



**MISSOURI DEPARTMENT OF NATURAL RESOURCES**  
**Air Pollution Control Program**  
**Volkswagen Trust Diesel Emission Reduction Act Program Requirements**

**I. Program Requirements**

This document sets forth the requirements pertinent to the Diesel Emission Reduction Act (DERA) grant State Clean Diesel FY2021 program (Program) and the Volkswagen (VW) Trust Awards (Award) made by the Missouri Department of Natural Resources (Department), Air Pollution Control Program (APCP). The Award is inclusive of both DERA funding and VW Trust funds.

By submitting a complete application for an Award, the applicant agrees to comply with these Program Requirements in addition to any other governmental, regulatory, or statutory provision that may be applicable, including those requirements found in the Environmental Protection Agency's (EPA) [2019-2020 Diesel Emissions Reduction Act \(DERA\) State Grants Program Guide](#) when applicable.

**A. Use and Award of VW Trust Monies and DERA Grant Funds**

1. Eligibility Requirements – All Awards shall be used for one or more of the following eligible diesel emission reduction solutions:
  - a. Diesel Engine Retrofit Technologies
  - b. Engine Upgrades and Remanufacture Systems
  - c. Cleaner Fuels and Additives
  - d. Idle reduction Technologies
  - e. Aerodynamic Technologies and Verified Low Rolling Resistance Tires
  - f. Engine Replacement
  - g. Vehicle and Equipment Replacements
  - h. Clean Alternative Fuel Conversions

Eligible Diesel Vehicles, Engines, and Equipment – Projects may include, but are not limited to, diesel emission reduction solutions from the following heavy-duty diesel emission source types:

- Buses<sup>1, 2</sup>;
- Medium-duty or heavy-duty trucks<sup>3</sup>;
- Marine Engines;
- Locomotives; and
- Nonroad engines, equipment or vehicles used in:
  - Construction;
  - Handling of cargo (including at a port or airport);

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<sup>1</sup> For the purposes of the Program, buses include school buses of Type A, B, C and D. To be eligible as a school bus, a vehicle must meet the definition of a school bus as defined by the National Highway Transportation Safety Administration. This definition includes, but is not limited to: 1) A bus that is used for purposes that include carrying students to and from school or related events on a regular basis; 2) Be identified with the words "School Bus"; and 3) Be painted National School Bus Glossy Yellow.

<sup>2</sup> For the purposes of the Program, buses include medium and heavy-duty transit buses (see footnote 3, below).

<sup>3</sup> For the purposes of the Program, medium heavy-duty and heavy heavy-duty highway vehicles are defined as Class 5 through Class 8: Class 5 (16,001-19,500 lbs GVWR); Class 6 (19,501-26,000 lbs GVWR); Class 7 (26,001-33,000 lbs GVWR); Class 8a (33,001-60,000 lbs GVWR); Class 8b (60,001 lbs GVWR and over).

- Agriculture;
- Mining; or
- Energy production (including stationary generators and pumps).

To be eligible for replacement, the vehicle, engine, or equipment must be operational and in current, regular service upon the start date of the project period. For the purposes of Awards under this Program the project period begins October 1, 2020. The replacement vehicle, engine, or equipment will continue to perform similar function and operation as the vehicle, engine, or equipment that is being replaced. The replacement vehicle, engine, or equipment will be of similar type and gross vehicle weight rating (GVWR) or horsepower (HP) as the vehicle, engine, or equipment being replaced. Nonroad equipment horsepower increases of more than 25 percent will require specific approval by the Department prior to purchase, and the applicant may be required to pay the additional costs associated with the higher horsepower equipment. The replacement of a highway vehicle must not be in a larger weight class than the existing vehicle (Class 5, 6, 7, or 8). Exceptions may be granted for vocational purposes and will require specific Department approval prior to purchase.

- a. **Diesel Engine Retrofit Technologies:** Eligible diesel vehicles, engines, and equipment may be retrofitted with 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.

This funding can cover 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. The actual engine retrofit technologies used must be specifically named on EPA or California Air Resources Board's (CARB) Verified Technologies lists at the time of acquisition and used only for the vehicle/engine applications specified on the list.

