



## **OHIO DIESEL EMISSIONS REDUCTION GRANT PROGRAM**

### **Diesel Emissions Reduction Grant (DERG) Program for Equipment Replacement, Repower, Retrofit and Anti-Idle**

#### **Request for Proposals November 16, 2012 As Revised December 20, 2012**

The State of Ohio Environmental Protection Agency (Ohio EPA) is soliciting proposals from all public sector and private sector (with a public sponsor) diesel fleets that will undertake vehicle/equipment replacement, repower, or retrofit for the purpose of emissions reduction. Fleets may also apply for idle reduction equipment.

Ohio EPA  
Diesel Emissions Reduction Grant Program  
Office of Environmental Education  
50 W. Town St. Suite 700  
Columbus, OH 43215  
Email: [derg@epa.state.oh.us](mailto:derg@epa.state.oh.us)  
Website: <http://epa.ohio.gov/oef/derg.aspx>

# Ohio Diesel Emissions Reduction Grant (DERG) Program For Equipment Replacement, Repower, Retrofit & Anti-Idle

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## SECTION 1: REQUEST FOR PROPOSALS (RFP) OVERVIEW

### 1.1 RFP Time Table

Release of RFP:	Revised December 20, 2012
Bidder Conference Calls:	12/6/12 10:00 a.m., 12/12/12, 1:00 p.m.
Deadline to Submit Proposals:	February 1, 2013, 5:00 p.m.
Announcement of Award:	March 29, 2013

Awarded projects cannot commence until nearly three months from the deadline date due to the time required for review and fiscal administration of the grants. DERG funds may not be used to reimburse grant recipients for any grant expenses, including equipment purchased, prior to execution of the grant contract. Applicants should plan accordingly for making equipment purchases and installations.

The Committee reserves the right to adjust the dates listed above, for whatever reasons it deems appropriate. The Committee also reserves the right to request additional information to assist in the review process or to reject any and all applications and make no awards under this program or make fewer and smaller awards than anticipated or to fund partial projects.

### 1.2 Ohio Environmental Protection Agency (Ohio EPA)

The Ohio EPA is a trusted leader and environmental steward using innovation, quality service and public involvement to ensure a safe and healthy environment for all Ohioans. The Agency's mission is to protect the environment and public health by ensuring compliance with environmental laws and demonstrating leadership in environmental stewardship.

### 1.3 Project Background

The Ohio EPA in partnership with the Ohio Department of Transportation (ODOT) proudly announces the fifth round of the Diesel Emissions Reduction Grant (DERG) Program. Invited to apply are all public diesel engine fleets and private diesel engine fleets with a public sponsor (Public-Private Partnerships) that will undertake vehicle/equipment replacement, repower, retrofit, or installation of anti-idle equipment for the purpose of emissions reduction. Public-Private Partnerships (PPP) are defined in the Federal Highway Administration (FHWA) Congestion Mitigation and Air Quality (CMAQ) Improvement Program Guidance dated October 20, 2008. [http://www.fhwa.dot.gov/environment/air\\_quality/cmaq/policy\\_and\\_guidance/cmaq08gd.pdf](http://www.fhwa.dot.gov/environment/air_quality/cmaq/policy_and_guidance/cmaq08gd.pdf). An example of an acceptable PPP agreement is provided in Appendix D of this document.

Funds will be made available under the DERG program, from the Ohio Department of Transportation FHWA CMAQ Program federal appropriation fund. The CMAQ Program is authorized through the federal Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

The DERG Committee makes all project selections and funding decisions. The Committee consists of staff from the Ohio EPA and ODOT.

The total funding available for this competitive funding round opportunity through June 30, 2013 is \$10,000,000.00 in federal CMAQ funds. Each application must contain a request for at least twenty thousand dollars (\$20,000) to be considered.

## **SECTION 2: PROGRAM REQUIREMENTS**

### **2.1 Fund Reimbursement Policy**

**DERG is a reimbursement program and applicants must provide non-federal funding to cover expenses as they are incurred.** Projects selected for funding will be reimbursed *up to the amount approved for that project* upon proper documentation of payment for eligible expenses.

### **2.2 Twenty Percent Match Requirement**

For projects that are selected, up to eighty percent (80%) of project costs may be eligible for reimbursement from CMAQ funds. Applicants are required to provide a minimum twenty percent (20%) in matching funds. Matching funds cannot be from federal funds or from in-kind services.

### **2.3 Advertising and Bid Procedures**

**Projects selected to receive funding must comply with all competitive bid standards.** Applicants must employ advertising and bid procedures as approved by Ohio EPA and ODOT.

### **2.4 Record Maintenance**

Successful applicants will be required to maintain financial documentation for a period of five years. Additionally, records regarding the utilization and maintenance must be kept for the useful life of the vehicle/equipment.

### **2.5 Non-Performance**

If Ohio EPA determines that a recipient is not making satisfactory progress, has not submitted documentation of the competitive procurement process they intend

to use within 90 days of notification of grant award, or has not submitted any invoices for reimbursement within two years from the date of initial grant award, Ohio EPA may, in consultation with the Ohio Department of Transportation and the Federal Highway Administration, revoke the grant and reallocate the funds to the next highest ranked project applicant.

## SECTION 3: APPLICATIONS

### 3.1 Project Application

**Applications must be received by the Ohio EPA no later than 5:00 p.m. on February 1, 2013.** Proposals must be submitted in hard copy. No fax or e-mail submittals will be accepted. Late submittals will not be considered. Applicants who do not receive email confirmation of receipt of their application within two business days should call 614-644-2873 or email [derg@epa.state.oh.us](mailto:derg@epa.state.oh.us).

Applicants must provide one original and 2 copies of the application package, including an original signature from the Authorizing Agent (preferably in blue ink) on the certification statement. Original may be single-sided or double sided, copies should be double sided

By mail:

Ohio EPA  
Office of Environmental Education  
P.O. Box 1049  
Columbus, OH 43216-1049  
(614) 644-2873

By courier or delivery:

Ohio EPA  
Office of Environmental Education  
50 W. Town Street, Suite 700  
Columbus, OH 43215  
(614) 644-2873

Applications may also be delivered to Ohio EPA District Offices in Bowling Green, Dayton, Logan, or Twinsburg before **4:30 p.m.** on the deadline day. Please call Ohio EPA or consult the Ohio EPA Web page, <http://www.epa.ohio.gov/directions.aspx> for directions to the district office near you.

An applicant whose proposal is not funded may re-submit the proposal in a subsequent grant cycle. If the vendor quote is still in force and there are NO changes to the proposal from the previous cycle, the applicant may request that Ohio EPA reactivate the same proposal in the next grant cycle, by sending a request in writing to the address above, or by email to [derg@epa.state.oh.us](mailto:derg@epa.state.oh.us). Ohio EPA will provide confirmation in writing that the proposal is being reactivated. If you do not receive confirmation within a few days that your request was received, please phone the Office of Environmental Education at (614) 644-2873. If there are any changes to the proposal, including changes to price quotes or to the list of vehicles and equipment being proposed, the applicant should revise and submit a new proposal.

Those who are awarded a grant under this program may submit a new proposal during a subsequent grant cycle. Each new proposal will be reviewed based upon the criteria set forth in these guidelines, and in relation to the quality of other proposals received during the same grant cycle.

### 3.2 Communication and Inquiries

Prior to the deadline for submission, at least two conference calls will be scheduled for questions from prospective applicants. Call information and notes will be posted on Ohio EPA's DERG Website at: <http://epa.ohio.gov/oeef/derg.aspx>. Prospective applicants are also encouraged to contact program staff members [Alan.Harness@epa.state.oh.us](mailto:Alan.Harness@epa.state.oh.us) at (614) 644-4838 with technology questions, or [Carolyn.Watkins@epa.state.oh.us](mailto:Carolyn.Watkins@epa.state.oh.us) at (614) 644-3768 with financial questions.

## SECTION 4: ELIGIBILITY

### 4.1 Project Type

Project types eligible for funding under DERG include the replacement, repower, retrofit, and/or installation of anti-idle equipment, of diesel powered public fleets<sup>1</sup> and Public-Private Partnership (PPP) fleets<sup>2</sup>. Projects funded under this program must affect surface transportation system travel consistent with the FHWA's October 20, 2008 CMAQ Program Guidance<sup>3</sup>. Projects must result in reductions of oxides of nitrogen (NOx) and/or fine particulate matter (PM<sub>2.5</sub>) emissions from pollutant sources. A chart summarizing eligibility by vehicle type is provided in Appendix B.

