Tier 1-2	Tier 3	Tier 4				
C1, C2	<803	Un-regulated - Tier 2	No	Yes	No	Yes	Yes	Yes	Yes
C1, C2	≥804	Un-regulated - Tier 2	No	Yes <sup>1</sup>	Yes	Yes	Yes	Yes	Yes
C1, C2	<803	Tier 3	No	No	No	Yes	Yes	No	No
C1, C2	≥804	Tier 3	No	No	Yes	Yes	Yes	No	No
C1, C2	≥804	Tier 4	No	No	No	No	No	No	No
C3	All	Un-regulated - Tier 2	No	Yes	No	No	No	No	No
C3	All	Tier 3	No	No	No	No	No	No	No

<sup>1</sup>Tier 3 engines may be used for engine replacement only if Tier 4 is demonstrated to not be available or feasible through a best achievable technology analysis as defined in Section VIII.D.1 below. Over 800 HP, Tier 3 engines are not eligible for full vessel replacement.

<sup>2</sup>Fuel cell engine and vessel replacements are not eligible.

<sup>3</sup>Some marine engine projects may be subject to the restriction on mandated measures.

**Table 6: Locomotive Engine Project Eligibility**

Current Locomotive Tier	Engine & Locomotive Replacement				Verified Retrofit	Idle-Reduction <sup>2</sup> Technology	Certified Remanufacture System <sup>4</sup>
	Tier 0-2+	Tier 3	Tier 4	Zero Emission <sup>1</sup>			
Unregulated - Tier 2+	No	Yes <sup>3</sup>	Yes	Yes	Yes	Yes	Yes
Tier 3	No	No	Yes	Yes	Yes	Yes	Yes
Tier 4	No	No	No	No	No	Yes	No

<sup>1</sup>Fuel cell engine and locomotive replacements are not eligible.

<sup>2</sup>Automatic engine start-stop technologies are only eligible to be installed on locomotives currently certified to Tier 0 or unregulated, subject to the restriction on mandated measures.

<sup>3</sup>Tier 3 engines may be used for engine replacement only if Tier 4 is demonstrated to not be available or feasible through a best achievable technology analysis as defined in Section VIII.D.1 below. Tier 3 is not eligible for locomotive replacement.

<sup>4</sup>Some locomotive engine projects may be subject to the restriction on mandated measures.

Note: Tier 0+, Tier 1+, Tier 2+, Tier 3, and Tier 4 represent locomotives manufactured or remanufactured 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.

1. **Best Achievable Technology:** All new nonroad and locomotive engines are now manufactured to meet the EPA Tier 4 standards. All new Category 1 and 2, 804 horsepower and above marine engines are now manufactured to meet the EPA Tier 4 standards. Applicants must commit to using the best achievable technology for the project. Applicants replacing these nonroad, marine, and locomotive engines are expected to use Tier 4 engines if Tier 4 engines with the appropriate physical and performance characteristics are available. Applicants will be required to submit a best achievable technology analysis to EPA for approval before Tier 3 or Tier 4i engines can be purchased.
  - a. **Best Achievable Technology Analysis Requirements:** Applicants will be required to submit a best achievable technology analysis to EPA for approval before Tier 3 or Tier 4i engines can be purchased, as defined below. This analysis is not required at the time of grant application submittal. Costs for engineering analysis may be included in the project budget.
    - 1) The analysis must be prepared by the engine manufacturer or installer.
    - 2) Using good engineering judgment, the engine manufacturer or installer must determine that no engine certified to Tier 4 is produced by any manufacturer with the appropriate physical or performance characteristics to repower the equipment.
    - 3) If the engine manufacturer or installer determines that no engine certified to Tier 4 is available with the appropriate performance characteristics, explain why certified Tier 4 engines produced by them and other manufacturers cannot be used as a replacement because they are not similar to the engine being replaced in terms of power or speed.
    - 4) If there are available engines with the appropriate performance characteristics but the engine manufacturer or installer determines that no engine certified to Tier 4 is available with the appropriate physical characteristics, explain why certified engines produced by them and other manufacturers cannot be used as a replacement because their weight or dimensions are substantially different than those of the engine being replaced, or because they will not fit within the equipment's engine compartment.
    - 5) In evaluating appropriate physical or performance characteristics, the engine manufacturer or installer may account for compatibility with equipment components that would not otherwise be replaced when installing a new engine, including but not limited to transmissions or reduction gears, drive shafts, cooling systems, operator controls, or electrical systems. If the engine manufacturer or installer makes their determination on this basis, they must identify the equipment components that are

incompatible with engines certified to Tier 4 and explain how they are incompatible and why it would be unreasonable to replace them.

