Port Graham Community Biomass Heat Project

Energy Efficiency and Renewable Energy DE-EE0005637

Patrick Norman, Port Graham Village Council and Charles Sink, Chugachmiut
What is the project
Who and where we are

Nanwalek
Tale of two grants

**DOE EFRE DE-EE0005637**
- Start Date 6/1/2012
- End Date 12/31/2014
- Revision Date 9/10/2012
- Richmond Engineering, Inc./Charles Nash Forestry Consulting hired 6/13/2014

**AEA Grant # 7040061**
- Start Date 7/1/2011
- End Date 12/31/2013
- Revision Date 2/1/2013
- ChenaPower, LCC hired 6/13/2014
- Extension to 6/30/2014
## June 2013 Meeting
Lisa Safford with modifications from Nadine Winters

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<td>Environmental Review</td>
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<td>Identify environmental permits required</td>
<td>Construction Estimates</td>
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<td>Action Plan for implementation</td>
<td>Construction site agreements, use of existing facilities</td>
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<td>Operating budget estimates and model</td>
<td>Fuel source - estimates, budget model, agreements</td>
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**Assistance provided to Port Graham Village Council by Contractors from both funding sources:**

- Development of fuel supply agreement
- Identify options for facility and resource operations
- Support in contract negotiations
- Funding/financing options
The Strategic Technical Assistance Response Team (START) Program is part of the DOE Office of Indian Energy effort to assist in the development of tribal renewable energy projects. Through START, Tribes in the 48 contiguous states and Alaska can apply for and are selected to receive technical assistance from DOE and national laboratory experts to move projects closer to implementation.

Levi Kilcher, NREL
Chena Power, LLC

- Bernie Karl and Jim Whitaker with
  - Nadine Winters
  - AEA approval
  - Business Operating Plan
  - Operational Action Plan
- Permitting and Environmental Review

Bernie Karl's 300 kW Fairbanks Municipal Waste Biomass Operation
Biomass Assessment
Chugachmiut Forester
Nathan Lojewski

• Standing Volume in Bone Dry Tons (BDT) is 602,253 tons, all lands
• Maximum Allowed Annual Cut in BDT 13,135 tons/ year*
• Annual Need for the intended GARN Boiler is 100 BDT/ year
• *PG Corp 16,410 acres--40% volume is reserved for timber products; leave out regrowth on 9,623 acres; AAC 3,259 BDT for 50 years then 6,578 BDT/ year; Native allotments 3,938 acres 3,024 BDT
Quarterly Reporting & In-Kind

• Report Format
• In-kind—payroll proof
• Work contributed
  – Forestry and LIDAR
  – Technical Assistance
Where we are

• Engineering design complete
  – NREL Questions
• Chena Power work near completion
• Forestry consulting the missing piece
• Chugachmiut technical assistance
  – Biomass Assessment
  – Fuel Source Agreement/Support in Contract Negotiations
  – Tribal Facility and Resource Operation
Where we need to go

- Collect completed reports from contractors
- Finalize Tribal Mgmt Plan
- Develop Final Report
- Seek Phase IV Funding and Finance Agreements

Katherine Brewster Native allotment