

**Aleutian & Pribilof Islands
Regional Energy Summit
April 24 & 25, 2010
Anchorage, AK**

Overall goal: to reduce fossil fuel consumption in the region by 85%

DAY 1:

GENE THERRIALT, Senior Policy Advisor for Gov. Parnell:

- At times, it is a single individual that takes responsibility, which makes or breaks a community.
- Sustainable vs. cheap: Sustainable energy is not cheap to implement but will payoff in the long term.
- Alaska Rural Energy Conference April 27-29, 2010 in Fairbanks. A statewide energy plan/policy was presented.
- What is your communities' current consumption?
- What are the current sources of energy available to you and your community? Compare those sources to what is available as alternatives to diesel.
- Options: Traditional sources of energy / renewable and alternative sources / conservation (consuming less) / assistance (from the State)
- Consider: What would be the expense of continuing to use fuel?
- Consider: What is the debt load to convert to alternative energy compared to remaining on fuel?
- Alaska already receives 24% of its energy from renewable hydro sources. Up to 91% hydro energy in rural areas may be possible.

BRUCE TIEDEMAN, Alaska Energy Authority:

- AEA is willing to offer assistance in answering questions and concerns as well as implementing projects
- AEA needs input from communities and encourages community members to let them know what is needed of them.
- At present funds are available, but the AEA foresees funds dwindling in the future with a mix of local, state, and federal funding becoming the norm.

REPRESENTATIVE BRYCE EDGMON:

- Strongly suggests being an advocate (squeaky wheel) for your community
- Renewable energy fund 25million
- Housing fund 14 million
- Feels that the gas-line project is important.
- Suggested paying attention to the bill introduced this year that proposes an increase in house and senate members.

- Suggests paying attention to the AMHS budget - it was only reapproved for one year.

JAY LIVEY, for Senator Hoffman:

- SB301 – bill from the AEA to allow Adak to buy their portfolio of loans - 20 million
- HB220 – Omnibus energy bill: small businesses are allowed to take out loans for energy assistance through this program.
- Two years ago, there was a lot of focus on high-energy costs; this year the focus seemed to be on Cook Inlet’s lack of fuel. Tax credits for gas line exploration were discussed.
- Public funding needed to get alternative energy projects implemented and completed. In the future, it will be harder for the Aleutian communities to compete with the inner state i.e., South-Central.
- Recommendation: Having projects researched and ready makes them “sellable” to the legislature.

SUSAN FLEEK, Congressman Young:

Recovery act money has been spread through out the state and most of it will hit the streets this summer.

- 18 million in weatherization, energy, and conservation block grants to the local communities and villages...
- 15 million for geothermal projects - Naknek received 12.4 million of that.
- Rural AK faces challenges that are seen nowhere else in the country, however, that also breeds great projects. The Federal Government is looking for projects that are creating jobs and boosting local economies, especially in sustainable energy programs.
- UAF and Bristol Bay campuses are working on renewable energy projects funded by the energy bill.
- Renewable Energy credit program: creates revenue for communities by selling the credits...Hydro projects are now included (in stream/lake tap).
- Ocean renewable energy act: allows NOAA and others to continue in mapping tidal energy.
- Grants and loans are available to businesses enabling retrofitting to buildings. Bill to help the State and its communities to deal with the specific impacts of gas and oil explorations.
- Supports funding for natural gas and oil production.

BRUCE WRIGHT: APIA / EVERETTE ANDERSON: APICDA

Reasons to support the 85% reduction of fossil fuels:

- Current cost of oil.
- Oil exploration in the region has been stopped.
- Fuel transport accidents.
- Lack of predictability in fuel prices causes difficulty in business to planning.
- The reduction of energy costs stimulates economies.

- The transportation of fuel is very difficult and communities often run out before barges can make it in.
- Energy credits
- Affordable energy helps to stabilize communities.

RUDY TSUKUDA, Aleut Enterprise: Adak Petroleum LLC:

- The facility was previously owned by the military and has a high storage capacity of 455,000 barrels / 19.1 million gallons. About 6 million gallons can come in at a time.
- There are six active fuel tanks. The Navy installed tanks 7, 8, & 9 in 1991. Tanks 4, 5, & 6 were installed in 1981.
- Bulk fuel delivery is less expensive, especially if coming from a foreign port. PLATS vs. OPIS can be 25-40 cents in difference.
- Factors in FUEL COSTS: Transport, Insurance, Capital Projects, and maintaining the structure itself, Market Risks (spills).

