10-23-09 Testimony: Rural Alaska Energy Concerns

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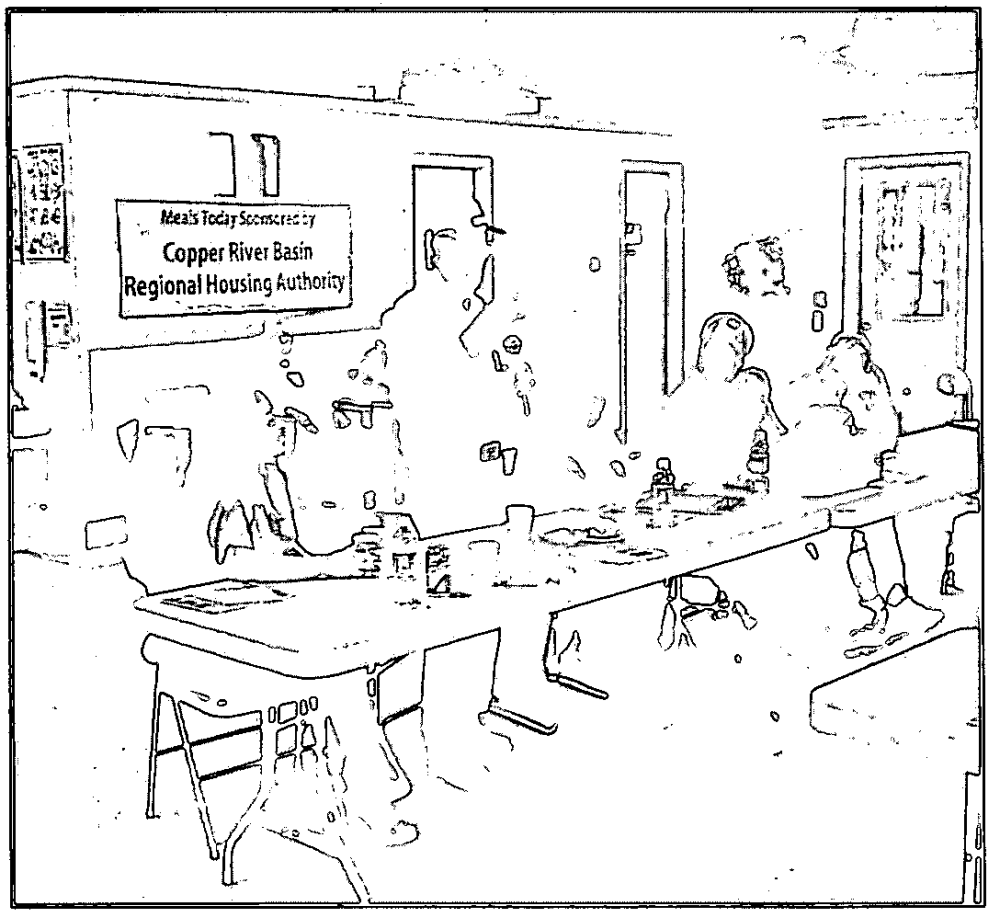
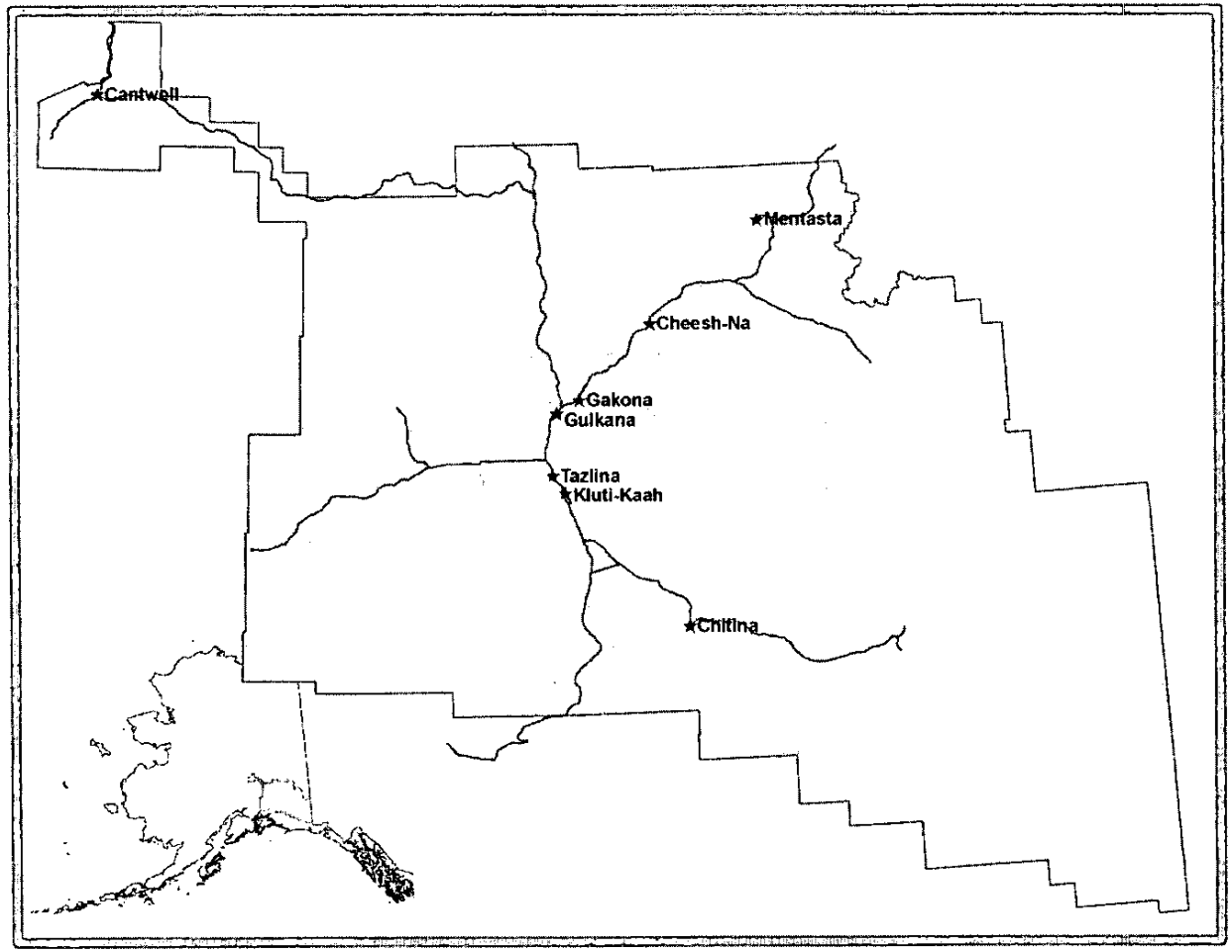


