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 emissions from diesel and other vehicles. This year, the U.S. Environmental Protection Agency (EPA) is allocating to Connecticut a minimum of $183,000.00, 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 double its DERA allocation if demand is sufficient. DEEP is seeking grant proposals from municipalities, organizations, and businesses for diesel reduction projects that are environmentally and economically-beneficial, can be initiated promptly, and will be completed by August 31, 2018.

Applicants should be aware that DEEP will launch Connecticut’s VW Mitigation Program (VW Program) in 2018. DEEP anticipates that over $50 million will be available for various nitrogen oxide (NOX) mitigation projects, including diesel reduction projects. While incentives under the VW Program are potentially more generous, many clean diesel projects that are eligible for the State DERA Program, are not eligible for VW funding.

Clean Diesel Projects Eligible for State DERA Funding

This year, there are a number of changes in project eligibility and in the maximum incentives available for DERA projects. Eligible projects are listed below. The italicized text below highlights State DERA-eligible projects that are either limited or not eligible under the VW Program.

- **Early Replacement**: (The eligibility of nonroad equipment replacement projects under the State DERA Program is very broad, while nonroad equipment replacements under the VW Program are limited to replacing large forklifts, cargo-handling port equipment and airport ground support equipment with electric equivalents.)
  - Reimbursement for early replacement with 2017 model year (MY) or newer diesel or clean alternative fuel vehicles and equipment can be funded up to 25%.
  - Reimbursement for early replacement of a drayage truck with 2017 MY or newer drayage truck can be funded up to 50%. In addition, for the duration of the project period (October 1, 2017 through September 30, 2018), drayage truck replacement grants are allowed to cover required/scheduled maintenance, as specified in the owner’s manual, which is

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1 Information is available on DEEP’s Volkswagen Settlement website at http://www.ct.gov/deep/cwp/view.asp?a=2684&q=587294&deepNav_GID=1619
2 Additional information regarding DERA, including definitions for key terms used, may be found at https://www.epa.gov/cleandiesel and in the FY 2017 State Clean Diesel Grant Program Information Guide, which is available at https://www.epa.gov/sites/production/files/2017-02/documents/fy17-state-program-guide-2017-02.pdf.
3 A “drayage truck” means any Class 8b in-use on-road vehicle with a gross vehicle weight rating of greater than 33,000 pounds 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.
necessary to meet the warranty requirements for diesel particulate filters installed on the
trucks.

- Reimbursement for early replacement with a vehicle powered by a 2017 MY or newer
  engine certified to meet the California Air Resources Board’s (CARB’s) Optional Low-
NOX Standards of 0.1 g/bhp-hr, 0.05 g/bhp-hr, or 0.02 g/bhp-hr NOX can be funded up to
35%.  

- Reimbursement for early replacement with new, all-electric replacement vehicles and
equipment can be funded up to 45% of the cost.

- **Repower / Engine Replacement:** (The eligibility of nonroad equipment repower projects under
the State DERA Program is very broad, while nonroad repowers under the VW Program are
limited to repowering the previously-mentioned port and airport equipment, tugboats and ferries.)

  - Reimbursement for repowering/engine replacement with diesel or clean alternative fuel
  engine configurations certified by EPA or CARB can be funded up to 40%.
  
  - Reimbursement for early replacement with a 2017 MY or newer engine certified to meet
CARB’s Optional Low-NOX Standards can be funded up to 50%.
  
  - Reimbursement for replacing a diesel engine with an electric motor or electric power source
  can be funded up to 60% of the cost (labor and equipment).

- **Engine upgrades** (a.k.a. engine rebuilds) that are verified or certified by EPA or CARB can be
funded up to 40% of the cost of the eligible upgrade.

- **Clean Alternative Fuel Conversions** are original equipment manufacturer highway diesel vehicles
and engines that are altered to operate on alternative fuels such as propane or natural gas; these can be
funded up to 40%. Aftermarket alternative fuel conversion systems must be certified for the
specific vehicle or engine family that is being converted, whether they are CARB or EPA-certified,
provided the vehicle being converted is CARB or 50-state certified and is 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 so as to
ensure public safety.

- **EPA-Verified Idle Reduction Technologies:**

  - Stationary idle reduction technologies, such as electrified parking spaces (truck stop
electrification), power sources for hybrid transport refrigeration units (TRUs), and

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4 Engines certified to CARB’s Optional Low NOx Standards may be found by searching CARB’s Executive Orders for Heavy-duty
Engines and Vehicles, found at: [www.arb.ca.gov/msprog/onroad/cert/cert.php](http://www.arb.ca.gov/msprog/onroad/cert/cert.php).

5 A list of eligible, EPA-verified engine upgrade technologies is available at: [www.epa.gov/verified-diesel-tech/verified-
technologies-list-clean-diesel](http://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](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). The actual engine upgrades or remanufacture systems used by the grant recipient must be specifically named
on EPA’s list of certified remanufacture systems or EPA or CARB’s Verified Exhaust Control Technologies lists at the time of
acquisition, and used only for the vehicle/engine applications specified on the lists, to be eligible for funding.

6 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” is available at:
[www.arb.ca.gov/msprog/aftermkrt/altfuel/altfuel.htm](http://www.arb.ca.gov/msprog/aftermkrt/altfuel/altfuel.htm).

