Minnesota Off-Road Clean Diesel Emissions Reduction Act (DERA) Grant
Request for Proposals (RFP) Federal Fiscal Year (FY) 2020

The RFP assists applicants in applying for and managing state grants. This document describes the off-road Diesel Emissions Reduction Act (DERA) Grant Program, including information on who may apply for funding, the funding priorities for the Federal FY 2020 grant round, match requirements, activities eligible for funding, and other information that will help applicants plan their project and submit a competitive application. Applications are due no later than 4:30 p.m. Central Time on September 18, 2020.

The applicant should check the MPCA Clean Diesel webpage for the most recent updates on this competitive grant, including the frequently asked questions (FAQ) sheet and addendums.

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A Sample Grant Agreement, Grant Application form, and Fleet Information Sheet can all be found at: MPCA Clean Diesel webpage.

1. Clean Diesel Program overview

The Minnesota Pollution Control Agency (MPCA) seeks diesel fleet owners from private, public, and nonprofit sectors to apply to this DERA grant opportunity to fund off-road clean diesel projects in the State of Minnesota. The DERA program reduces diesel emissions from older diesel engines to improve air quality and public health.

2. Funding

The MPCA anticipates awarding approximately $1,100,000 for these grants. The funding for these grants expires September 30, 2022, but awarded projects are encouraged to complete projects after grant agreements are executed. Grants under this RFP are funded by the U.S. Environmental Protection Agency (EPA) National Clean Diesel Campaign for clean diesel activities in the State of Minnesota and by the Volkswagen (VW) settlement. The grants are administered under Minn. Stat. § 116.03, subd.2.
Match requirements

Grantees will be required to provide a cash match. Required cash match percentages vary based on project category, and are listed in #8 “Eligible and ineligible projects”.

Eligible sources of a cash match are non-DERA, non-VW settlement or non-federal funds in the form of cash, loans, other grants or capital assets dedicated to the project.

Applicant may consider applying for a zero-interest Small Business Environmental Improvement Loan, which can count towards the applicant match.

3. Eligible and ineligible applicants

Eligible applicants

For profit, nonprofit, and public entities - including state, local, and tribal governments that own or operate diesel fleets and equipment in Minnesota are eligible applicants.

While multi-organizational collaboration is allowed, no single entity may submit individually and also be a part of multiple applications. Only one organization may apply as a contractor on behalf of collaborators.

Grant contractors are eligible under this program. Eligible contractors may request up to 10% for administrative costs above the grant amount requested per piece of equipment with a maximum of up to $10,000. This amount will be included in the total cost to determine cost effectiveness. Administrative costs will be included on a per vehicle/equipment awarded basis.

To qualify as a contractor:

- All projects must be on the same application (one application per contractor).
- Contractor must represent at least three different entities.
- Contractor is responsible for all grant contract oversight responsibilities as stated in grant agreement, federal Diesel Emissions Reduction Act documents, and Code of Federal Regulations.

Ineligible applicants

- Federal government agencies, individuals, State of Minnesota and federal government employees.
- Entities that are currently suspended or debarred by the State of Minnesota and/or the federal government are ineligible applicants.

4. Application instructions

Responses to application questions must be typed, following the format specified in the grant application form.

If an applicant requests multiple projects, all projects must be included in one application. One email containing one application per submittal will be accepted.

A complete application will consist of the following documents:

- Application Form Part 1 (must be submitted in Word format)
- Application Form Part 2 (must be submitted in Excel format)

Photo of current vehicle/equipment is optional, but encouraged.

Applicants may apply to multiple MPCA RFP’s for eligible projects. However, applicants will need to complete and submit separate applications to each RFP along with any other additional requested materials under each RFP. Funding will only be awarded under one RFP for eligible projects.
All applicants must have a Data Universal Numbering System (DUNS) number. This is a nine-digit number established and assigned by Dun and Bradstreet, Inc. (D&B) to uniquely identify business entities (it is not an Employer Identification Number or EIN). The DUNS number can be obtained by calling 866-705-5711 or on the Dun and Bradstreet website.

All applicants must also register with the System for Award Management and provide annual updates as needed. Registering allows you to do business with the federal government and ensures that federal funds are paid to organizations that have not been suspended or disbarred.

5. Application submission instructions

Applications must be received electronically by the MPCA no later than 4:30 p.m. Central Time on September 18, 2020. The email properties header will reflect the date and time submissions are received. Application submissions received after the deadline will not be considered eligible. Word and Excel spreadsheets must remain in those formats, please do not send these files as pdf documents.

Email applications and required forms to grants.pca@state.mn.us with the subject line: “FFY2020 DERA Grant Application”. The MPCA is not responsible for any errors or delays caused by technology-related issues. If applications are submitted to any other MPCA email inbox, they will not be accepted.

Applications submitted via any other method, including but not limited to fax, mail, in-person deliveries, will not be accepted.

6. Application review process

Applications received by the grant deadline will be reviewed by MPCA staff using a two-step process. Late applications will not be considered for review.

