Biomass Project

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Ts’aat’iyhdinaada kk’onh Dinh Tribe
Huslia Village Council
“dba” Huslia Tribal Council

- Alaska Native Tribe
- Most residents are Koyukon Athabascans
- Roughly 290 Air Miles West of Fairbanks, AK
- Heating Fuel is delivered by river barges in Spring & Fall
“The main goal of our community is to ensure the survival of our community and the preservation of our traditional way of life. We envision our community as a desirable place to live where future members will want to come back after schooling to work and raise families. To reach this goal we need to create a self-sustaining economy and address social, cultural and infrastructure issues in our community.” – Huslia Community Plan 2017
Biomass Background

- The planned Garn cordwood boiler technology is well proven in Alaska. Currently 14 community-scale cordwood and woodchip-fired energy projects are in operation around the state.
- The project is in line with HTC’s goal of supplying 25% of our energy from renewables.
Project Overview

- Community scale biomass project to heat 60% of the sq footage of community buildings in the community of Huslia, AK – School, Washeteria & Clinic
- Creates 5 – 12 part-time jobs
- Predicted to save the community $57,000 annually in oil costs
- The Huslia Tribal Council will own the facility and manage the long term operations and maintenance of the project
- Project has installed 3 – “Garn 2000” cordwood boilers in a 30x24 steel building
The Huslia Tribal Council Biomass Project will increase tribal energy security, decrease imported diesel and provide much needed employment for tribal members in Huslia, Alaska.
Project Location
Project Location
Project Location
Project Construction
Heat Pipe Installation
Major Participants

- Huslia Tribal Council (HTC)
- City of Huslia
- Yukon Koyukuk School District (YKSD)
- Alaska Native Tribal Health Consortia (ANTHC)
- Tanana Chiefs Conference (TCC)
Management Approach and Team Roles

• The Huslia Tribal Council (HTC) applied for and received the DOE Award and the tribe manages 100% of the book keeping and invoicing for the project
• Tanana Chiefs Conference (TCC) acted as the Technical Point of Contact and oversaw conceptual design, contractor selection and construction
• Alaska Native Tribal Health Consortium (ANTHC) led the design of the project
• Yukon Koyukuk School District YKSD took on the biomass integration from the wall of their mechanical room into their boiler system
• During the operation, HTC will purchase fuelwood from local contractors and sell heat to the Yukon-Koyukuk School District (YKSD) and tribal buildings
Key Milestones & Deliverables

- **Year 1:**
  - Oct 1st 2017 – Huslia Tribal Council began project
  - Jan 30th 2018 Design at 100%
  - April 30th 2018 long lead items all at Nenana Barge Landing
  - May 15th 2018 Building Construction Contractor Selected
  - July 30th 2018 Building foundation, walls, piping complete

- **Year 2**
  - February 28th 2019 mechanical work scheduled to be completed
  - Test firing school, clinic, water plant
  - Data Collection on project to take place in the remainder of the year
Project Goals

- **Cost Reduction**
  - Displace approximately $57k of the fuel used to heat the facilities with local, sustainably harvested woody biomass. Fuel cost savings over the 25-year life of the project are estimated at approximately $1.5 million.

- **Carbon Reduction**
  - Reduce greenhouse gas over the life of the project.

- **Community Resiliency**
  - Enhances self-sufficiency and technical capabilities of Huslia residents by reducing money export from the community for fuel oil and providing training for system operators and fuel harvesters.

- **Economic Development**
  - Create approximately 5-12 part-time jobs for wood harvesters, and 2 part-time jobs for boilers operators.
Project Benefits & Outcomes

- Installation of 3-Garn 2000 biomass boilers to heat 3 main buildings in the community of Huslia
- Create 5-12 part time and full time jobs harvesting and operating the biomass system
- Long-term reduction in oil costs for these 3 facilities estimated at $57,000/year and over $40,000/year of local economic development pumped into the local community
- Near completion of the Huslia Tribal Council’s Renewable Portfolio Standard (RPS) to achieve 25% diesel displacement in its community facilities by the year 2025
- Leverage 50% of project costs in the form of in-kind and cash contributions
  - Federal Funds: $361,143  Cost-share: $361,143  Total: $722,286
Ana Basee’ (Thank You)
Department of Energy Office of Indian Energy

Questions?