

New York State Non-road and School Bus Clean Diesel Programs

National Clean Diesel Campaign
Session I: Funding Forum

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New York State Energy Research and Development Authority (NYSERDA)

- **Public benefit corporation created in 1975 by the New York State Legislature**
- **Cognizant energy agency for New York**
- **Mission: To identify solutions to State's energy and environmental challenges in ways that benefit the State's economy**
- **Forge public/private partnerships with businesses, municipalities, residents, and other energy stakeholders to accomplish this goal**

Environmental Research and Development Clean-Diesel Program

- **2004 NYSERDA solicited projects for:**
 - **Development and demonstration of innovative, new clean-diesel technologies**
 - **In-use performance evaluations of retrofit emissions-control technology**
- **NYSERDA Clean Diesel Technology:
Non-road Field Demonstration Program**
 - **Improve the NYS emission inventory for the non-road sector**
 - **Assess the technical suitability, cost, and energy consequences of commercially available retrofit options**
 - **Identify applications of commercially available retrofit technologies with the greatest potential for improving air quality at the lowest cost**
 - **Conduct an in-use field demonstration program with the participation of equipment owners/operators and emission-control technology vendors**
- **2005 U.S. EPA grant expanded program scope**
 - **Funding for procurement, installation, and demonstration of technologies and reporting**
 - **Expanded the number of non-road equipment/control technology combinations to be installed and evaluated from 15 to 27**

Non-road Field Demonstration Program Overview

- **Demonstration Selection Criteria:**
 - Fleet equipment inventory / availability of targeted equipment
 - Equipment activity
 - Equipment duty cycles
 - Fleet replacement rate
 - Locations of work
 - Existence of an Environmental Management System
 - Representativeness of equipment
- **Data Collection:**
 - Monthly hours of operation and fuel consumption
 - Usage of equipment (i.e. duties)
 - Vehicle and retrofit technology maintenance requirements
 - Brief survey of equipment operators
 - Custom engineering and installation requirements (costs, time, and efforts)

Non-road Field Demonstration Program Progress

- **Developed a baseline inventory of non-road construction equipment and emissions for NYS**
- **Near completion of detailed equipment survey in the New York City Metropolitan Area (NYCMA) and emissions inventory analyses**
- **Developed locomotive equipment survey and emission inventory analysis for New York State**
- **Developed draft assessment of commercially available diesel emission control technology**
- **Drafted in-use test protocol for non-road equipment**

NYSERDA School Bus Emission Reduction Program

- **On-going effort to retrofit New York State's 50,000 school bus fleet, using State and Federal funds**
- **Projects completed: over 2,000 school buses in 87 school districts**
- **NYSERDA has participated in U.S. EPA's Clean School Bus USA Grant Program for the past 3 years**
- **2004: Partnered with 11 school districts, New York Association of Pupil Transportation (NYAPT) and other State agencies**
- **2005: Supported Greece Central School District's grant application, which included 3 other districts**
- **In all cases leveraged State funds and strong partnerships to strengthen application**

U.S. EPA Funded Clean School Bus Projects

- **2004 grant program**
 - Retrofit 319 school buses with diesel oxidation catalysts and 138 school buses with closed crankcase filters
 - All retrofits complete and remaining funds will be utilized during next solicitation
- **2005 grant program**
 - Retrofit 244 school buses with diesel oxidation catalysts and closed crankcase filters
 - For 2005 grant NYSERDA provided Greece Central School District with cost-share funds
 - 50% of 2005 grant program complete
- **Future plans:**
 - In 2006 NYSERDA awarded a grant to enhance planned deployment of school bus retrofit technologies
 - U.S. EPA funds will contribute to the retrofitting of approximately 1,300 school buses during 2007 and 2008

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<http://www.nyserda.org/>

<http://www.nyserda.org/publications/NonRoadInterimReport.pdf>

<http://www.nyserda.org/Programs/transportation/AFV/cleanairschoolbus.asp>