Step 1: Eligibility review

The MPCA will determine if eligibility requirements are met. Any application found to be ineligible will be eliminated from further evaluation. Minimum requirements:

- Applicant is eligible.
- Project is eligible.
- All required forms submitted by the deadline.

Step 2: Application scoring

Only applications meeting the eligibility criteria under Step 1 will be considered for scoring in Step 2. Reviewers will evaluate applications per project using the weighted criteria listed in Appendix 1.

No activity or comments from applicants regarding this RFP shall be discussed with any of the reviewers during the evaluation of the applications. However, the MPCA may request clarification of submitted information from one or more applicants. The clarifications must be made in writing. The MPCA will only accept written responses for evaluation purposes. The response to the request for clarification may be considered along with the original application for application scoring.

In addition to the ability to partially award projects, the MPCA reserves the right to refrain from awarding any grants.

At its discretion, the MPCA may perform an appropriate cost and pricing check of an application. Applicants past performance as a grantee will be considered when evaluating a grant application.

The grantee will provide a detailed cost estimate from the proposed vehicle or equipment vendor prior to the grant being fully executed.
**Financial review**
Before awarding any grant over $25,000 to any nonprofit organization, the MPCA may assess the most recent financial statement from the applicant and resolve any items of significant concern prior to making a funding decision.

**Notification**
All applicants will be notified by MPCA staff within approximately 60 days of application due date. Applicants selected for funding will be contacted concerning the next steps in the award process, including execution of the appropriate agreements and work plan submissions.

**7. Grant questions and answers**
The MPCA is obligated to be transparent in all aspects surrounding grant work. To meet this obligation, all questions must be submitted in the same manner, and answers are only provided via the MPCA Clean Diesel webpage. It is the applicant’s responsibility to check the MPCA website for the most recent updates.

Applicants who have any questions regarding this RFP must email questions to grants.pca@state.mn.us, subject line: “FFY 20 DERA Grant Question”, no later than 4:30 pm on Monday, September 14, 2020. Answers to questions will be posted frequently on the MPCA Clean Diesel webpage.

MPCA personnel are not authorized to discuss this RFP with applicants outside of the question and answer forum. Contact regarding this RFP with any MPCA personnel may result in disqualification.

**8. Eligible and ineligible projects**

**Eligible projects (only diesel engines are eligible under this RFP)**

- Vehicles/equipment being replaced or improved must be diesel.
- Projects may include, but are not limited to, diesel emission reduction solutions from the following heavy-duty diesel emission source types: marine engines, locomotives, trailer refrigeration units, terminal tractors/drayage trucks, and off-road engines, equipment or vehicles used in construction, handling of cargo (including at a port or airport), agriculture, mining, or energy production (including stationary generators and pumps).
- MPCA will seek approval from EPA to ensure eligibility before final award of projects. If EPA does not approve, project will be deemed ineligible.
- The current vehicle, engine, or equipment must be fully operational and in current, regular service.
- The proposed replacement vehicle, engine, or equipment will continue to perform the same or similar function and operation as the vehicle, engine, or equipment that is being replaced.
- The replacement vehicle, engine, or equipment will be of same or similar type and gross vehicle weight rating or horsepower as the vehicle, engine, or equipment being replaced.
  - Horsepower increases of more than 25% will require specific approval by EPA prior to grant approval, and the applicant may be required to pay the additional costs associated with the higher horsepower equipment.
- If awarded a grant, the vehicle, equipment, and/or engine being replaced must be scrapped or rendered permanently disabled within ninety (90) days of being replaced.
  - Note: grant reimbursement cannot occur until old vehicle/equipment is disabled with proper photos and forms submitted to MPCA.
- The grantee will provide a detailed cost estimate from the proposed vehicle or equipment vendor prior to the grant being fully executed in order to be eligible.
- Applicants are encouraged (not required) to send a photo of the current vehicle/equipment.
• Electric vehicle charging station: One charging station per vehicle may be included if applicant is applying for an electric engine replacement or vehicle replacement. This cost will be included in the total cost to determine cost effectiveness.

• Electric vehicle charging station must be certified by one of the following options:
  1. Underwriters Laboratories (UL), UL 2594 Standards for Electric Vehicle Supply Equipment
  2. IEC (International Electrotechnical Commission) 61851-23, IEC 62196, and IEC 61000 EMC standards. These charging stations must be certified (listed and labeled) with ETL.
  3. An equivalent Nationally Recognized Testing Laboratory certification. Supporting evidence must be provided.

• For leased vehicles/equipment, the owner must be the applicant.

• Applicant must intend to run new vehicle/equipment in Minnesota for at least five years.

