American Recovery and Reinvestment Act of 2009
NEBRASKA CLEAN DIESEL GRANT PROGRAM

Program Overview
Application Packet and Instructions

► Application for Grant Deadline ◄
July 31, 2009

PROGRAM SUMMARY

The Nebraska Department of Environmental Quality (NDEQ) has received a $1.73 million grant from the United States Environmental Protection Agency (EPA). This grant is part of the American Recovery and Reinvestment Act (ARRA) of 2009 and is to be used for reducing diesel emissions, while at the same time stimulating Nebraska's economy and preserving and/or creating jobs in our state and the nation. The funding will provide for the retrofitting, engine upgrades or repowers, and possible replacement of diesel powered vehicles or equipment in Nebraska. The Nebraska Clean Diesel ARRA Grant Program will run from the date of award (August 31, 2009) through August 31, 2010.

The grant targets one of the most important air quality challenges facing the country. Emissions of nitrogen oxides, particulate matter and air toxics are emitted from millions of diesel engines in use on and off the nation's roads. These emissions contribute to public health problems as varied and wide-ranging as asthma attacks, impaired breathing, lost work days and premature deaths. The NDEQ grant program offers several technology options for the multitude of diesel powered fleets in Nebraska. The Nebraska Clean Diesel ARRA Grant Program will provide funding assistance to cover up to 100% of the cost for these diesel emission reduction activities:

- Retrofit Technologies, which include exhaust controls (such as oxidation catalysts, particulate matter filters and/or closed crankcase filtration systems) and idle reduction technologies (such as auxiliary power units, fuel operated heaters, battery air conditioning systems, automatic shut-down/start-up systems, etc.)
- Engine Upgrades or Certified Engine Repowers
- Certified Vehicle and Equipment Replacements

ELIGIBLE EQUIPMENT

Examples of types of diesel equipment that are eligible for the grant are listed below. The list is meant to be illustrative and is not meant to be inclusive of all eligible equipment.

¤ School Buses ¤ Transit Buses ¤ Medium Duty Trucks ¤ Refuse Haulers ¤ Delivery Trucks
¤ Construction ¤ Agriculture ¤ Heavy Duty Trucks ¤ Concrete Trucks ¤ Long Haul Trucks
¤ Stationary Diesel Engines

WHO CAN APPLY

Any public entity or private organization that has eligible diesel equipment and operates primarily in Nebraska is eligible to apply for funding. Eligible diesel equipment includes all of the vehicles in the above list, to include city-county trucks, city buses, electric utility service trucks, and non-road construction equipment (e.g., earth movers, bulldozers, road graders, etc.).

All retrofit equipment installed using this funding must be EPA or California Air Resources Board (CARB) verified. (Note: Technologies on the CARB "Formerly Approved" lists are not eligible for funding.) Projects must be completed by August 31, 2010. Priority will be given to clean diesel projects that: maximize public health benefits; are cost effective; and serve areas with the highest population densities or area(s) that receive a disproportionate quantity of air pollution from diesel vehicles.

SCOPE OF WORK

Project Description

The Nebraska Department of Environmental Quality (NDEQ) is requesting proposals from Nebraska individuals and organizations (both public and private) for grants that are appropriate to meet Nebraska's needs and goals relating to the reduction of diesel emissions. This is a competitive grant that emphasizes: economic stimulation; jobs creation and/or preservation; and reducing diesel emissions where diesel emissions reduction is desired and most cost effective. Diesel emissions reduction options provided for under this grant program must include one or more of the following diesel emissions reduction solutions:

a. *Verified Retrofit Technologies*: A "retrofit" project is defined broadly to include any technology, device, fuel or system that when applied to an existing diesel engine achieves emission reductions beyond what is currently required by EPA regulations at the time of the engine's certification. A list of EPA verified technologies is available at http://www.epa.gov/otaq/retrofit/verif-list.htm. A list of CARB verified technologies is available at http://www.arb.ca.gov/diesel/verdev/verdev/htm. Note: technologies on the "Formerly Approved" lists are not eligible for funding.

