



ALASKA NATIVE
TRIBAL HEALTH
CONSORTIUM

Wind IPPs to Lower Rural Water and Sewer Bills

Presented by: Katya Karankevich

Rural Energy Program

yakarankevich@anthc.org



ALASKA NATIVE
TRIBAL HEALTH
CONSORTIUM

Who Am I?

- Katya Karankevich
- Rural Energy Program
- Project Manager
- I like fish



Rural Energy Program Purpose

- Make water service more affordable in rural Alaska
- Solar, hydro, wind to heat, energy efficiency, heat recovery, biomass, etc.
- **600\$ average annual savings** per household in 83 communities measured



Toksook Bay Wind Expansion

- **Feasibility study:**
 - Add 1 MW wind + battery energy storage
- **O&M:**
 - EWT has annual maintenance package, in-state technician, 25 year warranty
- **Net revenue:**
 - ~\$437k in annual net revenue
- **Household subsidy:**
 - 172 residential households → ~\$1,650 subsidy per family annually



ALASKA NATIVE
TRIBAL HEALTH
CONSORTIUM

Why an IPP

- The State's PCE rules have a perverse incentive against utilities adopting RE
- The less fuel a utility uses, the less PCE they get
- Residential sees no savings
- If separate entity sold power to utility, PCE sees a fuel provider.
- 80% idea: keep PCE, lower commercial bills and use revenue for further utility lowering



Chevak Wind Expansion

- **Feasibility study:**
 - Add 1 MW wind + battery energy storage
- **Net revenue:**
 - ~\$394k in annual net revenue
- **Household subsidy:**
 - 140 residential households → ~\$2,818 subsidy per family annually



ALASKA NATIVE
TRIBAL HEALTH
CONSORTIUM

Hooper Bay Wind Expansion

- **Feasibility study:**
 - Add 1 MW wind + battery energy storage
- **O&M:**
 - EWT has annual maintenance package, in-state technician, 25 year warranty
- **Net revenue:**
 - ~\$558k in annual net revenue
- **Household subsidy:**
 - 146 residential households → ~\$3,824 subsidy per family annually



Kotzebue Wind to Heat

- Design finished summer 2023
- Sturgeon Electric will install summer 2024
- Electric boiler will capture all available wind excess and send to heat new Water Treatment Plant
- 300kw boiler savings: 12,100 gallons or \$54,300.
- As KEA increases RE recovered heat system from diesel will decrease.



Tribally Owned Kotz Wind IPP

- ANTHC working with Kotzebue IRA and KEA to update feasibility study through a free technical assistance request.
- New report will outline economic considerations for 2 more EWT 1MW turbines as a Tribally owned IPP, like the previous examples.



ALASKA NATIVE
TRIBAL HEALTH
CONSORTIUM

IIJA/IRA opportunities: progress & potential

- **DOE OCED Energy Improvements in Rural and Remote Areas:**
 - Applied for \$30M of funding for solar PV and hydro projects in partnership with 7 communities
- **DOE Grid Resilience and Innovation Partnerships:**
 - Partnered with AEA on “Transforming Rural Alaska Microgrids” application
- **EPA Climate Pollution Reduction Grants:**
 - Tribal Priority Climate Action Plan
 - Eligibility requirement for \$4.6B in implementation grants
- **EPA Solar for All:**
 - Partnering with TCC to submit an Alaska Tribal Solar for All application for \$100M

Free Technical Assistance

What does it cover?

Rural Energy Program

energy@anthc.org



ALASKA NATIVE
TRIBAL HEALTH
CONSORTIUM

Any Questions?



ALASKA NATIVE
TRIBAL HEALTH
CONSORTIUM

Thank You For Your Time

Katya Karankevich

yakarankevich@anthc.org

Direct: 520-900-2500



ALASKA NATIVE
TRIBAL HEALTH
CONSORTIUM

