

US EPA ARCHIVE DOCUMENT

Project Report:

City of Chicago
Department of Environment

EPA Funding Source:

American Recovery
and Reinvestment Act



Funding

\$982,539.11

U.S. EPA

Breakdown:

\$495,000

Match/Leveraged Funds

Project Location:

Chicago, IL



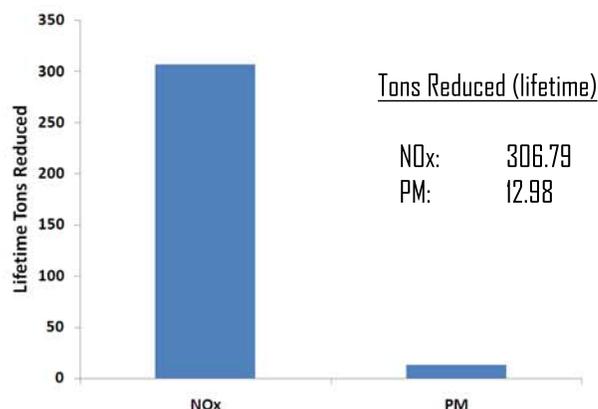
The City of Chicago owns, operates and maintains 3,604 diesel-powered vehicles that perform work throughout the city. In an effort to significantly improve the City and regional air quality, this project installed 235 diesel-fired engine heaters in 203 medium- and heavy-duty trucks and replaced 3 aging diesel-powered aerial bucket trucks with new hybrid-electric vehicles.

The vehicles that received diesel fired heaters in this project were aerial, snow-removal, and refuse trucks. The heaters allow the City to ensure that these vehicles maintain proper operating temperatures in extreme cold weather without the need to operate the main engine. This saves both fuel and money while reducing diesel emissions. The retrofitted vehicles get the benefit of being ready to work at all times, even in cold weather.

The three diesel-powered bucket trucks were in daily service from 2001 to 2010, averaging 7,600 miles per year and utilizing 1,700 gallons of fuel annually. The new hybrid-electric bucket trucks that replaced these vehicles provide engine-off utilization of the aerial device, eliminating idling except as necessary to recharge the batteries periodically during use. The City projects that the hybrid vehicles will reduce fuel use by 40 percent.

Funding for this project comes from the American Recovery and Reinvestment Act (**\$982,539.11**) and from the City of Chicago (**\$495,000**). This project generated 5.9 full time equivalent jobs.

Emissions Reductions



Reducing idling from medium-and heavy duty diesel vehicles helps reduce exhaust emissions from these vehicles.

Health Benefits

Emissions from diesel engines contain pollutants that affect respiratory health. These pollutants can increase incidents of asthma, and can exacerbate existing cardiopulmonary conditions.

This project will **save \$3,425,000 in health costs** as a result of reduction of PM. This represents monetary savings from: lost work days, hospital and health care bills, and other costs that will not be spent as a result of the pollution reduced from the addition of 235 heaters to city vehicles plus the replacement of 3 aerial trucks with hybrid vehicles.

You can visit EPA's Diesel Emissions Quantifier at:
<http://www.epa.gov/cleandiesel/quantifier>

The Midwest Clean Diesel Initiative is a public-private partnership to reduce diesel emissions in the Midwest. Find out more at www.epa.gov/midwestcleandiesel