   i. *Exhaust Controls:* Exhaust Controls include pollution control devices installed in the exhaust system (such as oxidation catalysts and particulate matter filters), or systems that include crankcase emission control (like a closed crankcase filtration system). This funding can cover up to 100% of the cost (labor and equipment) for an exhaust control that is verified by EPA or the California Air Resources Board (CARB). A list of EPA verified technologies is available at http://www.epa.gov/otaq/retrofit/verif-list.htm. A list of CARB verified technologies is available at http://www.arb.ca.gov/diesel/verdev/verdev/htm

   ii. *Engine Upgrades*: An engine upgrade is defined as an engine that is rebuilt or remanufactured to meet higher federal emission standards. Some engines are able to be upgraded to reduce their emissions by applying manufacturer recommended upgrades (or kits) to certified or verified configurations. This funding can cover up to 100% of the cost (labor and equipment) for an engine upgrade with a manufacturer's kit listed in CARB or EPA's verified lists, or engine upgrade to an EPA certified configuration. Note: this funding cannot be applied to the entire cost of an engine rebuild, but only the emissions-reducing upgrade kit and associated labor costs for installation. A list of EPA verified technologies is available at http://www.epa.gov/otaq/retrofit/verif-list.htm. A list of CARB verified technologies is at http://www.arb.ca.gov/diesel/verdev/verdev/htm

b. *Verified Idle Reduction Technologies*: An idle reduction project is generally defined as the installation of a technology or device that (1) is installed in one or more of the following vehicle(s) or equipment: a bus, medium-duty or heavy-duty truck, marine engine, locomotive, nonroad engine or vehicle used in construction, handling of freight (including at a port or airport), agriculture, mining, or energy production; (2) reduces unnecessary idling of the main drive engine of such vehicles or equipment; and/or (3) 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 engine while the vehicle is temporarily parked or remains stationary. The reduction in idling must also lower emissions. EPA has verified a number of categories of idle reduction technologies: (1) auxiliary power units and generator sets; (2) battery air conditioning systems; (3) thermal storage systems; (4) fuel operated heaters; and (5) automatic shutdown/start-up systems. NDEQ and EPA is particularly interested in projects that combine idle reduction technologies with verified retrofit technologies which will further reduce emissions, e.g., through the addition of exhaust controls such as a diesel particulate filter, diesel oxidation catalyst or crankcase emission control. This funding can cover up to 100% of the cost (labor and equipment) for an idle reduction technology. A list of EPA verified idle reduction technologies is available at www.epa.gov/smartway/transport/what-smartway/verified-technologies.htm.

c. *Verified Aerodynamic Technologies:* Trailer aerodynamic devices include 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. To improve fuel efficiency, legacy fleets can be retrofitted with aerodynamic trailer fairings or the fairings can be provided as new equipment options. NDEQ and EPA are particularly interested in projects that combine aerodynamic technologies with verified retrofit technologies which will further reduce emissions, e.g., through the addition of exhaust controls such as a diesel particulate filter, diesel oxidation catalyst or crankcase emission control. This funding can cover up to 100% of the cost (labor and equipment) for aerodynamic trailer fairings - either individually or in combination with one another (e.g., skirt & either gap reducer or rear fairings). A list of EPA verified aerodynamic technologies is available at www.epa.gov/smartway/transport/what-smartway/verified-technologies.htm. Advanced aerodynamic technologies are not eligible for funding if installed on trucks that have NOx after treatment.

d. *Verified Low Rolling Resistance Tires:* Certain tire models can provide a reduction in NOx emissions and fuel savings, relative to the "best selling" new tires for line haul trucks, when used on all three axles. The options offered include 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). Low rolling resistance tires can be used with lower-weight aluminum wheels to further improve fuel savings. NDEQ and EPA are particularly interested in projects that combine these tires with verified retrofit technologies which will further reduce emissions, e.g., through the addition of exhaust controls such as a diesel particulate filter, diesel oxidation catalyst or crankcase emission control. This funding can cover up to 100% of the costs (labor and tires) for low rolling resistance tires. A list of EPA verified low rolling resistance tires is available at www.epa.gov/smartway/transport/what-smartway/verified-technologies.htm. Low rolling resistance tires are not eligible for funding if installed on trucks that have NOx after treatment or in the case where low rolling resistance tires have already been installed on the truck.