• Five points will be awarded to projects that are located at (or service) goods movement facilities such as:
  • Ports and airports (e.g. places alongside navigable water with facilities for the loading and unloading of passengers and/or cargo from ships, ferries, and other vessels; places from which aircraft operate that have paved runways and terminals which include cargo, baggage and/or passenger-movement operations; places where foreign goods are inspected by customs officers and allowed to pass into and out of a country).
  • Rail yards (e.g. places at which trains originate or terminate, or at which they are distributed or combined).
  • Terminals (e.g. freight and passenger stations at the end of carrier lines, or that serve as junctions at any point with other lines, that have facilities for the handling of freight and/or passengers).
  • Distribution centers (e.g. facilities that perform consolidation, warehousing, packaging, decomposition and other functions linked with handling freight, often in proximity to major transport routes or terminals, and which generate large amounts of truck traffic).

Eligible projects – operating hours

Minimum yearly hours in order to be eligible

<table>
<thead>
<tr>
<th>Sector</th>
<th>Minimum hours/year</th>
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<tbody>
<tr>
<td>Agricultural Pumps</td>
<td>250</td>
</tr>
<tr>
<td>Off-Road Engines</td>
<td>500*</td>
</tr>
<tr>
<td>Locomotive Engines</td>
<td>1,000</td>
</tr>
<tr>
<td>Marine Engines</td>
<td>1,000</td>
</tr>
</tbody>
</table>

*To be eligible for funding, off-road engines must operate at least 500 hours during each twelve-month period for the twenty-four months prior to upgrade.

Ineligible projects

• **Agricultural pumps**: No funds awarded under this program shall be used to retrofit, replace or upgrade agricultural pumps that operate less than 250 hours per year.

• **All other off-road engines**: No funds awarded under this program shall be used to retrofit, replace, or upgrade all other off-road engines that operate less than 500 hours per year.

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

• **Marine shore connection**: No funds awarded under this program shall be used for marine shore connection system projects that are expected to be utilized less than 1,000 Megawatt (MW) per year.
• **Locomotive shore connection**: No funds awarded under this program shall be used for locomotive shore connection system projects that are expected to be utilized less than 1,000 hours/year.

• **Fueling infrastructure**: No funds awarded under the program shall be used for fueling infrastructure, such as that used for the production and/or distribution of biodiesel, compressed natural gas, liquefied natural gas, and or other fuels.

• **Fleet expansion**: Purchase of vehicles, engines or equipment to expand a fleet.

• **Emissions testing**: Emissions testing and/or air monitoring activities, or research and development.

• **Formerly verified technologies**: [https://www.epa.gov/verified-diesel-tech/list-formerly-verified-technologies-clean-diesel](https://www.epa.gov/verified-diesel-tech/list-formerly-verified-technologies-clean-diesel) (see bottom of webpage).

• **Gasoline equipment is not eligible for DERA grant funds**: Gasoline engines are not considered alternative fuel and are not eligible for grant funds as replacement engines or equipment.

• **Mandated changes**: Vehicle and equipment replacements or rebuilds that are mandated under federal law. Pursuant to 42 U.S.C. 16132(d)(2), 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. This restriction does not apply to a mandate in a State Implementation Plan approved by the Administrator under the Clean Air Act. Voluntary or elective emissions reduction measures shall not be considered “mandated,” regardless of whether the reductions are included in the State Implementation Plan. Specifically, projects involving locomotives and marine engines are not eligible for funding if the emissions reductions are required by EPA’s locomotive and marine rule, “Control of Emissions of Air Pollution from Locomotives and Marine Compression-Ignition Engines Less than 30 liters per Cylinder.” Also, projects involving stationary engines will not be considered for funding if the emissions reductions proposed for funding are required by EPA’s RICE rule, “National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63 Subpart ZZZZ).” Applications, which include locomotives and/or marine engines and/or stationary engines, must provide MPCA a clear and concise justification for why/how the proposed emissions reduction is not subject to the Restriction for Mandated Measures. The justification must clearly demonstrate that:
  - The target engines are exempt from any federal requirements; or
  - Emissions reductions funded under the Program will be implemented prior to the effective date of any applicable federal requirements; and/or
  - Emissions reductions funded under the Program will not be used to satisfy any applicable federal requirements, but instead are in excess of (above and beyond) those required by the applicable mandate.

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

**Equipment disabling**

Replaced engines/vehicles/equipment must be scrapped or rendered permanently disabled within 90 days of the replacement.

Permanently disabling the chassis and disabling or remanufacturing the engine while retaining possession of the vehicle/equipment is an acceptable scrapping method. 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. Disabling the engine may be completed by drilling a minimum 3” diameter hole in the engine block (the part of the engine containing the cylinders) and manifold. Other acceptable scrappage methods may be considered, but require prior written approval from the MPCA.

A signed certificate of destruction form along with photos of the disabled engine/vehicle/equipment must be included with your paid invoices.

Vehicle/equipment components that are not part of the engine or chassis may be salvaged from the unit being replaced (e.g. plow blades, shovels, seats, etc.). If scrapped or remanufactured engines/vehicles/equipment or
salvaged vehicle/equipment chassis or components are to be sold, grantees must provide a receipt and the income must be reported to the MPCA. This income does not affect the grant award amount.