**Projects must utilize verified emission reduction technologies as determined by the United States Environmental Protection Agency (USEPA) or the California Air Resources Board (CARB).**

### 4.2 CMAQ Program Eligibility

Prior to final project selection by the DERG committee, the FHWA must issue a formal CMAQ program eligibility determination on each proposed project. FHWA's eligibility determinations are based on documentation project sponsors

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<sup>1</sup> Including but not limited to: school buses, mass transit vehicles, refuse collection trucks, government fleets.

<sup>2</sup> Including but not limited to: short haul trucks, locomotives and non-road construction equipment.

<sup>3</sup> Non-road vehicles or construction equipment must be working on surface transportation construction projects (Title 23) based in Ohio nonattainment or maintenance areas to be eligible. Only those costs associated with the vehicle/equipment components that produce emissions will be considered for funding. FHWA's CMAQ program guidance is available at [www.fhwa.dot.gov/environment/air\\_quality/cmaq/policy\\_and\\_guidance/cmaq08gd.pdf](http://www.fhwa.dot.gov/environment/air_quality/cmaq/policy_and_guidance/cmaq08gd.pdf).

prepare describing the project scope, its consistency with FHWA's CMAQ program eligibility guidance, and a quantitative analysis of the mobile source emission reductions that will result from project implementation.

FHWA's CMAQ program guidance is available at [http://www.fhwa.dot.gov/environment/air\\_quality/cmaq/policy\\_and\\_guidance/cmaq08qd.pdf](http://www.fhwa.dot.gov/environment/air_quality/cmaq/policy_and_guidance/cmaq08qd.pdf)

CMAQ program eligibility documentation includes the following items:

- Narrative description of the project scope
- Narrative description of project's consistency with FHWA CMAQ eligibility guidance (see page 15 of CMAQ Guidelines)
- Project location
- Project cost
- Project sponsor
- Quantitative analysis of mobile source emission reductions resulting from project implementation using USEPA's Diesel Emission Quantifier (DEQ) tool at <http://www.epa.gov/cleandiesel/quantifier>. Ohio EPA intends to use the DEQ to estimate emission reductions for proposed projects, so applicants should submit the results of their DEQ analysis with their application. If the DEQ *does not allow* for an appropriate emission reduction calculation for a specific technology such as dual-fuel vehicles, the applicant may utilize US EPA approved emission factors and provide a detailed explanation of the emission reduction calculations. In cases where the DEQ *does* provide an analysis for a particular technology, but the applicant feels that more recent USEPA certified emission factors will produce a more realistic estimate of emission reductions, the applicant may suggest the emission reduction calculations use the updated USEPA certified emission factors. The applicant should submit both the results of the DEQ analysis and the results of their alternate emission reduction calculation. In either case, the applicant will need to fully document the factors used and submit their calculations with the application. Ohio EPA will review the calculations, and if deemed acceptable, will apply the most appropriate emission factors to all comparable projects under consideration for funding in the same grant cycle in order to make funding recommendations.

Note: When running the DEQ and you come to the following question:

"Do you want to estimate the total cost effectiveness of the project?"

Choose "No" . Cost-effectiveness will be calculated using the procedure described below.

- Cost-Effectiveness. For the purpose of this project cost-effectiveness shall be calculated by the total cost of the project and dividing by the sum total of the annual NO<sub>x</sub> and PM<sub>2.5</sub> emission reductions (tons/year), as determined by the DEQ analysis. Cost-Effectiveness = Total Cost of the Project/Sum Total of NO<sub>x</sub> & PM<sub>2.5</sub> Emission Reductions.

Note: For those projects involving just an engine replacement (replace old engine with a new engine) the total cost of the project shall consist of the engine and associated engine components (e.g., engine, transmission, and radiator, and any other engine components that are a vital part of the engine's operation).

For those projects involving a complete vehicle replacement the total project cost shall consist of the complete cost of the entire vehicle (i.e., engine and chassis). However, as indicated on the DERG eligibility chart, a number of fleets are only eligible for partial replacement costs, i.e., 80% of the costs associated with the components of the replacement vehicle that reduce emissions. This typically includes the engine and engine management software. Cost effectiveness will still be based on total project costs.

**Equipment must be operated in PM<sub>2.5</sub> and/or Ozone nonattainment or maintenance areas of Ohio for at least sixty-five percent (65%) of the time. Grant recipients will be required to provide documentation that this criterion is met for a period of no less than five years following installation of the equipment.**

A map of eligible Ohio PM<sub>2.5</sub> and Ozone nonattainment and maintenance counties and townships is included in Appendix C and posted at: <http://www.epa.ohio.gov/portals/42/documents/dergeligible2011.pdf>.

Ohio counties (or parts of counties) that are either in nonattainment or maintenance status as determined by US EPA. A project must be located in at least one of these counties or geographic locations (in the case of partial counties) in order to be considered for CMAQ funding			
Adams (p)	Cuyahoga	Lake	Portage
Allen	Delaware	Lawrence	Scioto
Ashtabula	Fairfield	Licking	Stark
Belmont	Franklin	Lorain	Summit
Butler	Gallia (p)	Lucas	Trumbull
Clark	Geauga	Madison	Warren
Clermont	Greene	Mahoning	Washington
Clinton	Hamilton	Medina	Wood
Columbiana	Jefferson	Miami	
Coshocton (p)	Knox	Montgomery	
(p) = partial PM <sub>2.5</sub> nonattainment county			

### 4.3 Ineligible Costs

*Ineligible* costs include but may not be limited to:

- Operating expenses and fuel costs, including incremental costs of fuel.
- Any project required by any law or other legally binding agreement.

- Work done or purchases made prior to official notice of project funding approval and notice of FHWA project authorization.
- Costs incurred for work or purchases not included in the approved project scope.
- Installation costs incurred from in-kind services or by an unauthorized vendor.
- Administrative costs.

**SECTION 5: PROJECT TYPES**

Type	Description	Limitations	Maximum Funding
Vehicle/Equipment Replacement	Replacing old vehicles/equipment with new vehicles/equipment, including replacing with hybrid or alternatively fueled vehicles as identified in section 301 of the 1992 Energy Policy Act	New vehicles or equipment must meet newer emission standards than old vehicles or equipment. Verification that old vehicles or equipment have not been returned to service	80% of total project cost or engine component costs subject to provisions of CMAQ and this RFP; less core or scrap value and less other governmental financial purchase contributions
Repower (Engine Replacement)	Removing the engine from a piece of equipment and replacing it with a new, rebuilt, or remanufactured engine	Engines must meet a newer emission standard; verification that old engine remanufactured or permanently destroyed	80% of equipment invoiced cost less core value or scrap value and 80% of installation by an outside vendor
Retrofit	Adding on emission reduction technologies to reduce pollution	Retrofit technology must be verified by US EPA or CARB	80% of equipment invoiced cost less core value or scrap value and 80% of installation by an outside vendor
Anti-Idle	Adding anti-idle technologies to reduce pollution	Retrofit technology must be verified by US EPA	80% of equipment invoiced cost less core value or scrap value and 80% of

			installation by an outside vendor
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## 5.1 Vehicle/Equipment Replacement

Vehicle or equipment replacement<sup>4</sup> involves permanently removing an old vehicle or machinery from service, and replacing it with a new vehicle or machinery, including hybrid or alternatively fueled vehicles as identified in section 301 of the 1992 Energy Policy Act. Because construction equipment tends to have a very long life span, and in the past decade the federal government has implemented increasingly stringent emission standards for both on-road and off-road diesel equipment, upgrading to new model year diesel equipment has a significant air quality benefit.

In order to be eligible for funding for vehicle or equipment replacement, the award recipient must verify that the machinery to be replaced is currently in proper working condition with at least five (5) years of remaining useful life. For public transit agency replacement projects, vehicles will follow the Federal Transit Administration (FTA) replacement guidelines posted at [http://www.fta.dot.gov/documents/Useful\\_Life\\_of\\_Buses\\_Final\\_Report\\_4-26-07\\_rv1.pdf](http://www.fta.dot.gov/documents/Useful_Life_of_Buses_Final_Report_4-26-07_rv1.pdf). Additionally, the replacement vehicle/equipment must be used for the same or similar purpose as the retired equipment.