What is Next?

- Competitive energy
- Transportation: more carriers are needed
- Communication: vital
- Infrastructure: more will strengthen communities
- Possible unleaded fuel storage, making Adak a “one stop fuel supply.”

JANICE IVANOFF, NSEDC:

- Established a bulk fuel program in 2006.
- Participants have tripled in 4 years.
- Total fuel ordered has gone from 300,000 gallons to over a million in those 4 years.
- In November, a letter goes out to participants and by January the request come in; suppliers are then contacted and bids come in.
- 3 to 4 lifts per season results in 3 to 4 prices.
- NSEDC does not charge for the service of delivery arrangement.
- All groups in the area are able to participate in the bulk fuel program.
- As of now, Crowley and Delta Western have been the bidders. At no point does NSEDC take ownership of the fuel. As the coordinator, NSEDC acts as the credit buffer. No fees or interest on fuel loans. Supplier paid with in 30 days. Andy Lehman is counsel for NSEDC.
- Improvements to program: locking in prices with current supplier (Delta Western) to lessen program costs. Provides program stability. Removes need for RFP program.
- Growing to large can take away the competitive edge?
- The price of fuel is calculated by taking the fuel supplier margin + OPUS price index average + the cost of transport which then = cost of fuel per gallon to participant.

The NSEDC bulk fuel program has helped somewhat in keeping populations stable in the participating villages.

There is a fluctuation in delivery price between Nome and the smaller communities only because of storage. There will also be flux in the prices depending on which lift it is, other than that there is no difference in fuel prices to each community.

BULK FUEL Discussion:

Questions:

- Is it only the communities in the co-op or do the businesses need to be involved?
- How much financing can come from the State? Fuel subsidies still available to villages through AECC.
- Who will manage the program?

Concerns:

- There is not enough transportation to create any real competition: focus on transport in order to make this successful.
- Timing of deliveries
- Local storage capacity must be adequate e.g., Delta Western doesn't want to maintain the million-gallon tank in St. George because of insurance reasons.
- Logistics
- Risks of Co-op: participant doesn't pay up / no buy-in / loss of a vessel – no delivery / (how big is) the scale to address the logistics in each community / timing (getting bids set up) / price variation / which fuel will be delivered? Home heating or?

ALEUTIAN HOUSING AUTHORITY PRESENTATION:

DAN DUAME, Executive Director, AHA:

Conservation – through weatherization programs: 907.563.2157

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Chuck Renfro:

Energy Efficiency Instructor; General & Mechanical Contractor; Energy Rater & Building Inspector; Private Energy Systems Entrepreneur

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- Primary conservation efforts: Residential and Commercial
- Secondary: Transportation
- Scandinavians and Canadians are far ahead of the U.S. in net-zero energy buildings. Presently, there are very few architects and engineers in the U.S. who

know how to build green; Canada and Iceland are the leaders in net-zero homes. Canada's architect and engineering firms are actually competing to design and build these homes

- Adaptation vs. mitigation. Conservation needs to come first, followed by the execution of renewable energy strategies. Storing renewable energy is a great example of both concepts.
- Northern and Coastal regions will see the greatest changes in climate and energy changes. These will have to make large changes even though this area doesn't have a huge carbon footprint.
- Targeting the building issue because:
 - Buildings use the most energy.
 - Building Cheap up front causes expensive energy payments later.
 - Upfront costs in energy efficient building may seem higher but the lifecycle costs are much lower.
 - There are serious health issues to not building green.

Conservation in the form of Performance Contracting: these types of contractors will go into buildings, make upgrades to save energy, and the client pays based on what they were saved.

AHFC Wx options consist of two programs:

- Lyman Wx Program
- Rebate Program (owner occupied only). Heat pumps are now recognized by the rebate program

Wx: there is an application process – who qualifies? Low to median income families
Assessment is made of the home /scope of work determined / AHA crews are sent out to complete the work.

