

Photos captured by TCC



Ground Source Heat Pump and Solar PV Installation in Rural Alaska






The Ruby Tribal Council and the City of Ruby are pro-active in working to reduce cost and energy use in the community.

"I could not believe how much our bill went down, more than \$100/month, now it is less than \$100. It has been a good learning experience for all of us here. We're all saving quite a bit, I know I have seen it in my own home. " -Jenny Hopson, City Administrator at Ruby

In 2016, Ruby submitted a proposal to the US Department of Energy (DOE) to complete work under phase 3 of the Remote Alaska Community Energy efficiency (RACEE) Project. Their objective was to reduce per capita energy use in the community by at least **15%** as compared with a 2010 baseline by the year 2020.

The Ruby Tribal Council, Ruby City Council, and the Yukon - Koyukuk School District partnered with Tanana Chiefs Conference (TCC) to:

- 1.)  Reduce line loss in the community from its current rate of 23% to a normal rate of 5%, saving approx. 78,000 kWh/yr.
- 2.)  Install a solar PV and solar thermal heating and electric system on the newly constructed tribal hall.
- 3.)  Complete a community - wide LED lighting upgrade (on homes, school, and streetlights) and a cash - for - clunkers appliance change - out program



"The biggest challenge was scheduling the drilling rig for the ground source heat pump. We had to time it right with the barge going downriver; dropping it off, completing the installment, then making sure the barge picked up the drill rig on the way upriver. The difficulties associated with travel during the pandemic made the entire process more challenging."

-David Pelunis-Messier,
Rural Energy Coordinator at Tanana Chiefs Conference

**As of 2021, the clinic, washeteria, Catholic church, and one residential hall are connected to solar panels. Waste heat generated by the power plant heats the clinic, washeteria, and public buildings. The Ruby tribal office is equipped with a new ground source heat pump.*