Grant agreements involving replacements of a full vehicle or equipment will include a provision for disposal of the engine block through an OEM or authorized remanufacturer and a process to verify the retirement of this vehicle/equipment. The grant recipient will be required to provide documentation verifying that the old vehicle/equipment has not been returned to service. Grant recipients may use the “Congestion Mitigation and Air Quality Program Original Equipment Disposition Certification” form posted on the DERG program Website, <http://www.epa.ohio.gov/oef/derg.aspx>

Eligible expenses for reimbursement for replacements under this program include:

- A portion of the invoice cost of a replacement vehicle (subject to FHWA eligibility approval) including delivery charges, less scrap value of decommissioned vehicle/equipment;

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<sup>4</sup> Including but not limited to: long and short haul trucks, locomotives and non-road construction equipment. Non-road vehicles or construction equipment must be working on a surface transportation construction project (Title 23) based in Ohio nonattainment or maintenance areas to be eligible. Only those costs associated with the vehicle/equipment components that produce emissions will be considered for funding.

- Costs to remove and dispose of fluids in the decommissioned vehicle/equipment, less any payments received for reuse of such fluids; and
- Other costs directly related to the project, subject to prior approval.

Ohio EPA is primarily interested in supporting projects that result in direct reductions in emissions, and will consider funding infrastructure components allowable under CMAQ such as fueling stations only in conjunction with other project components that provide immediate emission reductions, such as vehicle or engine replacements. Proposals requesting funding for infrastructure components must demonstrate ownership or legal control of the property; demonstrate that the requested infrastructure is not already in place and reasonably accessible; and include in the narrative a description of all required local, state and federal permits and a realistic schedule for securing these permits. Infrastructure components that Ohio EPA deems to have a time horizon longer than two years will not be considered.

The incremental cost of the new vehicle/machinery minus any core or scrap value and any other governmental financial purchase contributions will constitute the total cost of vehicle/machinery replacement.

**Note:** FHWA will not approve CMAQ funding to finance the entire cost of private fleet or public agency general services replacement vehicles. FHWA will approve CMAQ funding only for replacement vehicle components that contribute to the vehicles' emission characteristics. See FHWA's CMAQ guidance dated October 2008 posted at:

[http://www.fhwa.dot.gov/environment/air\\_quality/cmaq/policy\\_and\\_guidance/cmaq08gd.pdf](http://www.fhwa.dot.gov/environment/air_quality/cmaq/policy_and_guidance/cmaq08gd.pdf) and additional guidance issued April 6, 2011, posted at: ([http://www.fhwa.dot.gov/environment/air\\_quality/cmaq/policy\\_and\\_guidance/cmaqaltfuel.cfm](http://www.fhwa.dot.gov/environment/air_quality/cmaq/policy_and_guidance/cmaqaltfuel.cfm) )

In addition, Ohio EPA's Director has decided to reimburse the cost of public agency roadway maintenance replacement vehicles at the same rate as private fleets, i.e., 80% of the costs associated with the components of the replacement vehicle that reduce emissions. This typically includes the engine and engine management software.

## 5.2 Equipment Repower (Engine Replacement)

An equipment repower involves removing the engine from a piece of equipment and replacing it with a new, rebuilt, or remanufactured engine (including compressed natural gas or propane repowers). Because new engines meet more stringent emission standards than older engines, a repower can provide a significant air quality benefit without the cost of replacing an entire piece of machinery.

To be eligible for funding, new engines must be verified by US EPA or CARB as agreed to by US EPA. Information on verified engines may be found at: <http://epa.gov/cleandiesel/verification/verif-list.htm> and <http://www.arb.ca.gov/diesel/cv.htm>

Eligible rebuilt or remanufactured engine components must meet or exceed Original Equipment Manufacturer (OEM) specifications.

In order to be eligible for funding for equipment repower, the award recipient must verify that the equipment to be repowered is currently in proper working condition. Before receiving reimbursement, the award recipient must document that the engine was removed and shipped to an authorized remanufacturing center, or that the engine in the old equipment has been permanently destroyed so that it cannot be sold or reused.

Eligible expenses for reimbursement for repower under this program include:

- Invoice cost of new engine including delivery charges, less the replaced engine's core or scrap value;
- Invoice cost of additional equipment that must be installed with the new engine;
- Costs to remove and dispose of hazardous fluids less any payments received for reuse of such fluids;
- Installation costs **if installed by an authorized outside vendor**;
- Reengineering costs by an authorized outside vendor, **if** the vehicle or equipment must be modified for the new engine to fit; and
- Other costs directly related to the project, subject to prior approval. See section 5.1 pertaining to infrastructure components.

The cost of purchasing and installing the new engine and required equipment minus the core value will constitute the cost of the equipment repower.

All projects that are proposing a conversion from diesel fuel to a "U.S. EPA approved" **dual fuel system** (e.g., Eco Dual) should submit the type (name) of the dual fuel system proposed to be employed along with the emission performance standard (grams/bHp-hr) that is certified for both NOx and PM 2.5 emissions. Only systems approved by US EPA will be eligible for funding under the DERG program. Since the DEQ does not calculate emission reductions for dual fuel systems the applicant will need to perform manual calculations for the emission reductions achieved with the dual fuel system. Please include all supporting calculations in the DERG application.

### 5.3 Equipment Retrofit

An equipment retrofit involves installation of an emission-reduction technology in an existing piece of equipment. To be eligible for funding, retrofit technologies

must be verified by USEPA or CARB as agreed to by USEPA. Information on verified technologies may be found at:

<http://epa.gov/cleandiesel/verification/verif-list.htm> and  
<http://www.arb.ca.gov/diesel/cv.htm>

Eligible expenses for reimbursement for retrofits under this program include:

- Invoice cost of retrofit kit or add-on device including delivery charges;
- Invoice cost of additional equipment that must be installed;
- Installation costs if installed by an authorized outside vendor;
- Reengineering costs by an authorized outside vendor, if the vehicle or equipment must be modified for the retrofit, less any scrap or resale value; and
- Other costs directly related to the project, subject to prior approval.

#### 5.4 Anti-Idle Equipment

Anti-idle equipment consists of installation of idling reduction technologies in order to reduce pollution. Information on some available **technologies deemed verified by USEPA** may be found at: <http://epa.gov/cleandiesel/verification/verif-list.htm>.

Only anti idle technologies that have been verified by US EPA will be eligible for reimbursement with DERG funds. US EPA's Verified Idle Reduction Technology List is posted at <http://www.epa.gov/smartway/technology/idling.htm>

To date, US EPA has verified devices in the following categories of idle reduction technologies:

Electrified Parking Spaces (EPS) / Truck Stop Electrification (TSE)  
Shore Connection Systems and Alternative Maritime Power (SCS/AMP)  
Shore Connection Systems for Locomotives (SCS)  
Auxiliary Power Units and Generator Sets (APU/GS)  
Fuel Operated Heaters (FOH) aka Direct Fired Heaters (DFH)  
Battery Air Conditioning Systems (BAC)  
Thermal Storage Systems (TSS)  
Automatic Shut-down/ Start-up Systems

Eligible expenses for reimbursement for anti-idle equipment under this program include:

- Invoice cost of anti-idle kit or add-on device including delivery charges;
- Installation costs if installed by an authorized outside vendor;
- Reengineering costs by an authorized outside vendor, if the vehicle or equipment must be modified for the anti-idle technology; and
- Other costs directly related to the project, subject to prior approval.

## SECTION 6: PROJECT SELECTION CRITERIA

Project selection for the DERG Program will be accomplished by a committee comprised of staff from Ohio EPA and ODOT. The primary project selection criteria will be based on a rank ordering of the projects' costs divided by the projects' emission reductions. Secondary criteria will include promoting project diversity and geographic funding diversity, and for projects in Ohio metropolitan planning organization (MPO) areas, a recommendation from the MPO regarding regional project priorities.

**Due to the competitiveness of the program, not all eligible projects will be approved for funding.**

DERG program project applications will be evaluated consistent with the FHWA CMAQ guidance eligibility criteria and ranked consistent with the scoring parameters below.

**Equipment must be operated in PM<sub>2.5</sub> and/or Ozone nonattainment or maintenance areas of Ohio for at least sixty-five percent (65%) of the time. Funded projects will be required to provide documentation that this criterion is met for a period of no less than five years following installation of the equipment.**

For PPPs, partnerships must have a legal, written agreement executed between the public agency and the private or non-profit entity before a CMAQ-funded project application can be approved for funding. These agreements should be developed under relevant State contract law and should specify the intended use for CMAQ funding; the roles and responsibilities of the participating entities; and how the disposition of land, facilities, and equipment will be carried out should the original terms of the agreement be altered (e.g., due to insolvency, change in ownership, or other changes in the structure of the PPP). **If an applicant is a PPP, a copy of the required written agreement clearly identifying the partners must be included at the time the application is submitted, or the application will not be evaluated. A copy of the final *signed and executed* agreement must be provided no later than 30 days after the application deadline, or the application will not receive further consideration. A sample template for a public-private partnership agreement is provided in Appendix D.**

The evaluation of eligible applications will be based on the following parameters:

- a). **Projected emission reductions of particulate matter (PM<sub>2.5</sub>) and oxides of nitrogen (NOx), reported in tons per year.** The project score will be based on reductions of NOx and PM<sub>2.5</sub> emissions
- b). **Cost effectiveness of the emission reductions:** The total project cost described in the application will be divided by the estimated total emission

reduction of PM<sub>2.5</sub> and NO<sub>x</sub> to determine the cost effectiveness of the project, in dollars per ton of reduced emissions.