**Eligible diesel emission reduction solutions**

Projects must include one or more of the following diesel emission reduction solutions that utilize a certified engine configuration and/or a verified technology.

1. **Diesel engine retrofit technologies:** Diesel engine retrofits are one of the most cost-effective solutions for reducing diesel engine emissions. Retrofits include pollution control devices installed in the exhaust system, such as diesel oxidation catalysts and diesel particulate filters (DPFs), or systems that include closed crankcase ventilation (CCV) filtration systems. Older, heavy-duty diesel vehicles that will not be scrapped, retried or replaced for several years are good candidates for retrofits.

   This funding can cover up to 100% of the cost (labor and equipment) for an eligible verified diesel engine retrofit technology. The eligible cost of retrofits includes the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment functional, including related labor expenses. Examples of eligible retrofit costs include, but are not limited to: DPF cleaning machines, spare DPFs for maintenance rotation, replacement CCV filters, mechanic training, and filter cleaning contracts.

   A list of eligible, EPA verified diesel engine retrofit technologies is available at: [www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel](http://www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel); a list of eligible, California Air Resources Board (CARB) verified diesel engine retrofit technologies is [submission to EPA](http://www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel). If selected for funding, the actual engine upgrades used by the grant recipient must be specifically named on EPA’s list of certified remanufacture systems or EPA or CARB’s Verified Technologies lists at the time of acquisition and used only for the vehicle/engine applications specified on the lists, to be eligible for funding.

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

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

   a) **Locomotive idle reduction technologies:** Funding can cover up to 40% of the cost (labor and equipment) of eligible verified idle reduction technologies for locomotives.

   b) **Marine shore power connection systems:** Shore power systems allow maritime vessels to “plug into” an electrical power source instead of using diesel main or auxiliary engines while at port. This funding can cover up to 25% of the cost (labor and equipment) of eligible marine shore power connection systems, including the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment functional. Examples of eligible marine shore power connection costs include but are not limited to various components such as cables, cable management systems, shore power coupler systems, distribution control systems, transformers, grounding switches, service breakers, capacitor banks, and power distribution. Funding may support new installations, or expansions of existing shore power systems. Examples of ineligible costs for marine shore power connection systems include, but are not limited to, shipside modifications to accept shore-based
electrical power, electricity costs, and operation and maintenance costs. Due to the unique nature and custom design of marine shore power connection systems, MPCA will review and approve the marine shore power connection system proposed by the applicant on a case-by-case basis.

- Marine shore power criteria: Projects are eligible for funding on the condition that the following criteria are satisfied: Applicants must attest to compliance with international shore power design standards (ISO/IEC/IEEE 80005-1:2012 High Voltage Shore Connection Systems or the IEC/PAS 80005-3:2014 Low Voltage Shore Connection Systems).
- 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 utilized for more than 1,000 MW-hours per year. Smaller projects will be considered if the applicant can demonstrate cost/benefits.
- If the project application is selected for funding, the final design of the marine shore power connection system will require specific MPCA approval prior to purchase and installation.
- Applicants must commit to reporting usage information to MPCA for five years after the system is operational.
- Shore power capable vessels docked at a berth where shore power is available must be required to turn off the vessel’s engines and utilize the shore power system, with limited exceptions for extreme circumstances.

**c) Marine shore power project description:** Applicants proposing marine shore power connection systems should provide a project description that includes, but is not limited to:

- The annual number of ship visits to berth where the shore power system is to be installed.
- Average hoteling (or idling) time per visit.
- Information about the fleet of vessels that has, or will have, the ability to use the shore-side connection system, including:
  - The estimated annual number of ship visits to the shore power enabled berth that will utilize the shore power system.
  - Estimated annual hoteling hours using shore power system.
  - Fuel type and average sulfur content of fuel used in the auxiliary engines for each vessel.
  - Auxiliary engine and boiler information for each vessel.
  - Estimated annual hoteling load requirements (mw-hours).
- Any documented commitment of visits and hours by the fleet of vessels that has, or will have, the ability to use the shore-side connection system.
- Estimated emissions reductions.

3. **Engine replacement:** Engine replacement includes, but is not limited to, diesel engine replacement with an engine certified for use with diesel or an alternative fuel (e.g., gasoline, compressed natural gas (CNG), propane), diesel engine replacement with a zero tailpipe emissions power source (grid, battery or fuel cell), and/or diesel engine replacement with an electric generator(s) (genset). Zero tailpipe emissions engine replacements do not require EPA or CARB certification.

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

a) **Locomotive, marine, and off-road diesel vehicles and equipment:**
   
i. Funding can cover up to 40% of the cost (labor and equipment) of replacing a diesel engine with a 2019 model year or newer engine certified to EPA emission standards. Previous engine model year engines may be used if the engine is certified to the same emission standards applicable to the engine in engine model year (EMY) 2019. Off-road, locomotive, and marine engine emission standards are on EPA’s website at: [www.epa.gov/emission-standards-reference-guide/epa-emission-standards-Off-road-engines-and-vehicles](http://www.epa.gov/emission-standards-reference-guide/epa-emission-standards-Off-road-engines-and-vehicles).

   ii. Funding can cover up to 60% of the cost (labor and equipment) of replacing a diesel engine with a zero tailpipe emissions power source.

