

2023 Guidance for State DERA Project Proposals

Mobile sources account for 36% of the carbon pollution and 67% of the smog-forming air pollution in Connecticut. To address this pollution, the Department of Energy and Environmental Protection (DEEP) is committed to supporting projects that reduce the emissions impact from diesel and other vehicles throughout Connecticut, but especially in areas disproportionately impacted by diesel related air pollution. This year, the U.S. Environmental Protection Agency (EPA) is allocating to Connecticut a minimum of \$425,846.00, authorized under the federal Diesel Emissions Reduction Act (DERA), for projects to reduce diesel pollution in the state. In addition, DEEP has reserved the opportunity to more than double its DERA allocation using funds available through the “DERA Option” under Connecticut’s Volkswagen Diesel Emissions Mitigation Program (VW Program); this could increase the total to as much as \$968,805.00. DEEP is seeking grant proposals from municipalities, organizations, and businesses for diesel emissions reduction projects that are environmentally and economically beneficial, can be initiated promptly, and will be completed by August 31, 2025.

Recent Program Requirement Changes Applicable in 2023: Connecticut corporations and limited liability entities are required to submit, with their application, a Status Letter/Certificate of Good Standing, which is available from the [Department of Revenue Services](#). In addition, all applicants are required to disclose any active or pending litigation within the past three years. EPA has also added a requirement that successful grantees submit an eligibility statement attesting that the ownership, usage, and remaining life of the equipment to be replaced meet eligibility requirements for the program. These new requirements are included in the Part VI, Terms & Conditions and Part VIII, EPA Eligibility Statement, and require a signature.

Applicants should be aware that DEEP has completed three rounds of project solicitations under Connecticut’s VW Diesel Emissions Mitigation Program¹ and will be seeking additional proposals for VW funding in the future. VW Program funds will be available over the next six years or until funds are exhausted, whichever first occurs, to fund nitrogen oxide (NOx) mitigation projects, including diesel emission reduction projects. Incentives under the VW Program are potentially more generous than under the DERA Program; however, many clean diesel projects that are eligible for the State DERA Program, are not eligible for VW Program funding.

Clean Diesel Projects Eligible for State DERA Funding

DEEP plans to prioritize diesel-to-electric and marine proposals when selecting projects for 2023 DERA funding. There have been no significant changes to the maximum incentives available under the DERA² Program from the fiscal year (FY) 2021-2022 program. However, in the FY 2021-2022 DERA Program,

¹ Information is available on DEEP’s Volkswagen Settlement website at <https://portal.ct.gov/DEEP/Air/Mobile-Sources/VW/VW-Settlement---Home>.

² Additional information regarding DERA, including definitions for key terms used, may be found at <https://www.epa.gov/cleandiesel> and in the 2023-2024 DERA State Grants Program Guide, which is available at [2023-2024 Diesel Emissions Reduction Act \(DERA\) State Grants Program Guide \(EPA-420-B-23-031, July 2023\)](https://www.epa.gov/cleandiesel/2023-2024-Diesel-Emissions-Reduction-Act-DERA-State-Grants-Program-Guide-EPA-420-B-23-031-July-2023)

EPA instituted a required eligibility statement (See page 10 for details and Part VIII on the form). Applicants are required to attest that:

- vehicles proposed to be replaced are fully operational;
- vehicles and equipment proposed to be replaced have met annual minimum operational mileage or hour requirements for two years prior to the application; and
- vehicles proposed to be replaced have at least three years of remaining useful life at the time the proposal is submitted.

Eligible Diesel Vehicles, Engines, and Equipment

School Buses - Includes diesel powered school buses of Type A, B, C, and D. A “school bus” is defined as a passenger motor vehicle designed to carry a driver and more than 10 passengers, that the Secretary of Transportation decides is likely to be used significantly to transport preprimary, primary, and secondary school students to or from school or an event related to school.

Transit Buses - Includes diesel powered medium-duty and heavy-duty transit buses (see definition of eligible Class 5-8 vehicles below).

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). GVWR is the maximum weight of the vehicle, as specified by the manufacturer including total vehicle weight plus fluids, passengers, and cargo. 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.

