



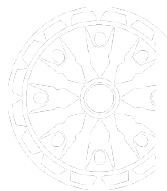
ALASKA NATIVE  
TRIBAL HEALTH  
CONSORTIUM

DOE Intertribal Technical Assistance Grant  
Program Review  
5/20-21/2018

# Alaska Native Tribal Health Consortium Rural Energy Initiative

Bailey Gamble, Energy Management Engineer

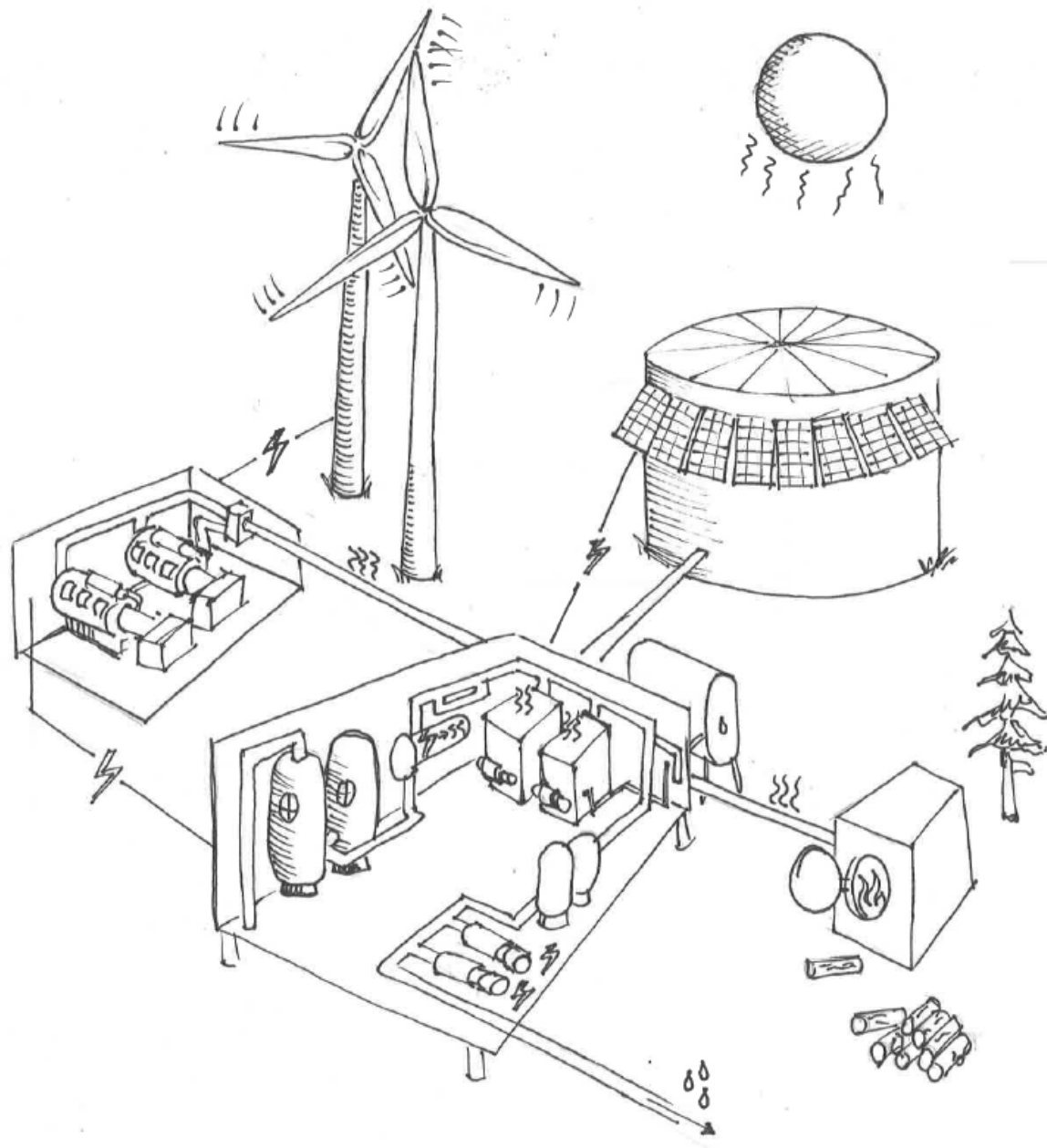




## Our Work

Working with Alaska Native communities statewide to make critical services more sustainable and affordable.

- Optimizing existing systems
- Incorporating new technologies
- Increasing energy literacy
- Specialize in water and sanitation



# Original Deliverables of ANTHC's DOE TA Grant

- 15 Level 3 Energy Audits
- 15 Material Take-Offs and Training Plans
- 15 Feasibility Studies for Energy Capital Projects
- 15 Design/Proposal Reviews
- 15 Instances of Assistance with Project Financing Identification
- Focus Regions



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# Project Identification

## Apply for Technical Assistance

Use this online form to request technical assistance from the Alaska Native Tribal Health Consortium for planning and implementing renewable energy and energy efficiency projects.