- 6) Identify the proposed Tier 3 or Tier 4i engines to be used and discuss the physical and performance characteristics of the engines that will ensure compatibility with the existing equipment. Quantify proposed emission reductions, PM cost effectiveness and NOx cost effectiveness for the proposed options.
- 7) DERA project eligibility or approval does not supersede any regulatory requirements for equipment owners, operators, manufactures, installers and others, including but not limited to 40 CFR §1068.240, §1042.615, and §1033.601.

**E. Eligible and Ineligible Project Costs:** Eligible project costs are those costs directly related to the implementation, management, and oversight of the project, including recipient and subrecipient personnel and benefits, equipment, contractual, travel, supplies, subgrants and rebates, and indirect costs. The following list is not exhaustive. See [Section IX](#) for additional funding restrictions.

1. Eligible project costs include the purchase price of eligible vehicles, engines and equipment as defined above in [Section VIII](#). These costs are subject to the mandatory cost share requirements defined in [Section X](#).
2. **Training:** Eligible project costs can include mechanic/driver training related to the maintenance and operation of new technologies.
3. **Battery Electric Powered Vehicles and Equipment:** Eligible costs for battery electric powered vehicle, equipment and engine replacement projects can include the purchase and installation of one charging unit per vehicle, including the unit and charging cable, mount and/or pedestal. These costs are subject to the mandatory cost share requirements defined in [Section X](#). **Ineligible costs** include power distribution to the pedestal, electrical panels and their installation, upgrades to existing electrical panels or electrical service, transformers and their installation, wiring/conduit and its installation, electricity, operation and maintenance, stationary energy storage systems that power the equipment (e.g. batteries) and their installation, and on-site power generation systems that power the equipment (e.g., solar and wind power generation equipment) and their installation.
4. **Drayage Trucks:** Eligible costs for drayage truck replacement projects include 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.
5. **Grid Electric Powered Equipment:** Eligible costs for grid electric powered engine and equipment replacement projects can include the purchase and installation of certain equipment required for power delivery directly related to the new equipment. Eligible costs include design and engineering, electrical panels, upgrades to existing electrical panels or electrical service, transformers, wiring/conduit, and installation. These costs are subject to the mandatory cost share requirements defined in [Section X](#). **Ineligible costs** include power distribution to the property line, electricity, operation and maintenance, stationary energy

storage systems that power the equipment (e.g. batteries) and their installation, and on-site power generation systems that power the equipment (e.g., solar and wind power generation equipment) and their installation.

- 6. Engine Replacement:** Eligible costs for engine replacement projects can include equipment and parts included in the certified engine configuration and/or are required to ensure the effective installation and functioning of the new technology. Eligible costs include design and engineering, parts and materials, and installation. For engine replacement with battery, fuel cell, and grid electric, eligible costs include 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 and fuel cell stack assemblies. These costs are subject to the mandatory cost share requirements defined in [Section X](#). **Ineligible costs** include cabs, tires, wheels, axles, paint, brakes, and mufflers.
- 7. Certified Remanufacture Systems:** Eligible costs for engine remanufacture system projects can include the associated labor costs for installation of the system. These costs are subject to the mandatory cost share requirements defined in [Section X](#). **Ineligible costs** include the entire cost of an engine rebuild if a certified remanufacture system is applied at the time of rebuild.
- 8. Verified Idle Reduction Technologies:** Eligible costs for idle reduction technologies that are installed on the vehicle can include the associated labor costs for installation of the system. These costs are subject to the mandatory cost share requirements defined in [Section X](#).
- 9. Electrified Parking Spaces:** Eligible costs for electrified parking space projects can include the purchase and installation of certain equipment required for power delivery directly related to the new equipment. Eligible costs include design and engineering, electrical panels, upgrades to existing electrical panels or electrical service, transformers, wiring/conduit, and installation. These costs are subject to the mandatory cost share requirements defined in [Section X](#). **Ineligible costs** include power distribution to the property line, electricity, operation and maintenance, stationary energy storage systems that power the equipment (e.g. batteries) and their installation, and on-site power generation systems that power the equipment (e.g., solar and wind power generation equipment) and their installation.
- 10. Locomotive Shore Power:** Eligible costs for locomotive shore power connection projects can include the purchase and installation of certain equipment required for power delivery directly related to the new equipment. Eligible costs include design and engineering, electrical panels, upgrades to existing electrical panels or electrical service, transformers, wiring/conduit, and installation. These costs are subject to the mandatory cost share requirements defined in [Section X](#). **Ineligible costs** include power distribution to the property line, electricity, operation and maintenance, stationary energy storage systems that power the equipment (e.g. batteries) and their installation, and on-site power generation systems that power the equipment (e.g., solar and wind power generation equipment) and

their installation.