See subsection I.B., Restrictions on the Use of Awards, for additional information on eligibility.

- b. **Engine Upgrades and Remanufacture Systems:** An eligible upgrade involves the removal of parts on an engine during a rebuild and replacement with parts that cause the engine to represent an engine configuration that is cleaner than the original one. The upgrade must be either a verified retrofit as described in subparagraph I.A.1.a., or a certified remanufacture system that will result in a significant emissions benefit by rebuilding the engine to a cleaner engine configuration. Nonroad and marine engines may be upgraded with an EPA or CARB verified diesel engine retrofit package of components demonstrated to achieve specific levels of emissions reductions. Eligible locomotive and marine engines may be upgraded through the application of a certified remanufacture system that is used to rebuild the engine resulting in an emission reduction.

Funding can cover the cost (labor and equipment) of an eligible nonroad, locomotive, or marine engine upgrade. Eligible upgrades must be either a verified retrofit or a certified remanufacture system. An eligible engine must be currently operating and performing its intended function. If a certified remanufacture system for a locomotive includes a full engine replacement, the funding restrictions in paragraph I.B.4.c. apply. If a certified remanufacture system is applied at the time of rebuild, funds may be used only for the cost

of the certified remanufacture system and associated labor costs for installation, but not the entire cost of the engine rebuild.

The actual engine upgrades used 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.

See subsection I.B., Restrictions on the Use of Awards, for additional funding eligibility information.

- c. **Cleaner Fuels and Additives:** Eligible cleaner fuels and additives are limited to those verified by EPA and/or CARB to achieve emissions reductions when applied to an existing diesel engine. Stand-alone cleaner fuel/additive projects are not eligible. For new or expanded use, this funding can cover the cost differential between the cleaner fuel/additive and conventional diesel fuel if that cleaner fuel is used in combination, and on the same vehicle, with a new eligible verified engine retrofit or an eligible engine upgrade or an eligible certified engine replacement or an eligible certified vehicle/equipment replacement.

The types of fuels and additives (e.g., biodiesel, cetane enhancers) proposed for funding must exist on either EPA or CARB's verified cleaner fuels and additives list with the specific vehicle/engine application specified in the application and used only for the vehicle/engine applications specified on the list.

See subsection I.B., Restrictions on the Use of Awards, for additional funding eligibility information.

- d. **Idle Reduction Technologies:** Eligible idle reduction technologies include 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 must conserve diesel fuel and lower emissions.

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 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.

- i. **Locomotive Idle Reduction Technologies:** Funding can cover the cost (labor and equipment) of eligible verified idle reduction technologies for locomotives.
- ii. **Electrified Parking Spaces:** Eligible Electrified Parking Spaces (EPS), also known as Truck Stop Electrification (TSE), must operate independent of the truck's engine and allow the truck engine to be turned off as the EPS system supplies heating, cooling, and/or electrical power. The EPS system provides off-board electrical power to operate either:
  - an independent heating, cooling, and electrical power system, or
  - a truck-integrated heating and cooling system, or
  - a plug-in refrigeration system that would otherwise be powered by an engine.

Funding can cover the cost (labor and equipment) of eligible EPS technologies, including the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment functional. Eligible EPS costs include, but are not limited to, the purchase and installation of electrical infrastructure or equipment to enable heating, cooling, and the 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, and shall not include: on-board auxiliary power units (APUs) and other equipment installed on trucks; equipment and services unrelated to heating and cooling (e.g., telephone, internet, television, etc.); TRUs; electricity costs; or operation and maintenance costs.

- iii. **Marine Shore Power Connection Systems:** Eligible shore power systems must allow maritime vessels to “plug into” an electrical power source instead of using diesel main or auxiliary engines while at port. Funding can cover 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.

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, but do not include shipside modifications to accept shore-based electrical power, electricity costs, and operation and maintenance costs.

