



Connecticut Department of
Energy & Environmental Protection

Proposal for Use of 2020 State DERA Funds for Diesel Emissions Reduction Projects

INSTRUCTIONS:

Complete all sections of this form. Refer to the 2020 Guidance for State DERA Proposals for additional information. Provide a separate form for each project proposed. All proposals must be received by the **deadline of Wednesday, November 18, 2020, at 5:00 p.m.**, to be considered. 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 "2020 DERA Grant Application." For questions, contact Patrice Kelly at Patrice.Kelly@ct.gov.

Part I: Applicant Information

Applicant/Organization Name:					
Address:					
City:		State:		Zip Code:	
Authorized Representative Name:¹					
Authorized Representative Title:					
E-Mail:		Telephone:			
Additional Contact Name:(Optional)²					
E-Mail:		Telephone:			
Additional Contact Name:(Optional)					
E-Mail:		Telephone:			
Have you previously submitted a proposal to DEEP for clean diesel or EV charger funding?					<input type="checkbox"/> Yes <input type="checkbox"/> No
Are you submitting additional proposals for this incentive program? If so, how many?					<input type="checkbox"/> Yes: _____ <input type="checkbox"/> No

¹ Provide the name, title and contact information of the authorized representative who will have signatory authority for the proposed project. By providing an e-mail address, an applicant is agreeing to electronically receive official correspondence from the department concerning the subject application. Please set your security settings to ensure delivery of e-mails from "ct.gov" addresses. Also, please notify the department if your e-mail address changes. Applicants must promptly notify the department of any change to submitted contact information (e.g., contact person, physical address, phone number or e-mail address).

² Provide contact information for any additional person or persons with whom DEEP will have routine contact regarding the status of the project, if different from the authorized representative.

Part II: Project Description:

Use a separate proposal form for each project. **Projects initiated prior to filing an application for the program are not eligible for funding** and submittal of an application is not a guarantee that a proposed project will be funded. Project initiation activities that can disqualify an application include, initiating an RFP, selecting a Vendor, ordering vehicles, equipment, and engine or hiring a contractor.

A. Project Summary:

Proposed Project Title:					
Project Summary: Please describe briefly the proposed project. Provide information on the vehicle/engine to be replaced/upgraded in this proposed project, how they are used and where they operate. You may add more lines if necessary.					
Duration of Project Requested:	Months	Project Start Date:		Project End Date: <i>(no later than 8/31/21)</i>	

B. Project Category:

Please identify the category for which your project would qualify; check only one. With the exception of Aerodynamic Technologies, which can only be funded in conjunction with Emissions Control Technologies (retrofits), and Highway Idle Reduction technologies, which have higher reimbursement in combination with retrofits, only one

category should be selected per proposal. If applying for more than one project category below, use a separate proposal form for each.

Project Categories Potentially Available for Funding

Replacement: Reimbursement for replacement with diesel vehicles or nonroad equipment can be made up to

- 25% of the cost for replacement of Class 5-8 highway diesel trucks and buses with 2016 engine model year (EMY) or newer equivalents,
- 50% of the cost for replacement of drayage trucks with 2013 EMY or newer trucks,
- 25% of the cost for replacement of locomotives, marine vessels, and non-road vehicles and equipment with 2019 EMY or newer equivalents,
- 35% of the cost for replacement with 2016 EMY or newer on-highway vehicles powered by engines certified to meet CARB's Optional Low-NO_x Standards of 0.1 g/bhp-hr, 0.05 g/bhp-hr, or 0.02 g/bhp-hr NO_x, and
- 45% of the cost for replacement with electric vehicles or equipment.

Repower: Reimbursement for replacement of diesel engines can be made up to

- 40% of the cost for replacement diesel engines in a highway vehicles with 2016 EMY or newer engines certified to EPA emission standards,
- 40% of the cost for replacement of diesel engines on locomotives, marine vessels, and non-road vehicles and equipment with 2019 EMY or newer equivalents,
- 50% of the cost for replacement with 2016 EMY or newer engines certified to meet CARB's Optional Low-NO_x Standards of 0.1 g/bhp-hr, 0.05 g/bhp-hr, or 0.02 g/bhp-hr NO_x, and
- 60% of the cost for replacement with electric engines.