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 – Diesel powered nonroad engines, equipment, and vehicles including, but not limited to, those used in construction, handling of cargo (including at ports and airports), agriculture, mining, or energy production (including stationary generators and pumps). Eligible nonroad equipment includes transport refrigeration units (TRUs). Please see the TRU Factsheet found on the [EPA State DERA website](#) for information on TRUs and eligible TRU projects.

Diesel Emissions Reduction Solutions: Projects may upgrade existing diesel vehicles and equipment using the following diesel emissions reduction solutions:

- **Certified Vehicle and Equipment Replacements** - Nonroad and highway diesel vehicles and equipment, locomotives, and marine vessels can be replaced with newer, cleaner vehicles and equipment.
- **Certified Engine Replacement** - Nonroad and highway diesel vehicles and equipment, locomotives, and marine vessels can have their engines replaced with newer, cleaner engines.

- 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.
- 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.
- 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 ventilation (CCV) filtration systems, and selective catalytic reduction systems (SCRs). Manufacturer engine upgrades which achieve specific levels of emissions 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. Older, heavy-duty diesel vehicles that will not be retired for several years are good candidates for verified retrofit technologies. EPA suggests that applicants 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.
- Clean Alternative Fuel Conversions - Existing highway diesel engines can be altered to operate on alternative fuels such as propane and natural gas by applying a certified alternative fuel conversion kit.
- Verified Aerodynamic Technologies and Low Rolling Resistance Tires – To improve fuel efficiency, long haul Class 8 trucks can be equipped with EPA verified aerodynamic devices and/or low rolling resistance tires.
- **Not Eligible:** Projects initiated prior to the execution of a contract or similar agreement are not eligible for funding. Submission of an application is not a guarantee that a proposed project will be funded. Project initiation activities that can disqualify an application include: initiating a Request for Proposal (RFP); selecting a vendor; ordering vehicles, equipment, or engines; or hiring a contractor. Inclusion in a municipal budget will not disqualify a project, but funding is not guaranteed.
- **Not Eligible:** Funding under this program cannot be used for leasing vehicles, engines, or equipment. If financing is necessary, the purchase must be financed with a conventional purchase loan. Funding under this program cannot be used to cover expenses incurred prior to the project period of performance, 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.

Project Eligibility Criteria: Projects must meet the eligibility criteria defined in the tables below.

Table 1. 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 2021+ (2017+ for Drayage)	Vehicle or Engine Replacement: EMY 2021+ Zero Emission ² or Low NOx ³	Clean Alternative Fuel Conversion
older – 2006	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2007 – 2009	No	No	Yes	Yes ¹	Yes	Yes	Yes
2010 – newer	No	No	No	Yes ¹	No	Yes	Yes

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

² 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 vehicle replacements for eligible urban transit buses, shuttle buses, and drayage trucks.

³ Please see the Low NOx Engine Factsheet found on the [DERA website](#) for guidance on identifying engines certified to meet CARB's Optional Low NOx Standards.

Table 2. Nonroad Engine Project Eligibility

Current Engine Tier	Vehicle/Equipment Replacement					Verified Retrofit	
	Compression Ignition			Spark Ignition	Zero Emission ³		
	Tier 0-2	Tier 3-4i	Tier 4	Tier 2			
Unregulated – Tier 2	No	Yes ¹	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 ⁴		
	Tier 0-2	Tier 3-4i	Tier 4	Tier 2			
Unregulated – Tier 2	No	Yes ²	Yes	Yes	Yes	Yes	
Tier 3	No	No	Yes	Yes	Yes	Yes	
Tier 4	No	No	No	No	Yes	No	

¹Tier 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).

²Tier 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 below.

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

⁴Fuel cell engine replacement is not eligible.

Table 3: Marine Engine Project Eligibility

Engine Category	Engine Horsepower	Current Engine Tier	Engine & Vessel Replacement					Certified Re-manufacture System ³	Verified Engine Upgrade		
			Compression Ignition			Spark Ignition	Zero Emission ²				
			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 ¹	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		

¹Tier 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 below. Over 800 HP, Tier 3 engines are not eligible for full vessel replacement.

²Fuel cell engine and vessel replacements are not eligible.