Ohio EPA also **strongly** encourages applicants to follow the guidance issued by US EPA for the federal *Diesel Emissions Reduction Program (DERA): Technologies, Fleets and Projects Information*, posted at: <http://www.epa.gov/cleandiesel/documents/420p11001.pdf>. This guidance lays out the kinds of things Ohio EPA will be looking for in the application project descriptions for various types of diesel projects, and the specific kinds of documentation that DERG grant recipients will be expected to provide and maintain.

Another very help tool is US EPA's *Tips for a Successful Diesel Retrofit Project*, posted at: <http://www.epa.gov/cleandiesel/tools/tips-for-success.htm#project>.

## **SECTION 7: GENERAL REQUIREMENTS**

### **7.1 Cost of Proposal**

The cost of preparing and submitting proposals in response to this RFP are solely the responsibility of the applicant. The program shall not reimburse or contribute, in any way, to the cost of the preparation and delivery of the proposal.

### **7.2 Confidentiality**

All information submitted in response to this RFP shall be public information unless a statutory exception exists which would thereby determine that the information cannot be released to the public. Any information submitted with the proposal, which the applicant feels is a trade secret must be conspicuously designated as such and shall be treated accordingly if the information is determined to be a trade secret under the laws of the State of Ohio. It is the applicant's sole duty to identify and mark such passages it deems to be trade secrets. All submitted proposals will become the property of the Ohio EPA and any information submitted in response to this proposal will not be returned to the applicant.

## **SECTION 8: APPENDICES**

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## Appendix A: DERG Application Form



## OHIO DIESEL EMISSIONS REDUCTION GRANT PROGRAM

### ***Application Form***

*For Office Use Only:*

*Application Number:* \_\_\_\_\_ *Date Received:* \_\_\_\_\_

### **Section 1. Contact Information for Applicant**

**Table 0-1.** *Please provide contact information for the applicant organization's **Authorizing Agent** (person who is authorized to sign the grant contract on behalf of the organization).*

a. Full name of Organization:	
b. Federal Employer Identification Number (EIN):	
c. Street Address:	
d. City:	
e. State:	
f. Zip Code:	
g. County:	
h. Name of person serving as Authorizing Agent:	
i. Authorizing Agent Phone Number:	
j. Authorizing Agent E-mail Address:	

**Table 0-2.** *Contact Information for **Project Director** (person who will oversee the purchase or installation of equipment and implementation of the project).*

a. Project Director (Primary Contact):	
b. Title:	
c. Street Address:	
d. City:	
e. State:	
f. Zip Code:	
g. Phone:	
h. Fax:	
i. E-mail Address:	
j. Alternative or Additional Contacts (Name, Title, Phone, Email):	

**Table 0-3.** *Contact Information for applicant's **Fiscal Agent** (organization treasurer or person who will prepare financial reports of grant expenditures)*

a. Fiscal Agent:	
b. Title:	
c. Street Address:	
d. City:	
e. State:	
f. Zip Code:	
g. Phone:	
h. Fax:	
i. E-mail Address:	
j. Alternative or Additional Contacts (Name, Title, Phone, Email):	

## Section 2. Applicant Certifications

### Certification Questions

1. Does the applicant and/or company have any outstanding financial liabilities with state or local governments in Ohio? Does the applicant and/or company owe: a.) Any delinquent taxes to the State of Ohio (the "State"), a state agency or a political subdivision of the State such as a city or county? b.) Any monies to the State or a state agency for the administration or enforcement of the environmental laws of the State? c.) Any other monies to the State, a state agency or a political subdivision of the State that are past due? d.) Is the company the subject of any existing tax lien?  
 Yes                       No
2. Have the applicant, related companies, or any officers: a.) been convicted of a felony b.) Been convicted of or enjoined from any violation of state or federal securities law? c.) been a party to any consent order or entry with respect to an alleged state or federal securities law violation? d.) been a defendant in a civil or criminal action?  
 Yes                       No

**If you have answered yes to any of the above, please provide a detailed explanation including, but not limited to the location, amounts, and case identification numbers (if applicable) on a separate sheet.**

3. Public-Private Partnerships (PPP) must have a legal, written agreement in place between the public agency and the private or non-profit entity before a CMAQ-funded project may be implemented. These agreements should be developed under relevant State contract law and should specify the intended use for CMAQ funding; the roles and responsibilities of the participating entities; and how the disposition of land, facilities, and equipment will be carried out should the original terms of the agreement be altered (e.g., due to insolvency, change in ownership, or other changes in the structure of the Public Private Partnerships). I am a PPP and have attached the required documentation to this application.  
 Yes                       No

### Certification Statement

*Instructions: Please have the Authorizing Agent read the Statement of Certification below, **check every applicable box**, and sign the certification statement in Table 2-1, row a. Submit one paper copy of this application with an original signature in Table 2-1, row a (and an original signature in Table 2-2, row a if the applications is being submitted by a Public Private Partnership), and two paper copies of the signed application.*

I certify that to the best of my knowledge the information contained in this application and in the supplemental material is correct and complete. I certify that the funding

requested satisfies the eligibility requirements for this Program as represented in the Request for Proposals and related materials. I certify that I understand that the funding under this Program is subject to restrictions and other conditions listed in the Program Request for Proposals, including (inter alia):

- The applicant will use the funding under this Program for the specific purposes defined in the Program Request for Proposals.
- The applicant certifies that the vehicles and equipment to be purchased, repowered, or retrofitted with pollution control or anti-idle equipment under this Program conform to the Program requirements defined in the Program Description.
- The applicant will maintain the pollution control equipment for a minimum period of five years from the date of installation. As needed, the applicant will avail itself of the warranty in order to ensure that the equipment funded under this Program remains in good working order for at least five years following installation.
- The applicant will not use funding under this Program to purchase hardware or services for which the applicant has received, or will receive, payment from another source or under another program.
- The applicant will submit a closing activity and fiscal report to Ohio EPA or the Ohio Department of Transportation upon completion of the project, and an interim progress report every six months for the duration of the project if required by the terms of the grant contract.
- The applicant will provide the Ohio EPA and Ohio Department of Transportation access to vehicles and equipment being funded by this Program, facilities where the vehicles and equipment are located, and documentation related to funding received from this Program, based on reasonable notice of a request for such access.
- The applicant will use only fuel that is compatible with the equipment purchased or installed with funding from the Program, per the manufacturer's specifications.
- The applicant has received approval from the organization's governing body, to apply and make use of the funding under this program.
- The applicant will follow applicable state and federal guidelines to competitively procure the products and services funded under this project.
- At the time of fund disbursement, the applicant will have in place an emission reduction program, such as an anti-idling program, to reduce air pollution emissions.
- Where applicable under ORC 3517.13(I) or ORC 3517.13(J), the applicant's Authorizing Agent or spouse has not made, within the two previous years, one or more contributions totaling in excess of \$1,000 to the Governor or his campaign committees.
- Where applicable, the applicant is in compliance with the Federal Drug-Free Workplace Act of 1988 (41 USC Section 701, et seq.); state ethics laws and conflict of

interest laws; and state regulations covering non-discrimination in hiring and affirmative action (ORC 125.111).

I authorize Ohio EPA to make any necessary inquiries to verify the information that I have presented. I acknowledge that the information in this application is not confidential and may be released as required by the Program.

As an authorized agent of the Applicant, I hereby submit this Application to the State of Ohio, Environmental Protection Agency. I understand that any false statement in this record may subject the Applicant and Signer to criminal prosecution. I understand that additional information may be requested. I also understand that this document in no way constitutes a commitment of funds by the State of Ohio for any of its programs.

I hereby represent and certify that the foregoing and attached information, to the best of my knowledge and belief, is true, complete and accurately describes the proposed activity/project for which the financial assistance is being sought. I am aware of Ohio Revised Code Sections 9.66(C) and 2921.13(D)(1) which outline penalties for falsification which could result in the return of all monies received and the forfeiture of all current and future financial assistance benefits as well as a fine of not more than \$1,000 and/or a term of imprisonment of not more than one hundred and eighty (180) days. I further agree to inform the Ohio Environmental Protection Agency of any changes in the foregoing information, which may occur prior to the time the Applicant, and the Ohio Environmental Protection Agency or Ohio Department of Transportation execute an Agreement. Further, I hereby authorize the Ohio Environmental Protection Agency to contact the Ohio Department of Transportation to confirm statements contained within this application and to review applicable confidential records.

