

Good afternoon, everyone. Thank you for the opportunity to speak with you today about the energy retrofit project in Akiachak. My name is **Edward George**, and I am the Tribal Administrator for Akiachak. **Jonathan Lomack** is our business manager, but he couldn't make it today.

We are starting year two of this project, although it has been going on for about five years. Of course, the pandemic put a lot of things on hold, and restarting has been a slow process. When you're as remote as we are, these kinds of things just take longer.

Project Partners and Contractors



At its northern campus in Fairbanks, Alaska, the National Renewable Energy Lab advances building technologies for extreme environments and pushes the limits of renewable energy.

Implementing energy efficiency in commercial, industrial, and municipal buildings.



**COLD CLIMATE HOUSING
RESEARCH CENTER**



Promoting and advancing the development of healthy, durable, and sustainable shelter for Alaskans and other circumpolar people.

We've had help from our partners:
the **National Renewable Energy Lab's Alaska Campus** and the **Cold Climate Housing Research Center**, both in Fairbanks, Alaska, and also **Energy Audits of Alaska**, based in Anchorage.



I mentioned that Akiachak is in a remote area. Here it is on a map to give you an idea of what that means. We're in southwest Alaska along the Kuskokwim River. **[Add a sentence about what it's like to live out on the delta]**

Akiachak Native Community

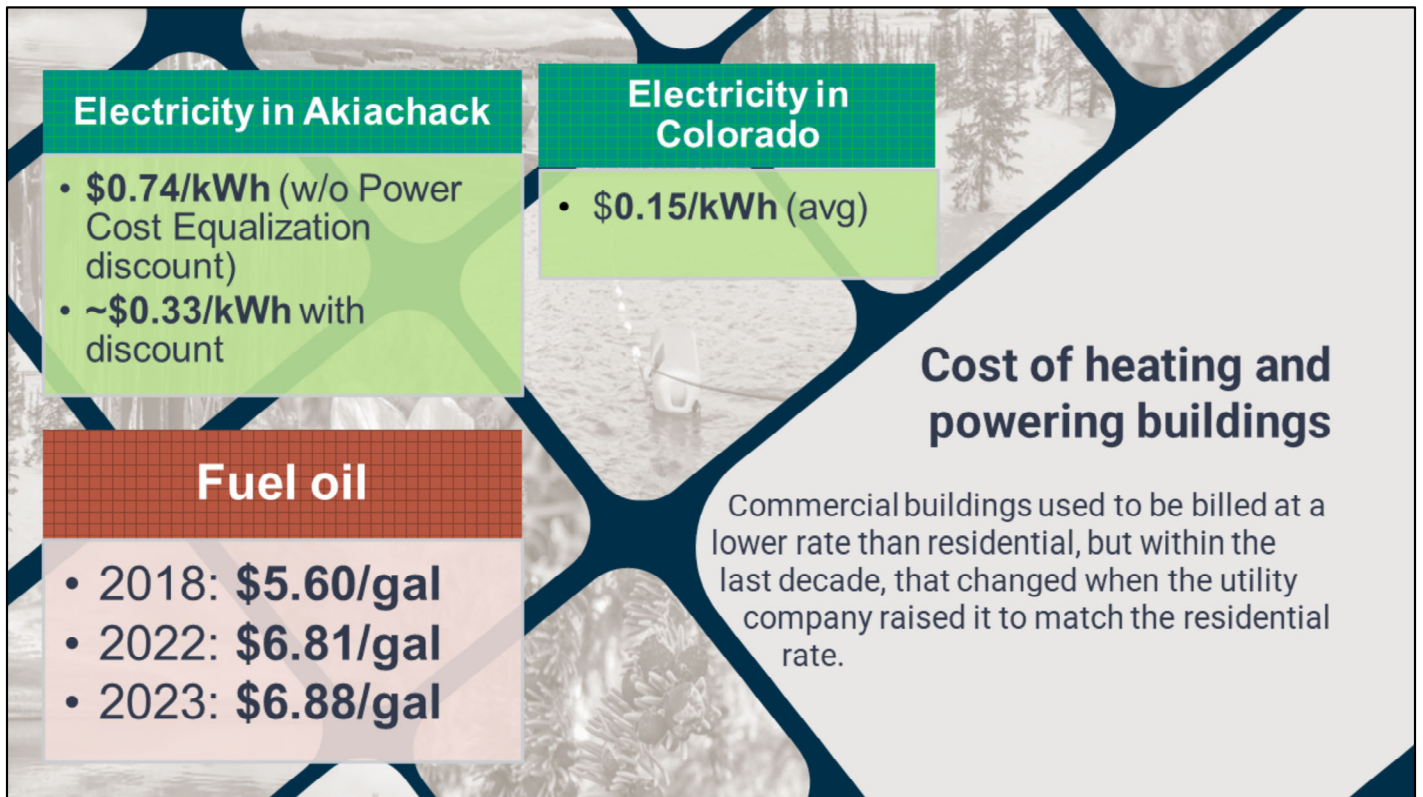


Akiachak is a Yup'ik village with a fishing and subsistence lifestyle.