³Some marine engine projects may be subject to the restriction on mandated measure

Table 4: Locomotive Engine Project Eligibility

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

¹Fuel cell engine and locomotive replacements are not eligible.

²Automatic 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.

³Tier 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 below. Tier 3 is not eligible for locomotive replacement.

⁴Some 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.

Best Achievable Technology (BAT): 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. Recipients replacing these nonroad, marine, and locomotive engines must demonstrate that their projects commit to using Tier 4 engines, if Tier 4 engines with the appropriate physical and performance characteristics are available. Recipients anticipating the use of Tier 3 engines should discuss their rationale for proposing lower tiered engine replacements.

If selected for funding, recipients must submit a best achievable technology analysis to EPA for approval before Tier 3 or Tier 4i vehicles, equipment, or engines can be purchased, as defined below. **The following analysis is not required at the time of project development.**

1. BAT Analysis Requirements:

- The analysis must be prepared by the engine manufacturer or installer.
- Using good engineering judgment, the engine manufacturer or installer must determine that no internal combustion engine certified to Tier 4 is produced by any manufacturer with the appropriate physical or performance characteristics to replace the existing engine in the equipment.
- If the engine manufacturer or installer determines that no internal combustion 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.

- d. If there are available internal combustion 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 internal combustion 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.
- e. 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 should identify the equipment components that are incompatible with internal combustion engines certified to Tier 4 and explain how they are incompatible and why it would be unreasonable to replace them.
- f. Identify 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, particulate matter (PM) cost effectiveness and nitrogen oxides (NOx) cost effectiveness for the proposed options.
- g. DERA project eligibility or approval does not supersede any regulatory requirements for equipment owners, operators, manufacturers, installers, and others, including but not limited to 40 CFR § 1068.240, §1042.615, and §1033.601.
- h. Costs for design and engineering analysis may be included in the project budget.

Funding Limitations and Cost Share Requirements

Projects are subject to the funding limitations and mandatory cost share requirements shown in Table 5, below. The funding limits (percentages) shown below represent the maximum portion of the equipment costs (parts and labor including sales tax) that can be covered.

Table 5: Funding Limitations and Cost Share Requirements

Eligible Technologies	Funding Limit	Mandatory Cost Share
Drayage Truck Replacement Replacement drayage truck must be powered by a 2017 model year or newer certified engine. For the duration of the project period (October 1, 2023, through September 30, 2025), drayage truck replacement grants are allowed to cover required/scheduled maintenance, as specified in the owner's manual, which is necessary to meet the warranty requirements for diesel particulate filters installed on the trucks.	50%	50%
Vehicle or Equipment Replacement with EPA Certified Engine In addition, for the duration of the project period (October 1, 2023, through September 30, 2025), truck replacement grants are allowed to	25%	75%

cover required/scheduled maintenance, as specified in the owner's manual, which is necessary to meet the warranty requirements for diesel particulate filters installed on the trucks.		
Vehicle or Equipment Replacement with CARB Certified Low NOx Engine Replacement vehicle/equipment must be powered by a 2021 engine model year (EMY) or newer engine certified to meet CARB's Optional Low NOX Standards of 0.1 g/bhp-hr, 0.05 g/bhp-hr, or 0.02 g/bhp-hr NOX	35%	65%
Vehicle or Equipment Replacement with Zero-tailpipe Emission Power Source Purchase and installation of electric vehicle (EV) charging infrastructure can be included in an EV replacement project	45%	55%
Engine Replacement with EPA Certified Engine Replacement engines in a highway vehicle must be 2021 engine model year (EMY) or newer	40%	60%
Engine Replacement with CARB Certified Low NOx Engine Replacement engine must be 2021 EMY or newer	50%	50%
Engine Replacement with Zero-tailpipe Emission Power Source Purchase and installation of charging equipment may be included	60%	40%
EPA Certified Remanufacture Systems (Engine Rebuilds)	100%	0%
EPA Verified Highway Idle Reduction Technologies when combined with new or previously installed exhaust after-treatment retrofit Idle reduction technologies can be installed on long-haul Class 8 trucks equipped with sleeper cabs and school buses (includes auxiliary power units (APUs)).	100%	0%
EPA Verified Highway Idle Reduction Technologies without new exhaust after-treatment retrofit Idle reduction technologies can be installed on long-haul Class 8 trucks equipped with sleeper cabs and school buses (includes auxiliary power units (APUs)).	25%	75%
EPA Verified Locomotive Idle Reduction Technologies (Stationary and On-Board)	40%	60%
EPA Verified Marine Shore Connection Systems Marine shore power systems allow maritime vessels to "plug into" an electrical power source instead of using diesel main or auxiliary engines while at port. The cost of modifications, attachments, accessories or auxiliary apparatus necessary to make the equipment functional may be included.	25%	75%
EPA Verified Electrified Parking Space Technologies Includes hybrid electric transport refrigeration units (TRUs) and electrified truck stops	30%	70%
EPA or CARB Verified Exhaust After-treatment Retrofits Includes technologies such as diesel oxidation catalysts (DOCs), diesel particulate filters (DPFs), closed crankcase ventilation (CCV) filtration systems, and selective catalytic reduction systems (SCRs).	100%	0%