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

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

a) **Locomotives, marine vessels and off-road diesel vehicles and equipment:**
   
i. Funding can cover up to 25% of the cost of a replacement locomotive, marine vessel, or off-road vehicle or piece of equipment powered by a 2019 model year or newer engine certified to EPA emission standards. Previous engine model year engines may be used if the engine is certified to the same emission standards applicable to EMY 2019 off-road, locomotive and marine engine emission standards are on EPA’s website at: [www.epa.gov/emission-standards-reference-guide/epa-emission-standards-off-road-engines-and-vehicles](http://www.epa.gov/emission-standards-reference-guide/epa-emission-standards-off-road-engines-and-vehicles).

   ii. Funding can cover up to 45% of the cost of a new, zero tailpipe emissions locomotive, marine vessel, or Off-road vehicle or piece of equipment.

b) **Drayage vehicles:** Funding can cover up to 50% of the cost of a replacement drayage truck powered by a 2013 model year or newer certified engine.

   i. **Definition of drayage truck:** A “Drayage Truck” means any Class 8 (GVWR greater than 33,000) highway vehicle operating on or transgressing through port or intermodal rail yard property for the purpose of loading, unloading or transporting cargo, such as containerized, bulk or break-bulk goods.

   ii. **Drayage operating guidelines:** If an application for the replacement of drayage trucks is selected for funding, the grant recipient will be required to establish guidelines to ensure that any existing truck replaced with grant funds has a history of operating on a frequent basis over the prior year as a drayage truck, and to ensure any new truck purchased with grant funds is operated in a manner consistent with the definition of a drayage truck, as defined above. For an example of sample guidelines, see [https://www.epa.gov/cleandiesel/clean-diesel-state-forms-and-documents](https://www.epa.gov/cleandiesel/clean-diesel-state-forms-and-documents).
Off-road model year and tier, operating hours

No funds awarded under this program shall be used to retrofit, upgrade or replace an off-road engine that is 50 HP or less and engine model year 2005 or older, or between 51-300 HP and engine model year 1995 or older, or 301 HP or greater and engine model year 1985 or older. Refer to the table below for further explanation.

1. **Equipment and vehicle replacement:** No funds awarded under this program shall be used to replace off-road vehicles and equipment with vehicles/equipment powered by unregulated, Tier 1, or Tier 2 compression ignition (CI) engines. Vehicles/equipment powered by Tier 3 and Tier 4 interim (4i) CI engines are allowed when Tier 4 final CI engines are not yet available from the original engine manufacturer (OEM) for 2019 model year vehicles/equipment under the Transition Program for Equipment Manufacturers (TPEM). No funds awarded under this program shall be used to replace off-road vehicles and equipment with vehicles/equipment powered by unregulated or Tier 1 off-road large spark-ignition (SI) engines.

2. **Engine replacement:** No funds awarded under this program shall be used to replace off-road engines with Tier 3 or lower CI engines, unless Tier 4 is demonstrated to not be available or feasible through a best achievable technology analysis as defined in the Section below. No funds awarded under this program shall be used to replace off-road engines with Tier 1 or lower SI engines.

3. **Diesel engine retrofits:** No funds awarded under this program shall be used to retrofit engine model year 2007 and newer with DOCs or DPFs, or retrofit engine model year 2010 and newer with SCR, or replace engine model year 2010 or newer with other than zero tailpipe emission or low-NOx.

4. **All other off-road engines:** No funds awarded under this program shall be used to retrofit, replace, or upgrade all other off-road engines (besides locomotive and marine) that operate less than 500 hours per year.

### Off-road engine funding restrictions

<table>
<thead>
<tr>
<th>Current engine horsepower</th>
<th>Current engine model year (EMY) and tier</th>
<th>Vehicle/equipment replacement: EMY 2019+</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Compression Ignition</td>
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<td>Tier 0-2</td>
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<td>1996 and Newer; Tier 0 – Tier 2</td>
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<td>51-300</td>
<td>1996 and Newer; Tier 3</td>
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<td>301+</td>
<td>1986 and Newer; Tier 0 – Tier 2</td>
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<tr>
<td>301+</td>
<td>1986 and Newer; Tier 3</td>
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</tbody>
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*Tier 3 and Tier 4 interim (4i) allowed for vehicle/equipment replacement only when Tier 4 final is not yet available from OEM for 2019 model year equipment under the Transition Program for Equipment Manufacturers (TPEM).