- 11. Marine Shore Power:** Eligible costs for marine shore power connection projects can include the purchase and installation of the shore side equipment and certain equipment required for power delivery directly related to the new equipment. Eligible costs include design and engineering, cables, cable management systems, shore power coupler systems, distribution control systems, grounding switches, service breakers, capacitor banks, electrical panels, upgrades to existing electrical panels or electrical service, transformers, wiring/conduit, and installation. These costs are subject to the mandatory cost share requirements defined in [Section X](#). **Ineligible costs** include shipside modifications to accept shore-based electrical power, power distribution to the property line, electricity, operation and maintenance, stationary energy storage systems that power the equipment (e.g. batteries) and their installation, and on-site power generation systems that power the equipment (e.g., solar and wind power generation equipment) and their installation.
- 12. Verified Retrofit Technologies:** Eligible costs for retrofit technologies that are installed on the vehicle can include the associated labor costs for installation of the system. These costs are subject to the mandatory cost share requirements defined in [Section X](#). Eligible costs include design and engineering, DPF cleaning machines, spare DPFs for maintenance rotation, replacement CCV filters, and filter cleaning contracts during grant open period.
- 13. Clean Alternative Fuel Conversions:** Eligible costs for alternative fuel conversions can include the associated labor costs for installation of the system. These costs are subject to the mandatory cost share requirements defined in [Section X](#).
- 14. Verified Aerodynamic Technologies and Verified Low Rolling Resistance Tires:** Eligible costs for aerodynamics and low rolling resistance tires can include the associated labor costs for installation. Eligible costs can include single-wide wheels only when a fleet is retrofitting from standard dual tires to SmartWay-verified single-wide low rolling resistance tires. These costs are subject to the mandatory cost share requirements defined in [Section X](#). **Ineligible costs** include aluminum wheels.

Please note that although DERA grant funds and matching funds cannot be used for stationary energy storage systems that power the equipment (e.g. batteries) and their installation, and DERA grant funds and matching funds cannot be used for on-site power generation systems that power the equipment (e.g., solar and wind power generation equipment) and their installation, states and their partners may add these components at their own expense outside the scope of the grant.

## **F. Ownership, Usage and Remaining Life Requirements**

1. The existing vehicle, engine, or equipment must be fully operational. Operational equipment must be able to start, move, and have all necessary parts to be operational.
2. The participating fleet owner must currently own and operate the existing vehicle or equipment and have owned and operated the vehicle during the two years prior to upgrade.

3. The existing vehicle, engine, or equipment must have at least three years of remaining life at the time of upgrade. Remaining life is the fleet owner's estimate of the number of years until the unit would have been retired from service if the unit were not being upgraded or scrapped because of the grant funding. The remaining life estimate is the number of years of operation remaining even if the unit were to be rebuilt or sold to another fleet. The remaining life estimate depends on the current age and condition of the vehicle at the time of upgrade, as well as things like usage, maintenance, and climate.
  4. **Highway Usage:** The mileage of multiple units may be combined to reach the thresholds below where those units will be scrapped and replaced with a single unit.
    - a. **School Buses:** To be eligible for funding, the existing vehicle must have accumulated at least 7,000 miles/year during the two years prior to upgrade, or during calendar year (Jan-Dec) 2019.
    - b. **All Other Highway Engines:** To be eligible for funding, the existing vehicle must have accumulated at least 7,000 miles/year during the two years prior to upgrade.
  5. **Nonroad, Locomotive and Marine Usage:** The engine operating hours of multiple units may be combined to reach the thresholds below where those units will be scrapped and replaced with a single unit.
    - a. **Agricultural Pumps:** To be eligible for funding, agricultural pumps must operate at least 250 hours/year during the two years prior to upgrade.
    - b. **All Other Nonroad Engines:** To be eligible for funding, nonroad engines must operate at least 500 hours/year during the two years prior to upgrade.
    - c. **Locomotive and Marine Usage:** To be eligible for funding the existing locomotive and marine engines must operate at least 1,000 hours/year during the two years prior to upgrade.
  6. **Documentation Requirements:** Participating fleet owners must attest to each criterion in 1-5 above in a signed eligibility statement which includes each vehicle make, model, year, vehicle identification number, odometer/usage meter reading, engine make, model, year, horsepower, engine ID or serial number, and vehicle/equipment registration/licensing number and state. This documentation is not required at the time of application submittal to EPA but is required as part of programmatic reporting to verify the eligible use of grant funds. A sample eligibility statement may be found at [www.epa.gov/dera/state](http://www.epa.gov/dera/state).
- G. 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 in areas designated as poor air quality areas. The state's workplan must discuss how the state will ensure that projects selected for funding support the programmatic priorities listed below. Please note that these are funding priorities, and are not eligibility factors.