EPA or CARB Verified Engine Upgrade Retrofits Manufacturer engine upgrades achieve specific levels of emissions reductions by applying a package of components that have been verified as retrofits for some nonroad and marine engines.	100%	0%
EPA or CARB Verified Hybrid Retrofit Systems Systems which convert a diesel engine configuration to a hybrid-electric system verified as a retrofit for some nonroad and marine engines.	60%	40%
EPA Verified Aerodynamics and Low Rolling Resistance Tires when combined with new exhaust after-treatment retrofit on long haul, Class 8 trucks Applicants must provide evidence that the chosen technology is on EPA's verified aerodynamic technologies list and verified list for low rolling resistance new and retread tire technologies list at the time of acquisition, will be used only for the application specified on the lists, and will meet any applicable verification criteria.	100%	0%
Alternative Fuel Conversion Alternative fuel conversion systems must be certified by EPA and/or CARB or must be approved by EPA for Intermediate-Age engines. See EPA's lists of "Certified Conversion Systems for New Vehicles and Engines" and "Conversion Systems for Intermediate-Age Vehicles and Engines" and CARB's list of "Approved Alternate Fuel Retrofit Systems." The vehicle being converted must be otherwise eligible for sale in Connecticut. Additionally, conversions must be consistent with any applicable Connecticut Department of Motor Vehicles safety policies for alternatively fueled vehicles to ensure public safety.	40%	60%

Evaluation Criteria

Proposed projects will be evaluated based on diesel emission reductions, cost effectiveness (including the applicant's ability to provide matching funds) and the potential for completion by August 31, 2025. Proposed projects will also be selected for funding based on a set of preferential criteria developed to be consistent with EPA's priorities for this grant program and with the transportation section of the 2018 Comprehensive Energy Strategy for Connecticut.³ The project location is the primary area where the affected vehicles/engines operate, or the primary area where the emissions benefits of the project will be realized; this may differ from the applicant's address. These criteria include, but are not limited to:

- Project results in a significant reduction of carbon dioxide or other greenhouse gas emissions;
- Vehicle/equipment operates in an environmental justice (EJ) community;⁴
- Vehicle/equipment operates in an EPA-designated maintenance area for particulate matter (PM) (Fairfield, Middlesex, or New Haven County);

³ See the [2018 Comprehensive Energy Strategy](#).

⁴ Connecticut EJ communities are listed on the DEEP website at: <https://portal.ct.gov/DEEP/Environmental-Justice/Environmental-Justice-Communities>.

- Vehicle/equipment operates near transportation hubs or corridors;
- Vehicle/equipment operates in an area that receives a disproportionate quantity of air pollution from diesel fleets, including ports, rail yards, terminals, construction sites, school bus depots/yards, and distribution centers;
- Applicant has or project includes motor vehicle anti-idling education and outreach program;
- Project is consistent with the transportation section of the 2018 Comprehensive Energy Strategy for Connecticut⁵ and the state's EV Roadmap;⁶
- Applicant demonstrates past experience or existing administrative and programmatic structure in place for implementing diesel emission reduction projects;
- Applicant has verified funding or leveraged funding that exceeds the **minimum required cost share**; and
- Applicant is an active participant in EPA's SmartWay program.⁷
- Project demonstrates a plan to prepare the workforce for the project, such as conducting robust workforce planning to ensure current drivers, mechanics, electricians, and other essential personnel receive training to safely operate and maintain the new buses and infrastructure, as well as clarifying protections to ensure existing workers are not replaced or displaced because of new technologies.