- a. **Marine Shore Power Criteria:** Eligible projects must meet the following criteria:
- 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.
  - Applicants must demonstrate that the proposed system has the capacity, demand, and commitment to be utilized for more than 1,000 MW-hours per year. Smaller projects must demonstrate cost/benefits.
  - The final design of the marine shore power connection system must receive specific Department approval prior to purchase and installation.
  - Applicants must commit to reporting usage information to the Department 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.
- b. **Marine Shore Power Project Description:** Applicants proposing marine shore power connection systems must 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; and

- 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; and
  - estimated emissions reductions.
- iv. **Highway Idle Reduction Technologies:** Eligible Highway Idle Reduction Technologies projects include:
- verified idle reduction technologies installed on long haul Class 8 trucks and school buses, only if combined on the same vehicle with the new installation of one or more of the Verified Engine Retrofit Technologies funded under this Program, as described in subparagraph I.A.1.a.
  - verified idle reduction technologies, installed on long haul Class 8 trucks and school buses with model year 2006 or older engines that have been previously retrofitted with a verified emission control device.
  - stand-alone installations of eligible, verified idle reduction technologies on long-haul trucks and school buses.

See subsection I.B., Restrictions on the Use of Awards, for additional funding eligibility information.

- e. **Aerodynamic Technologies and Verified Low Rolling Resistance Tires:** Eligible projects include:
- i. **Aerodynamic Technologies:** The retrofitting of long haul Class 8 trucks with aerodynamic trailer fairings or the fairings can be provided as new equipment options, including gap fairings that reduce the gap between the tractor and the trailer to reduce turbulence; trailer side skirts that minimize wind under the trailer; and trailer rear fairings that reduce turbulence and pressure drop at the rear of the trailer. Funding can cover the cost (labor and equipment) for verified aerodynamic technologies only if combined on the same vehicle with the new installation of one or more of the Verified Engine Retrofit Technologies funded under this Program, as described in subparagraph I.A.1.a.
  - ii. **Low Rolling Resistance Tires (LRR):** The installation of new, verified LRR tires on long haul Class 8 trucks when used on all axles, including both dual tires and single wide tires (single wide tires replace the double tire on each end of a drive or trailer axle, in effect turning an "18" wheeler into a "10" wheeler). LRR tires can be used with lower-weight aluminum wheels to further improve fuel savings, however aluminum wheels are not eligible for funding under this Program. Funding can cover the cost (labor and equipment) for verified LRR tires only if combined on the same vehicle with the new installation of one or more of the Verified Engine Retrofit Technologies funded under this Program, as described in subparagraph I.A.1.a. LRR tires are not eligible for funding where these types of tires have already been installed on the truck.

The actual aerodynamic technologies and tires must be specifically named on EPA's SmartWay Verified Technologies list at the time of acquisition and used only for the vehicle applications specified on the list to be eligible for funding.

See subsection I.B., Restrictions on the Use of Awards, for additional funding eligibility information.

- f. **Engine Replacement:** Eligible engine replacement projects include, but are not limited to, diesel engine replacement with an engine certified for use with diesel or an alternative fuel (e.g., gasoline, CNG, propane), diesel engine replacement with a zero tailpipe emissions power source (grid, battery or fuel cell<sup>4</sup>), and/or diesel engine replacement with an electric generator(s) (genset). Zero tailpipe emissions engine replacements do not require EPA or CARB certification.

Eligible costs include 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. 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, 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. Ineligible costs include, but are not limited to, electricity, and operation and maintenance costs.

i. **Locomotive, Marine, and Nonroad Diesel Vehicles and Equipment:**

- a. If the new engine uses diesel or an alternative fuel, the new engine must be 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.
- b. If the new engine is a zero tailpipe emissions power source, EPA or CARB certification is not required.

ii. **Highway Diesel Vehicles:**

- a. If the new engine uses diesel or an alternative fuel, the new engine must be a 2016 model year or newer engine certified to EPA emission standards.
- b. If the new engine is a Low-NO<sub>x</sub> diesel engine, the new engine must be a 2016 model year or newer engine that is certified to CARB's Optional Low-NO<sub>x</sub> Standards of 0.1 g/bhp-hr, 0.05 g/bhp-hr, or 0.02 g/bhp-hr NO<sub>x</sub>.
- c. If the new engine is a zero tailpipe emissions power source, EPA or CARB certification is not required.

