

**North Central Texas
Council of Governments**

DIESEL IDLING REDUCTION PROGRAM CALL FOR PROJECTS



GUIDELINES

November 10, 2008

www.nctcog.org/dirp

INTRODUCTION

The Diesel Idling Reduction Program was established to provide financial assistance for the purchase and installation of technologies which reduce emissions due to the extended idling of heavy-duty diesel engines. Grants may be awarded for on-board idle-reduction devices or on-site infrastructure projects. Funds for this Call for Projects were programmed by the Regional Transportation Council (RTC) out of Congestion Mitigation and Air Quality program federal funding. The Call for Projects is being administered by the North Central Texas Council of Governments (NCTCOG).

PURPOSE

Nine counties in the North Central Texas region have been classified as moderate nonattainment under the National Ambient Air Quality Standard for ozone. This means that ground-level ozone concentrations in these counties exceed the federal health-based limit as set forth by the U.S. Environmental Protection Agency (EPA). Ozone is formed when nitrogen oxides (NO_x) and volatile organic compounds (VOC) react in the presence of sunlight and heat. The region has a deadline of June 2010 to come into compliance with the ozone standard and numerous efforts are being implemented to reduce emissions that contribute to ozone formation. The region is considered NO_x-limited, which means that NO_x emissions are the primary determinant of ground-level ozone formation; therefore, most strategies implemented at the regional level focus on reducing emissions of NO_x.

One strategy to address these emissions is to reduce or eliminate unnecessary idling of heavy-duty diesel engines. Heavy-duty diesel vehicles, including eighteen-wheelers, smaller delivery trucks, diesel transit buses, and diesel school buses, emit approximately 48.3 percent of all NO_x emissions attributable to on-road vehicles in the Dallas-Fort Worth (DFW) ozone nonattainment area. These engines are often left idling for long periods of time due to driver and/or passenger comfort, cargo loading/unloading, or a perception that the diesel engine performance is improved if left on. EPA estimates that approximately 3.4 percent of total emissions from Class eight heavy-duty trucks (eighteen-wheelers) are due to "extended idling"¹. Thus, this sector alone contributes approximately 2.34 tons of NO_x per day simply from engine idling. This activity not only releases harmful emissions, but also can consume up to one gallon of fuel per hour for heavy-duty vehicles and cause unnecessary wear on the engine, resulting in higher maintenance costs. In addition, unnecessary idling occurs among construction equipment and locomotives.

Many devices exist that can provide for necessary services such as cab heating or cooling and auxiliary power needs while allowing the primary engine to be turned off. By minimizing engine idle time, harmful emissions are reduced, and the vehicle owner is also able to save money through lower fuel consumption and engine maintenance costs. The cost of unnecessary idling, as well as the return on investment for purchasing technological solutions, can be calculated with the Savings Calculator available from the Environmental Protection Agency (EPA) SmartWay Transport Program. This resource is available online at

¹ U.S. Environmental Protection Agency, *Guidance for Quantifying and Using Long Duration Truck Idling Emission Reductions in State Implementation Plans and Transportation Conformity*. January 2004. <http://www.epa.gov/smartway/documents/420b04001.pdf>. 10/02/08.