Program Requirements & Restrictions

EPA Eligibility Statement: The 2023 State DERA Program has requirements for documenting ownership, usage and remaining life of the vehicles and equipment to be covered by a grant.

1. Operational: The existing vehicle, engine, or equipment must be fully operational. Equipment must be able to start, move, and have all necessary parts to be operational. On-road vehicles must be registered with the Department of Motor Vehicles.

2. Ownership: 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. Remaining Life: 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.

⁵ See the [2018 Comprehensive Energy Strategy](#).

⁶ Electric Vehicle Roadmap for Connecticut: A Policy Framework to Accelerate Electric Vehicle Adoption (EV Roadmap), released in April of 2020, can be found on the DEEP website at: <https://portal.ct.gov/DEEP/Climate-Change/EV-Roadmap>.

⁷ For information regarding EPA's SmartWay program or to enroll, go to <https://www.epa.gov/smartway>.

4. Highway Usage: The mileage of two or more units may be combined to reach the thresholds below where two or more units will be scrapped and replaced with a single unit.

- a. To be eligible for funding, the existing certified highway engine/vehicle must have accumulated at least 7,000 miles/year during the two years prior to upgrade
- b. Exception: If a recipient can demonstrate that a certified highway engine/vehicle is being used in a predominately nonroad application (e.g., firetrucks or utility trucks that idle for long periods to power auxiliary apparatus), engine operating hours as defined below in “nonroad usage” may be used for application eligibility purposes. If selected for award, EPA will review and approve eligibility on a case-by-case basis.

5. Nonroad Usage: The engine operating hours of two or more units may be combined to reach the thresholds below where two or more units will be scrapped and replaced with a single unit.

- a. **Agricultural Pumps:** To be eligible for funding, certified nonroad 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, certified nonroad engines must operate at least 500 hours/year during the two years prior to upgrade.
- c. **Exception:** If a recipient can demonstrate that a certified nonroad engine/vehicle is being used in a predominately highway application, vehicle mileage as defined above in “highway usage” may be used for application eligibility purposes. If selected for award, EPA will review and approve eligibility on a case-by-case basis.

6. Locomotive and Marine Usage: The engine operating hours of two or more units may be combined to reach the thresholds below where two or more units will be scrapped and replaced with a single unit. To be eligible for funding, the existing certified locomotive and marine engines must operate at least 1,000 hours/year during the two years prior to upgrade.

7. Documentation Requirements: Participating fleet owners (successful applicants) must attest to each criterion in 1-6 above in a signed eligibility statement. Such statement must include each vehicle make, model, year, vehicle identification number, odometer/usage meter reading, vehicle registration state and number, engine make, model, year, horsepower, engine ID or serial number, and equipment licensing number and state. While EPA does not require this documentation be submitted at the time of application, DEEP requires this documentation within Part VIII of the application form to verify the eligible use of grant funds.

Vehicle and Equipment Replacement Projects: To be eligible for funding, the replacement vehicle or equipment must be of similar type and gross vehicle weight rating or horsepower as the vehicle, engine, or equipment being replaced.

1. Nonroad: Horsepower increases of more than 40% require specific approval by EPA prior to purchase, and the recipient may be required to pay the additional costs associated with the higher horsepower equipment.
2. Highway: The replacement vehicle must not be in a larger weight class than the existing vehicle. Exceptions may be granted for vocational purposes and require specific EPA approval prior to purchase.

The replacement vehicle, engine, or equipment must continue to perform similar function and operation as the vehicle, engine, or equipment that is being replaced. The replacement vehicle must resemble the replaced vehicle in form and function. 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. Replaced vehicles, equipment, and engines must be rendered inoperable (scrapped). Any income from the sale of the scrap metal must be reported but will not impact the amount of the grant.