The undersigned warrants, certifies and represents that certain information in their application may be subject to the Open Public Records Act.

**Table 2-3. Applicant Certification Signature**

a. Signature of Applicant Authorizing Agent:	
b. Date:	
c. Name ( <i>typed</i> ):	
d. Title or relationship to applicant organization:	
e. Contact Information ( <i>If different than the person identified in Table 1-1 of the Application</i> ):	

**Table 2-2. Co-Applicant Certification Signature** (Required if the applicant is a Public-Private Partnership)

a. Signature of Co-Applicant:	
b. Date:	
c. Name ( <i>typed</i> ):	
d. Title or relationship to applicant organization:	
e. Contact Information:	

### Section 3: Budget Estimate

<b>Funding</b>	
***Please include a detailed budget estimate	
Identify source for 20% match	_____
Expected date to enter into contract	_____
Total Project Cost	\$ _____
Less Core/Scrap Value	- \$ _____
Revised Total Project Funding Request	\$ _____
80% of Revised Project Cost	\$ _____
20% of Revised Project Cost	\$ _____
Funding Requested	\$ _____
***Attach an itemized vendor <u>estimate</u> for the proposed project. Note: the vendor's <u>estimate</u> does not constitute a commitment to award the project to this vendor. DERG projects will be awarded consistent with federal, state and local government competitive bidding procedures.	

### Section 4: Emission Reduction & Cost-Effectiveness

<b>Calculations</b>	
Please include a copy of the DEQ output page	
Total NOx Emission Reduction (tons/yr)	_____
Total PM 2.5 Emission Reduction (tons/yr)	_____
Sum Total of NOx & PM 2.5 Emission Reduction (tons/yr)	_____
Total Project Cost (minus core/scrap value)	\$ _____
Cost-Effectiveness (total project cost / sum total emission reductions)	\$ _____

### Section 5: Scope of Project

Select Project Type (check all that apply):

Vehicle/Equipment Replacement

Equipment Repower

Equipment Retrofit

Anti-Idle Equipment

**Attach required Scope of Project and descriptions as defined below to this application. Incomplete applications will not be scored.**

### **Vehicle/Equipment Replacement**

The grant will cover a portion of the cost to replace vehicle/machinery with a new piece of vehicle/machinery, minus the scrappage value of the old vehicle/machinery. The vehicle/machinery to be replaced must be in working order, have at least five years of remaining useful life, and will be permanently removed from service when the new vehicle/machinery is received. The selected technology must be verified by either US EPA or CARB to reduce engine NOx and/or PM 2.5 diesel engine emissions.

Project agreements involving replacements of full vehicle should include a provision for disposal of the engine block through/by an OEM or authorized remanufacturer and a process to verify the retirement of this vehicle/machinery.

On-road transportation vehicles, non-road vehicles and construction vehicles/machinery working on a surface transportation construction project within an Ohio nonattainment or maintenance area will qualify under this project if the equipment is operated at least 65% of the time in nonattainment or maintenance areas.

Non-road vehicles or construction equipment must be working on a surface transportation construction project (Title 23) within an Ohio nonattainment or maintenance area to be eligible. Only those costs associated with components that produce emissions will be considered.

### **Scope of Project**

- Describe the size, location, and type of project and how it is consistent with FHWA CMAQ eligibility guidance. The emission reductions methodology must be defined, and the calculations and results shown below in the details section.
- The existing engine to be replaced must be in working order.
- List the percent (%) and duration (years) of equipment operation in the nonattainment and maintenance areas.
- If a commitment is being made by the public entity or end-user to use biodiesel or other alternative fuels in the diesel engine fleets, documentation of the percent of use must be attached to this application.

### **Detailed Description of Vehicle/Machinery Replacement**

- Describe the vehicle/machinery (VIN #) to be replaced and how and when it is used.

- Describe the vehicle/machinery to be acquired and how and when it will be used.
- Include quantitative analysis of mobile source emission reductions resulting from project implementation.
- Show the complete costs, emission reduction (both PM2.5 and NOx), and estimated **cost-effectiveness (\$/ton of both PM2.5 and NOx removed)**, and all detailed calculations that support your application for these grant funds.
- **Attach any supplemental engineering data sheets, and any detailed support information to aid your application.**

### **Equipment Repower**

The grant will reimburse a portion of the cost to purchase and install a lower emissions engine and associated equipment, minus the scrappage value of the old engine. The new or repowered engine must be verified by either US EPA or CARB to reduce engine NOx and/or PM 2.5 diesel engine applications.

Project agreements involving a replacement of a higher emissions engine should include a provision for disposal of the engine block and a process to verify the retirement of the older engine.

On-road transportation vehicles, non-road vehicles and construction equipment working on a surface transportation construction project within an Ohio nonattainment or maintenance area will qualify under this project if it is operated at least 65% of the time in nonattainment or maintenance areas.

### **Scope of Project**

- Describe the size, location, and type of project and how it is consistent with FHWA CMAQ eligibility guidance. The emission reductions methodology must be defined, and the calculations and results shown below in the details section.
- The existing engine to be replaced must be in working order.
- List the percent (%) and duration (years) of equipment operation in the nonattainment and maintenance areas.
- If a commitment is being made by the public entity or end-user to use biodiesel or other alternative fuels in the diesel engine fleets, documentation of the percent of use must be attached to this application.

### **Detailed Description of Equipment Repower**

- Describe the equipment (VIN #) to be repowered and how and when it is and will be used.
- Include quantitative analysis of mobile source emission reductions resulting from project implementation.
- Show the complete costs, emission reductions (both PM2.5 and NOx), **cost-effectiveness (\$/ton of both PM2.5 and NOx removed)**, and all detailed calculations that support your application for these grant funds.
- **Attach any supplemental engineering data sheets, and any detailed support information to aid your application.**

## **Equipment Retrofit**

The grant will reimburse a portion of the cost to purchase and install retrofit technologies.

On-road transportation vehicles, non-road vehicles and construction equipment working on a surface transportation construction project within an Ohio nonattainment or maintenance area will qualify under this project if it is operated at least 65% of the time in nonattainment or maintenance areas.

The selected technology must be verified by either US EPA or CARB to reduce engine NOx and/or PM 2.5 diesel engine applications.

### **Scope of Project**

- Describe the size, location, and type of project and how it is consistent with FHWA CMAQ eligibility guidance. The emission reductions methodology must be defined, and the calculations and results shown below.
- List the percent (%) and duration (years) of equipment operation in the nonattainment and maintenance areas.
- If a commitment is being made by the public entity or end-user to use biodiesel or other alternative fuels in the diesel engine fleets, documentation of the percent of use must be attached to this application.

### **Detailed Description of Equipment Retrofit**

- Describe the existing fleet or equipment and the retrofit technology to be used.
- Include quantitative analysis of mobile source emission reductions resulting from project implementation, using USEPA's Diesel Emission Quantifier (DEQ) tool at <http://www.epa.gov/cleandiesel/quantifier> . In using this tool, be sure to set the parameters to include an estimate of the total cost effectiveness of the project..
- Show the complete costs, emission reductions (both PM2.5 and NOx), emission reductions/\$ ratios, and all detailed calculations that support your application for these grant funds.
- **Attach any supplemental engineering data sheets, and any detailed support information to aid your application.**

## **Anti-Idle Equipment**

The grant will reimburse a portion of the cost to purchase and install anti-idle technologies. If applicable, the documentation of legal contract compliance must be supplied with this application.

On-road transportation vehicles, non-road vehicles and construction equipment working on a surface transportation construction project within an Ohio nonattainment or maintenance area will qualify under this project if it is operated at least 65% of the time in nonattainment or maintenance areas. Unverified technologies that have provided demonstrated emission reductions may be eligible under this RFP upon approval by FHWA as submitted by ODOT.

Applicants must submit information that supports the emission reductions benefits of unverified technologies.

### **Scope of Project**

- Describe the size, location, and type of project and how it is consistent with FHWA CMAQ program eligibility guidance. The emission reductions methodology must be defined, and the calculations and results shown below.
- List the percent (%) and duration (years) of equipment operation in the nonattainment and maintenance areas.
- If a commitment is being made by the public entity or end-user to use biodiesel or other alternative fuels in the diesel engine fleets, documentation of that commitment must be attached to this application.