Engine Upgrades: 40% of the cost for engine upgrades using kits that are verified or certified by EPA or the California Air Resources Board (CARB).

Clean Alternative Fuel Conversions: 40% of the cost for aftermarket alternative fuel conversion systems. These must be certified by either CARB or EPA for the specific vehicle or engine family that is being converted; the vehicle being converted must be CARB or 50-state certified and is otherwise eligible for sale in Connecticut.

Emission Control Technologies: 100% of the cost for retrofit technologies for emission control that are certified or verified by EPA or the CARB. Eligible retrofit costs include, but are not limited to DPF cleaning machines, spare DPFs for maintenance rotation, replacement CCV filters, mechanic training, and filter cleaning contracts.

Idle reduction technologies that are verified by the U.S. Environmental Protection Agency (EPA):

- Stationary Technologies:
 - 30% of the cost for shore connections for electrified parking spaces, hybrid electric transport refrigeration units or electrified truck stops; and
 - 25% of the cost (labor and equipment) for eligible marine shorepower systems to allow maritime vessels to “plug into” an electrical power source instead of using diesel main or auxiliary engines while at port, including the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment functional.
- 40% of the cost for locomotive idle reduction, stationary and on-board.

<ul style="list-style-type: none"> 25% of the cost for highway idle reduction technologies for long-haul trucks and school buses (includes Auxiliary Power Units (APUs)); up to 100% if combined with retrofit technologies. 	<input type="checkbox"/>
EPA-Certified Aerodynamic Technologies and Low Rolling Resistance Tires: 100% of the cost for aerodynamic technologies and low rolling resistance tires on long-haul, Class 8 trucks but only if combined with verified exhaust emission controls.	<input type="checkbox"/>

Part III: Project Documentation:

Check the box associated with the project category selected above, and provide the documentation required.

Replacement, Repower, Engine Upgrade, Clean Alternative Fuel Conversions:	<input type="checkbox"/>	Complete Section A (and Section E if applicable)
Emission Control Technologies:	<input type="checkbox"/>	Complete Section B
Idle Reduction Technologies:	<input type="checkbox"/>	Complete Section C (and Section B if applicable)
EPA-Certified Aerodynamic Technologies and Low Rolling Resistance Tires:	<input type="checkbox"/>	Complete Section B and Section D

A. Replacement, Repower, Engine Upgrade and Clean Alternative Fuel Conversions:

Replacement/repower may be with new diesel or alternate fueled engine (e.g., compressed natural gas (CNG), propane, and hybrid); costs of installation of the engine may be included.

No funds awarded under this program shall be used to fund the costs of emissions reductions that are mandated under federal law. The restriction applies when the mandate takes effect (the effective date) for any affected vehicles, engines or equipment.

Select all applicable vehicle categories below and enter quantity of vehicles being replaced/repowered.

Vehicle Category	Applicable	QTY
On-Road Vehicles	<input type="checkbox"/>	
Drayage Trucks	<input type="checkbox"/>	

- EPA or CARB Certified: Applicants must provide evidence that the chosen technology is EPA or CARB certified. ☐
- Eligible for Sale in Connecticut: Applicants must provide evidence that the converted vehicle would be eligible for sale in Connecticut. ☐

A.1. Replacement, Repower or Engine Upgrade for Marine Vessels:

Indicate the quantity of marine vessels or engines being replaced, repowered or upgraded.⁶

Vehicle Category	Number of Vessels	Number of Propulsion Engines	Number of Auxiliary Engines
Marine Replacements			
Marine Repowers			
Engine Upgrades			

Submit the following supporting documentation for the Marine Replacement/Repower Project:

Applicant must provide evidence that engines have operated at least 1,000 hours in the year preceding this application. <i>(Engine hours may be combined to reach the 1000-hour threshold where two engines will be scrapped and replaced with a single engine.)</i>	<input type="checkbox"/>
Completed Part VII: Fleet Information	<input type="checkbox"/>
EPA Verified Engine Upgrades: Upgrade technologies for any eligible engines must be on one of EPA's list of eligible technologies. ⁷ Applicants must provide evidence that the chosen technology is EPA Verified.	<input type="checkbox"/>

A.2. Replacement or Repower of Locomotives:

Indicate the quantity of locomotives and engines being replaced/repowered or upgraded.

[conversion-systems](http://www.arb.ca.gov/msprog/aftermkt/altfuel/altfuel.htm); CARB's list of "Approved Alternate Fuel Retrofit Systems" is available at: www.arb.ca.gov/msprog/aftermkt/altfuel/altfuel.htm.

⁶ Lists of certified remanufacture systems for locomotives and marine engines are available at: www.epa.gov/compliance-and-fuel-economy-data/engine-certification-data, and additional information on remanufacture systems is available at: www.epa.gov/vehicle-and-engine-certification/remanufacture-systems-category-1-and-2-marine-diesel-engines.

⁷ A list of eligible, EPA verified engine upgrade technologies is available at: www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel. Lists of certified remanufacture systems for locomotives and marine engines are available at: www.epa.gov/compliance-and-fuel-economy-data/engine-certification-data, and additional information on remanufacture systems is available at: www.epa.gov/vehicle-and-engine-certification/remanufacture-systems-category-1-and-2-marine-diesel-engines. Engine upgrades proposed for funding under this category must exist on one of these lists for the specific vehicle/engine application specified in the application at the time of application submission to EPA.

Vehicle Category	Number of Locomotives	Number of Propulsion Engines	Number of Generator Sets
Locomotive Replacements			
Locomotive Repowers			
Engine upgrades			

Type of Replacement/Repower:

Locomotive is being <u>repowered</u> with a new diesel or alternate fueled or all-electric engines (including generator sets)	<input type="checkbox"/>
Locomotive is being <u>replaced</u> with a new diesel or alternate fueled or all-electric (including generator sets) locomotive that is certified to meet the applicable EPA emissions standards.	<input type="checkbox"/>

Submit the following supporting documentation for the Locomotives Category:

Provide documentation that the locomotive has been operating 1,000 or more hours in the twelve months preceding this application.	<input type="checkbox"/>
Completed Part VII: Fleet Information	<input type="checkbox"/>
Upgrade technologies for any eligible engines must be on one of EPA's list of eligible technologies. Applicants must provide evidence that the chosen technology is EPA Verified.	<input type="checkbox"/>

B. Emission Control Technologies:

Diesel engine retrofits are one of the most cost-effective solutions for reducing diesel engine emissions. Retrofits include pollution control devices installed in the exhaust system, such as diesel oxidation catalysts (DOCs) and diesel particulate filters (DPFs), or systems that include closed crankcase ventilation (CCV) filtration systems.

For All Diesel Emission Control Technologies: Applicants must provide evidence that the chosen technology is EPA or CARB certified.	<input type="checkbox"/>
Completed Part VII: Fleet Information	<input type="checkbox"/>

C. Idle Reduction Technologies

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

The technology categories include: auxiliary power units (APUs) and generator sets, battery air conditioning systems, thermal storage systems, electrified parking spaces (truck stop electrification), fuel-operated heaters, shore connection systems for locomotives, and automatic shutdown/start-up systems for locomotives.⁸

C.1. Stationary Idle Reduction Technologies

C.1.a. Marine Shorepower Systems:

May include cables, cable management systems, shore power coupler systems, distribution control systems, and power distribution.