Photo: **Ahtna Traditional Chief Ben Neeley addressing participants at recent Ahtna Regional Tribal Energy Summit,** Gulkana Community Village Hall, October 13, 2009

TESTIMONY OF AHTNA, INCORPORATED FOR THE JOINT HOUSE & SENATE ENERGY/ RESOURCES COMMITTEES OCTOBER 23, 2009

Map of Ahtna Region



Background on Ahtna Region

- Part of Unorganized Borough
- Ahtna Athabascan
- Ahtna's land conveyance totals 1.77 million acres of land
- 7 of 8 Villages merged with Ahtna, Inc.
  - Ahtna provides Land and Resource Management
- Ahtna Region bordered by National Parks
  - Wrangell St. Elias and Denali National Park
- All 8 Villages on Road System
  - Blessing and Curse
- Power Cost Equalization Program (PCE) Recipients
  - Chitina, Cheesh'Na, and Mentasta Lake

Ahtna Regional Leadership

- Regional Corporation
  - Ahtna, Incorporated
- Regional Non-Profits
  - Copper River Native Association
  - Mt. Sanford Tribal Consortium
- Housing Authority
  - Copper River Basin Regional Housing Authority
- One Village Corporation
  - Chitina Native Corporation
  - Owner, Chitina Electric

Ahtna Tribes

Mentasta

Cheesh'Na (Chistochina)

Cantwell

Gakona

Gulkana

Tazlina

Kluti-Kaah (Copper Center)

Chitina

Utility and Fuel Providers

UTILITY SERVICE PROVIDERS

- **Golden Valley Electric Association**
  - Cantwell - $0.16494/kwh
- **Copper Valley Electric Association**
  - Gakona, Gulkana, Tazlina, Kluti-Kaah, and Chitina
  - Price today for Glennallen is $0.21/kwh. Valdez pays a different rate.
  - Summer (Hydro)/Winter (Diesel) – seasonal fluctuation
- **AP&T**
  - Mentasta Lake - $0.3068/kwh
  - Cheesh'Na - $0.2975/kwh