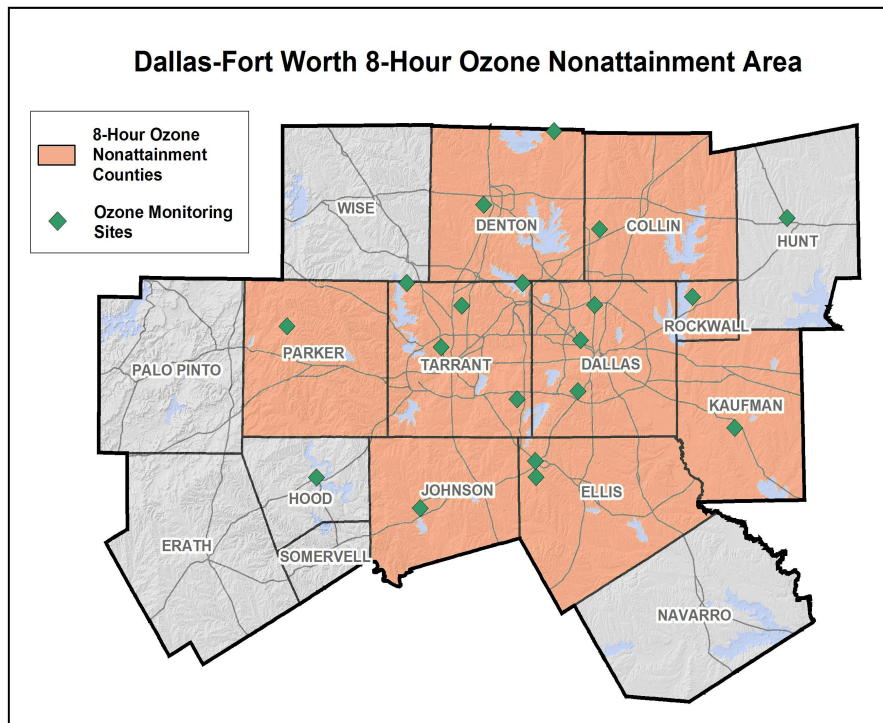
www.epa.gov/smartway/transport/calculators/index.htm. However, the initial cost of idle-reduction technologies can be prohibitive to fleets and/or individual owner-operators. Financial assistance is sometimes necessary to ease the capital burden required to acquire such devices. The Diesel Idling Reduction Program Call for Projects is intended to provide this aid through competitive grant awards to projects which demonstrate a reduction in NOx emissions through the use of idle-reduction technologies.

ELIGIBLE ENTITIES

This call is open to all public and private entities which either own and operate heavy-duty diesel vehicles/equipment, or who wish to install idle-reduction infrastructure which serves heavy-duty diesel vehicles/equipment. Entities that operate diesel fleets to transport freight or goods long distances are eligible for on-board project funding, but primary emphasis will be placed on projects that achieve significant reductions in emissions within the nine-county ozone nonattainment area. The DFW ozone nonattainment area includes Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant Counties. These nine counties are highlighted in the map below.

Secondary emphasis for on-board technologies will be placed upon projects which achieve significant emission reductions within the EPA Blue Skyways Collaborative (BSC) Corridor. The collaborative currently includes Arkansas, Iowa, Kansas, Louisiana, Minnesota, Missouri, Nebraska, New Mexico, Oklahoma, and Texas and the areas along the Mexican and Canadian borders. For the purposes of this grant, the corridor of focus will be the area along Interstate 35.

On-site infrastructure activities must be located within the nine-county ozone nonattainment area to be eligible.



In addition, public sector entities which wish to apply for funds to install on-board idle-reduction devices for on-road vehicles must have adopted the Clean Fleet Vehicle Policy by January 16, 2009. The Clean Fleet Vehicle Policy sets guidelines that address ways fleets can have a positive impact on air quality through best practices in vehicle acquisition, maintenance, and operations. This policy also includes restrictions on vehicle idling and requirements for driver training. Adoption must occur prior to the closing of this call for projects and a signed copy of the policy must be submitted to NCTCOG. Entities that have adopted the policy must be in compliance with all policy requirements, including annual reporting, in order to be eligible for funding. For more information on the Clean Fleet Vehicle Policy, or to check your organization's status, please visit www.nctcog.org/fleetpolicy.

The Clean Fleet Vehicle Policy is not required for non-road vehicle applications, on-site idle reduction projects, or for private sector applicants. However, adoption of the policy, or similar company guidelines, may positively impact project evaluation.

In addition to the Clean Fleet Vehicle Policy, public sector applicants are encouraged to have adopted Locally Enforced Idling Restrictions. These regulations were developed by the Texas Commission on Environmental Quality (TCEQ) and set a five-minute limit on idling for vehicles with a gross vehicle weight rating (GVWR) of 14,000 pounds or more, with certain exceptions. Adopting entities must sign a memorandum of agreement with TCEQ providing for local enforcement of the restrictions. More information is available at www.nctcog.org/idlingrule. Adoption of these restrictions may be considered favorably in project evaluation.

