WEST COAST COLLABORATIVE
Public-private partnership to reduce diesel emissions

The goal of the Collaborative is to leverage federal funds to strategically reduce emissions from the most polluting diesel sources in impacted communities. The Collaborative seeks to improve air quality and public health by targeting the highest polluting engines with the most cost effective control strategies.

Truck Fleet Idle Reduction Demonstration Project

The West Coast Collaborative is pleased to announce that EPA has selected the Truck Fleet Idle Reduction Demonstration Project for $100,000 in EPA funding.

What is the Truck Fleet Idle Reduction Demonstration Project?

The Truck Fleet Idle Reduction Demonstration Project will install idle reduction technology on a fleet of five trucks that primarily travel the I-5 corridor. Equipment will be installed on these trucks to allow them to plug into electrical power plugs at certain terminals and travel plazas (the concept is called "shorepower"), and reduce their reliance on diesel fuels to operate their air conditioning or heating during rest periods. The systems will even allow trucks to use a small engine powered generator (called an "auxiliary power unit") when shorepower is not available.

Why is this project important?

Each day in California, idling diesel truck engines emit 230 tons of particulate matter (PM) and 13,700 tons of nitrogen oxide (NO_x) emissions while drivers are resting.[1] Particulate matter (PM) is the microscopic soot emitted by diesel engines. Recent long-term studies of children's health conducted in California have demonstrated that particle pollution may significantly reduce lung function growth in children. Public health authorities associate exposure to PM with an increased risk of premature death, greater number of hospital admissions for heart and lung disease, and amplified adverse respiratory symptoms such as asthma. CARB has declared diesel PM to be a toxic air contaminant and considers diesel PM to be one of the most significant components of cancer risk in the state.[2]

Nitrogen oxides are a major contributor to ozone formation ("smog"), affecting human health and the natural environment. The Sacramento region currently violates EPA's National Ambient Air Quality Standards (NAAQS) for ozone. Recent studies reveal how elevated ozone levels are linked to the onset of asthma in exercising children; and ozone can damage the respiratory tract, causing inflammation and irritation, and induce symptoms such as coughing, chest tightness, shortness of breath, and worsening of asthma symptoms.[3] According to the 2003 California Health Interview Survey, 16.6 percent of Sacramento County residents (1 year and older) have been diagnosed with asthma compared to a statewide rate of 13 percent.[4] Nitrogen oxides also exacerbate global climate change.

What are the estimated environmental benefits of this project?

This project will install idle reduction technology on a fleet of five trucks to reduce annual diesel emissions by:

- → 1.58 tons of NOx; and
- → 47 pounds of PM.

In addition, the project is expected to reduce fuel consumption amounting to approximately $2,000 saved per truck each year.

What is SMUD?

The Sacramento Municipal Utility District (SMUD) is the sixth largest publicly owned utility in the US in terms of customers served. SMUD's innovative energy programs are known throughout the state, the nation and the world. SMUD has been conducting truck idle reduction projects for several years, including installation of shorepower infrastructure at the Sacramento 49er Travel Plaza and the Ozark Trucking Terminal. SMUD also managed an EPA SmartWay Transport Partnership grant that installed on truck idle reduction equipment on 34 trucks from nine fleets, demonstrating cost effectiveness and cost savings.

[1] California Air Resources Board Statement of Reasons, ATCM to limit diesel fueled motor vehicle idling July 2004

[2] Union of Concerned Scientists. (July 2005). "Cleaner Construction Equipment for California: A Blueprint for Healthier Communities." p. 5.

[3] American Lung Association of California and Cal-EPA Air Resources Board. (January 2004). "Recent Research Findings: Health Effects of Particulate Matter and Ozone Air Pollution." Website accessed July 2005: http://www.arb.ca.gov/research/health/fs/PM-03fs.pdf

[4] UCLA Center for Health Policy Research, the California Department of Health Services, and the Public Health Institute. "2003 California Health Interview Survey." Website accessed July 2005, available at: www.askchis.org

What is the Collaborative?

The West Coast Collaborative is an ambitious partnership between leaders from federal, state, and local government, the private sector, and environmental groups committed to reducing diesel emissions along the West Coast. Partners come from all over Western North America, including California, Oregon, Washington, Alaska, Arizona, Idaho, Nevada, Hawaii, Canada and Mexico. The Collaborative is part of the National Clean Diesel Campaign (www.epa.gov/cleandiesel).

How can I find out more about the Collaborative?

For more information about the West Coast Collaborative, please contact Peter Murchie (murchie.peter@epa.gov, 503-326-6554), or visit our website at www.westcoastcollaborative.org.