FUEL PROVIDERS

- **Fisher Fuels**
  - $3.31 (No. 1) per Gallon of Diesel
- **Crowley**
  - $3.61 (No. 1) per Gallon of Diesel – will be going up next Monday 10/26/09
  - **All information regarding Utility rates and Fuel prices come from their websites or from telephone conversations made in preparation of this presentation.**

AHTNA REGIONAL GOAL: ENERGY SELF-SUFFICIENCY

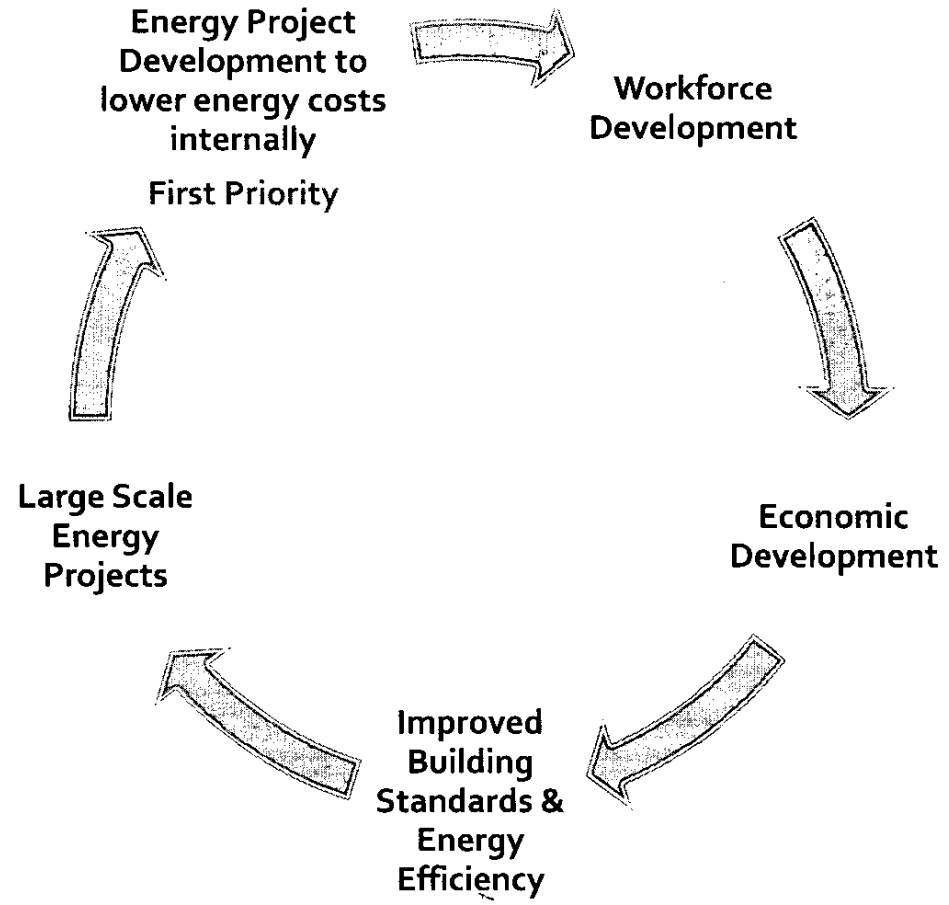
Ahtna Regional Leadership and Ahtna Tribes working on regional energy strategy for contribution to AEA's Statewide Energy Plan.

- Target Completion Date November 2009

Preliminary Focus Areas of Regional Energy Strategy

1. Development
   - Wind Energy, Biomass, Geothermal, Oil and Gas, & Hydro
   - Regional Energy Project - Collaboration between Ahtna, the Housing Authority and tribes.
2. Conservation
   - Weatherization
   - Energy Efficient Building Standards
3. Environmental Responsibility
   - Forest Stewardship Plan to manage Biomass Development
   - Comprehensive Land Management Plan