Although private sector applicants cannot adopt Locally Enforced Idling Restrictions, many private organizations have adopted company policies to restrict idling. Documentation of such policies may be evaluated positively during project selection.

ELIGIBLE PROJECTS

Vehicles affected by the proposed project must utilize diesel fuel and fit one of the following categories:

1. On-Road vehicles with a GVWR greater than 8,500 pounds
2. Locomotives
3. Construction Equipment used exclusively for highway construction projects

Eligible projects include:

On-Board Idle Reduction – Installation of an idle-reduction device on the vehicle/equipment which reduces the need for operation of the primary engine during time that the vehicle must remain on, but is stationary and/or is not actively performing work. The purchase of a vehicle with integrated idle-reduction technologies may also be considered an eligible project. In this type of application, the eligible expense is defined as the incremental cost of purchasing the vehicle with integrated idle-reduction systems versus the conventional version of that same type of vehicle.

On-Site Idle Reduction – Installation of systems or devices at a location that provides power needs for vehicles/equipment parked at the location.

A list of idle-reduction technology types that have been verified by EPA and/or the California Air Resources Board (CARB) as resulting in quantifiable emission reductions is outlined in Table 1. Eligible expenses include purchase and installation costs only; operation and maintenance costs are not eligible for grant funding.

Table 1: Sample of Eligible Technology Types for the Diesel Idling Reduction Call for Projects

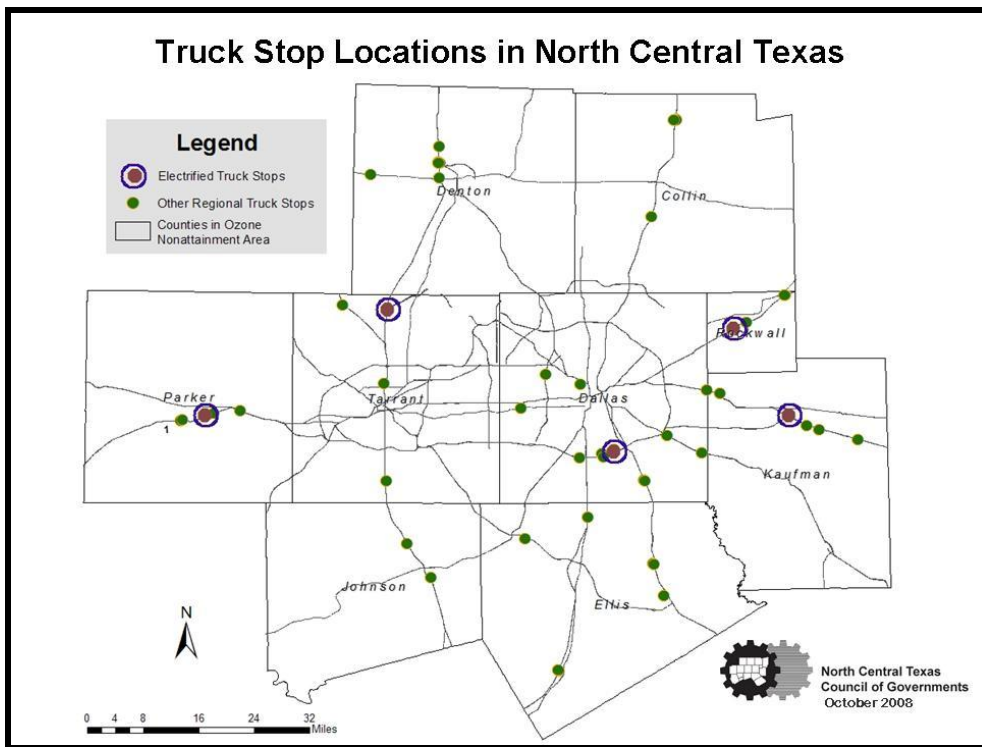
Project Type	Technology Type	Description	Applicability
On-Board Idle Reduction	Auxiliary Power Units (APU)/Generator Sets	Generator powered by a small engine (often diesel fueled), a compressor, an alternator, and an inverter/charger. Unit is fully integrated into heating, ventilation, and cooling system and the inverter/charger provides electricity to power accessories. Uses a small volume of fuel as compared to the truck diesel engine. APU engine must be certified by EPA.	On-Road Vehicles (Generally for Class 8 Heavy-Duty Trucks of Model Year 2006 or Older); Locomotives
	Battery Air Conditioning Systems	Provides air conditioning/cooling systems for sleeper cabin. May be paired with a heating technology for more complete climate control.	On-Road Vehicles (Generally for Class 8 Heavy-Duty Trucks)
	Battery Electric Auxiliary Power Systems	Uses advanced battery packs which are charged during regular vehicle operation and then provide power needs after the primary engine is turned off.	On-Road Vehicles
	Electrified Parking Space Infrastructure	Electrical hardware and an electrical power system installed on the vehicle, enabling it to be "plugged in" to an outfitted parking location (see "Electrified Parking Spaces" below) which provides required power.	On-Road Vehicles
	Fuel Operated Heaters	Provides heat only to cab and/or engine; may be paired with cooling technology to provide more complete climate control. Uses a small volume of fuel as compared to the truck diesel engine.	On-Road Vehicles (Generally for Class 8 Heavy-Duty Trucks)
	Thermal Storage Systems	Stores cooling energy as the vehicle operates and provides air conditioning after the engine has been turned off. May be paired with a heating technology for more complete climate control.	On-Road Vehicles (Generally for Class 8 Heavy-Duty Trucks)
	Automatic Engine Stop-Start Controls	Controls sense cab and/or engine temperature or battery charge and automatically turns engine on or off to maintain appropriate conditions.	On-Road, Locomotives
On-Site Idle Reduction	Electrified Parking Spaces	Climate control services and electrical power for on-vehicle appliances provided through an adapter or other on-board infrastructure that provides a connection with the vehicles components.	On-Road Vehicles (Generally for Class 8 Heavy-Duty Trucks)