Address of Proposed Installation: <i>Provide name of facility, street address, street intersection and/or latitude/longitude and city</i>	
Marine shore power system will comply 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) and will be supplied with power sourced from the local utility grid.	<input type="checkbox"/>

Submit the following supporting documentation for the Marine Shorepower Proposal:

Provide documentation demonstrating that applicant has site control ⁹ over the proposed infrastructure site.	<input type="checkbox"/>
Demonstrate that the proposed system has the capacity, demand, and commitment to be utilized for more than 1,000 MW-hours per year.	<input type="checkbox"/>
If the project application is selected for funding, submit the final design of the marine shore power connection system for EPA approval prior to purchase and installation. (<i>Requirements for the final design will be provided.</i>)	<input type="checkbox"/>

C.1.b. Electrified Parking Spaces (EPS):

Electrified Parking Spaces (EPS), also known as Truck Stop Electrification (TSE), operates independent of the truck's engine and allows the truck engine to be turned off as the EPS system supplies heating, cooling, and/or electrical power.

Examples of eligible EPS costs include, but are not limited to, the purchase and installation of electrical infrastructure or equipment to enable heating, cooling, and the

⁸ Lists of eligible, EPA verified idle reduction technologies are available at: www.epa.gov/verified-diesel-tech/smartway-technology.

⁹ Site Control means (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the EV Charging Station; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between the Applicant and the entity having the right to sell, lease or grant the Applicant the right to possess or occupy a site for such purpose. Documentation of ownership may be requested for verification.

use of cab power for parked trucks, or to enable the use of power for transport refrigeration units (TRUs) and auxiliary power systems at distribution centers, intermodal facilities, and other places where trucks congregate.

Address of Proposed Installation: <i>Provide name of facility, street address, street intersection and/or latitude/longitude and city</i>	
Number of shorepower units to be installed	

Submit the following supporting documentation for the Electrified Parking Spaces Category:

Provide documentation demonstrating that applicant has site control over the proposed infrastructure site.	<input type="checkbox"/>
--	--------------------------

C.2. Highway Idle Reduction Technologies on Class 8 Long-Haul Trucks and School Buses

To be eligible for 100% funding, highway idle reduction technologies must be combined on the same vehicle with either the new installation of one or more of the Verified Engine Retrofit Technologies funded under this Program, or on a 2006 EMY or older vehicle that has been previously retrofitted.

For All Idle Reduction Technology Projects: Applicants must provide evidence that the chosen technology is EPA or CARB certified.	<input type="checkbox"/>
Completed Part VII: Fleet Information	<input type="checkbox"/>
For 100% Funding of Idle Reduction Technology Projects:	
<ul style="list-style-type: none"> Applicants must include the installation of certified emissions control technology in the proposed project or Applicants must provide evidence that a 2006 EMY or older has been previously retrofitted. 	<input type="checkbox"/> <input type="checkbox"/>

C.3. Idle Reduction Systems for Locomotives

C.3.a. Locomotive Shorepower Systems

Address of Proposed Installation: <i>Provide name of facility, street address, street intersection and/or latitude/longitude and city</i>	
--	--

Submit the following supporting documentation for the Locomotive Shorepower Proposal:

Provide documentation demonstrating that applicant has site control over the proposed infrastructure site.	<input type="checkbox"/>
Demonstrate that the proposed system has the capacity, demand, and commitment to be utilized for more than 1,000 MW-hours per year.	<input type="checkbox"/>

C.3.b Automatic Shutdown/Start-up Systems for Locomotives.

Submit the following supporting documentation for each locomotive:

Provide documentation that the locomotive has been operating 1,000 or more hours in the twelve months preceding this application.	<input type="checkbox"/>
Upgrade technologies for any eligible engines must be on one of EPA's list of eligible technologies. Applicants must provide evidence that the chosen technology is EPA Verified.	<input type="checkbox"/>
Completed Part VII: Fleet Information	<input type="checkbox"/>

D. EPA-Certified Aerodynamic Technologies and Low Rolling Resistance Tires:

To improve fuel efficiency, long haul Class 8 trucks can be retrofitted with aerodynamic trailer fairings or the fairings can be provided as new equipment options. Certain tire models can provide a reduction in NOx emissions and fuel savings, relative to the "standard" new tires for long haul Class 8 trucks, when used on all axles.

