



**WEST COAST COLLABORATIVE**  
Public-private partnership to reduce diesel emissions

## ***LNG Yard Hostler Demonstration and Commercialization Project***

*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 improve air quality and public health by targeting the highest polluting engines with the most cost effective control strategies.*

*The West Coast Collaborative is pleased to announce that EPA has selected the LNG Yard Hostler Demonstration and Commercialization Project for \$75,000 in EPA funding. The project will be implemented with \$525,000 in matching funds from other organizations.*

### What is the project?

The Port of Long Beach (POLB) LNG yard hostler demonstration and commercialization project is a technology demonstration and evaluation program aimed at reducing emissions from diesel equipment that operates at the port. This project will retrofit three yard hostlers at the POLB with on-road certified liquefied natural gas (LNG) engines and will compare vehicle emissions and performance with diesel yard hostlers. Following the testing and evaluation phase, the project partners will assess a business case to expand the use of LNG yard hostlers at other marine terminals and similar applications.

### Why is this project important?

Cargo handling equipment typically makes up about 60-70 percent of overall port emissions for PM and nitrogen oxides (NO<sub>x</sub>) from marine terminal operations (excluding emissions from ocean going vessels and harbor crafts), and yard hostlers make up the bulk of the cargo handling equipment. This technology demonstration project creates the foundation for possible future diesel emissions reductions from yard hostlers at national and international ports.

In addition, the Port of Long Beach established a comprehensive Air Quality Improvement Plan (AQIP), the goal of which is to achieve measurable, long-term reductions in air pollutant emissions from Port operations, particularly diesel particulate matter (PM). The Diesel Emission Reduction Program (DERP) is part of the AQIP program and implements state-of-the-art emissions control technologies and alternative fuels on tenant-owned vehicles operated largely within the Port. This program is voluntary for terminal operators and goes beyond the current regulatory framework.



## What are the estimated environmental benefits of this project?

Through the use of cleaner, on-road LNG engines, the project expects to demonstrate greater than 60 percent reductions in NOx and 80 percent reductions in PM compared to Tier 2 nonroad diesel engine emissions standards.

## How is this project funded?

The bulk of the project funding is being provided by the Port of Long Beach and Sound Energy Solutions (SES),<sup>1</sup> including the purchase of three LNG yard hostlers from Kalmar Industries. Long Beach Container Terminal Inc. (LBCTI), a terminal operator at POLB, has volunteered to incorporate the LNG yard hostlers into their daily activities for a six-month testing and evaluation period. CALSTART, a not-for-profit advanced transportation consultant has been sub-contracted by POLB to provide overall project management.

## 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](http://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](mailto:murchie.peter@epa.gov), 503-326-6554), or visit our website at [www.westcoastcollaborative.org](http://www.westcoastcollaborative.org).

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<sup>1</sup> Sound Energy Solutions is a joint venture company of Mitsubishi Corporation and ConocoPhillips and it is proposing an LNG receiving terminal in the Port of Long Beach.