The term "project location" 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. A list of priority counties and areas can be found at: [www.epa.gov/dera/state](http://www.epa.gov/dera/state). These counties and areas

were identified as priority locations for the DERA program because they are:

- 1) Designated, as of the release date of this program guide, 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<sub>2.5</sub> 1997 Standard (Annual: 15 µg/m<sup>3</sup>, 24-hour: 65 µg/m<sup>3</sup>)
  - b) PM<sub>2.5</sub> 2006 Standard (Annual: 15 µg/m<sup>3</sup>, 24-hour: 35 µg/m<sup>3</sup>)
  - c) PM<sub>2.5</sub> 2012 Standard (Annual: 12 µg/m<sup>3</sup>, 24-hour: 35 µg/m<sup>3</sup>)
  - d) Ozone (O<sub>3</sub>) 2008 Standard (8-hour: 0.075ppm)
  - e) Ozone (O<sub>3</sub>) 2015 Standard (8-hour: 0.070ppm)
- 2) Counties that contain at least one census tract where the modeled ambient diesel PM concentration from the 2014 National Air Toxics Assessment (<https://www.epa.gov/national-air-toxics-assessment>) is above the 80th percentile (0.68 µg/m<sup>3</sup>) for census tracts nationwide. The 80th percentile is a programmatic cutoff designed to help us evaluate those areas that are most likely to have higher concentrations of diesel PM in the year of analysis (i.e., the year for which NATA data are available); this level was not chosen based on risk or other health-based criteria or thresholds. NATA is a screening tool and there are limitations and uncertainties associated with it; see: <https://www.epa.gov/national-air-toxics-assessment/nata-limitations>.

In addition, priority should 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)

## **H. 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](http://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, “A Cleaner, Healthier Environment” Objective 1.1, “Improve Air Quality.” Under this objective, EPA will “Deliver a cleaner, safer, and healthier environment for all Americans and future generations by carrying out the Agency’s core mission.” 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](http://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](http://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 diesel emission reduction 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 XII.G](#).

- 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<sub>2.5</sub>),
  - nitrogen oxides (NO<sub>x</sub>),
  - carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>), and/or
  - volatile organic compounds (VOCs).
- tons of pollution reduced annually;
- lifetime total project cost effectiveness for NO<sub>x</sub> and PM<sub>2.5</sub>;
- lifetime capital cost effectiveness for NO<sub>x</sub> and PM<sub>2.5</sub>;
- 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.** States 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?

## **IX. FUNDING RESTRICTIONS**

**A. Ineligible Activities and Costs:** Funds awarded under this grant shall be used only for eligible vehicles, equipment, engines, technologies, and activities defined in [Section VIII](#) of this program guide. No funds awarded under this grant shall be used for ineligible vehicles, equipment, engines, technologies and activities defined in [Section VIII](#).

**B. Federal Matching Funds:** No funds awarded under the Program shall be used for matching funds for other federal grants unless expressly authorized by statute. Likewise, recipient may not use federal funds as matching or cost-share funds for the DERA State Grant, including funds received under the DERA National Grants, DERA School Bus Rebates, or federal Supplemental Environmental Project (SEP) funds.

**C. Administrative Costs Expense Cap:** No more than 15 percent of the state's total project costs may be used to cover administrative type costs (e.g. personnel, benefits, travel, and office supplies). Total project costs include the federal share as well as any cost-share provided by the state. However, Regions have the discretion to allow state matching funds to exceed the 15% cap if the state provides justification for unique circumstances. The state's indirect costs are not

considered as administrative type costs and do not count towards the 15 percent maximum.