See subsection I.B., Restrictions on the Use of Awards, for additional funding eligibility information.

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<sup>4</sup> Hydrogen fuel cells are only eligible for engine replacements for eligible urban transit buses, shuttle buses, and drayage trucks.

- g. **Vehicle and Equipment Replacements:** Eligible projects include, but are not limited to, the replacement of nonroad and highway diesel vehicles and equipment, locomotives, and marine vessels with newer, cleaner diesel, zero tailpipe emission (grid, battery, or fuel cell<sup>5</sup>), hybrid or alternative fuel (e.g., gasoline, CNG, propane) vehicles/equipment that use engines certified by EPA and, if applicable, CARB to meet a more stringent set of engine emission standards. 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, eligible replacement costs include, but are not limited to, the purchase and installation of electrical infrastructure or equipment to enable the use of power, excluding electricity, and operation and maintenance costs.

i. **Locomotives, Marine Vessels, and Nonroad Diesel Vehicles and Equipment:**

- a. If the new vehicle/equipment uses diesel or an alternative fuel, the new vehicle/equipment must be 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 engine model year (EMY) 2019.
- b. If the new vehicle/equipment is powered with a zero tailpipe emissions power source, EPA or CARB certification is not required.

ii. **Highway Diesel Vehicles and Buses (other than Drayage):**

- a. If the new vehicle/equipment uses diesel or an alternative fuel, the new vehicle/equipment must be powered by a 2016 model year or newer engine certified to EPA emission standards.
- b. If the new vehicle/equipment uses a Low-NO<sub>x</sub> diesel engine, the new vehicle/equipment must be powered by a 2016 model year or newer engine that is certified to meet CARB’s Optional Low-NO<sub>x</sub> Standards of 0.1 g/bhp-hr, 0.05 g/bhp-hr, or 0.02 g/bhp-hr NO<sub>x</sub>.
- c. If the new vehicle/equipment is powered with a zero tailpipe emissions power source, EPA or CARB certification is not required.

- iii. **Drayage Vehicles:** New drayage trucks must be powered by a 2013 model year or newer certified engine. 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.

See subsection I.B., Restrictions on the Use of Funds, for additional funding eligibility information.

- h. **Clean Alternative Fuel Conversions:** Eligible clean alternative fuel conversion projects must apply a certified or compliant alternative fuel conversion “kit” to an existing highway diesel engine. Conventional, original equipment manufacturer (OEM) highway diesel

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<sup>5</sup> Hydrogen fuel cell vehicles and equipment are eligible only as replacements for eligible transit buses, shuttle buses, drayage trucks, terminal tractors/yard hostlers, stationary generators and forklifts.

vehicles and engines that are altered to operate on alternative fuels such as propane or natural gas are classified as aftermarket clean alternative fuel conversions.

Eligible costs include labor and equipment of an eligible certified or compliant clean alternative fuel conversion. Eligible conversions are limited to those systems that have been certified by EPA and/or CARB, and those systems that have been approved by EPA for Intermediate-Age engines. Eligible conversion systems for engine model years 1995-2006 must achieve at least a 30% NO<sub>x</sub> reduction and a 10% PM reduction from the applicable certified emission standards of the original engine. Eligible conversion systems for engine model years 2007-2009 must achieve at least a 20% NO<sub>x</sub> reduction with no increase in PM from the applicable certified emission standards of the original engine.

See subsection I.B., Restrictions on the Use of Awards, for additional funding eligibility information.

2. Award Limits

Projects involving engine upgrades, certain idle reduction technologies, shore connection systems, electrified parking space technologies, certified engine replacements, or certified vehicle/equipment replacements are subject to the DERA funding limits shown in Table 1. Applicants may request funds up to the DERA funding limits for one (1) project.