Because this is a rebate program, DERA rules do not require that replacement vehicles/equipment, contractual services, and/or technologies used on the project be selected through an open and competitive process. However, all recipients must comply with state and federal contracting requirements and non-government award recipients may be required to enter into a contract with the State of Connecticut. Estimates or specification sheets will be requested to confirm costs cited in the application. Applicants should verify that there are no prohibitions or restrictions on the use of federal funds for the proposed project. This is a reimbursement program; award recipients will be required to demonstrate payment for the project before receiving awarded funds.

On-Highway Vehicles: On-highway vehicles must be Class 5 or above. Most on-highway projects are limited to vehicles with an engine model year (EMY) older than 2009. However, repower or replacement is allowed for vehicles EMY 2010 and newer (in contrast to the VW Program). The addition of emission controls (diesel oxidation catalysts (DOCs) and diesel particulate filters (DPFs)) cannot be funded on EMY 2007 and newer trucks/buses; selective catalytic reduction system (SCR) installation cannot be funded for EMY 2010 and newer trucks/buses. Auxiliary power units and generators are only eligible on trucks/buses with EMY 2006 or older.

Drayage truck replacement proposals must establish 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; its replacement, purchased with grant funds, must operate in a manner consistent with the definition of a drayage truck, as defined above. Sample drayage truck guidelines can be found on the [EPA State DERA website](#).

Battery Electric Powered Replacement Projects: Eligible costs 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. **Ineligible costs** include “make ready or “behind the meter” costs, such as 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, as well as 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. 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, recipients and their partners may add these components at their own expense outside the scope of the grant.

Grid Electric Powered Replacement Projects:

Eligible costs 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.

Funding under this program cannot be used for 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. Please note that 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. However, recipients and their partners may add these components at their own expense outside the scope of the grant.

Engine Replacement Projects: Eligible costs 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 such as 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. Funding under this program cannot be used to replace cabs, axles, paint, brakes, or mufflers.

To be eligible for funding, the replacement engine must be of similar horsepower as the engine being replaced.

1. Nonroad: Horsepower increases of more than 40% require specific approval by EPA prior to purchase, and the recipient may be required to pay the additional costs associated with the higher horsepower equipment.
2. Highway: The replacement vehicle must not be in a larger weight class than the existing vehicle. Exceptions may be granted for vocational purposes and require specific EPA approval prior to purchase.

Engine Remanufacture System Projects: Eligible costs include the associated labor costs for installation of the system. Funding under this program cannot be used for the entire cost of an engine rebuild if a certified remanufacture system is applied at the time of rebuild; the funds may only be used 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. The list of certified remanufacture systems are available at [Annual Certification Data for Vehicles, Engines, and Equipment](#) and additional information on remanufacture systems is available at [EPA's Marine Remanufacturing Program: Maintaining Compliance when Rebuilding Category 1 and 2 Marine Diesel Engines](#).

Idle Reduction Projects: Eligible costs for idle reduction technologies that are installed on the vehicle can include the associated labor costs for installation of the system.

Electrified Parking Space Projects: Eligible costs include the purchase and installation of certain equipment required for power delivery directly related to the new equipment such as electrical panels, upgrades to existing electrical panels or electrical service, transformers, wiring/conduit, and installation.

Funding under this program cannot be used for 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.

Locomotive Shore Power Connection Projects: Eligible costs include the purchase and installation of certain equipment required for power delivery directly related to the new equipment, such as: design and engineering, electrical panels, upgrades to existing electrical panels or electrical service, transformers, wiring/conduit, and installation.

Funding under this program cannot be used for 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.

Marine Shore Power Connection Projects: Funding may support new installations, or expansions of existing shore power systems. To be eligible for funding, marine shore power projects must meet the following criteria:

- Recipients must attest to compliance with international shore power design standards (IEC/ISO/IEEE 80005-1:2019/ AMD 1:2022 High Voltage Shore Connection Systems or the IEC/ISO/IEEE 80005-1:2019/AMD 1:2022 Low Voltage Shore Connection Systems).
- Shore power connection systems must be supplied with electricity from the local utility grid.
- 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 recipient can demonstrate cost effectiveness.
- Due to the unique nature and custom design of marine shore power connection systems, EPA must 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 requires specific EPA approval prior to purchase and installation.
- Recipients must commit to reporting usage information to EPA for five years after the system is operational.
- Shore power capable vessels docked at 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.
- Eligible costs include the purchase and installation of the shore side equipment and certain equipment required for power delivery directly related to the new equipment, such as: 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.