- D. 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 grant shall be used to cover expenses incurred prior to the project period set forth in any assistance agreement funded under this grant. 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 grant are not eligible as a cost share.
- E. Emissions Testing:** No funds awarded under this grant shall be used for emissions testing and/or air monitoring activities (including the acquisition cost of emissions testing equipment), or research and development.
- F. Fueling Infrastructure:** No funds awarded under this grant 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.
- G. Mandated Measures:** Pursuant to 42 U.S.C. 16132(d)(2), no funds awarded under this grant shall be used to fund the costs of emissions reductions that are mandated under federal law. See [Section XIV](#) for more information on mandated measures.
- H. Leasing:** No funds awarded under this grant shall be used for leasing vehicles, engines or equipment. If financing is necessary, the purchase must be financed with a conventional purchase loan.
- I. Fleet Expansion:** Funding under this program 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:
1. The replacement vehicle, engine, or equipment will continue to perform similar function and operation as the vehicle, engine, or equipment that is being replaced.
  2. The cost of 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.
  3. 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.
    - a. Nonroad: Horsepower increases of more than 40 percent will require specific approval by EPA prior to purchase, and the fleet may be required to pay the additional costs associated with the higher horsepower equipment.
    - b. Highway: The replacement vehicle must not be in a larger weight class than the existing vehicle (Class 5, 6, 7, or 8). Exceptions may be granted for vocational purposes and will require specific EPA approval prior to purchase.
  4. The vehicle, equipment, and/or engine being replaced must be scrapped or rendered permanently disabled within ninety (90) days of being replaced.
    - a. If a 2010 engine model year (EMY) or newer highway vehicle is replaced, the 2010 EMY or newer vehicle may be retained or sold if the 2010 EMY or newer vehicle will

replace a pre-2009 EMY vehicle, and the pre-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. All existing and replacement vehicles are subject to the funding restrictions in this section of the program guide. All equipment must operate within the United States. Under this scenario, a detailed scrappage plan must be submitted and will require prior EPA approval.

- b.** If a Tier 2, Tier 3 or Tier 4 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, 3 or 4 unit currently operates, however alternative scenarios will be considered. All existing and replacement equipment are subject to the funding restrictions in this section of the program guide. All equipment must operate within the United States. Under this scenario, a detailed scrappage plan must be submitted and will require prior EPA approval.
- c.** 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.
- d.** 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.
- e.** Evidence of appropriate disposal is required in a final assistance agreement report submitted to EPA. Participating fleet owners must attest to the appropriate disposal in a signed scrappage statement. A sample scrappage statement may be found at [www.epa.gov/dera/state](http://www.epa.gov/dera/state). The scrappage statement must include:
  - 1) Vehicle owner's name and address;
  - 2) Vehicle make, vehicle model, vehicle model year, VIN, odometer reading or usage meter reading, engine make, engine model, engine model year, engine horsepower, engine ID or serial number, as applicable;
  - 3) Name, address, and signature of dismantler;
  - 4) Date engine and/or vehicle/equipment was scrapped;
  - 5) Statement attesting to scrappage of vehicle/engine as defined above;
  - 6) Signature of participating fleet owner.
  - 7) Digital photos as follows:
    - a) Side profile of the vehicle, prior to disabling;
    - b) VIN tag or equipment serial number;
    - c) Engine label (showing serial number, engine family number, and engine model year);
    - d) Engine block, prior to hole;
    - e) Engine block, after hole;
    - f) Cut frame rails or other cut structural components, as applicable;
    - g) Others, as needed.
- f.** 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

disabled engines, disabled vehicles, disabled equipment, or parts are to be sold, program income requirements apply.

- g.** 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.

**J. Replacement Technologies:** No funds awarded under this program 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.

## **X. COST-SHARE REQUIREMENTS**

**A. Mandatory Cost-Share:** Projects involving engine upgrades, certain idle reduction technologies, shore connection systems, electrified parking space technologies, certified engine replacements, or certified vehicle/equipment replacements, as defined in [Section VIII](#), are subject to the DERA Funding Limits and mandatory cost-share requirements shown below in Table 7.