**Table 1. DERA Funding Limits**

Eligible Diesel Emission Reduction Solutions	Maximum Award
a. Exhaust Control Retrofit	100%
b. Engine Upgrade / Remanufacture	40%
c. Clean Fuels and Additives bundled with a vehicle/engine/equipment replacement or engine upgrade or retrofit	Cost differential of clean fuel/additive and conventional diesel fuel
d. Idle Reduction Highway Idle Reduction Bundled with Exhaust Control Retrofit Stand-alone Highway Idle Reduction Locomotive Idle Reduction Marine Shore Power Electrified Parking Space	100% 25% 40% 25% 30%
e. Aerodynamic Technologies or Verified Low Rolling Resistance Tires bundled with new installation of Verified Engine Retrofit Technologies	100%
f. Engine Replacements Engine Replacement – Diesel or Alternative Fuel (locomotive, marine, nonroad, and highway diesels)	40%

Engine Replacement – Low NO <sub>x</sub> (highway only)	50%
Engine Replacement – Zero Emission (locomotive, marine, nonroad, and highway diesels)	60%
<b>g. Vehicle/Equipment Replacement</b>	
Vehicle/Equipment Replacement – Diesel or Alternative Fuel (locomotive, marine, nonroad, and highway diesels)	25%*
Vehicle/Equipment Replacement – Low NO <sub>x</sub> (highway only)	35%
Vehicle/Equipment Replacement – Zero Emission (locomotive, marine, nonroad, and highway diesels)	45%
Vehicle Replacement – Drayage	50%
<b>h. Clean Alternative Fuel Conversion</b>	40%

\*Maximum funding for diesel or alternative fuel school bus replacement projects is 25% up to \$22,500.

### 3. Documentation Requirements

#### a. **Notification of Award.**

- i. Within ten (10) days of notification of the award, the applicant must provide photos of the vehicle, engine, or equipment being replaced, retrofitted, or upgraded including the following; and
  - Profile of the vehicle or equipment with fleet unit number in view, if applicable
  - Profile of the engine or equipment (preferably with fleet unit number in view, if applicable)
  - Photos of the vehicle or equipment identification information with the following in view, if applicable:
    - VIN
    - Vehicle make
    - Vehicle model
    - Vehicle model year
    - Gross vehicle weight rating
  - Photos of the engine information with the following in view:
    - Engine make
    - Engine model
    - Engine model year
    - EPA engine family name
    - Horsepower rating or Tier rating
    - Engine serial number
- ii. Within forty-five (45) days of notification of the award and after approval of photos, the applicant must provide the following documentation:
  - Purchase Order;
  - Documentation demonstrating the new vehicle, engine, or equipment is eligible;
  - Copy of title of old vehicle (for vehicle replacements).

- b. **Delivery and Acceptance of New Vehicle, Engine, or Equipment.** Within thirty (30) days of delivery and acceptance of the new vehicle, engine, or equipment the applicant must provide the following documentation:
- i. Photos of the new vehicle engine, or equipment purchased with award monies, including the following;
    - Profile of the vehicle or equipment with fleet unit number in view
    - Profile of the engine or equipment (preferably with fleet unit number in view, if applicable)
    - Photos of the vehicle or equipment identification information with the following in view, if applicable:
      - VIN
      - Vehicle make
      - Vehicle model
      - Vehicle model year
      - Gross vehicle weight rating
    - Photos of the engine information with the following in view:
      - Engine make
      - Engine model
      - Engine model year
      - EPA engine family name
      - Horsepower rating or Tier rating
      - Engine serial number
  - ii. Invoice(s) showing proof of payment(s) with a copy of the check or wire transfer used for payment.
- c. **Disabling.** Within fourteen (14) days of disabling the vehicle or engine, the applicant must provide the following documentation:
- i. Photos documenting the disabling of the vehicle or engine being replaced;
  - ii. If disabling occurs at a scrap or salvage yard, a signed certificate of destruction; and
  - iii. Demonstrate compliance with Disabling Requirements in paragraph I.A.5. of this document.