- Funding under this program cannot be used for 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.

Retrofit Projects: Eligible costs include the associated labor costs for installation of the system, design and engineering, DPF cleaning machines, extra DPFs for maintenance rotation, replacement CCV filters, and filter cleaning contracts during grant open period.

DERA grants 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 program.

Alternative Fuel Vehicle Conversion Projects: Eligible costs include the associated labor costs for installation of the system. To be eligible for funding, conversion systems for engine model years 2006 and earlier must achieve at least a 30% NOx 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% NOx 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.

Aerodynamics and Low Rolling Resistance Tire Projects: Eligible costs 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.

Funding under this program cannot be used to replace steel wheels with aluminum wheels of the same configuration (singles or duals). DERA grants 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 program.

Replacement Technologies: Funding under this program cannot 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.

Scrapage: The vehicle, equipment, and/or engine being replaced must be scrapped or rendered permanently disabled within 90 days of being replaced.

- a) 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 require prior EPA approval.

- b) 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 require prior written approval from DEEP and/or EPA.
- c) 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.
- d) Alternative Scrappage Options:
 - a. If a 2010 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. EPA prefers 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 the [2023-2024 DERA State Grants Program Guide](#). The term “project location” as used in this program 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. 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 the [2023-2024 DERA State Grants Program Guide](#). The term “project location” as used in this program guide 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. Under this scenario, a detailed scrappage plan must be submitted and will require prior EPA approval.
- e) For tire replacement projects, the original tires must be scrapped according to local or state requirements.
- f) Participating fleet owners must attest to appropriate disposal in a signed scrappage statement.

Mechanic and Driver Training: Eligible project costs can include mechanic/driver training related to the maintenance and operation of new technologies.

Federal Matching Funds: Funding under this program cannot be included as a cost or used to meet cost sharing or matching requirements of any other federally financed grant, as required under 2 CFR 200.306(b)(5) and 2 CFR 200.403(f). This includes funds received under EPA’s DERA State Grants Program and federal Supplemental Environmental Project funds. Federal environmental mitigation funds may not be used to meet non-federal mandatory cost share requirements of any DERA grant. 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 or cooperative agreement.

Mandated Measures: Funding under this program cannot be used to fund the costs of emissions reductions that are mandated under federal law pursuant to 42 U.S.C. 16132(d)(2). The restriction applies

when the mandate takes effect (the effective date) for any affected vehicles, engines, or equipment. DEEP may request additional information from applicants to determine whether this restriction is applicable.

Proposal Submission

Proposal forms are available on DEEP’s Diesel Emissions Reduction Act Grants web page at <https://portal.ct.gov/DEEP/Air/Mobile-Sources/DERA-Grants>. Questions should be directed to DEEP.MobileSources@ct.gov. Proposals should be submitted to the Connecticut Department of Energy and Environmental Protection (DEEP) **via e-mail** at DEEP.MobileSources@ct.gov with the subject “2023 DERA Grant Application.” To be considered by DEEP, all proposals must be received by the **revised** deadline of **Wednesday, January 24, 2024, at 4:00 p.m. Eastern Time (ET)**.

Appendix A

VW Eligibility Comparison with DERA Funding Levels

Additional funding level information is provided below to highlight eligibility differences between the DERA and VW Programs. This can help applicants decide which grant program is more beneficial for a particular project. *The italicized text below identifies specific differences between the two programs.* The funding limits (percentages) shown below represent the maximum portion of the equipment costs (parts and labor including sales tax) that can be covered.