Energy Efficiency Improvement Areas:

- Air sealing
- Ventilation
- Heating Improvements
- Insulation
- Hot Water
- Ice Dams
- Doors & Windows

Energy conservation “players” and programs:

- Alaska Building Science Network
- Alaska Craftsman Home Program
- Alaska Housing Finance Corp.
- Alaska Works Partnership
- Association of Alaska Housing Authorities
- Building Performance Institute
- Cascadia Green Building Council
- Energy Star Program
- Home Star “Cash for Caulkers” Program
- Residential Energy Services Network

END OF DAY ONE DISCUSSION:

- One of the summit participants suggested that there maybe enough wasted money floating around in the system that could cover a program to accomplish the changes needed if everyone participated.
- Education: again, not everyone knows what is available or how to go about getting it.
- Broaden the base of the Wx program through AHA to raise the levels of conservation participation.
- Identify additional Funding Sources
- Identify your energy pie: where are you spending energy and what do you have to replace it with? Once you understand what it is you are dealing with you then know what you need to do to fix it.
- Transportation and delivery of fuel.
- Storing renewable energy: how is this accomplished?

DAY 2

Recap of Day 1:

Energy Audits: Those that don't qualify for AHA energy audits, maybe able to sign up under AHFC. A minimum of five households are needed to mobilize an assessment team. Payment is expected up front; AHFC reimburses after the energy assessments are made. AHA has an employee who can do these audits. APIA might have a grant for the same thing. To help implement this program, communities need to establish a baseline of energy consumption (a comment was made that the State has already done an energy pie). Community members need to be educated on the programs that are available to them. Bridge funding for energy assessment fees was discussed. For those that qualify, AHA has an employee who does energy assessments and APIA may have grant money for those who do not qualify under AHA guidelines.

See individual Power Points for full presentations:

TDX:

Communication within the communities between entities was stressed. Much like AHA, TDX asked that community members reach out to them with their needs and concerns.

King Cove:

King Cove's hydroelectric facility is a great example of an energy alternative in the Aleutians. Plans to expand load capacity are being implemented. The city may be selling surplus loads in the summers to Peter Pan. King Cove is also in the research stages of wind and tidal usage.

Polar Consult:

Hydro Power is the most efficient form of energy production when compared to solar and wind power. The warm damp soil is ideal for heat pumps in the Aleutian communities.

Polar Consult and the city of Atka have been working towards the completion of a hydroelectric power plant since 1989. The project appears to be close to completion, EDA willing.

DAY TWO AFTERNOON WORKSHOPS:

Cooperation and education from all entities involved in the region are needed.

A-Team: will act as the catalyst and coordinator – there will be no official entity.

APIA

Aleut Corp.

APICDA

AEA

AEB

AHA

Bulk Fuel:

What is the best way to get the fuel in Adak to the other communities?

Develop the Aleut Fuel and Transport Authority?

Administration

Carrier

Timing of deliveries

Storage

Financing

Insurance

Logistics

Participants

Volume

Transportation

Politics

Conservation:

LED bulbs (outside led's work well) as well as any other device that can be used for immediate savings. An idea was presented to give each household three bulbs for immediate savings.

Historical buildings: how should these be dealt with and are there grants available for this type of energy rating?

What is the energy pie for each business, home, community, and the region? (Locate the State's energy assessment)

Performance contracts: identify energy efficiencies / baseline energy assessments

Education

Funding

Bridge financing

Green Houses

AEA has a city efficiency grant

Heat pumps

Heat storage

Energy efficiency clearing house website

Aleutian energy efficiency building: Net zero building plans and model structures

Logistics:

Transportation

Politics

Funding: Planning grants up to 30K are available to tribes, HUD also has planning grants, and there are possibly AEA grants.

Coordination/Organization

Communications: conference calls fall under this category.

Grant writing (what does each community need for grants?)

Website listings: TAC will link to the Alaska Energy Consortium

Renewable Energy:

Stranded energy

Energy storage

Wind turbines

What kind of renewable energy is available in each community? What is being used in other areas and how is it being used?

Permits

Fish Oil: how do you use it? Possible uses for it as a business opportunity?

High Penetration Wind Diesel turbines: what can we heat and light up with wind energy.

Hydrogen energy

Methane

Solar

New batteries

Bio diesel from micro-algae

Hydro / Micro hydro power

Geothermal

Wave / Tidal

Heat pumps

Biomass

The next Energy Summit is scheduled for October 13, 2010.