7 Lists of eligible, EPA verified idle reduction technologies are available at: [www.epa.gov/verified-diesel-tech/smartway-
technology](http://www.epa.gov/verified-diesel-tech/smartway-technology).
auxiliary power systems at distribution centers, intermodal facilities, and other places where trucks congregate, can be funded up to 30%.

- Idle reduction technologies for locomotives can be funded up to 40%.
- Marine Shorepower: Reimbursement for eligible marine shorepower connection systems, including the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment functional can be funded up to 25% of the cost (labor and equipment).
- Funding for auxiliary power units and other idle reduction technologies for long haul trucks and school buses can be funded up to 25%.

- Exhaust emission control technologies (a.k.a. emission system retrofits) that are verified or certified by EPA or CARB can be funded up to 100%.
- **EPA-Verified Aerodynamic Technologies and Low Rolling Resistance Tires:** Funding for installation on long haul Class 8 trucks is available up to 100%, but only if combined with EPA or CARB-verified exhaust emission control technologies.

**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, 2018. 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 2013 Comprehensive Energy Strategy for Connecticut and its draft 2017 successor. 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 not be the same as the applicant’s address. These criteria include, but are not limited to:

- In an EPA-designated maintenance area for particulate matter (Fairfield or New Haven Counties);
- In an environmental justice (EJ) community;
- Near transportation hubs or corridors;
- In a U.S. Census-defined urban area;
- 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;
- Includes motor vehicle anti-idling education and outreach; and

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8 A list of eligible, EPA-verified aerodynamic technologies is available at: [www.epa.gov/verified-diesel-tech/smartway-verified-list-aerodynamic-devices](http://www.epa.gov/verified-diesel-tech/smartway-verified-list-aerodynamic-devices). It includes: a) gap fairings that reduce turbulence by decreasing the gap between the tractor and the trailer; b) trailer side skirts that minimize wind under the trailer; and c) trailer rear fairings that reduce turbulence and pressure drop at the rear of the trailer.


• Consistency with the transportation section of the Comprehensive Energy Strategy for Connecticut and the state’s Clean Fuels/Clean Vehicles initiative.\(^\text{12}\)

Program Requirements & Restrictions:

EPA guidelines restrict vehicle, engine and equipment replacement projects to those that would not have occurred through normal attrition within three years of the project start date. Any application for an early replacement project must specifically identify the vehicle(s) or equipment to be replaced and must include a copy of the vehicle or fleet owner’s budget plan, operating plan, standard procedures or retirement schedule to confirm that any vehicle, equipment or engine to be replaced is eligible for the program. Replaced vehicles, equipment and engines must be rendered inoperable (scrapped).

DERA rules require that replacement vehicles/equipment, contractual services, and/or technologies used on the project be selected through an open and competitive process that will ensure a reasonable price for the item. Non-Government award recipients must enter into a contract with the State of Connecticut, and all recipients must comply with state and federal contracting requirements. 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 must be Class 5 or above. Most on-highway projects are limited to MY 1995-2006 vehicles. However, repower or replacement with electric or clean alternative engines and vehicles is allowed for vehicles from MY 1995 up to MY 2009. 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.

EPA’s eligibility standard for replacing nonroad equipment, such as agricultural or construction equipment, is based on remaining useful life, which has been calculated and compiled in Table 1 below. In addition, no funds awarded under the State DERA program shall be used to retrofit, replace or upgrade a nonroad engine that has been operating fewer than 500 hours per year.

<table>
<thead>
<tr>
<th>Current Engine Horsepower</th>
<th>Current Engine Model Year (EMY) and Tier</th>
<th>Vehicle/Equipment Replacement: EMY 2017+</th>
<th>Verified Exhaust Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Tier 0 - 2</td>
<td>Tier 3 - 4i</td>
</tr>
<tr>
<td>0-50</td>
<td>2005 and Newer; Unregulated – Tier 2</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>51-300</td>
<td>1995 and Newer; Tier 0 – Tier 2</td>
<td>No</td>
<td>Yes*</td>
</tr>
</tbody>
</table>

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<tr>
<td></td>
<td></td>
<td>Tier 0 - 3</td>
<td>Tier 4</td>
</tr>
<tr>
<td>51-300</td>
<td>1995 and Newer; Tier 3</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>301+</td>
<td>1985 and Newer; Tier 0 – Tier 2</td>
<td>No</td>
<td>Yes*</td>
</tr>
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<td>301+</td>
<td>1985 and Newer; Tier 3</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

*Tier 3 and Tier 4 interim (4i) allowed for vehicle/equipment replacement only when Tier 4 final is not yet available from OEM for 2017 model year equipment under the Transition Program for Equipment Manufacturers (TPEM).

For marine engines, no funds awarded under the program shall be used to replace or upgrade Tier 3 or Tier 4 marine engines, or to replace any marine engine with a Tier 2 or lower marine engine. No funds awarded under the Program shall be used to replace or upgrade eligible marine engines that have been operating fewer than 1000 hours per year.

For locomotive engines, no funds awarded under the Program shall be used to replace any engine with a Tier 3 or lower engine or to replace Tier 2+ line-haul engines. Automatic Engine Start-Stop technologies can only be funded on locomotives currently certified to Tier 0 or unregulated. No funds awarded under the Program shall be used to retrofit, replace, upgrade or install idle reduction technologies on eligible locomotives that have been operating fewer than 1000 hours per year.