4. *Reserved.*

#### 5. Disabling Requirements

This Program requires applicants to permanently disable the engine and/or chassis of the vehicle, engine, or equipment being replaced within sixty (60) days of receiving the new vehicle, engine, or equipment using the following methods:

- For repower projects, applicants must permanently disable the old engine they are replacing through the Program. Permanently disabling the engine while retaining possession of the engine is acceptable. Disabling the engine requires creating a 3-inch diameter hole in the engine block (the part of the engine containing the cylinders). Alternatively, crushing or breaking the engine at a scrap/salvage/metal recycling facility to the satisfaction of the Department is an acceptable method. Other scrapping methods may be allowable, but will require prior approval from the Department.
- For replacement projects, applicants must permanently disable the engine and the chassis of the vehicle they are replacing through the Program.
  - Disabling the engine requires creating a 3-inch diameter hole in the engine block (the part of the engine containing the cylinders). Alternatively, crushing or breaking the engine at a scrap/salvage/metal recycling facility to the satisfaction of the Department is an acceptable method. Other scrapping

methods may be allowable, but will require prior approval from the Department.

- Disabling the chassis requires cutting both rails of the chassis in half. Alternatively, the chassis/body of the vehicle/equipment may be torn apart, bent, or crushed at a scrap/salvage/metal recycling facility to the satisfaction of the Department. Other scrapping methods may be allowable, but will require prior approval from the Department.
- Equipment and vehicle components that are not part of the engine or chassis may be salvaged from the unit being replaced (e.g. plow blades, shovels, seats, tires, etc.).
- If a 2010 EMY or newer vehicle is replaced, the 2010 EMY or newer vehicle may be retained or sold if the 2010 EMY or newer vehicle will replace a 1996-2009 EMY vehicle, and the 1996-2009 EMY vehicle will be scrapped. It is preferred that the scrapped unit currently operates within the same project location(s) as the 2010 EMY or newer vehicle currently operates, however alternative scenarios will be considered. The term “project location” as used in this Program refers to the primary area where the affected vehicles/engines operate, or the primary area where the emissions benefits of the project will be realized. Under this scenario, a detailed scrappage plan must be submitted and will require prior Department approval.
- If a Tier 2 or Tier 3 locomotive, marine, or nonroad vehicle, equipment and/or engine is replaced, the units may be retained or sold if they will replace a similar, lower Tiered unit, and the lower Tiered unit will be scrapped. It is preferred that the scrapped unit currently operates within the same project location(s) as the original Tier 2 or 3 unit currently operates, however alternative scenarios will be considered. The term “project location” as used in this Program guide refers to the primary area where the affected vehicles/engines operate, or the primary area where the emissions benefits of the project will be realized. Under this scenario, a detailed scrappage plan must be submitted and will require prior Department approval.
- For tire replacement projects, the original tires should be scrapped according to local or state requirements, or the tires can be salvaged for reuse or retreading.

#### 6. Site Visit.

The applicant must schedule the date to disable the old vehicle, engine, or equipment and notify the Department at least two (2) weeks prior to such date to give Department representatives the opportunity to observe the disabling process. If Department representatives elect not to be present on the date scheduled, the disabling may proceed as planned.

#### B. Restrictions on the Use of Awards

1. Any monies awarded and disbursed to an applicant that are not expended for the purpose for which the monies were awarded will be repaid by the applicant.
2. *Reserved.*
3. The Award is not and shall not be transferrable to any person or entity.
4. Applicants may not use award monies from this Program to cover any portion of the following costs:
  - a. Required cost share for projects partially funded by a state or federal DERA grant, a CMAQ grant, another state’s share of the trust created under the federal agreement (i.e. Environmental Mitigation Trust Agreement for State Beneficiaries), or any other state or