### **Detailed Description of Anti-Idle Equipment**

- Describe and list the equipment with the anti-idle technology to be used. Include quantitative analysis of mobile source emission reductions resulting from project implementation.
- Show the complete costs, emission reductions (both PM2.5 and NOx), **cost-effectiveness (\$/ton of both PM2.5 and NOx removed)**, and all detailed calculations that support your application for these grant funds.
- **Attach any supplemental engineering data sheets, and any detailed support information to aid your application.**

## Section 6. Application Checklist

*Please check all applicable components that are included in your application. Incomplete applications will not be scored.*

### Applicant Information

- \_\_\_\_\_ Appendix A: Application Form – one with original signature(s) and two copies
- \_\_\_\_\_ Detailed Budget Estimate
- \_\_\_\_\_ Detailed explanation to Appendix A's Questions 1 and/or 2 (if applicable)
- \_\_\_\_\_ Scope of Project with description of size, location, and type of project. Explain how it is consistent with FHWA CMAQ eligibility guidance regarding emission reductions methodology
- \_\_\_\_\_ Public-Private Partnership Agreement (if applicable) – if not yet signed, a signed and executed copy must be provided within 30 days of application submittal

### Technical Information

- \_\_\_\_\_ Detailed description and list of vehicles and/or equipment as requested in Section 5 of the RFP for the type of project being proposed.
- \_\_\_\_\_ Percent of time that each grant-funded vehicle or piece of equipment is expected to operate in the CMAQ-eligible non-attainment areas of Ohio.
  
- \_\_\_\_\_ Report containing the information requested in Section 6, items a and b of the RFP, including:
  - \_\_\_\_\_ Projected emission reductions of particulate matter and/or oxides of nitrogen, reported in **tons/year** from USEPA's Diesel Emissions Quantifier tool;
  - \_\_\_\_\_ Cost effectiveness of the emission reductions; and
  - \_\_\_\_\_ All calculations and supporting documentation included

## Appendix B: DERG Eligibility Chart by Vehicle Type

DERG Eligibility						
Vehicle Type	Replacement		Repower	Retrofit	Anti-idle <sup>3</sup>	
	Full	Partial				
<b>Public On-Road Vehicles</b>						
School Bus	X		X	X	X	
Refuse truck	X		X	X	X	
Government Fleet (general services)		X <sup>2</sup>	X	X	X	
Government Fleet (roadway maintenance)		X	X	X	X	
Mass transit vehicle	X		X	X	X	
<b>Private On-Road Vehicles</b>						
Short haul truck		X	X	X	X	
Shuttle		X	X	X	X	
Bus		X	X	X	X	
<b>Public Off-Road Vehicles</b>						
Tractor	X		X	X	X	
Earthmover	X		X	X	X	
<b>Private Off-Road Vehicles</b>						
Title 23 construction equipment		X	X	X	X	
<b>Private Alternative Fuel Vehicle (AFV)</b>						
Short haul truck		X <sup>1</sup>	X	X	X	
Shuttle		X <sup>1</sup>	X	X	X	
Bus		X <sup>1</sup>	X	X	X	
<b>Freight</b>						
Locomotive		X	X	X	X	
Maritime <sup>4</sup>		X	X	X	X	

1 Only 80% of the cost difference between the AFV and comparable conventional fuel vehicle is eligible. Source: CMAQ Program Guidance, pg 17.

2 In addition to vehicles used for roadway maintenance, other vehicles that provide a dominant transportation function are eligible for replacement; this includes paratransit, freeway courtesy vans tow/trucks, incident management patrol vehicles, and others. Source: MHWA Memo, Federal Cost Principles, April 2011

3 Anti-idle projects technologies include: direct-fired heaters, auxiliary power units (APUs) or automatic engine idle systems.

4 Maritime projects must demonstrate the emission reductions will be in proximity to and primarily benefitting, a nonattainment or maintenance area.

**Full replacement**-FHWA will participate in 80% of the full vehicle replacement costs

**Partial replacement**-FHWA will participate in 80% of the costs associated with the components of the replacement vehicle that reduce emissions, this typically includes the engine and engine management software

Appendix C: Map of CMAQ-Eligible Counties and  
Townships in Ohio



Appendix D: Sample Public-Private Partnership  
Agreement

## **Public-Private Partnership Agreement Sample Template**

This Public – Private Partnership Agreement (the “Agreement”), made effective as of \_\_\_\_\_, 2012, by and between the [Name of public entity], (“\_\_\_\_\_”), and \_\_\_\_\_ (“Company”), with principal offices at \_\_\_\_\_.

### **Background**

A. The Ohio Environmental Protection Agency (“Ohio EPA”) administers a Diesel Emissions Reduction Grant program (“DERG”) pursuant to Section 122.861 of the Ohio Revised Code. The DERG Program provides grant funding to replace or upgrade diesel equipment through a variety of technologies which are installed on equipment to reduce the consumption of diesel fuel and reduce air pollution emissions. The DERG Program requires that any private company applying for DERG funding enter into an appropriate Public – Private Partnership Agreement.

B. Company desires to work with \_\_\_\_\_ as the public sponsor of a proposed DERG project, and \_\_\_\_\_ is willing to participate in the DERG Program as the Public Sponsor for Company for the proposed project further described in this Agreement (the “DERG Project”).

**NOW, THEREFORE**, in consideration of the foregoing and the mutual promises and the covenants and agreements set forth below, the parties agree as follows:

### **1. DERG Program Requirements**

1.1 Company shall abide by all applicable rules, regulations, and requirements of the DERG Program. Failure of Company to do so shall result in the termination of this Agreement, at which time Company shall immediately repay to [public sponsor] and/or Ohio EPA all grant funds Company received in connection with the DERG Program, together with any interest or penalties that may be assessed as a result of Company’s failure to comply with applicable requirements. Notwithstanding the foregoing, if and to the extent repayment of grant funds is affirmatively waived by Ohio EPA, the Ohio Department of Transportation, and the Federal Highway Administration (FHWA), Company shall not be required to repay amounts covered by such a waiver.

1.2 Without limiting the generality of the foregoing, Company shall abide by all federal requirements pertaining to 23 USC Section 149(e) under the Congestion Mitigation and Air Quality (CMAQ) Improvement Program and all related CMAQ Program rules and regulations.

At the request of [public sponsor] or Ohio EPA, Company shall certify in writing to Ohio EPA that Company has complied in all aspects with the CMAQ Program requirements as they relate to the DERG Project; such certification shall be signed by an officer of Company.

## **2. DERG Project**

Company intends to apply for a grant from the DERG Program to support the following DERG Project: [insert project description].

## **3. Roles and Responsibilities of Public Sponsor**

3.1 [Public sponsor] shall coordinate with Ohio EPA and Company as required to facilitate administration of any grants Ohio EPA may award to Company through the DERG Program. This coordination may include, but not be limited to, any of the following tasks and duties as required:

- (a) Acting as project sponsor for Company;
- (b) Acting as a pass-through agent (at the discretion of Ohio EPA) to provide DERG funds to Company;
- (c) Monitoring compliance with DERG Program and CMAQ Program rules, including, but not limited to, procurement in accordance with federal requirements and performance by the Company of ongoing obligations to maintain equipment purchased or improved with DERG funds in active use in the location specified by the DERG grant agreement; and
- (d) Assisting Ohio EPA in various other administrative tasks which may be required by the DERG Program.

## **4. Roles and Responsibilities of Company**

4.1 Company shall coordinate with Public Sponsor as necessary and useful to ensure compliance with requirements of the DERG Program and CMAQ Program. Such coordination may include, but is not limited to, any of the following tasks:

- (a) Complying with any and all requirements of the DERG Program and CMAQ Program;
- (b) Owning and maintaining any equipment purchased with DERG funding;
- (c) Providing Ohio EPA and [public sponsor] with such information and certifications about the operations, performance, and location of equipment purchased or improved with DERG funding as may be requested from time to time; and
- (d) Providing the matching share of funding as required by the DERG Program.

## **5. Termination**

The terms and conditions of this Agreement shall remain in force and effect until the terms and conditions of any DERG Program grant funding received by Company, including, but not limited to, ongoing compliance obligations under the CMAQ Program rules, expire.

**6. Miscellaneous**

6.1 Assignment. Neither this Agreement, nor any rights, duties nor obligations described in this Agreement, shall be assigned or subcontracted by Company without the prior written consent of [public sponsor], Ohio EPA, and FHWA, which shall not be unreasonably withheld. In the event that [public sponsor], Ohio EPA, and FHWA approve an assignment, each and all of the terms and conditions of this Agreement shall extend to the benefit of the successors and assigns of Company.