Eligible Projects:

Project Type	DERA Eligibility	VW Eligibility
On-road Medium & Heavy-Duty Vehicle & Equipment Replacement	<p><i>-No minimum EMY</i></p> <p><i>-Class 5-8</i></p> <p><i>-Truck replacement grants are allowed to cover required/scheduled maintenance, as specified in the owner's manual, which is necessary to meet the warranty requirements for diesel particulate filters installed on the trucks.</i></p>	<p><i>-EMY 1992–2009</i></p> <p><i>-Class 4-8</i></p>
Nonroad Vehicle & Equipment Replacement	Yes	<p><i>-Limited to replacing large forklifts, cargo-handling port equipment and airport ground support equipment with electric equivalents.</i></p> <p><i>-Locomotive replacement limited to freight switchers.</i></p>
Repower/Engine Replacement	Yes	<p><i>Limited to repowering the previously mentioned port and airport equipment, as well as tugboats, ferries and freight switchers.</i></p>
Marine Shore Power: providing power to vessels in port without diesel engines	Yes	Yes
Engine Remanufacture/Rebuilds	Yes	No
Clean Alternative Fuel Conversions	Yes	No
EPA or CARB-Verified Retrofit Technologies	Yes	No
EPA SmartWay-Verified Idle Reduction Technologies	Yes	No
EPA-Verified Aerodynamic Technologies and Low Rolling Resistance Tires	Yes	No

Reimbursement Amounts:

Note: Under the VW Program, all eligible municipal and state projects can receive grants of up to 65% of the total cost.

Project Type	DERA Reimbursement	VW Reimbursement (<i>Private Grants</i>)
On-road Medium & Heavy-Duty Vehicle & Equipment Replacement		
Diesel or Alternative Fuel Replacement	<ul style="list-style-type: none"> -Up to 25% cost of new diesel or alt-fuel vehicle -Up to 50% cost of new diesel or alt-fueled drayage truck -Up to 35% cost of new vehicle with CARB-certified low NOx engine 	<ul style="list-style-type: none"> -Up to 25% cost of new diesel or alt-fuel vehicle -Up to 50% cost of new diesel or alt-fueled drayage truck
EV Replacement	<ul style="list-style-type: none"> -Up to 45% cost of new vehicle replacement with zero tailpipe emissions (Includes EVSE) 	<ul style="list-style-type: none"> -Up to 60% cost of new EV replacement (Includes EVSE)
Nonroad Vehicle & Equipment Replacement		
Diesel or Alternative Fuel Replacement	<ul style="list-style-type: none"> -Up to 25% cost of new diesel or alt-fuel vehicle -Up to 50% cost of new diesel or alt-fueled drayage truck -Up to 35% cost of new vehicle with CARB-certified low NOx engine 	<ul style="list-style-type: none"> -Up to 25% of the cost of new diesel or alt-fuel freight switcher (<i>locomotives only</i>)
EV Replacement	<ul style="list-style-type: none"> -Up to 45% cost of new vehicle replacement with zero tailpipe emissions (Includes EVSE) 	<ul style="list-style-type: none"> -Up to 60% cost of new EV replacement (Includes EVSE) (<i>See limitations above</i>)
Repower/Engine Replacement		
Diesel or Alternative Fuel Repower	<ul style="list-style-type: none"> -Up to 40% cost of repower with EPA Certified Engine -Up to 50% cost of repower with CARB Certified Low NOx engine 	<ul style="list-style-type: none"> -Up to 40% cost of diesel or alt-fuel repower (<i>Nonroad: freight switchers only</i>)
EV Repower	<ul style="list-style-type: none"> -Up to 60% cost of vehicle repower with zero tailpipe emissions engine (Includes EVSE) 	<ul style="list-style-type: none"> -Up to 60% cost of EV repower (Includes EVSE)
Marine Repower	<ul style="list-style-type: none"> -Up to 40% cost of repower with EPA Certified Engine -Up to 50% cost of repower with CARB Certified Low NOx engine -Up to 60% cost of repower with zero tailpipe emissions engine (Includes EVSE) 	<ul style="list-style-type: none"> -Up to 40% cost of diesel or alt-fuel repower -Up to 60% cost of EV repower (Includes EVSE)
Marine Shore Power	<ul style="list-style-type: none"> -Up to 25% cost of purchase and installation of marine shore power system 	<ul style="list-style-type: none"> -Up to 25% cost of purchase and installation of marine shore power system