



WEST COAST COLLABORATIVE

A public-private partnership to reduce diesel emissions

The goal of the West Coast 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 diesel engines and equipment with the most cost-effective control strategies.

DERA 2015: American Samoa Renewable Energy Battery Storage System on the Island of Ofu

Under the 2015 Diesel Emissions Reduction Act (DERA) State Clean Diesel Program, the U.S. Environmental Protection Agency (EPA) and West Coast Collaborative (WCC) have granted the American Samoa Power Authority (ASPA) \$42,201 to repower an existing diesel-powered stationary generator with a backup diesel generator, along with a zero-emission battery energy storage system.

What is the project?

ASPA, the public electrical utility in American Samoa, will repower an existing diesel-powered stationary genset with a new zero-emission, 250 kilowatt (kW) photovoltaic solar system and 750 kW hour battery energy storage system, which will provide 80% of the electrical needs. EPA funds were used for a 150 kW backup diesel generator to be used when there is not sufficient sun or during emergencies.

Where is this project located and why is it important?

American Samoa is a U.S. Pacific Island Territory located in the South Pacific Ocean and consists of five main islands. The Manu'a Islands, which include Ofu Island where this project is located, have a goal to become independent of fossil fuel and instead invest in renewable energy for electricity generation. This project will significantly help Manu'a reach this ambitious goal.

American Samoa is extremely remote and is highly dependent on petroleum imports to provide electricity generation. Due to the Island's unique geographic isolation, oil prices continue to be high while being negatively impacted by natural disasters such as tsunamis and typhoons. Providing reliable, sustainable and cost-effective electricity is a high priority for American Samoa. This hybrid electricity system will significantly reduce shipped petroleum, minimizing the electricity costs for ASAP customers and making this project very cost effective.

What are the environmental and health benefits?

This hybrid solar-diesel electricity generation system will reduce annual emissions of NOx by 7.57 tons, fine particulate matter (PM2.5) by 0.25 tons, hydrocarbons by 0.3 tons, carbon monoxide by 1.48 tons and carbon dioxide by 832 tons. This project will reduce 75,000 gallons of diesel fuel annually.

How was this project funded?

EPA, through the WCC, provided \$42,201 in DERA grant funds to enable the implementation of this project on the Island of Ofu in American Samoa. ASPA will provide an additional \$310,000 of cost share and leveraged funds for this project.

What is the West Coast Collaborative?

The WCC is an ambitious partnership between leaders from federal, state, local and tribal governments, the private sector, and environmental groups committed to reducing diesel emissions along the West Coast. The WCC is part of EPA's National Clean Diesel Campaign: www.epa.gov/cleandiesel and www.westcoastcollaborative.org.

How can I find out more information?

Contact Trina Martynowicz at the EPA at martynowicz.trina@epa.gov.