WEST COAST COLLABORATIVE
A public-private partnership to reduce diesel emissions

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

DERA 2009/2010: Repowering Four Switch Yard Locomotives Across California

The California Air Resources Board received $3,949,496 under the 2009/2010 National Clean Diesel Funding and Assistance Program by the EPA to repower four switch yard locomotives that operate in the South Coast, the San Joaquin Valley, and the San Francisco Bay Air Basins with new Tier 3 engines.

What is the project?

This project repowers four older existing switch locomotives with new non-road engines, also know as a generator set switch locomotive. Repowered generator set switch locomotives can have an operational lifetime of 30 years or more. Switch locomotives typically operate in and around railyards to put trains together and move railcars locally between railyards. The affected railroad companies will be required to provide $500,000 in additional funds. The involved locomotives will use California Air Resources Board (CARB) low sulfur diesel fuel, providing further emissions reductions.

Why is this project important ?

The resulting generator set switch locomotives, combined with the required use of CARB diesel fuel, will reduce the emissions of nitrogen oxides (NOx) and particulate matter (PM) by about 90 percent. The levels of PM2.5 and ozone in Southern California and the San Joaquin Valley have consistently been the highest in the country. NO_x is a component involved in the creation of ozone. The expected amount of reduction in NO_x and PM emissions will significantly reduce health risks, especially cancer, as diesel PM emissions account for 85 percent of all airborne cancer risks. This leads to over 13,000 premature deaths in the San Joaquin Valley and South Coast Basins. This repower project attempts to address these concerns and will reduce fuel usage by 20 percent or more per year, thereby reducing carbon dioxide emissions. In addition, the project promotes economic recovery, creating 60 new jobs in just the San Joaquin Basin and only costing $2-3 per pound of emissions reduced.

What are the estimated environmental benefits?

In the South Basin alone, this repower project will provide 6,700 tons of greenhouse gas emissions reductions during the 15 years of project life. Each locomotive could provide about 235 tons of NOx emissions reductions and 11 tons of PM emissions reductions. The diesel fuel consumption savings of the project will provide about 1,700 tons of greenhouse gas emissions reductions per locomotive as well.

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.

How can I find out more about the Collaborative?

For more information, on the West Coast Collaborative, please visit our website at www.westcoastcollaborative.org.