Detailed information on the above-listed idle-reduction technologies is available from both the EPA and CARB through the following resources:

Table 2: Idle-Reduction Technology Resources

Source	Web site	Information Provided
EPA National Clean Diesel Campaign	www.epa.gov/cleandiesel/idle-ncdc.htm	technology descriptions, list of manufacturers
EPA SmartWay Transport Program	www.epa.gov/smartway/transport/what-smartway/idling-reduction-tech.htm#tech	technology descriptions, cost estimates
CARB	www.arb.ca.gov/msprog/cabcomfort/cabcomfort.htm	technology descriptions

Applicants wishing to apply for on-board idle-reduction technologies may want to become familiar with existing on-site infrastructure, such as electrified truck stops, to facilitate choosing the most appropriate device for their vehicles. A list of existing locations is available from the U.S. Department of Energy’s Alternative Fuels and Advanced Vehicles Data Center at www.afdc.energy.gov/afdc/progs/tse_listings.php. The map below displays truck stops located within the nine-county ozone nonattainment area as well as locations where electrified parking spaces are already available.



SCHEDULE

Task	Estimated Timeframe
Call for Projects Opens	November 10, 2008
Workshop	December 2, 2008
Call for Projects Deadline	January 16, 2008 – 5 p.m. CST
Evaluate & Select Proposals	January – February 2009
Announce Awarded Projects	February – March 2009
Contracting	March 2009 – April 2009
Technology Procurement & Installation	April 2009 – December 2010

REQUIREMENTS

Projects must comply with the following elements to be considered for funding.