**Previous engine model year engines may be used for engine replacement if the engine is certified to the same emission standards applicable to EMY 2019.
<table>
<thead>
<tr>
<th>Current engine tier</th>
<th>Compression ignition</th>
<th>Spark ignition</th>
<th>Verified engine upgrade</th>
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<td>Tier 3-4¹</td>
<td>Tier 4</td>
</tr>
<tr>
<td>Unregulated – Tier 2</td>
<td>No</td>
<td>Yes²</td>
<td>Yes</td>
</tr>
<tr>
<td>Tier 3</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Tier 4</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

¹Tier 3 and Tier 4 interim (4i) allowed for vehicle/equipment replacement only when Tier 4 final is not yet available from OEM for 2020 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 in the Section 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.

a. **Best achievable technology**: All new off-road and locomotive engines are now manufactured to meet the EPA Tier 4 standards. All new Category 1 and 2, 804 horsepower and above marine engines are now manufactured to meet the EPA Tier 4 standards. Applicants must commit to using the best achievable technology for the project. Applicants replacing these off-road, marine, and locomotive engines are expected to use Tier 4 engines if Tier 4 engines with the appropriate physical and performance characteristics are available. If selected for funding, applicants will be required to submit a best achievable technology analysis to EPA for approval before Tier 3 or Tier 4i engines can be purchased.

1) **Application requirements**: Applicants must commit to using Tier 4 engines if Tier 4 engines with the appropriate physical and performance characteristics are available. Applicants anticipating the use of Tier 3 or Tier 4i engines should discuss their rationale for proposing Tier 3 or Tier 4i engine replacements in Section 1 of their project narrative.

2) **Best achievable technology analysis requirements**: If selected for funding, applicants will be required to submit a best achievable technology analysis to MPCA for approval before grant is finalized
   a) The analysis must be prepared by the engine manufacturer or installer.
   b) Using good engineering judgment, the engine manufacturer or installer must determine that no engine certified to Tier 4 is produced by any manufacturer with the appropriate physical or performance characteristics to repower the equipment.
   c) If the engine manufacturer or installer determines that no engine certified to Tier 4 is available with the appropriate performance characteristics, explain why certified Tier 4 engines produced by them and other manufacturers cannot be used as a replacement because they are not similar to the engine being replaced in terms of power or speed.
   d) If there are available engines with the appropriate performance characteristics but the engine manufacturer or installer determines that no engine certified to Tier 4 is available with the appropriate physical characteristics, explain why certified engines produced by them and other manufacturers cannot be used as a replacement because their weight or dimensions are substantially different than those of the engine being replaced, or because they will not fit within the equipment’s engine compartment.
   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 must identify the equipment components that are incompatible with engines certified to Tier 4 and explain how they are incompatible and why it would be unreasonable to replace them.
f) Identify the proposed Tier 3 or Tier 4i engines to be used and discuss the physical and performance characteristics of the engines that will ensure compatibility with the existing equipment. Quantify proposed emission reductions, PM cost effectiveness and NOx cost effectiveness for the proposed options.

g) DERA project eligibility or approval does not supersede any regulatory requirements for equipment owners, operators, manufactures, installers and others, including but not limited to 40 CFR § 1068.240, § 1042.615, and § 1033.601.

Marine engine tier

No funds awarded under this program shall be used to replace or upgrade Tier 3 and Tier 4 marine engines and vessels with other than zero tailpipe emission technology, or to replace marine engines with a Tier 2 or lower CI marine engine.

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

Marine engines funding restrictions

<table>
<thead>
<tr>
<th>Current engine tier</th>
<th>Vessel or engine replacement: EMY 2019+ *</th>
<th>Certified remanufacture system</th>
<th>Verified engine upgrade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Compression ignition</td>
<td>Spark ignition</td>
<td>Zero emission</td>
</tr>
<tr>
<td></td>
<td>Tier 1-2</td>
<td>Tier 3-4</td>
<td></td>
</tr>
<tr>
<td>Unregulated – Tier 2</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Tier 3 - 4</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

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

Locomotive engine tier and operating hours

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

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

<table>
<thead>
<tr>
<th>Current locomotive tier</th>
<th>Tier 0+ - 3</th>
<th>Tier 4</th>
<th>Zero emission</th>
<th>Verified retrofit</th>
<th>Idle-reduction technology</th>
<th>Certified remanufacture system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unregulated - Tier 2</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes**</td>
<td>Yes</td>
</tr>
<tr>
<td>Tier 2+ switcher</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes**</td>
<td>Yes</td>
</tr>
<tr>
<td>Tier 2+ line haul</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes**</td>
<td>Yes</td>
</tr>
<tr>
<td>Tier 3 – Tier 4</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

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

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

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

### Cost-share requirements

<table>
<thead>
<tr>
<th>DERA eligible activities</th>
<th>Grant funding limits</th>
<th>Minimum mandatory cost-share (fleet owner contribution)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhaust control retrofit</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Engine upgrade/remanufacture</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Locomotive idle reduction</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Marine shore power</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Engine replacement – diesel or alternative fuel</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Engine replacement – zero emission</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>Vehicle/equipment replacement</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Vehicle/equipment replacement – diesel or alternative fuel</td>
<td>45%</td>
<td>55%</td>
</tr>
<tr>
<td>Vehicle/equipment replacement – zero emission</td>
<td>45%</td>
<td>55%</td>
</tr>
<tr>
<td>Vehicle replacement - drayage</td>
<td>50%</td>
<td>50%</td>
</tr>
</tbody>
</table>