6.2 Governing Law. This Agreement shall be governed by the laws of the State of Ohio as to all matters, including but not limited to matters of validity, construction, effect and performance.

6.3 Forum and Venue. All actions regarding this Agreement shall be forumed and venued in a court of competent subject matter jurisdiction in Franklin County, Ohio.

6.4 Entire Agreement. This Agreement and any documents referred to herein constitute the complete understanding of the parties and merge and supersede any and all other discussions, agreements and understandings, either oral or written, between the parties with respect to the subject matter hereof.

6.5 Severability. Whenever possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions of this Agreement.

**IN WITNESS WHEREOF**, the parties have caused this Agreement to be executed by their authorized representatives effective as of the date first above written.

**COMPANY:**

**[Public Sponsor]:**

BY: \_\_\_\_\_

BY: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

Appendix E:  
Diesel/Vehicle Useful Life Guidelines



## Appendix E: Diesel Vehicle/Equipment Useful Life Guidelines

Vehicle/Equipment Type	Attributes		Minimum Useful Life (Whichever comes first)		
	Length	GVW	Years	Miles	Hours
Transit <sup>1</sup>					
Heavy Duty Large Bus	35' – 40'	33,000 - 40,000	12	500,000	
Heavy Duty Small Bus	30'	26,000 - 33,000	10	350,000	
Medium Duty Bus	25' – 35'	16,000 - 26,000	7	200,000	
Light Duty Transit Vehicle	16' – 28'	6,000 – 14,000	4	100,000	
Service Vehicles <sup>2</sup>					
Light Heavy Duty Diesel		8,500 -19,500	8	110,000	
Medium Heavy Duty Diesel		19,500 – 33,000	8	185,000	
Heavy Heavy Duty Diesel		>33,000	10	435,000	23,000
Locomotives <sup>3</sup>					
Line Haul			10	750,000	HP * 7.5
Switcher			10	750,000	HP * 7.5

### Sources:

1. US Department of Transportation, Federal Transit Administration, Useful Life of Transit Buses and Vans, Report No. FTA VA-26-7229-07.1, April 2007  
[http://www.fta.dot.gov/documents/Useful\\_Life\\_of\\_Buses\\_Final\\_Report\\_4-26-07\\_rv1.pdf](http://www.fta.dot.gov/documents/Useful_Life_of_Buses_Final_Report_4-26-07_rv1.pdf)
2. The National Academies Press, Review of 21<sup>st</sup> Century Truck Partnership (2008)  
[http://www.nap.edu/openbook.php?record\\_id=12258&page=110](http://www.nap.edu/openbook.php?record_id=12258&page=110)
3. DieselNet: Emission Standards >> United States Locomotives  
<http://www.dieselnets.com/standards/us/loco.php>

## Appendix F: Additional Guidance for Applicants



## OHIO DIESEL EMISSIONS REDUCTION GRANT PROGRAM Additional Guidance for Applicants

*The following questions and answers are offered as general guidance to assist prospective grant applicants. All grant awards must comply with the federal CMAQ program requirements, so applicants should carefully follow the federal CMAQ policy and guidance posted at [http://www.fhwa.dot.gov/environment/air\\_quality/cmaq/policy\\_and\\_guidance/cmaq08gd.pdf](http://www.fhwa.dot.gov/environment/air_quality/cmaq/policy_and_guidance/cmaq08gd.pdf)*

*Ohio EPA also **strongly** encourages applicants to follow the guidance issued by US EPA for the federal Diesel Emissions Reduction Program (DERA): Technologies, Fleets and Projects Information, posted at <http://www.epa.gov/cleandiesel/documents/420p11001.pdf>. This guidance lays out the kinds of things Ohio EPA will be looking for in various types of diesel projects, and the specific kinds of documentation that DERG grant recipients will be expected to provide and maintain.*

*Another very helpful tool is US EPA's Tips for a Successful Diesel Retrofit Project posted at <http://www.epa.gov/cleandiesel/tools/tips-for-success.htm#project>.*

*For more detailed information on the cost-effectiveness of various diesel retrofit technologies, see US EPA's study, "The Cost-Effectiveness of Heavy-Duty Diesel Retrofits and Other Mobile Source Emission Reduction Projects and Programs" posted at: <http://www.epa.gov/cleandiesel/publications.htm>*

### **Introduction – Why Clean Diesel?**

According to US EPA, emissions from diesel exhaust can lead to serious health conditions like asthma and allergies, and can worsen heart and lung disease, especially in vulnerable populations such as children and the elderly. Diesel engines emit particulate matter (soot), nitrogen oxides which contribute to the production of ground-level ozone (smog) and acid rain; hydrocarbons; air toxics; and black carbon. These emissions can damage plants, animals, crops and water resources. For more information on the impacts of diesel emissions, see US EPA's National Clean Diesel Campaign Website at <http://www.epa.gov/cleandiesel/basicinfo.htm>. For additional information about recent research into health effects, consult US EPA's Health Assessment Document for Diesel Engine Exhaust, at <http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=29060>

Ohio's state budget for state fiscal years 2012 and 2013 includes the allocation of \$20 million to fund the Diesel Emission Reduction Grant (DERG) program, offering \$10 million in funding for each round. Grants will be supported from the Federal Highway Administration's Congestion Mitigation and Air Quality (CMAQ) funding provided to the Ohio Dept. of Transportation (ODOT) and administered through a partnership between ODOT and Ohio EPA.

**The primary goal of the DERG grant program is to reduce harmful emissions from older diesel-powered vehicles operating on or along highways, or off-road construction equipment used in federally-funded Title 23 highway projects, to protect human health and improve air quality in the targeted Ohio counties and townships.** The DERG program is designed to assist in funding vehicle or engine replacements or repowers with new cleaner diesel technology, retrofits with emission controls, and/or the installation of anti-idling technologies.

### **What areas of Ohio are eligible for funding?**

Eligible applicants for the DERG program include public diesel fleets and private diesel fleets (with a public sponsor) who operate diesel vehicles and equipment **at least 65% of the time** on highways or on highway projects within the 38 Ohio counties or portions of counties that have been designated non-attainment or maintenance with respect to federal air quality standards for fine particulates (soot particles, PM<sub>2.5</sub>) or ozone. A map of eligible counties and townships is included in the DERG RFP and posted at <http://www.epa.ohio.gov/portals/42/documents/dergeligible2011.pdf>

Grant recipients will be required to provide written records documenting that the vehicle or equipment was operated at least 65% of the time in the designated ozone or PM<sub>2.5</sub> nonattainment or maintenance areas in Ohio. Written records must be maintained with the owner/operator of the approved project for a minimum 5 years.

### **Is there a match required?**

Yes. In general, these grants will **reimburse** up to 80% of the allowable project costs, and only for allowable equipment purchases or work conducted **after** the project has been approved and invoices for work completed have been submitted by the grant recipient and approved by Ohio EPA or ODOT. No federal funds of any kind can be used to meet the remaining 20% of the project cost. Grant applicants must explain the funding source that will be used to meet the 20% match, and demonstrate that they can cover the full cost of the project prior to approval of the reimbursement.

### **What kinds of diesel fleets are eligible for funding?**

The DERG eligibility chart included in the RFP and posted at <http://www.epa.ohio.gov/LinkClick.aspx?fileticket=Aaqc9CNtcTQ%3d&tabid=5227> summarizes grant funding eligibility actions for on-road and off-road vehicles operated by public sector and private sector (or non-profit) entities. Private sector and nonprofit sector applicants must apply through a public sector partner such as a local

government, regional council of governments, or state agency such as the Ohio Air Quality Development Authority, Ohio Rail Development Commission, or Ohio EPA.

### **What should be included when applying for replacement vehicles?**

Vehicle or equipment replacements are designed to obtain emission reductions by removing high-emitting vehicles or equipment from service, and replacing them with newer, cleaner vehicles or equipment.

For replacement vehicle projects, the project description section of the DERG application should discuss the specific points in section 6 of US EPA's *Diesel Emissions Reduction Program (DERA): Technologies, Fleets and Project Information* document, posted at <http://www.epa.gov/cleandiesel/documents/420p11001.pdf> including:

- Early replacement: showing that the vehicle is not being replaced as part of normal fleet turnover
- Replacement requirements: show that the replacement vehicle is serving the same function and has the same gross vehicle weight and similar horsepower as the original, and is being maintained in accordance with manufacturer specifications
- Show that the original vehicle or equipment is working properly and performing its intended function in normal duty service
- Explain how the applicant will ensure that the original vehicle or equipment is scrapped or remanufactured
- Grant recipients should have US EPA certificates of conformity for existing and new engines from the engine manufacturers before replacing the vehicle, to confirm the applicable emission standard or tier level.