Energy Self-Suffiency Cycle



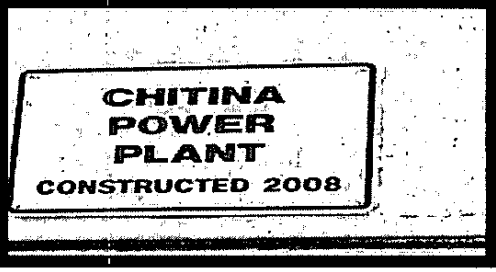
Ahtna Tribal Energy Initiatives

- **Mentasta**
  - Wind Energy Demonstration Project at Carlson Creek (AP&T)
- **Cheesh'Na**
  - Biomass Project – Secondary Heat Source for tribal infrastructure (*new*)
- **Gulkana**
  - Successfully built a community wood pellet plant; adding a boiler system which is planned to heat all village facilities, including homes. Also looking at co-generation with the possibility of selling excess power back to local utility.
- **Cantwell**
  - Seeking funding for Jack River Hydro Power Study
- **Chitina**
  - Funded for Preliminary Hydro Power Study

Regional Energy Initiatives

- **Complete Ahtna Regional Energy Resource Map and Regional Strategy**
  - Map potential & known energy resources to use as a development tool.
- **Address Transmission Gaps**
  - Multiple isolated grids prevent effective use of stranded resources. If Grids were connected market access could be facilitated.
- **Continue Ahtna Oil and Gas Exploration**
  - Update existing seismic reports.
- **Encourage Weatherization and Energy Efficient Construction Design**
- **Partnerships**

Ahtna Region Success Story
Chitina Electric



Chitina Electric recently cut the ribbon on a new power plant that provides electric power to the village.

The Power Plant is owned by Chitina Native Corporation.

Chitina is conducting a hydro feasibility study and exploring partnering with a utility that has hydro experience.

Pictured from L to R: Martin Finnesand, 1st Traditional Chief Ben Neeley, 2nd Traditional Chief Fred Ewan, and Ahtna Elder Robert Marshall.

Project funded by Alaska Energy Authority.

Ahtna Testimony to Joint House and Senate Energy Resources Committee | AFN 2009

Recommendations from Ahtna Region to Committee

- **Support Regional Strategies that include <u>all</u> stakeholders – Native and Non-Native.**
  - Insure Tribes and small communities receive their fair share of energy funding. (Equitable funding distribution)
  - Pay closer attention to regions within the Unorganized Borough.
  - Encourage utilities to include tribes in their planning processes.
- **Fund Regional Energy Coordinators**

  Responsibilities would include -
  - Monitoring progress on Regional Strategies requested by AEA.
  - Providing technical support for regional & local energy projects.
  - Facilitate regional collaboration and partnering on energy projects.
  - Be a liaison between regions, state and federal energy agencies.
- **Net Metering**
  - Make more producer-friendly.

In Summary

- **Short Term Plan for Ahtna Region**
  - Support and assist Villages with Tribal Energy Projects
  - Complete Ahtna Regional Tribal Energy Strategy (11/2009)
- **Long Term Plan for Ahtna Region**
  - Develop and support projects that address local energy demands.
  - Continue efforts to assess larger energy development opportunities that would benefit other regions of the state.
  - Regarding Natural Gas Development - Encourage the State to re-evaluate natural gas potential in the Ahtna region and promote exploration.

Thank you for this opportunity to share information from the Ahtna Region.

Contact Information

- For additional information regarding this presentation, please contact:

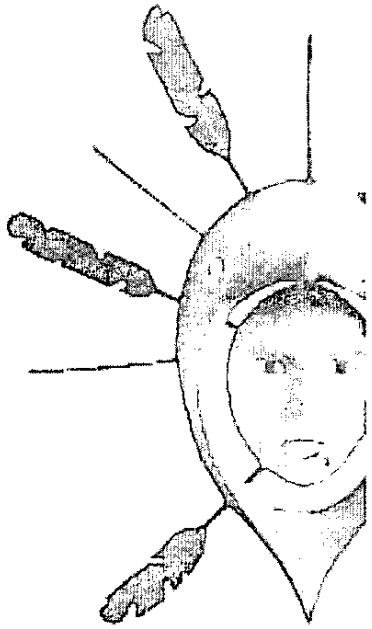
Michelle Anderson, President

Ahtna Development Corporation (907) 360-5210

manderson@ahtna.net

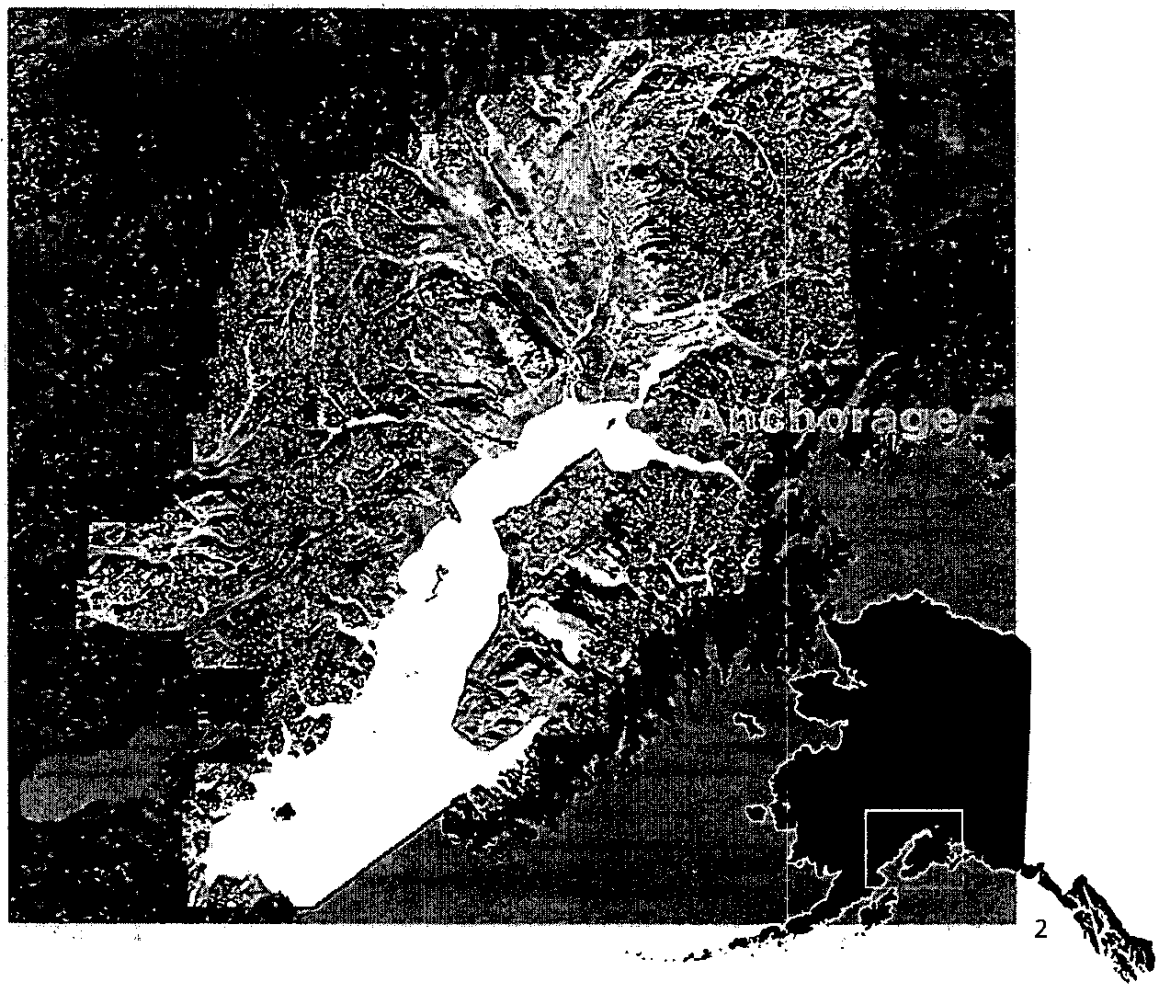
CIRI

An **Alaska Native** corporation



Need for new energy

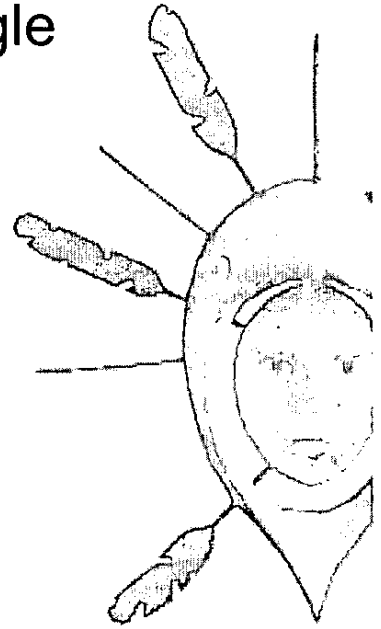
Southcentral Alaska faces imminent shortages of local natural gas for heat and electricity



Key questions

How do we meet region's near-term energy needs?