### Additional information

#### A) Priorities and payment schedule

**Priorities**

It is the policy of the State of Minnesota to ensure fairness, precision, equity, and consistency in competitive grant awards. This includes implementing diversity and inclusion in grant-making. The Policy on Rating Criteria for Competitive Grant Review establishes the expectation that grant programs intentionally identify how the grant serves diverse populations, especially populations experiencing inequities and/or disparities. This grant prioritizes communities with higher concentrations of low-income residents and people of color, including tribal communities.
Additional points will also be awarded to small businesses that are certified as veteran-owned, economically disadvantaged, or targeted group businesses in Minnesota based on the business’s ownership by a woman, a minority, a person with a substantial physical disability, or by its location in an economically disadvantaged area. Please reference additional information here: https://mn.gov/admin/business/vendor-info/oep/sbcp/

Payment schedule
All eligible expenses will be reimbursed after projects are complete upon receipt and approval of “paid in full” invoices and a signed certificate of destruction form along with photos of the disabled engine/vehicle/equipment for engine and/or vehicle/equipment replacements projects.

B)  Eligible and ineligible costs

Eligible costs
Eligible expenses are costs directly incurred through the purchase of eligible technologies, equipment, vehicles, installation activities, and administrative costs (grant contractors only). Only eligible costs will be reimbursed.

Ineligible costs
Ineligible costs include costs that are not directly related to the project. In addition, the following costs, even if they are directly related to the project, are ineligible.

- Administrative costs over 10% or $10,000 per piece of equipment (grant contractors only).
- Any expenses incurred before the grant agreement is fully executed including applicant’s expense for preparing the eligibility and cost applications.
- Any expenses incurred during workplan application and final workplan development.
- Costs incurred from equipment disabling.
- Bad debts, late payment fees, finance charges or contingency funds, interest, and investment management fees.
- Attorney fees.
- Engineering/consultant fees.
- Lobbying, lobbyists, and political contributions.
- Mark-up on purchases and/or subcontracts.
- Taxes, except sales tax on eligible equipment and expenses.
- Activities addressing permit fees.
- Activities addressing enforcement actions that involve a financial penalty.
- Memberships (including subscriptions and dues).
- Food.
- Alcoholic refreshments.
- Entertainment, gifts, prizes and decorations.
- Merit awards and bonuses.
- Donations and fundraising.
- Computer(s), tablets, and software, unless unique to the project and specifically approved by the MPCA as a direct expense.
- Purchase or rental of mobile communication devices such as cell phones, unless unique to the project and specifically approved by the MPCA as a direct expense.
C) **Grantee responsibilities**

Awardees will be required to be a registered vendor in SWIFT and will sign the grant agreement using DocuSign. To register, go to the Supplier Portal webpage SWIFT and click on the Vendor Registration Link.

**Grant agreement**

Each awardee must formally enter into a grant agreement. The agreement will address the conditions of the award, including implementation of the project. Once the agreement is signed, the recipient is expected to read and comply with all conditions of the agreement.

A sample State of Minnesota Grant Agreement can be found on the MPCA Clean Diesel webpage for your reference. Much of the language reflected in the agreement is required by statute.

**Reporting requirements**

Minn. Stat. § 16B.97 and Policy on Grant Monitoring require the following:

- One monitoring visit during the grant period on all state grants of $50,000 and higher.
- Annual monitoring visits during the grant period on all grants of $250,000 and higher.
- Conducting a financial reconciliation of grantee’s expenditures at least once during the grant period on grants of $50,000 and higher. For this purpose, the grantee must make expense receipts, employee timesheets, invoices, and any other supporting documents available upon request by the State.

The monitoring schedule will be determined at a later date.

The MPCA reserves the right to request performance reports from grantees at 6 and 12 months once the new engine or equipment begins operating. Information requested may include, but is not limited to, equipment performance data such as hours of use, miles driven, miles per gallon average, etc. The MPCA reserves the right to modify reporting requirements during the project.

**Public data**

Applications are private or nonpublic until opened. Once the applications are opened, the name and address of the applicant and the amount requested is public. All other data in an application is private or nonpublic data until all agreements are fully executed. After all agreements are fully executed, all remaining data in the applications is public with the exception of trade secret data as defined and classified in Minn. Stat. § 13.37. A statement by a grantee that the application is copyrighted or otherwise protected does not prevent public access to the application (Minn. Stat. § 13.599, subd. 3).

**Conflict of interest**

Minnesota state agencies must work to deliberately avoid actual, potential, and perceived conflicts of interest at the individual and organizational levels. Please refer to the State of Minnesota, Office of Grants Management for information on any potential, actual, or perceived conflicts of interest: [http://www.mn.gov/admin/images/grants_policy_08-01.pdf](http://www.mn.gov/admin/images/grants_policy_08-01.pdf).

