New York State Clean Air School Bus Program

Background

New York State has approximately 46,000 large school buses in operation-more than any other state in the nation. School buses are primarily diesel-fueled, and much attention has been focused on the harmful effects that diesel related emissions can have on school children. Recent studies such as "Children's Exposure to Diesel Exhaust on School Buses" by Environment and Human Health, Inc. have reported that the fine particulate matter concentrations (PM2.5) may be 5-10 times higher inside a school bus than at regional ambient air quality monitoring stations.

Funded through New York State's 1996 Clean Water-Clean Air Bond Act and administered by the New York State Energy Research and Development Authority (NYSERDA), the New York State Clean Air School Bus Program has provided $5 million to retrofit 2,200 school buses from 74 school districts across the State with advanced emission-reducing equipment.

Closed Crankcase Filter

The awards cover 100% of the cost to retrofit a bus with emission-reducing technology such as particulate traps or filters and diesel oxidation catalysts. The US Environmental Protection Agency (EPA) has reported that New York City's air quality does not meet the National Ambient Air Quality Standards (NAAQS) for ozone, and Manhattan does not meet the EPA's PM10 standards. To help alleviate this, the New York City Department of Education was awarded $1.25 million to retrofit 130 school buses with diesel particulate filters.

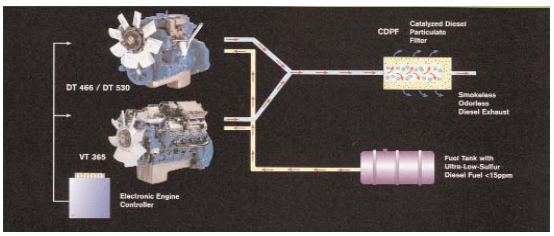
Incentives

A second round of New York State Clean Air Bus Program funding will provide approximately $2.5 million in awards to New York State school districts, which will fund the retrofit of an estimated 1,300 additional school buses, leading to additional annual emission reductions on the order of: 51,000 lbs of HC, 4,100 lbs of PM, and 1.33 million lbs of CO. Eligible emission reduction technologies include diesel particulate filters, diesel oxidation catalyst mufflers, and closed crankcase filters.

Technology

An oxidation catalyst, used with standard diesel, reduces particulate emissions (PM) by an average of 20-25%. Used with ultra-low sulfur diesel (ULSD), a bus equipped with an oxidation catalyst can achieve 40-50% reduction in PM. A particulate trap and filter, which is only used with ULSD, can result in 90% reduction in PM. Reductions of 40% of carbon monoxide (CO) and 50% of hydrocarbon emissions (HC) are also achievable. The closed crankcase filter can reduce up to 100% of the crankcase emissions.

Diesel Particulate Filter (DPF)



Diesel Particulate Filter (DPF)

NYSERDA

New York State Energy Research and Development Authority

For more information about these services, contact NYSERDA toll free 1-866-NYSERDA, locally (518) 862-1090, or e-mail: **info@nyserda.org**