



WEST COAST COLLABORATIVE

A 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.

Tribal DERA 2020: Buckland IRA Tribal Council (BTC) – Diesel Generator Replacement in Buckland, Alaska

Under the Diesel Emissions Reduction Act (DERA), the U.S. Environmental Protection Agency (EPA) awarded Buckland IRA Tribal Council (BTC), a \$484,923 Tribal DERA grant with Fiscal Year 2020 DERA funding. The grant will be used to replace two stationary diesel generators (1) non-tiered generator and (1) a Tier 2 generator; and update their existing monitoring system. The FY20 project will be implemented with a mandatory cost share of \$96,655 for a total project cost of \$581,578.

What is the Project?

Buckland IRA Tribal Council in partnership with the City of Buckland will replace two stationary diesel generators; a non-tiered Caterpillar with a John Deer Tier 3; and replace a Tier 2 Caterpillar with a Tier 3 John Deer. In addition, BTC will update their control interface with a new ABB e-Mesh monitoring system.

Why is this Project Important?

The residents of Buckland are exposed to high air quality stressor that directly correspond to increases in respiratory illnesses. Power in rural Alaska villages is typically generated from diesel fuel, thus using a disproportionately large quantity of diesel. The community has some of the highest energy costs in the nation on a per capita and

relative to overall income basis when energy demand for heat is factored in. Replacement of the generators will reduce air emissions levels, reduce health risks, and reduce the cost of energy in a high poverty population.

What are the Estimated Environmental Benefits?

Buckland IRA Tribal Council and the City of Buckland anticipates significant reductions in diesel emissions based on EPA's verified emission reduction estimations, using the Diesel Emission Quantifier. The FY2020 gen-set replacement and updated monitoring system will reduce diesel emissions both annual / lifetime from NOx by 11.42 / 57.46 tons; PM2.5 by 2.84 / 18/77 tons; HC by 1.5 / 10.01 tons; CO by 9.68 / 60.64 tons; and CO2 by 74 / -3061 tons. Fuel usage reduction in Buckland by 6545 gallons annually / 98175 gallons in a 15-year lifetime.

How is this Project Funded?

The West Coast Collaborative is a partnership between leaders from federal, tribal, state, and local government, the private sector, and environmental groups committed to reducing diesel emissions along the West Coast and is part of EPA Clean Diesel Program. <https://www.epa.gov/dera>

Where can I find more information?

For more information on the West Coast Collaborative, please visit our website at: www.westcoastcollaborative.org. For more information about this project, please contact Kayla Krauss at krauss.kayla@epa.gov