e. *Certified Engine Repowers*: Repower refers to the removal of an existing engine and its replacement with a newer or cleaner engine that is certified to a more stringent set of engine emissions standards. Repower includes, but is not limited to, diesel engine replacement with an engine certified for use with a cleaner fuel and/or the replacement of a nonroad engine with a highway engine. In order for a repower to be eligible, the repowered vehicle, engine or equipment must continue to perform the same function as before the repower. NDEQ and EPA are particularly interested in projects that combine engine repower with verified technologies which will further reduce emissions, e.g., through the addition of exhaust

controls such as a diesel particulate filter, diesel oxidation catalyst or crankcase emission control. This funding can cover up to 75% of the cost of an engine repower, which includes labor and equipment.

i. **Repower Criteria**: Repower projects are eligible for funding on the condition that the following criteria are satisfied:

1. The engine being replaced will be scrapped or rendered permanently disabled or returned to the original engine manufacturer for remanufacturing to a certified cleaner emission standard. An acceptable scrapping method is drilling a hole in the engine block and manifold while retaining possession of the engine. Other methods may be considered and will require prior NDEQ and EPA approval. If scrapped or salvaged engines are to be sold, program income requirements apply (See explanation of "program income" in "conditions" document on NDEQ website)
2. Evidence of appropriate disposal, including the engine serial number, is required in the final project report submitted to NDEQ.

f. *Certified Vehicle and Equipment Replacements*: Non-road and highway diesel vehicles and equipment can be replaced under this program with newer, cleaner vehicles and equipment that operate on diesel or alternative fuels and meet a more stringent set of engine emissions standards. Replacement projects can include the replacement of diesel vehicles/equipment with newer, cleaner diesel or hybrid or alternative fuel vehicles/equipment. The replacement vehicle/equipment must be of the same type and similar gross vehicle weight rating or horsepower as the vehicle/equipment being replaced (e.g., a 300 horsepower bulldozer is replaced by a bulldozer of similar horsepower). The replacement vehicle/equipment must perform the same function as the vehicle/equipment that is being replaced (e.g., an excavator used to dig pipelines would be replaced by an excavator that continues to dig pipelines). These projects can also include the replacement of non-road vehicles/equipment with highway models if the highway models are capable of performing the same functions as the nonroad models. NDEQ and EPA encourage the replacement of older vehicles/equipment containing engines that were manufactured prior to the implementation of emissions standards. This funding covers the incremental costs of new vehicles and equipment. Incremental costs are defined as up to 25% of the cost of the new vehicle or equipment (except for school buses–see provision below).

i. **Replacements for School Buses**: Funding levels will cover up to 25% or 50% of the cost of a replacement school bus, depending on the engine emission certification levels of the replacement bus.

1. **Twenty-five percent level:** This funding will cover up to 25% for school buses with engines manufactured in model years 2007, 2008 or 2009 that are particulate filter equipped in the case of diesel engines or catalyst equipped in the case of CNG engines and satisfy regulatory requirements for school bus engines manufactured in that model year and do not exceed the limits of particulate matter (PM) at 0.01, nitrogen oxides (NOx) at 2.0, and non-methane hydrocarbons (NMHC) at 0.40 (expressed in grams per brake horsepower hour, g/BHP-hr).
2. **Fifty percent Level:** This funding will cover up to 50% of the cost of a replacement school bus with engines manufactured in model year 2007, 2008, or 2009 that satisfy 2010 model year regulatory limits for emissions of PM, NOx and NMHC. The model year 2010 regulatory requirements are: PM at 0.01 grams per brake horsepower hour, NOx at 0.20 and NMHC at 0.14.