- federal funding assistance Program, unless the grant or Program allows participants to use these funds to cover a portion of the participant's cost share obligations.
- b. Expenses incurred prior to the project period set forth in any assistance agreement funded under the Program.
  - c. The purchase of vehicles, engines, or equipment to expand a fleet.
  - d. Fueling infrastructure, such as that used for the production and/or distribution of biodiesel, compressed natural gas, liquefied natural gas, and or other fuels.
  - e. The cost of towing or decommissioning the replaced vehicle or equipment.
  - f. Taxes, insurance, or licensing costs.
  - g. Administrative costs.
  - h. The cost of operating or maintaining the new replacement vehicle.
  - i. Any luxury options for new vehicles and equipment, including but not limited to, chrome plating, custom tire rims, and other luxury custom options.
  - j. The incremental cost of alternative fuels or infrastructure for the fueling, dispensing or blending of liquid or gaseous alternative fuels.
  - k. Emissions reductions that are mandated under Federal, State, or local law. This refers to specific compliance dates within the mandate, not when the mandate is passed. Voluntary or elective emissions reduction measures shall not be considered "mandated," regardless of whether the reductions are included in any other plan.
    - o 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 that include locomotives and/or marine engines and/or stationary engines must provide the Department 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
    - o Sufficient information must be provided to support the justification, including maintenance records, if applicable.
  - l. The purchase of single-wide wheels except where a fleet is retrofitting from standard dual tires to SmartWay-verified single-wide low rolling resistance tires. In this case, the cost of single-wide wheels would be acceptable as additional equipment necessary to use the SmartWay-verified technology.
  - m. The purchase of APUs or generators for vehicles with engine model year 2007 or newer.
  - n. The purchase of engine retrofits, idle reduction technologies, low rolling resistance tires or advanced aerodynamic technologies if similar technologies have previously been installed on the truck or trailer.
  - o. To retrofit (including idle reduction technologies and aerodynamics and tires), convert, or replace a transit bus, medium-duty, or heavy-duty highway vehicle with engine model year 1995 and older, or 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-NO<sub>x</sub>.
  - p. To purchase certified/approved conversion systems that do not meet the following criteria:
    - o Existing engine model 1996-2006: Conversion kit must be certified or approved to achieve at least a 30% NO<sub>x</sub> reduction and a 10% PM reduction from the applicable

- certified emission standard of the original engine.
- o Existing engine model 2007 and newer: Conversion kit must be certified or approved to achieve at least a 20% NO<sub>x</sub> reduction with no increase in PM from the applicable certified emission standards of the original engine.
- q. To purchase/install APUs or generators on vehicles with EMY 2007 or newer.
- r. To retrofit, replace or upgrade agricultural pumps that operate less than 250 hours per year.
- s. To retrofit, replace, or upgrade any nonroad engines that operate less than 500 hours per year.
- t. To retrofit, upgrade, or replace a nonroad engine that is 50 HP or less with EMY 2005 or older, or between 51-300 HP and EMY 1995 or older, or 301 HP or greater and EMY 1985 or older.
- u. To replace nonroad vehicles and equipment with vehicles or 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 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 nonroad vehicles and equipment with vehicles or equipment powered by unregulated or Tier 1 nonroad large spark-ignition (SI) engines. No funds awarded under this Program shall be used to replace nonroad engines with Tier 3 or lower CI engines. No funds awarded under this Program shall be used to replace nonroad engines with Tier 1 or lower SI engines.
- v. 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.
- w. 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.
- x. For the purchase or installation of marine shore connection system projects that are expected to be utilized less than 1,000 MW-hr/year.
- y. 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.
- z. For the purchase or installation of locomotive shore connection system projects that are expected to be utilized less than 1,000 hours/year.

## **II. Financial Requirements**

### **A. Method of Payment**

1. The applicant shall not purchase the replacement vehicle before the APCP approved start date of the project period.
2. The applicant shall submit documentation in compliance with paragraph I.A.4. prior to receiving reimbursement from the Department.
3. By submitting a reimbursement request, the applicant certifies to the best of their knowledge and belief the information submitted is correct, and all outlays were made in accordance with this document, and that payment is due and has not been previously requested.

4. Award Payments to the Applicants

Proof of Payment Invoices (for the project) must be submitted within thirty (30) days of invoice date. Invoices must include the following:

- i. applicant's name, address, the amount paid by applicant for project, and total cost of the project;
  - ii. include as attachments, copies of paid receipt(s) from the vendor(s) proving total cost of the project and copies of check(s) used to pay for the project for which the applicant is requesting reimbursement;
- a. Payment may be made upon showing of good cause or special circumstances, as determined and approved by the APCP.
5. For monies withheld or repaid as a result of an enforcement action in subsection III.C. of this document, the APCP may make these monies available to other eligible applicants.