EPA will not fund stand-alone aerodynamic technologies or low rolling resistance tires. However, funding can cover up to 100% of the cost (labor and equipment) for verified aerodynamic technologies or verified low rolling resistance tires installed on long haul Class 8 trucks, if combined on the same vehicle with the new installation of one or more of the Verified Engine Retrofit Technologies.

For All Aerodynamic Technology Projects: <ul style="list-style-type: none"> Applicants must provide evidence that the chosen technology is EPA or CARB certified. 	<input type="checkbox"/>
<ul style="list-style-type: none"> Applicants must include the installation of certified emissions control technology in the proposed project. 	<input type="checkbox"/>

E. EV Charging Infrastructure:

Complete **only** if you are replacing vehicles or equipment with an electric equivalent **and** installing associated charging infrastructure.

Number of EV Charging Stations to be Installed?				
<i>Type</i>	<i>Brand</i>	<i>Model</i>	<i>Number of Chargers</i>	<i>Number of Outlets</i>
Level 1				
Level 2				
DC Fast Charger				
Address of Proposed Installation <i>Provide name of facility, street address, street intersection and/or latitude/longitude and city</i>				
Attach all specification sheets for equipment for the EV charging infrastructure.				<input type="checkbox"/>
Attach all estimates for equipment, site preparation, installation and labor for the EV charging infrastructure.				<input type="checkbox"/>

Part IV. Proposed Budget: Please provide a list of the expenses for the proposed project. You may add line items as needed. Attach additional sheets if more line items are required than the space allotted below.

A. Project Costs

New Vehicle/Equipment/Engine Description					Cost
Number of replacements vehicles/engines /equipment	Equipment Type (e.g. Frontloader refuse truck)	Make	Model	Year	
Drayage truck maintenance (labor & materials) if applicable and requested ¹⁰					
Installation Cost of Vehicle, Equipment and Engine (labor & materials)					
Total Cost of Vehicle, Equipment, Engine:					
EV Charging Infrastructure – Complete only if you are replacing with an electric Vehicle and installing associated charging infrastructure.					
Cost of Charging Station(s) listed in Part III E of this form					
Site Preparation Costs for EV Charging Station(s) (labor & materials)					
Installation Costs of EV Charging Station(s) (labor & materials)					
Other (please specify)					
Total EV Infrastructure Cost:					
Project Total Cost (Total Cost of Vehicle, Equipment, Engine + EV Infrastructure Cost)					
Anticipated Grant Award					
Grantee Cost Share					

¹⁰ For drayage trucks only, EPA will also fund the required/scheduled vehicle maintenance, as specified in the owner's manual, which is necessary to meet the warranty requirements for diesel particulate filters installed on new drayage trucks. Funding for required maintenance is available for the duration of the project period, October 1, 2020 to September 30, 2021.

B. Balance of Funds

Maximum funding is not guaranteed. Be aware that funding is not guaranteed before awards are made. Note that this is a reimbursement program; applicant is responsible for all project costs prior to reimbursement.

Applicant attests they can secure the funds for replacement of vehicles, equipment or engines and for operation and maintenance.	<input type="checkbox"/> Yes <input type="checkbox"/> No
What is the source of these funds?	
What is the timeline for securing these funds? <i>(For government projects: Budget approval process date)</i>	
How will the vehicle, equipment or engine be procured?	<input type="checkbox"/> Purchased <input type="checkbox"/> Leased for a minimum of 3 years

Part V: Evaluation Criteria

Proposed projects should reduce diesel emissions, be cost effective (including consideration of the applicant's ability to provide matching funds), and have potential for completion by August 31, 2021. Project ideas will be ranked according to the following criteria. The criteria include, but are not limited to the list below. It is important to note that the list below is of preferential funding criteria, not eligibility criteria. For any criteria referencing geography, use the geographical area in which the vehicle operates; this may be different from the business address.