ii. **Replacement Criteria**: Replacement projects are eligible for funding on the condition that the following criteria are satisfied:

1. The vehicle/equipment being replaced will be scrapped or rendered permanently disabled or returned to the original engine manufacturer for remanufacturing to a certified cleaner emission standard. Drilling a hole in the engine block and manifold and disabling the chassis while retaining possession of the vehicle/equipment is an acceptable scrapping method. Other methods may be considered and will require prior NDEQ and EPA approval. 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 scrapped or salvaged vehicles/parts are to be sold, program income requirements apply. (See explanation of "program income" in "conditions" document on NDEQ website)
2. Evidence of appropriate disposal, including engine serial number and vehicle identification number (VIN), is required in a final assistance agreement report submitted to NDEQ.

g. **Repower and Replacement Restrictions:** The following are not covered under Repowers and Replacements:

i. Emission reductions that would have occurred through normal attrition are considered to be the result of normal fleet turnover and are not eligible for funding under this program. Normal attrition is generally defined as a replacement or repower that is scheduled to take place between now and the end of the project period (September 30, 2010). Normal attrition is typically defined by the vehicle or fleet owner's budget plan, operating plan, standard procedures, or retirement schedule. For example, if a school bus fleet typically retires vehicles after 7 years, a bus that is currently in its 6th or 7th year of service is not eligible for replacement. A bus that is currently in its 5th year of service and has 2 years of useful life remaining is eligible for replacement.

ii. The purchase of new vehicles or equipment to expand a fleet is not covered by this program.

Summary of What the Nebraska Grant Will Fund

a. **Verified Retrofit Technologies**: Grant will fund up to 100% of the cost of eligible exhaust controls and engine upgrades.

b. **Verified Idle Reduction Technologies**: Grant will fund up to 100% of the cost of eligible idle reduction technologies.

c. **Verified Aerodynamic Technologies and Low Rolling Resistance Tires**: Grant will fund up to 100% of the cost of eligible aerodynamic and tire technologies.

d. **Certified Engine Repower**: Grant will fund up to 75% of the cost of an eligible engine repower.

e. **Certified Vehicle/Equipment Replacement**: Grant will fund up to 25% of the cost of an eligible new vehicle or piece of equipment (except for school buses; see below).

i. **School Bus Replacement:**

1. For replacement buses that meet EPA's 2010 emissions standards for heavy-duty on-highway vehicles, Grant will fund up to 50% of the cost of an eligible replacement school bus.
2. For replacement buses that meet EPA's 2007 emissions standards for heavy-duty on-highway vehicles, Grant will fund up to 25% of the cost of an eligible replacement school bus.

FUNDING

NDEQ will reimburse up to 100% of the cost of equipment and installation, as described above. Applicants are encouraged to provide matching funds for their proposed projects. If NDEQ awards funding to an applicant that includes voluntary cost share/match/participation (such as the awardee installing the equipment) as a part of the application, the awardee must meet its share/match/participation commitment as a condition of receiving NDEQ reimbursement.

An applicant must demonstrate that it selected the vendor(s) and/or contractor(s) competitively or that a proper noncompetitive sole-source award will be made to the vendor(s) and/or contractor(s), that efforts were made to provide small and disadvantaged businesses with opportunities to compete and that some form of cost or price analysis was conducted, consistent with EPA requirements (40 CFR Parts 30 or 31), as applicable, as well as any regulations covered by state, local, or internal requirements. NDEQ may not accept sole source justification for contracts for services or products that are otherwise readily available in the commercial marketplace.

Discuss in your proposal how the requirements in the above paragraph were met. Include a description of your vendor selection process; how you obtained at least three bids for determining the supplier of equipment and, if applicable, installation services. Provide a list of the bid figures, demonstrating that the bid selected for the proposed project is the lowest, most cost-effective bid.