B. Retention and Custodial Requirements For Records

1. The applicant shall retain financial records, supporting documents, and other records pertinent to the Award for a period of five (5) years after the close of the project.
2. If any litigation, claim, negotiation, audit, or other action involving the records has been started before the expiration of the five (5)-year period, the applicant shall retain records until completion of the action and resolution of all issues, which arise from it, or until the end of the regular five (5)-year period, whichever is later.
3. The rights to access such records must not be limited to the required retention period but shall last as long as the records are retained.
4. Any representative of the Department shall have the right to visit the project site(s) at any time until the project is closed.
5. The Department and the Missouri State Auditor's Office or any of their authorized representatives shall have the right of access to any pertinent books, documents, papers, or other records of the applicant, which are pertinent to the award, in order to make audits, examinations, excerpts, and transcripts.
6. The applicant's records shall be maintained as public records pursuant to Chapter 610, RSMo.

C. Financial Management and Reporting

1. Financial Reporting. The applicant shall retain accurate, current, and complete disclosure of financial results of financially assisted activities.
2. Accounting Records. The applicant shall maintain records, which adequately identify the source and application of monies provided for the project.
3. Internal Control. The internal control structure provides reasonable assurance that assets are safeguarded and must assure that assets are used solely for authorized purposes.
4. Source Documentation. Accounting records must be supported by such source documentation as canceled checks and paid invoices. Appropriate electronic verification of cleared checks may

also be considered source documentation in lieu of actual canceled checks. The documentation must be made available by the applicant at the APCP's request.

### **III. Dispute Resolution and Termination**

#### **A. Dispute Resolution**

1. The applicant and the APCP shall attempt to resolve disagreements concerning the project performance including reporting requirements.
2. If an agreement cannot be reached within sixty (60) days of the issuance of the notice of noncompliance, the Department's APCP Director will provide a written decision. Such decision of the APCP Director shall be final unless a request for review is submitted to the Department's Division of Environmental Quality (DEQ) Director within fifteen (15) days of the receipt of the APCP Director's decision. The DEQ Director shall provide a final decision within thirty (30) days of the receipt of the applicant's request. Such requests shall include:
  - a. A copy of the APCP Director's written decision;
  - b. A statement of the amount in dispute;
  - c. A brief description of the issue(s) involved; and
  - d. A concise statement of the objections to the final decision.
3. A decision by the DEQ Director shall constitute final Department action.

#### **B. Termination**

1. Termination for Cause.
  - a. The Department may terminate any award, in whole or in part, at any time before the date of completion whenever it is determined that the applicant has failed to comply with the requirements of this Program.
  - b. The Department shall promptly notify the applicant in writing of such a determination and the reasons for the termination, together with the effective date.
2. Termination for Convenience. The Department or the applicant may terminate the award, in whole or in part, when the parties agree that the continuation of the project would not produce beneficial results commensurate with the further expenditure of monies.

#### **C. Enforcement: Remedies for Noncompliance**

If an applicant falsifies any award document, fails to maintain records or submit reports, refuses the APCP access to records, or materially fails to comply with any term of an award, then the APCP may take one or more of the following actions, as appropriate:

1. Suspend or terminate, in whole or in part, the award of current or future monies;
2. Temporarily withhold payments pending applicant's correction of the deficiency;
3. Withhold further Awards from the applicant;
4. Compel the repayment of monies provided to the applicant pursuant to the award;

5. Order the applicant not to transfer ownership of assets purchased with award monies without prior APCP approval; or
6. Pursue any other remedies that may be legally available, including cost recovery, breach of contract, and suspension or debarment with respect to the applicant.

**IV. Applicant's Signature.** To be eligible to receive DERA monies, the applicant's signature on the application signifies the applicant's agreement to all of the requirements of the award, including the application and the documents incorporated therein.