- **Clean Fleet Vehicle Policy:** Public sector applicants must have adopted the Clean Fleet Vehicle Policy prior to the call for projects deadline in order for on-board, on-road idle-reduction proposals to be eligible. In addition, applicants must be in compliance with annual reporting requirements.
 - **Note:** Adoption of the Clean Fleet Vehicle Policy is not a requirement for non-road, on-site infrastructure, or private sector proposals. However, applications which demonstrate adoption of this policy, or adoption of a policy consistent with the principles in the Clean Fleet Vehicle Policy, will be evaluated favorably during project selection.
- **Project Type:** Project(s) must employ the use of a technology which reduces idling from an on-road heavy-duty vehicle (greater than 8,500 pounds GVWR) which runs on diesel fuel, or a diesel-powered locomotive or construction equipment.
 - **Note:** Construction equipment must be used exclusively for highway construction projects in order to be eligible.
- **Bids Included:** Applicant must include at least one bid identifying estimated purchase and installation costs of the proposal. For proposals to purchase a vehicle with integrated idle-reduction technologies, the bid should clearly indicated the additional cost of the vehicle with the idle-reduction technologies installed as compared to the same vehicle without the integrated system.
- **Project Dates:** Projects must be implemented by December 31, 2010.
- **Funding Cap:** Funding awards may not exceed a set funding threshold based on the total cost of the project depending on project type. A cap on the maximum allowable funding is applicable as follows:
 - **On-Board Idle Reduction Projects** – up to 50 percent of total project cost for purchase/installation of eligible devices, or up to 50 percent of the incremental cost of purchasing a vehicle with integrated idle-reduction systems.

- Note: the maximum funding amount allowed for the purchase and installation of eligible devices is \$5,000 per vehicle
 - On-Site Idle Reduction Projects – up to 80 percent of purchase and installation costs.
- Use of Idle-Reduction Technologies: Applicant must continue to use technologies funded through this opportunity for a minimum of seven years for on-board projects and a minimum of five years for on-site projects.
- State Implementation Plan (SIP) Credit: All projects must be eligible for SIP credits and applicants must agree to surrender all emission credits to NCTCOG for the duration of project activity life.

SELECTION CRITERIA

Properly completed applications will be evaluated and ranked by NCTCOG staff based on the following criteria:

- Cost-Effectiveness
 - First priority: Total tons and cost-effectiveness of NOx reduced in the nine-county nonattainment area
 - Second priority: Total tons and cost-effectiveness of NOx reduced in the BSC Corridor
 - Note: This applies only to on-board applications, as on-site infrastructure must be located within the nine-county DFW ozone nonattainment area
- Feasibility
 - Timely implementation schedule
 - All projects must be implemented by December 31, 2010
 - Preference may be given to applications which propose earlier implementation as follows:
 - First priority: prior to December 31, 2009
 - Second priority: prior to March 1, 2010
 - Deadline for all project implementation: December 31, 2010
 - Clearly identified project costs, implementation procedures, financial need, and source(s) of applicant match
 - Additional financial assistance from other grants, loans, etc. should be identified
 - On-Site Infrastructure proposals with location identified and/or agreements in place to secure property for installation
 - Previous participation in RTC initiatives
 - Previous participants: to receive full points, project implementation was successful, completed on time and without significant changes to work scope, and was satisfactory overall.
 - Applicants with no previous participation: will receive a neutral score as RTC and NCTCOG encourage new partnerships.
- Partnership

- Public Sector Applicants
 - Adoption of Clean Fleet Vehicle Policy
 - Required for on-board, on-road applications
 - Considered for non-road equipment and on-site project applications
 - Adoption of Locally Enforced Idling Restrictions considered for all applications
 - Additional local match offered
- Private Sector Applicants
 - Company policies or guidelines consistent with goals and/or principles of
 - Clean Fleet Vehicle Policy
 - Locally Enforced Idling Restrictions
 - Partner in EPA Blue Skyways Collaborative or SmartWay Transport Partnership
 - Additional match offered
- RTC Strategic Goals
 - Environmental Justice
 - Located in a community of concern
 - Note: NCTCOG defines a community of concern as an area having a high density of the following protected populations: minority, age 65 and older, disabled, female head of household, and below poverty line
 - Applicant qualifies as a disadvantaged business enterprise (DBE)
 - Note: The definition of DBE for this program includes minority-owned and woman-owned business enterprises
 - Idle-Reduction Infrastructure
 - Serves major freight corridors and/or activity centers
 - Fills existing service gaps
 - Regionally Innovative Projects
 - Advances the use of idle-reduction technologies
 - Encourages others to use advanced idle-reduction technology and has potential to result in the wider use of such technologies in the region

NCTCOG is not obligated to fund a proposal from an applicant that has demonstrated marginal or unsatisfactory performance on previous grants or contracts with NCTCOG and other State agencies. NCTCOG is not obligated to fund a proposal from an applicant based on a determination of the risks associated with the applicant, including the financial condition of the applicant and other risk factors as may be determined by NCTCOG.