Check all that apply. Any relevant information may be included below each item. (250-word limit)

Ranking Criteria: Please check those that apply	
Is your project located in or does the vehicle operate in one the following counties: Fairfield, New Haven or Middlesex?	<input type="checkbox"/> Fairfield <input type="checkbox"/> New Haven <input type="checkbox"/> Middlesex
Vehicle(s) will operate primarily in a listed environmental justice (EJ) community. ¹¹ . <i>If checked please identify the community and confirm that the project vehicles, current and replacements, will spend a significant amount of time operating in the identified area.</i>	<input type="checkbox"/>
Project is near transportation hubs or corridors. <i>If checked, please describe below.</i>	<input type="checkbox"/>
Project is 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. <i>If checked, please describe below.</i>	<input type="checkbox"/>
Applicant has, or project includes, a motor-vehicle anti-idling education and outreach program. <i>If checked, please summarize plan and submit documentation proving existence of an anti-idling program.</i>	<input type="checkbox"/>
Project is consistent with the transportation section of the 2018 Comprehensive Energy Strategy for Connecticut ¹² and the State's EV Roadmap. ¹³ <i>If checked, please identify elements of the project that are consistent with these initiatives.</i>	<input type="checkbox"/>

¹¹ Connecticut EJ communities are listed on the DEEP website at: <https://portal.ct.gov/DEEP/Environmental-Justice/Environmental-Justice-Communities> .

¹² See Connecticut's 2018 Comprehensive Energy Strategy at: <https://portal.ct.gov/-/media/DEEP/energy/CES/2018ComprehensiveEnergyStrategypdf.pdf>

¹³ 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>.

Part VI: Terms & Conditions

Applicant is aware of the reimbursement options within EPA's 2020 State DERA Program Guide ¹⁴
Non-Government Vehicle/Equipment Owners must enter into a contract with the State of Connecticut and comply with state and federal contracting requirements.
Vehicle/Equipment Owners must agree to keep the replacement, repowered or retrofitted vehicle or equipment operational in Connecticut, with emission controls in place, for a minimum of three years or to replace with equipment with equal or better emissions reductions.
If the proposal includes the replacement of a vehicle or engine, Vehicle/Equipment Owners must provide documentation that the old vehicle or engine has been rendered permanently disabled before funds are released for final payment.
If the proposal is for the replacement of a 2010 EMY with scrappage of a 1996-2000 EMY vehicle, applicant must provide a scrappage plan for EPA approval. ¹⁵
If the proposal is for a project requiring a mandatory cost share (i.e. eligible for less than 100% in grant funds), Owners must provide a statement that they can secure the balance of funds and will ensure that the balance of funds comes from a source eligible to supplement this grant.
This is a reimbursement program; award recipients will be required to demonstrate payment for the project before receiving awarded funds.
Project must be completed and paperwork submitted no later than August 31, 2021. DEEP cannot guarantee reimbursement payments for submissions after that date.

I hereby affirm, under penalty of law, that the information provided here is true and correct to the best of my knowledge. I further affirm that I have read, understand, and agree to all of the terms and conditions stated above. I understand that if it is determined that any funds were awarded to me as a result of false statements, I will be required to reimburse said funds to DEEP. I further understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute.

Signature _____

Typed Name

Date _____

¹⁴ Find the 2019-2020 State Clean Diesel Grant Program Information Guide on the EPA website at: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100ZK19.pdf>.

¹⁵ See Section G.4.a) on pages 20-21 of the 2019-2020 State Clean Diesel Gant Program Information Guide.



List all vehicles or pieces of equipment that will be replaced, repowered, retrofitted or fitted with highway idle reduction technology for this proposed project. Use additional sheets if needed.

[illegible]