The “DERA Funding Limits” (percentages) shown below represent the maximum portion of the equipment costs (parts and labor including sales tax) that can be covered with a combination of EPA DERA funds and any non-federal voluntary matching funds provided by the state. The portion of the costs that exceed the DERA Funding Limit is referred to as the “mandatory cost-share.” Meeting the mandatory cost-share is ultimately the responsibility of the grantee, however the mandatory cost-share is typically provided by project partners (e.g., fleet owners). As discussed in [Section V.C](#), states may contribute voluntary matching funds to the project to qualify for the matching incentive. In addition to a voluntary match provided by a state to receive the EPA matching incentive, a state may contribute a larger voluntary match to achieve additional diesel emission reductions under their DERA State Grant. Mandatory cost-share funds provided by the state and/or third parties cannot count towards the state’s voluntary matching funds to qualify for the matching incentive.

Please note, EPA DERA funds may not be used to meet mandatory cost-sharing requirements for projects funded with environmental mitigation funds. Further, environmental mitigation funds (e.g., VW Environmental Mitigation Trust Funds via the DERA Option) may not be used to meet mandatory cost-share requirements of any DERA grant. Tribal VW Environmental Mitigation Trust Funds cannot be used on the same projects funded with DERA State Grants.

Cost sharing and matching requirements under \$200,000 for Insular Area applicants (the U.S. Virgin Islands, American Samoa, Guam and the Commonwealth of the Northern Mariana Islands) are waived as a matter of law as authorized by the Omnibus Territories Act , 48 U.S.C. Section 1469a. Insular Area applicants with applications that will require a cost share of \$200,000 or more are advised to contact their EPA regional office to determine if cost share requirements will be waived in whole or in part.

**Table 7. DERA Funding Limits and Mandatory Cost-Share Requirements**

<b>Eligible Technologies</b>	<b>DERA Funding Limits</b> (EPA Funds + Voluntary Match including VW Trust)	<b>Minimum Mandatory Cost-Share</b> (Fleet Owner Contribution)
Drayage Truck Replacement	50%	50%
Vehicle or Equipment Replacement with EPA Certified Engine	25%	75%
Vehicle or Equipment Replacement with CARB Certified Low NOx Engine	35%	65%
Vehicle or Equipment Replacement with Zero-tailpipe Emission Power Source	45%	55%
Engine Replacement with EPA Certified Engine	40%	60%
Engine Replacement with CARB Certified Low NOx Engine	50%	50%
Engine Replacement with Zero-tailpipe Emission Power Source	60%	40%
EPA Certified Remanufacture Systems	100%	0%
EPA Verified Highway Idle Reduction Technologies when combined with new or previously installed exhaust after-treatment retrofit	100%	0%
EPA Verified Highway Idle Reduction Technologies without new exhaust after-treatment retrofit	25%	75%
EPA Verified Locomotive Idle Reduction Technologies	40%	60%
EPA Verified Marine Shore Connection Systems	25%	75%
EPA Verified Electrified Parking Space Technologies	30%	70%
EPA Verified Exhaust After-treatment Retrofits	100%	0%
EPA Verified Engine Upgrade Retrofits	100%	0%
EPA Verified Hybrid Retrofit Systems	60%	40%
EPA Verified Fuel and Additive Retrofits when combined with new retrofit, upgrade, or replacement	Cost differential between conventional diesel fuel	Cost of conventional diesel fuel
EPA Verified Aerodynamics and Low Rolling Resistance Tires when combined with new exhaust after-treatment retrofit	100%	0%
Alternative Fuel Conversion	40%	60%

**B. Voluntary Cost-Share:** Under this funding opportunity, 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.

## **XI. WAIVER OF PROGRAMMATIC REQUIREMENTS**

EPA will consider, on a case-by-case basis, waiver requests from programmatic requirements. Waivers will only be approved for non-statutory and/or non-regulatory requirements. Sufficient justification for the waiver must be provided by the state. States must obtain EPA approval for any waiver request before conducting any work or expending any funds on a project involving a waiver request. Any questions regarding waivers should be directed to the EPA Project Officer.

## **XII. AWARD ADMINISTRATION INFORMATION**

**A. Terms and Conditions:** General administrative and programmatic terms and conditions applicable to EPA assistance agreements under this Program may be viewed at: [www.epa.gov/grants/grant-terms-and-conditions](http://www.epa.gov/grants/grant-terms-and-conditions).