Grant recipients funded under the DERG program will be expected to keep on file the kinds of documentation described in the file checklists in section 6 of the DERA information, and to produce this documentation upon request.

Applicants should pay careful attention to the different types of vehicles eligible for replacement in the DERG eligibility chart included in the RFP and posted at <http://www.epa.ohio.gov/LinkClick.aspx?fileticket=Aagc9CNtcTQ%3d&tabid=5227> . In the DERG program, “full replacement” means that DERG funds can be used to reimburse 80% of the full vehicle replacement costs. “Partial replacement” means that DERG funds can only be used to reimburse 80% of the costs associated with the components of the replacement vehicle that reduce emissions. This typically includes the engine and engine management software.

Under the DERG program, grant recipients for replacement projects will be reimbursed up to 80% of the total project cost subject to CMAQ restrictions and the DERG RFP, less the core value or scrap value and other governmental financial purchase contributions.

The Federal Transit Administration has published guidance on the Useful Life of Transit Buses and Vans, Report No. FTA VA-26-7229-07.1, posted at [http://www.fta.dot.gov/documents/Useful\\_Life\\_of\\_Buses\\_Final\\_Report\\_4-26-07\\_rv1.pdf](http://www.fta.dot.gov/documents/Useful_Life_of_Buses_Final_Report_4-26-07_rv1.pdf)

### **What should be included when applying for engine repowers and upgrades?**

In an engine repower, the existing engine is removed and replaced with a newer, cleaner engine configuration that meets a more stringent set of engine emissions standards. Engine repowers may use new engine configurations certified to emission standards, or remanufactured engines representative of a previously certified engine configuration. Engine Certification data and information can be found at <http://www.epa.gov/otaq/certdata.htm> .

Generally, an engine upgrade involves the removal of parts on a certified engine configuration and replacement with parts that cause the engine to represent an engine configuration which is certified to meet more stringent federal emission standards.

Only equipment that has been verified by either US EPA or the California Air Resources Board will be eligible for reimbursement with DERG funds. US EPA's Verified Technology List is posted <http://epa.gov/cleandiesel/verification/verif-list.htm>. The California Air Resources Board Verified Technology List is posted at <http://www.arb.ca.gov/diesel/cv.htm>

For engine repower or upgrade projects, the project description section of the DERG application should discuss the specific points in sections 5 and 7 of US EPA's *Diesel Emissions Reduction Program (DERA): Technologies, Fleets and Project Information*, posted at <http://www.epa.gov/cleandiesel/documents/420p11001.pdf> including:

- Replacement engine selection
- Pre- and post-emission standard levels for PM and NOx
- Certificates of Conformity
- How the applicant will ensure the old engine is scrapped or appropriately remanufactured
- How the applicant will insure that invoices will include all parts of the certified engine configuration
- Early repower: showing that the engine is not being repowered as part of normal fleet turnover
- Show that the original engine is working properly and performing its intended function in normal duty service
- To be considered cost effective, show that the engine has a high annual use (>1000 hours or 50,000 miles)
- Note the considerations listed in the DERA information for older trucks, non-road repowers, locomotive and marine repowers and upgrades, and alternative fuel repowers including hybrid, plug-in and electric vehicles.

Grant recipients funded under the DERG program will be expected to keep on file the kinds of documentation described in the file checklists in sections 5 and 7 of the DERA information, and to produce this documentation upon request.

Under the DERG program, grant recipients will be reimbursed up to 80% of the equipment invoiced cost, less the core value or scrap value, and up to 80% of the installation invoiced cost performed by an authorized outside vendor. A vendor authorized by the Original Equipment Manufacturer (OEM ) should be used for engine repowers. Work performed by a vendor or other party not authorized by the OEM is not eligible for reimbursement under CMAQ or the DERG program.

Note that locomotive and maritime projects will be considered based on their potential to reduce emissions along Ohio's highways.

### **What should be included when applying for retrofit projects?**

Eligible retrofit projects include exhaust emission controls and crankcase emission controls.

Exhaust emission controls (often called aftertreatment technologies or aftermarket technologies) include pollution control devices installed in the exhaust system. Common types of exhaust controls include diesel oxidation catalysts (DOCs), diesel particulate filters (DPFs), partial flow filters (PFFs) and selective catalytic reduction (SCR) systems.

Crankcase emission controls are technologies that filter gasses, particles and oil from the original crankcase vent tube so they are not released into the atmosphere.

Only retrofit equipment that has been verified by either US EPA or the California Air Resources Board will be eligible for reimbursement with DERG funds. US EPA's Verified Technology List is posted <http://epa.gov/cleandiesel/verification/verified-list.htm>. The California Air Resources Board Verified Technology List is posted at <http://www.arb.ca.gov/diesel/cv.htm>

For engine retrofit projects, the project description section of the DERG application should discuss the specific points in sections 2 and 3 of US EPA's *Diesel Emissions Reduction Program (DERA): Technologies, Fleets and Project Information*, posted at <http://www.epa.gov/cleandiesel/documents/420p11001.pdf> including:

- Ensuring the technology is verified for the specific engine type, model and year
- Ensuring that contract bid requests are written correctly to that an appropriate technology is purchased and installed,
- Ensuring that the retrofitted equipment will be properly maintained in accordance with manufacturer requirements
- Ensuring that the original vehicle is in proper condition prior to installation

Grant recipients funded under the DERG program will be expected to keep on file the kinds of documentation described in the file checklists in sections 2 and 3 of the DERA information, and to produce this documentation upon request.

Under the DERG program, grant recipients will be reimbursed up to 80% of the retrofit equipment invoiced purchase cost including delivery charges, and up to 80% of invoiced installation cost if performed by an authorized outside vendor. This may include re-engineering costs by an authorized outside vendor, if the vehicle or equipment must be modified for retrofit, less any scrap or resale value. Applicants with retrofit projects that may include re-engineering costs are encouraged to discuss the specifics with Ohio EPA before applying. A vendor authorized by the Original Equipment Manufacturer (OEM) should be used for retrofit projects. Work performed by a vendor or other party not authorized by the OEM is not eligible for reimbursement under CMAQ or the DERG program.

### **What should be included when applying for anti-idle projects?**

Idle reduction technologies reduce unnecessary idling of the main drive engine of diesel vehicles or equipment and/or are 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 engine while the vehicle is temporarily parked or remains stationary. Common types of idle reduction technologies that would be eligible under the DERG program include:

- Auxiliary Power Units (APUs) and Generator Sets
- Fuel Operated Heaters
- Shore connection systems and alternative maritime power
- Shore connection systems for Locomotives
- Electrified parking spaces

Only anti idle technologies that have been verified by US EPA will be eligible for reimbursement with DERG funds. US EPA's Verified Idle Reduction Technology List is posted at <http://www.epa.gov/smartway/technology/idling.htm>

For anti-idle projects, the project description section of the DERG application should discuss the specific points in section 4 of US EPA's *Diesel Emissions Reduction Program (DERA): Technologies, Fleets and Project Information*, posted at <http://www.epa.gov/cleandiesel/documents/420p11001.pdf> including:

- Ensuring the technology is verified for the specific application
- APU restrictions
- Ensuring that contract bid requests are written correctly so that an appropriate technology is purchased and installed

Grant recipients funded under the DERG program will be expected to keep on file the kinds of documentation described in the file checklists in section 4 of the DERA information, and to produce this documentation upon request.

Under the DERG program, grant recipients will be reimbursed up to 80% of the idle reduction equipment invoiced purchase cost including delivery charges, and up to 80% of invoiced installation cost if performed by an authorized outside vendor. This may include re-engineering costs by an authorized outside vendor, if the vehicle or equipment must be modified for the anti-idle technology, less any scrap or resale value. Applicants with anti-idle projects that may include re-engineering costs are encouraged to discuss the specifics with Ohio EPA before applying.

Note that locomotive and maritime projects will be considered based on their potential to reduce emissions along Ohio's highways.

### **Additional Questions**

For additional information, prospective applicants for Ohio Diesel Emission Reduction Grants are encouraged to consult the program Website at <http://epa.ohio.gov/oeef/derg.aspx> , and contact [Alan.Harness@epa.state.oh.us](mailto:Alan.Harness@epa.state.oh.us) or 614-644-4838 with technology questions, or [Carolyn.Watkins@epa.state.oh.us](mailto:Carolyn.Watkins@epa.state.oh.us) or 614-644-3768 with financial questions.