It was the first city in Alaska to dissolve its city government in favor of Native village government.

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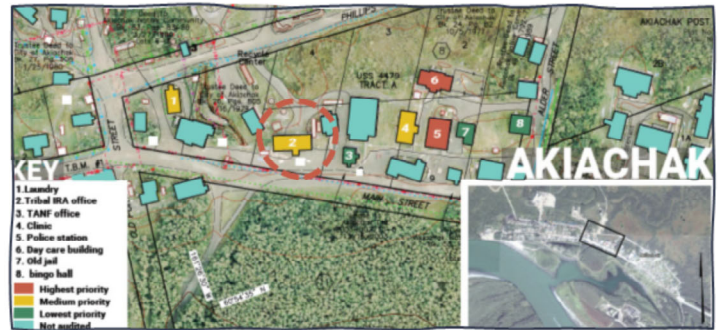
[say 1-2 things about what it's like to live in Akiachak.]



The building we're trying to upgrade is non-residential. Electricity prices for commercial buildings used to be lower, but about _____ years ago they raised it to match residential rates, so our bills went up.

These numbers here are meant to help you understand the why we need these energy efficiency upgrades so badly. The office building is mainly heated with fuel oil, and we can go through _____ 55-gallon barrels each winter.

By reducing energy use in highly-used community buildings, ANC will be less reliant on fossil fuels and less vulnerable to supply disruptions.



Energy efficiency improvements based on two energy audits.

- October 2017: first audit
- December 2022: re-evaluation
- Dec-Jan 2023: retrofit work

Price increases since 2017 have limited the 2022 scope; supply chain bottlenecks have slowed progress.

Starting in 2017, we chose five buildings to retrofit. Thorough energy audits identified a long list of things we could do to make the buildings run on less power and fuel oil. After the pandemic, we had another round of energy audits to make sure things had not changed. The buildings had not changed too much, but prices had. Instead of working on five buildings, now we are down to one. Between that and supply chain bottlenecks, we hope that next month we'll finally be able to get our HVAC and electrical work completed.

Akiachak Tribal IRA Office

Planned upgrades:

- Variable speed pump
- Replace boiler and zone controls
- New fintubes and covers
- Replace thermostats
- Install occupancy sensors
- Install humidity sensors
- Retrofit 39 LED light fixtures
- Install nine LED fixtures
- Hazardous waste removal



Built: 2007

Single story 2,232 ft² office space

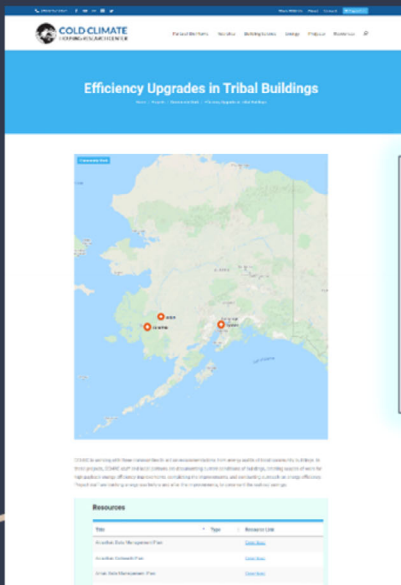
Occupancy: 11 staff, ~8-10 visitors daily

Spaces: conference room for council meetings and a kitchenette. In operation Mon-Fri.

The one building that we decided to focus on was the Tribal office. It will benefit from a new pump, boiler, zone controls, occupancy sensors, humidity sensors, and new LED lights. The old lighting ballasts cannot go into the regular waste stream, so they will be sent to a service called Total Reclaim for proper disposal.

This work is scheduled to begin next month, and we hope that there are no more delays because winter has already started.

Activities



<http://cchrc.org/efficiency-upgrades-tribal-buildings/>



Current tasks:

- Arrange for vendor travel to Akiachak once all backordered materials arrive

Future tasks:

- Retrofit work
- Analyze fuel and electricity bills
- Analyze savings
- Reporting

Other Notes

- Thank you to Tweedie Doe and the Contracting Officers for reviewing vendor approvals during a very busy time for the office.
- **Hazardous waste removal from rural and remote areas can be a substantial part of the budget.**
 - Electronics and old lighting ballasts



You can keep up to date with our progress on this site, which is hosted by CCHRC. Scan the code to go there directly, or type in the URL at the bottom of the slide.

I would like to thank Tweedie Doe and the contracting office for helping to expedite vendor approvals.



And thank you all for your attention.