**Funding to Other State Agencies:** EPA's general policy, based on the definitions of the terms "Non-federal entity" (2 CFR §200.69), "Pass-through entity" (2 CFR §200.74) "Recipient" (2 CFR §200.86) and "State" (2 CFR §200.90), is that the state itself is the legal entity that receives EPA funds even if one particular component of the state is named in the assistance agreement as the recipient. Transfers of EPA funds between state agencies to perform a particular financial assistance agreement would, therefore, be governed by state law. Additionally, 2 CFR §200.417 "Interagency Services" contemplates situations in which one agency provides services to another agency within the same unit of government as a direct cost of performing the EPA assistance agreement.

If utilizing interagency service agreements between state agencies under 2 CFR §200.417, the expenditures the state agency makes to carry out the Interagency Service Agreement should be shown in the corresponding direct cost categories (Personnel, Travel, Contractual etc.). If state law characterizes agreements under which one state agency provides services to another state agency as a procurement contract, then the costs would be placed in the contractual category. In interagency service situations, 2 CFR §200.417 provides the state may charge a pro-rated share of indirect costs for the service, or 10% of the "...direct salary and wage cost of providing the service (excluding overtime, shift premiums, and fringe benefits) may be used in lieu of determining the actual indirect costs of the service." Centralized services included in central

service cost allocation plans subject to Appendix V of 2 CFR Part 200 are accounted for separately.

There may be situations in which state law provides that state agencies or instrumentalities are legally separate for the purposes of financial transactions between them or when state financial management policies for Federal assistance agreements require separate instruments for accounting purposes (e.g. due to differences in indirect cost rates). In those situations, a state may characterize appropriate funding transfers as subawards. Note, however, that if one state agency provides a subaward to another state agency the state agency acting as the pass-through entity must comply with applicable provisions of 2 CFR Part 200 (including 2 CFR §200.331), the National Term and Condition for Subawards, and the EPA Subaward Policy unless EPA provides an exception. The aggregate cost estimates for subawards to other state agencies or instrumentalities should be included as line items in the “Other” budget category.

- B. In-Kind Assistance:** The state may purchase equipment through blanket purchase agreements or some other mechanism that ensures a low price for the item. The state may then provide the equipment in lieu of money as in-kind assistance through a subaward.
- C. Contract:** As defined at 2 CFR §200.22, means a legal instrument by which a non-Federal entity purchases property or services needed to carry out the project or program under a Federal award. The term as used in this part does not include a legal instrument, even if the non-Federal entity considers it a contract, when the substance of the transaction meets the definition of a Federal award or subaward (see §200.92 Subaward).
- D. Procurements:** When procuring property and services under a Federal award, a state must follow the same policies and procedures it uses for procurements from its non-Federal funds. The state will comply with §200.322 Procurement of Recovered Materials, and ensure that every purchase order or other contract includes any clauses required by section §200.326 Contract provisions. All other non-Federal entities, including subrecipients of a state (other than another state agency), will follow §200.318 General Procurement Standards through §200.326 Contract Provisions.
- E. Performance Partnership Grants:** Funds awarded under this program are not eligible for inclusion with the state’s Performance Partnership Grants.

**State Notification:** Executive Order 12372, Intergovernmental Review of Federal Programs, may be applicable to awards resulting from this announcement. EPA implemented the Executive Order in 40 CFR Part 29. EPA may require applicants selected for funding to provide a copy of their application to their State Point of Contact (SPOC) for review as provided at 40 CFR 29.7 and 40 CFR 29.8. The SPOC list can be found in the Intergovernmental Review (SPOC List) document: <https://www.whitehouse.gov/wp-content/uploads/2020/04/SPOC-4-13-20.pdf>

- F. Public Notification:** Not later than 60 days after the date of the award of a subaward, rebate, or loan by a state, the state shall publish the following on the Web site of the state:

1. For subawards, rebates, and loans provided to the owner of a diesel vehicle or fleet, the total number and dollar amount of subawards, rebates, or loans provided, as well as a breakdown of the technologies funded through the subgrants, rebates, or loans; and
2. For other subawards, rebates, and loans, a description of each application for which the subaward, rebate, or loan is provided.

**G. Reporting Requirements:** Quarterly programmatic progress reports and a detailed final programmatic report will be required. Additional administrative and financial reporting may be required per the terms and conditions of the award.