**Grantee bidding requirements**

- The grantee must take all necessary affirmative steps to assure that targeted vendors from businesses with active certifications through these entities are used when possible:
  - State Department of Administration's Certified Targeted Group, Economically Disadvantaged and Veteran-Owned Vendor List.
  - Small Business Certification Program through Hennepin County, Ramsey County, and City of St. Paul: [Central Certification Program](http://www.certificationprogram.org).
- The grantee must maintain written standards of conduct covering conflicts of interest and governing the actions of its employees engaged in the selection, award and administration of contracts.
• The grantee must not contract with vendors who are suspended or debarred in MN: 
  http://www.mmd.admin.state.mn.us/debarredreport.asp.

Audits
Per Minn. Stat. § 16B.98, subd. 8, the grantee’s books, records, documents, and accounting procedures and practices of the grantee or other party that are relevant to the grant or transaction are subject to examination by the granting agency and either the legislative auditor or the state auditor, as appropriate. This requirement will last for a minimum of six years from the grant agreement end date, receipt, and approval of all final reports, or the required period of time to satisfy all state and program retention requirements, whichever is later.

Affirmative action and non-discrimination requirements for all grantees:

A. The grantee agrees not to discriminate against any employee or applicant for employment because of race, color, creed, religion, national origin, sex, marital status, status in regard to public assistance, membership or activity in a local commission, disability, sexual orientation, or age in regard to any position for which the employee or applicant for employment is qualified. Minn. Stat. § 363A.02. The grantee agrees to take affirmative steps to employ, advance in employment, upgrade, train, and recruit minority persons, women, and persons with disabilities.

B. The grantee must not discriminate against any employee or applicant for employment because of physical or mental disability in regard to any position for which the employee or applicant for employment is qualified. The grantee agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified disabled persons without discrimination based upon their physical or mental disability in all employment practices such as the following: employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. Minn. R. pt. 5000.3500

C. The grantee agrees to comply with the rules and relevant orders of the Minnesota Department of Human Rights issued pursuant to the Minnesota Human Rights Act.

Voter registration requirement
The grantee will comply with Minn. Stat. § 201.162 by providing voter registration services for its employees and for the public served by the grantee.
Appendix 1: Application evaluation scoresheet

A 100-point scale will be used to evaluate eligible applications and develop final recommendations.

<table>
<thead>
<tr>
<th>1. PM$_{2.5}$ reduction cost effectiveness:</th>
<th>Maximum points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Points will be calculated by dividing PM2.5 emissions reduction in Minnesota by grant project application amount. Points will be available in the following manner:</td>
<td>40</td>
</tr>
<tr>
<td>• Top 25%: 40 points</td>
<td></td>
</tr>
<tr>
<td>• Next 25%: 30 points</td>
<td></td>
</tr>
<tr>
<td>• Next 25%: 20 points</td>
<td></td>
</tr>
<tr>
<td>• Next 25%: 10 points</td>
<td></td>
</tr>
<tr>
<td>• No PM$_{2.5}$ Reduction : 0 points</td>
<td></td>
</tr>
</tbody>
</table>

| 2. Total emissions reduction based on lifetime tons reduced: | 20 |
| Points will be available in the following manner: | |
| NOx reductions | |
| • Top 25%: 5 points | |
| • Next 25%: 4 points | |
| • Next 25%: 3 points | |
| • Next 25%: 2 points | |
| • No NOx reduction: 0 points | |
| CO$_2$ reductions | |
| • Top 25%: 15 points | |
| • Next 25%: 11 points | |
| • Next 25%: 7 points | |
| • Next 25%: 3 points | |
| • No CO$_2$ reduction: 0 points | |

| 3. Operation in areas of concern for environmental justice: | 20 |
| Points will be assigned based on the primary (weighted at 75%) and secondary (weighted at 25%) ZIP codes of equipment operation. | |

| 4. Operation in areas of higher vulnerability to negative health outcomes related to air pollution: | 5 |
| Points will be assigned based on the primary (weighted at 75%) and secondary (weighted at 25%) ZIP codes and counties of equipment operation. | |

| 5. Operation in areas of higher pollution: | 5 |
| Points will be assigned based on the primary (weighted at 75%) and secondary (weighted at 25%) ZIP codes and counties of equipment operation. | |

| 6. Goods Movement Facilities (see page five of this RFP for more information) | 5 |

| 7. Organization type: | 5 |
| Small businesses that are certified as veteran-owned, economically disadvantaged, or targeted group businesses in Minnesota based on the business's ownership by a woman, a minority, a person with a substantial physical disability, or by its location in an economically disadvantaged area will be awarded an additional 5 points. Please reference additional information here: [https://mn.gov/admin/business/vendor-info/oep/sbcp/](https://mn.gov/admin/business/vendor-info/oep/sbcp/) | |

| Total | 100 |