Regardless of the scores and ranking assigned, NCTCOG may base funding decisions on other factors associated with best achieving the goals of the program, and NCTCOG is not obligated to select a project for funding. Additionally, NCTCOG may select parts of a proposal for funding and may offer to fund less than the dollar amount requested in a proposal.

APPLICATION PROCESS

To apply for funding, applicants must submit a complete grant application by the application deadline. Applications for on-board idle-reduction technologies must include at least one bid for

purchase and installation; applications for on-site infrastructure must include documentation as to how a location will be secured. In addition, supporting documentation regarding adopted policies should be included as appropriate; applicants should refer to the application checklist to ensure a complete submittal. Application forms and other materials for the Diesel Idling Reduction Program Call for Projects may be downloaded from the Diesel Idling Reduction Program Web site at www.nctcog.org/dirp or a hard copy may be obtained by contacting NCTCOG staff as indicated below in the *Contact Information* section of this document.

Applications must be received by 5 p.m. CST on Friday, January 16, 2009. In accordance with the call for projects procedures established by the Regional Transportation Council Bylaws, NCTCOG must have the application (including hard copies and electronic submittals) "in hand" at the NCTCOG offices by the deadline. Applications that are postmarked by the deadline do not constitute an on-time application. In addition, supplemental information will not be accepted after the deadline. Applicants are encouraged to submit applications far enough in advance of the submission deadline to allow NCTCOG staff to review for completeness.

Submit one (1) electronic copy (preferably by e-mail, but may be on a compact disc) and (1) hard copy of the signed and completed application to:

E-mail:

lpampell@nctcog.org

Regular mail:

North Central Texas Council of Governments
Transportation Department
Attn: Lori Pampell
P.O. Box 5888
Arlington, Texas 76005-5888

or

Physical location:

North Central Texas Council of Governments
Transportation Department
Attn: Lori Pampell
616 Six Flags Drive
Centerpoint Two
Arlington, Texas 76011

GRANT ADMINISTRATION AND REIMBURSEMENT OF EXPENSES

Successful applicants will be notified by phone or other means of their selection and the amount of grant funds that may be awarded. Entities selected to receive grant funding will be required to execute a contract with NCTCOG. All services or work carried out under a contract awarded as a result of this call for projects must be completed within the scope, time frames, and funding limitations specified by the contract. Upon signature and execution of the contract by NCTCOG, a copy of the executed contract will be returned to the applicant, at which time the grant will be considered awarded. Purchase of new technology may not occur prior to the contract being fully executed.

Grant funds will be paid out on a reimbursement basis for eligible expenses incurred and paid by the grant recipient. A cost may not be considered incurred until the grant-funded technology has been received and accepted by the grant recipient. Requests for reimbursement shall include documentation to show that the vehicle/equipment has been received and installed, and that the expenses have been incurred and paid by the grant recipient. ***Under no circumstances will reimbursement payments be issued for expenses incurred prior to the date of contract execution.***

Applicants that are successfully awarded funding through this call are obligated to fulfill the requirements of the contract, including surrendering all eligible SIP credits to NCTCOG for the full activity life of the project.

REPORTING REQUIREMENTS

Award recipients must commit to submitting semi-annual reports on the use of funded technologies for the duration of the project activity life. Reporting may include information such as mileage, hours of operation, and/or fuel use. In addition, public sector award recipients shall maintain good standing with any reporting requirements of the Clean Fleet Vehicle Policy and/or Locally Enforced Idling Restrictions.

CONTACT INFORMATION

Please submit any questions or comments to NCTCOG Project Staff:

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