1. **Quarterly Reports:** Quarterly reports summarizing technical progress, planned activities for the next quarter and a summary of expenditures are required. The schedule for submission of quarterly reports will be established by EPA, after the grants are awarded. A template for quarterly reports is available at [www.epa.gov/dera/state](http://www.epa.gov/dera/state).
2. **Final Reports:** The final report must include: summary of the project or activity, emissions benefits and other outputs and outcomes 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. Award recipients may be provided with additional information and guidance on reporting performance measures and project progress after award. A template for the final report is available at [www.epa.gov/dera/state](http://www.epa.gov/dera/state). The final report shall be submitted to EPA within 90 calendar days of the completion of the period of performance. However, in order to facilitate awarding funds the following fiscal year, it is recommended that the report be completed well before 90 days.

### **XIII. APPENDIX A: 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 “Contracts and Subawards” guidance in Section IV. of the General Solicitation Provisions found at [www.epa.gov/grants/epa-solicitation-clauses](http://www.epa.gov/grants/epa-solicitation-clauses).

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 (i.e, rebates)** 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 choose to provide participant support costs rather than a subaward 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 [https://www.ecfr.gov/cgi-bin/text-idx?SID=eeba078baab7cccee5a7702a04c9e6ad&mc=true&tpl=/ecfrbrowse/Title02/2cfr200\\_main\\_02.tpl](https://www.ecfr.gov/cgi-bin/text-idx?SID=eeba078baab7cccee5a7702a04c9e6ad&mc=true&tpl=/ecfrbrowse/Title02/2cfr200_main_02.tpl). 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 may be 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, for example, 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. In this example, the school district (subrecipient) implements their project with the DERA funds received from the pass-through entity, the school district purchases school buses from a vendor through a procurement contract, and the school district's transaction is subject to the applicable competitive procurement requirements in 2 CFR Part 200. 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 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 this program guide 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.
- Specifies any reporting required by the beneficiary.

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 ([www.epa.gov/grants/best-practice-guide-procuring-services-supplies-and-equipment-under-epa-assistance-agreements](http://www.epa.gov/grants/best-practice-guide-procuring-services-supplies-and-equipment-under-epa-assistance-agreements))

EPA Subaward Policy with attachments ([www.epa.gov/grants/grants-policy-issuance-gpi-16-01-epa-subaward-policy-epa-assistance-agreement-recipients](http://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

RAIN-2018-G05, "Interim EPA Guidance on Participant Support Costs."  
([www.epa.gov/sites/production/files/2018-09/documents/interim\\_guidance\\_on\\_participant\\_support\\_costs.pdf](http://www.epa.gov/sites/production/files/2018-09/documents/interim_guidance_on_participant_support_costs.pdf))

#### **XIV. APPENDIX B: MANDATED MEASURES JUSTIFICATION**

No funds awarded may be used to fund emission reductions mandated by federal statute. 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 (SIP) approved by the EPA 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 SIP.

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).

**All 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 reduction are not subject to the restriction for mandated measures under this grant. 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.

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 grant.

#### **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 IX.G of this program guide, 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 IX.G of the program guide, 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](http://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 grant.*

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](http://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 grant.*

#### Additional Resources:

- Final Rule: [www.gpo.gov/fdsys/pkg/FR-2008-06-30/pdf/R8-7999.pdf](http://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: (<https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100096D.pdf>).
- Summary of locomotive emission standards: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1000A09.pdf>
- Frequently Asked Questions from Marine Engine Owners and Rebuilders about EPA’s Marine Remanufacture Program EPA420-F-09-003: (<https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1002UMW.pdf>).
- Summary of marine emission standards: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1000A0B.pdf>
- Marine and Locomotive Certified Remanufacture Systems: [www.epa.gov/compliance-and-fuel-economy-data/engine-certification-data](http://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.

Some 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 \$40,384,263 per year in 2019 (<https://prod.stb.gov/reports-data/economic-data/railroad-revenue-deflator-factors/>).

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 under 40 CFR Part 92 and Part 1033

“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 under 40 CFR Part 94 or Part 1042

“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<sub>x</sub> 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 grant 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:
  - o Existing engines if constructed before June 12, 2006
  - o New engines if constructed on or after June 12, 2006
  - o Reconstructed engines if reconstruction began on or after June 12, 2006

EPA assumes most stationary source projects proposed under this grant 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:

[https://regnav.app.cloud.gov/rice/rice%20-%20Storyline%20output/story\\_html5.html](https://regnav.app.cloud.gov/rice/rice%20-%20Storyline%20output/story_html5.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.