Rural Energy Initiative  
(907) 729-3942  
[energy@anthc.org](mailto:energy@anthc.org)

To help us determine whether your request fits within the program's scope and can be addressed with available resources, please provide the information below and then click on "Submit" button.

### Technical Assistance Request

Name

First

Last

Title/Position \*

Email \*

- Online application
- Previously identified
- Conversation and connections with regional partners

# Impact: Technical Assistance Work To-Date

- **Seldovia:** 2x Energy Audits
- **Yakutat:** Energy Audit, Material Take-Off
- **Tyonek:** Energy Audit, Material Take-Off
- **Aniak:** Energy Audit
- **Atmautluak:** Energy Audit
- **Akiachak:** CHP Feasibility Study
- **Mountain Village:** WTH Design Review
- **Metlakatla:** Heat Pump Design Review
- **Unalakleet:** Power System Troubleshooting, Financing Assistance
- **Scammon Bay:** HR Feasibility Study
- **Togiak:** HR Feasibility Study
- **St. Mary's:** Financing Assistance
- **Quinhagak:** Financing Assistance
- **Arctic Village:** Material Take-Off (Solar)
- **Mertarvik:** HR Feasibility Study, Financing Assistance
- **Chugachmiut:** Multi-Community Solar Feasibility Study
- **Golovin:** General Project Development Assessment and Guidance
- **Chistochina:** Energy Audit
- **Ahkiok:** Renewable Resource Data Collection, Educational Material Development
- **Elim:** Financing Assistance
- **Brevig Mission:** Financing Assistance
- **Stebbins:** Heat Recovery Optimization Training
- **Hoonah:** Hydro Feasibility Study

# Impact: Projects Funded

TA: UVEC  
Optimization Study



TA: UVEC Funding  
Application  
Development



\$356,354\*  
Awarded

TA: Newtok HR  
Feasibility Study



TA: Newtok Funding  
Application  
Development



\$638,942\*  
Awarded

# Impact: Capacity Built Through DOE TA Work To-Date

- Grant writing skills
- Microgrid modeling
- Weather station installation, renewable data collection
- Navigating the State Revolving Loan fund application
- New engineer shadowed team of experts on power system troubleshooting
- New engineer shadowed PE contractors on heat recovery feasibility
- Participation in regional events



# Impact: Collaboration and Relationships

## Akhiok Renewable Resource Data Collection Project



KODIAK AREA NATIVE ASSOCIATION



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Rural Energy Initiative



**ACEP**  
Alaska Center for Energy and Power







# Challenges

- Narrow original scope
- Limited response within focus regions
- Slow to hit our stride
- Quickly spent down subcontracting funds
- Grant management changed hands
- Maintaining level of TA service after grant runs out

# Proposed Changes - Modified ~~Original~~ Deliverables



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Continued provision of TA as requests arise.

Focus on sustainability - enhancing ability to provide TA into the future.

- Standardization of services offered
- Targeted training of ANTHC TA providers
- Improved informational/outreach materials
- Ongoing outreach and support through participation in regional and statewide events
- Deepening energy consciousness within other ANTHC departments



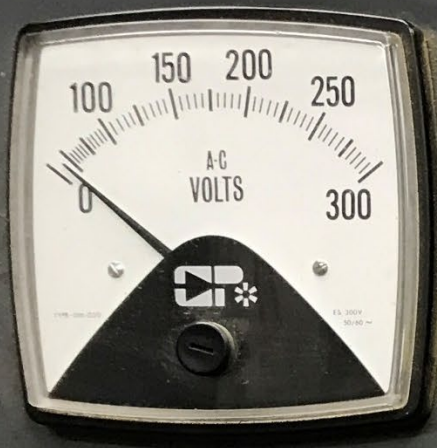
## In Summary

### Benefits:

- Successfully funded/funding 37 instances of TA to date that move community energy projects closer to implementation.
- Enhancing ANTHC's capacity to provide continuously improved TA
- Crucial in facilitating community access to infrastructure funding
- Strengthening relationships with regional energy drivers, utility providers, community leaders and contractors

### Main challenge:

- Continuing to fund direct technical assistance services after this funding runs out



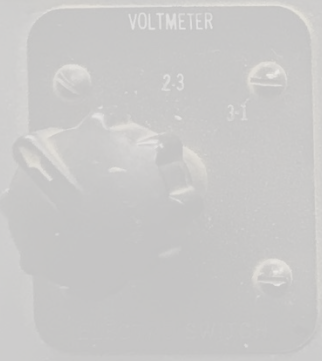
START 3 STOP

**THANK YOU!**

**Bailey Gamble  
Energy Management Engineer**

[bbgamble@anthc.org](mailto:bbgamble@anthc.org)

**(907) 729-4501**



ENGINE CONTROL  
RESET OFF RUN

5

4

VOLTAGE ADJUST RAISE → OVER CURRENT ØA OVER CURRENT ØB OVER CURRENT ØC SPEED CONTROL RAISE → UNDER FREQUENCY OVER FREQUENCY UNDER VOLTAGE OVER VOLTAGE



LAMP TEST

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