PROGRAM PRIORITIES

The Nebraska Department of Environmental Quality will award grants that, per the Recovery Act, preserve and/or create jobs, promote economic recovery, and reduce diesel emissions. Priority for grants will be given to proposals that meet the programmatic priorities listed below, as outlined in the Energy Policy Act of 2005, Subtitle G, to the extent practicable:

1. Maximize public health benefits;
2. Are the most cost-effective;
3. Are in areas with high population density;
4. Are in areas that receive a disproportionate quantity of air pollution from diesel fleets, including truck stops, terminals, and distribution centers;
5. Include a certified engine configuration or verified technology that has a long expected useful life;
6. Maximize the useful life of any certified engine configuration or verified technology used or funded by the eligible entity;
7. Conserve diesel fuel; and
8. Utilize ultra low sulfur diesel fuel (15 parts per million of sulfur content) ahead of EPA's mandate (for nonroad projects).

All proposals under the Nebraska Clean Diesel Grant Program must support Goal 1 of EPA's 2006-2011 Strategic Plan, Clean Air and Global Climate Change; Objective 1.1: Healthier Outdoor Air, which states, "Through 2011…[EPA will]…protect human health and the environment by attaining and maintaining health-based air-quality standards and reducing the risk from toxic air pollutants."

DEADLINES

Hard copies of all application materials must be received in the Lincoln office of the NDEQ by no later than **4:00 p.m. CDT on July 31, 2009.** The Department is not responsible for late mail delivery. Proposals received after the closing date and time will only be considered if all funds are not allocated with timely applications. Awards will be made by August 28, 2009. NDEQ expects work to begin by the recipients upon their signing of the formal agreement document, and expects all work, including any reports, to be completed by recipients by August 31, 2010.

AWARD NOTICES

Following evaluation of applications, all applicants will be notified in writing regarding their status by August 31, 2009. The notification will be sent to the original signer of the application. Applicants who are awarded funding will notify NDEQ of their acceptance of the award. NDEQ will then send the awardee a formal grant agreement document.

REIMBURSEMENT OF GRANT FUNDS AND REPORTING REQUIREMENTS

Grant recipients may draw down grant funds for equipment and installation expenses (where applicable) in advance of actual delivery of equipment or services by submitting purchase orders or invoices to NDEQ for payment. Every effort will be made to expedite delivery of funds so as not to delay equipment purchases. Quarterly progress reports and a detailed final report will be required for these special Recovery Act grants, along with detailed itemized reimbursement requests and expenditure reports. Quarterly reports will summarize technical progress, expenditures and identify planned activities for the next quarter. The schedule for submission of quarterly and final reports will be established by NDEQ in the agreement.

PROPOSAL CONTENT

Applicants must follow instructions carefully and submit all required documents. Incomplete proposals will not be considered for funding. Remember to include appropriate signatures on the application form. Additionally, when preparing the application form for your proposal, please refer to the "Evaluation Criteria" section for guidance, since that is how the proposals will be scored. There is no specific number of pages required; however, completion of all requested information on the application form is required. Also, please note that your equipment information is to be completed in the Applicant Fleet Description Spreadsheet, which is provided as either an Excel file or PDF file. You may complete it electronically or print it and complete by hand.

EVALUATION CRITERIA

Each application will be evaluated according to the criteria below using the corresponding point values listed. Please make sure your application addresses each criterion. Each application will be reviewed by a five member evaluation committee. Applications that receive a score of at least 65 points will be given further consideration for receiving a grant for total or partial funding based on the total number of eligible applications.

Economic Stimulus and Job Creation/Preservation: 20 pts.

Under this criterion, applicants will be evaluated on the degree to which the project will stimulate Nebraska's and America's economy, and/or create and preserve jobs. Discuss how your project will stimulate the economy and create and/ or preserve jobs in your local area, in the state of Nebraska, and/or nationally.

Plan for Project: 10 pts.

Under this criterion, applicants will be evaluated on the degree to which the project plan shows a logical path for successful completion, including a budget, reasonable timeline, technology applicability and equipment information. Discuss how you plan to implement the proposed project. Describe the tasks and activities that will be conducted to accomplish the objective of the project.

Programmatic Capability: 10 pts.

