



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 2017: American Samoa Battery Storage Projects to Reach 100% Renewable Energy

Under the 2017 Diesel Emissions Reduction Act (DERA) Clean Diesel Program, the U.S. Environmental Protection Agency's (EPA) West Coast Collaborative provided a \$82,960 to help two American Samoa islands operate on 100% renewable energy. This grant funded the replacement of a diesel-powered stationary generator with a battery storage energy system.

What is this project?

EPA's Pacific Southwest Region provided a grant to the American Samoa Power Authority (ASPA), the public utility, to bring clean, reliable power to this rural U.S. territory islands of Ofu and Olosega. This system includes 150 kilowatts (kW) of solar photovoltaic panels and 500 kW hours of batteries, allowing the island's 80 residents to continually utilize this clean energy even when the sun is not shining. Fossil fuel would only be used in emergencies in a backup diesel generator, which EPA specifically funded. This grant funds Phase 2 of this system; EPA provided a 2015 grant for Phase 1 for 80% solar and storage. This grant will ensure that Ofu and Olosega islands will operate at 100% renewable energy.

Where is this project located?

American Samoa, which consists of five main islands, is a U.S. Pacific island territory located in the South Pacific Ocean. This territory has been highly dependent on petroleum imports since electricity is primarily generated by diesel generators. Due to their unique geographic isolation, oil prices have been and are expected to continue to be extremely high. The Manu'a islands, which include Ofu and Olosega where this project is located, set a goal to be fully free of fossil fuel generated electricity; this project will allow this island to reach this very ambitious goal.

Has EPA funded any similar projects in American Samoa?

In 2015, EPA provided ASAP a similar DERA grant of \$42,200 for Phase 1 of this project, which provided 80% the energy needs through a PV and storage system. In 2016, EPA awarded ASPA a DERA grant of \$70,715 for a similar solar-storage system on the island of Ta'u, which is also part of the Manu'a islands in American Samoa. This system includes 1.4 MW of solar panels and 6 MW hours of battery storage system by Tesla. The Manu'a islands will now reach their self-sufficient, 100% renewable energy goal from these grants funds.

What are the environmental & health benefits?

This solar-storage electricity generation system will reduce annual emissions of NO_x by 107 tons, fine particulate matter by 26 tons, hydrocarbons by 11 tons, carbon monoxide by 86 tons and carbon dioxide by 2,975 tons. This project reduces approximately 13,400 gallons of diesel fuel annually.

How was this project funded?

EPA, through the West Coast Collaborative (WCC), provided \$82,960 in DERA grant funds to ASPA to enable the implementation of this project. ASPA provided the remaining 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.