



KWIGILLINGOK ENERGY EFFICIENCY PROJECT

Richard John

DOE program review

November 2017

Native Village of Kwigillingok

- Alaska Native Village of 377 people.
- People live a subsistence lifestyle, relying on fish, walrus, seal, ducks, and geese.
- The village is governed by an I.R.A. Council and craft.
- People speak Yup'ik language and participate in traditional arts



Background

- Kwigillingok has a long-term goal to reduce energy costs in the community through both sides of reducing energy use and reducing the cost of energy.
- Kwigillingok is a member of the Chaninik Wind Group that is helping the community by building wind turbines, upgrading diesel generators, and storage systems with smart grid controls to reduce the cost of electricity.
- Previously, Kwigillingok completed an energy audit on the Water Treatment Plant.

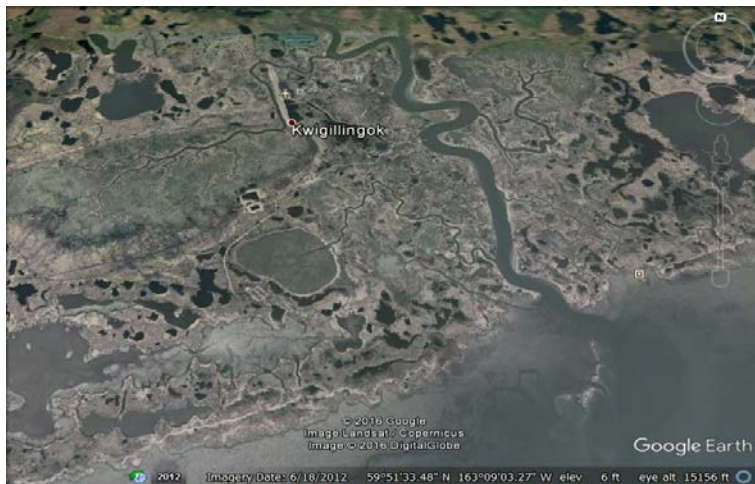
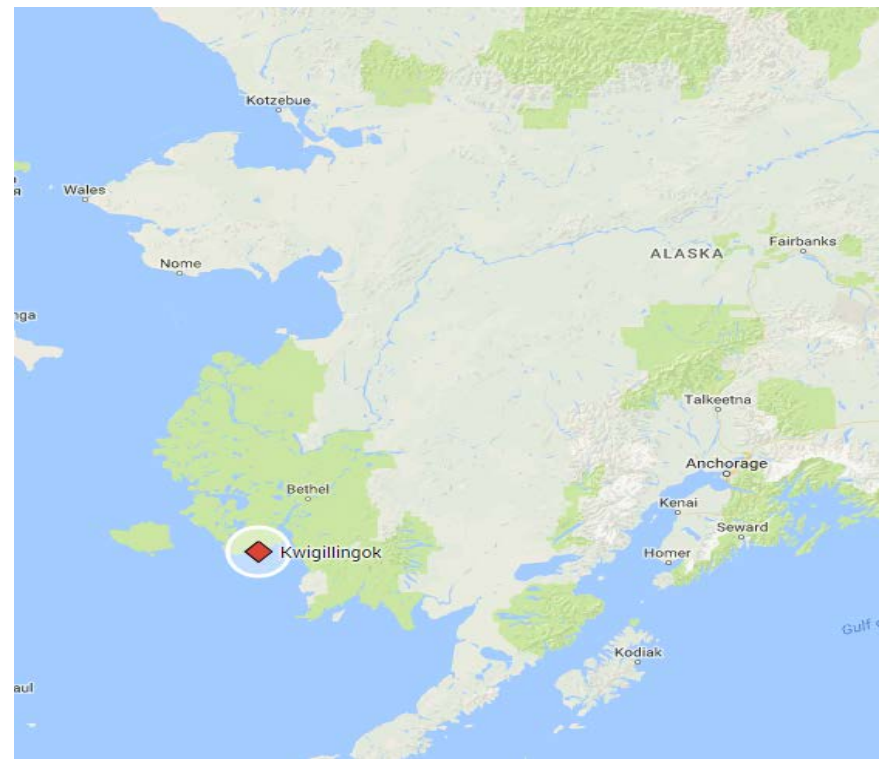


Project overview

- This project will address the high energy costs in Kwigillingok.
 - Gallon of gasoline is \$4.95
 - Gallon of propane is \$15
 - Gallon of fuel oil is \$4.65
- The goal of the project is to reduce the fuel oil and electrical energy use of tribal buildings.
- Strategy:
 - Identify tribal buildings with high energy use.
 - Conduct ASHRAE Level II energy audits.
 - Develop an Energy Action Plan for each building.
 - Retrofit plan
 - Maintenance plan
 - Training opportunities
 - Scope of work for contractors

Project location

- Kwigillingok is not connected to the road system. Travel is by small plane or by boat when river is free of ice.
- Located on the Kuskokwim River in Southwest Alaska.
- Community has one school with 122 students.



Participants

- Richard John – Finance officer
- Darrel John – Tribal administrator
- The Kwigillingok I.R.A. Council will choose the buildings to audit, establish goals for each building, and work with the Cold Climate Housing Research Center on the Energy Action Plans.
- Cold Climate Housing Research Center (CCHRC) – Alaska nonprofit organization that will conduct the energy audits and help develop the Energy Action Plans.

Progress to-date

- Kwigillingok I.R.A. Council has met to discuss which buildings they would like to audit.
 - Main office
 - Health clinic
 - Post office
 - Tribal police department
 - Fisheries support building
 - Bunkhouse



Next steps

- CCHRC will visit Kwigillingok before March 31, 2018. The trip is tentatively scheduled for the second week in December.
- CCHRC will meet with the I.R.A. Council to establish goals for each building, conduct on-site assessments of each building, and gather baseline energy data.
- CCHRC and the Kwigillingok I.R.A. Council will work on the Energy Action Plans over the next year.



Questions

- For additional information, please contact:
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