Under this criterion, applicants will be evaluated based on their ability to successfully complete and manage the proposed project while taking into account how their experience, knowledge, qualifications and organizational resources will allow them to successfully achieve the goals of the proposed project, including a plan for timely and successfully achieving the objectives of the proposed project. If applicable, applicants may choose to include any past performance in successfully completing and managing projects similar in size, scope and relevance to the proposed project.

Funding Contribution: 10 pts.

Though a match is not required to receive the award, additional funding contributions, such as in-kind services (e.g. providing own installation of mufflers), from applicants will be given priority consideration. If applicable, please describe the amount and source of any funding contribution or match. Please include any in-kind contributions.

Detail and Completeness: 10 pts.

The project description and Applicant Fleet Description Spreadsheet (AFD) must be consistent throughout. The project description must explain the applicant's planned activities and detailed cost estimates.

Public Health Benefits: 15 pts.

Under this criterion, applicants will be evaluated on the degree to which the project will reduce environmental risks to the public and sensitive populations, especially in densely populated areas or areas that receive a disproportionate quantity of air pollution from diesel vehicles..

Air Quality: 15 pts.

Under this criterion, applicants will be evaluated on operating practices that positively affect the air quality where the equipment will be used. Priority will be given to projects where diesel engine idling reduction practices and policies have been established and are adhered to, where oversight or a method of verifying adherence to these policies or practices is in place. This also applies to situations where an applicant already has idling reduction technologies in place. Consideration will also be given to idling reduction policies and programs that are developed as part of this grant application process. Additional considerations are that the applicant has established or will implement a program that provides awareness, education, and guidance on the importance of and means to conserve diesel fuel. In essence, applicants will be evaluated on their efforts to conserve diesel fuel and/or reduce diesel emissions and the implementation of other environmentally friendly measures already in practice.

Cost Effective: 10 pts.

Under this criterion, applicants will be evaluated on the degree to which the project is cost effective and involves vehicles or equipment that have a long expected useful life. NDEQ will utilize the EPA's Diesel Emissions Quantifier (http://cfpub.epa.gov/quantifier/view/index.cfm) in evaluating a proposal's cost effectiveness relating to the amount of reductions provided by proposed equipment. Include a description of your vendor selection process; how you obtained at least three bids for determining the supplier of equipment and, if applicable, installation services.

CONTACT INFORMATION

Please direct all questions regarding the Nebraska Clean Diesel Grant Program to program coordinator Gerry Allen via email at Gerry.Allen@nebraska.gov or fax at 402-471-2909 by no later than 4:00 pm CDT on July 19, 2009. All questions and their answers will be posted on the NDEQ website, http://www.deq.state.ne.us., no later than July 24, 2009. Hard copies of all application materials must be received in the office of NDEQ at 1200 N Street, Lincoln, Nebraska, by no later than 4:00pm CDT on July 31, 2009. Do not email or fax application materials.

ATTACHMENTS

A list of attachments to this document is included below, with links to the forms and related instructions and information on how to fill out the application form and spreadsheet(s).

Detailed Instructions for completing grant application

Step-by-step guidance and links to EPA information, including vendor list and contact information.

Nebraska Clean Diesel Grant Program Application Form

Document contains grant application form, instruction sheet, and example completed application.

Applicant Fleet Description Spreadsheet

This Excel spreadsheet contains four parts:

1. Instructions on how to complete "Applicant Fleet Description Spreadsheet."
2. Example of a completed "Applicant Fleet Description Spreadsheet."
3. "Applicant Fleet Description Spreadsheet."
4. References

Currently Verified and Emerging Clean Diesel Technologies List

This is a list of all clean diesel technologies that are currently verified and emerging. It lists the manufacturers and product (technology type), applicability, and estimated pollution reduction in percentages.

CHECKLIST

The complete grant proposal/application package must include the original and five copies of each of these:

- ☐ Completed Nebraska Clean Diesel Grant Program Application Form
- ☐ Completed Applicant Fleet Description Spreadsheet(s)