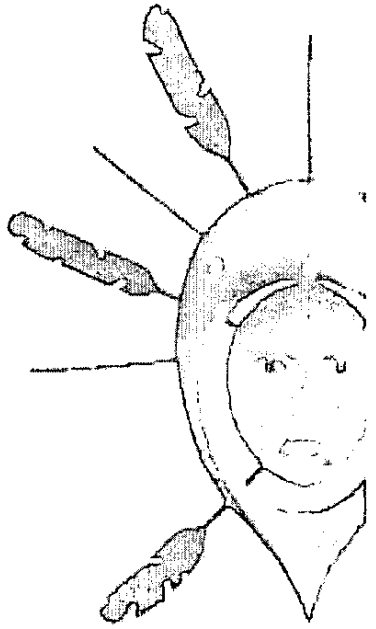
How do we avoid over-dependence on any single energy resource?



Answer

Southcentral Alaska needs a diversified energy portfolio that provides timely, reliable, economical and clean energy.

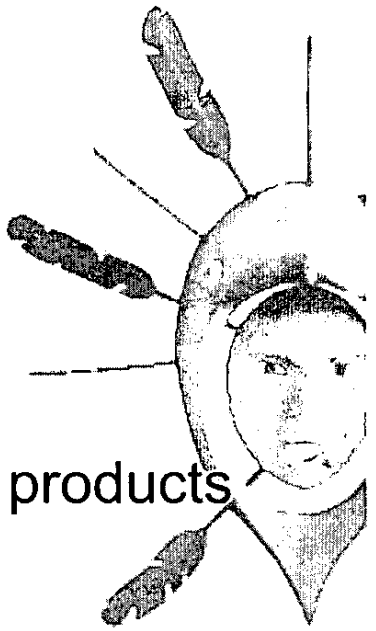
- Infrastructure and efficiency improvements
- New Cook Inlet gas exploration
- Other fossil fuel development
- Renewable energy resource development



State and regional energy policy

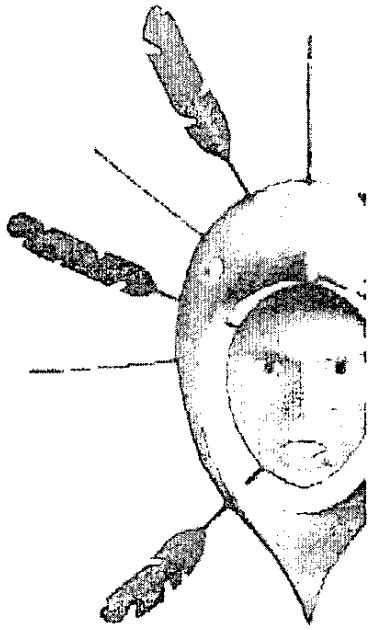
Favor or incentivize:

- Development of local resources over imported resources
- Competition between multiple developers
- Increased energy security, reliability
- Increased price stability
- Technology and efficiency improvements
- Public investment that supports diverse projects
- Encourage development of value-added energy products



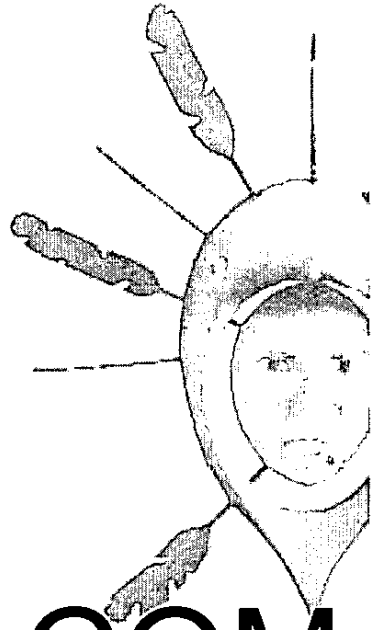
CIRI's energy investments

- Cook Inlet oil and gas basin exploration
- Underground coal gasification
- Fire Island wind
- Other renewable energy projects
- Regional energy infrastructure investment
- Outside energy technology investment
- Energy efficiency



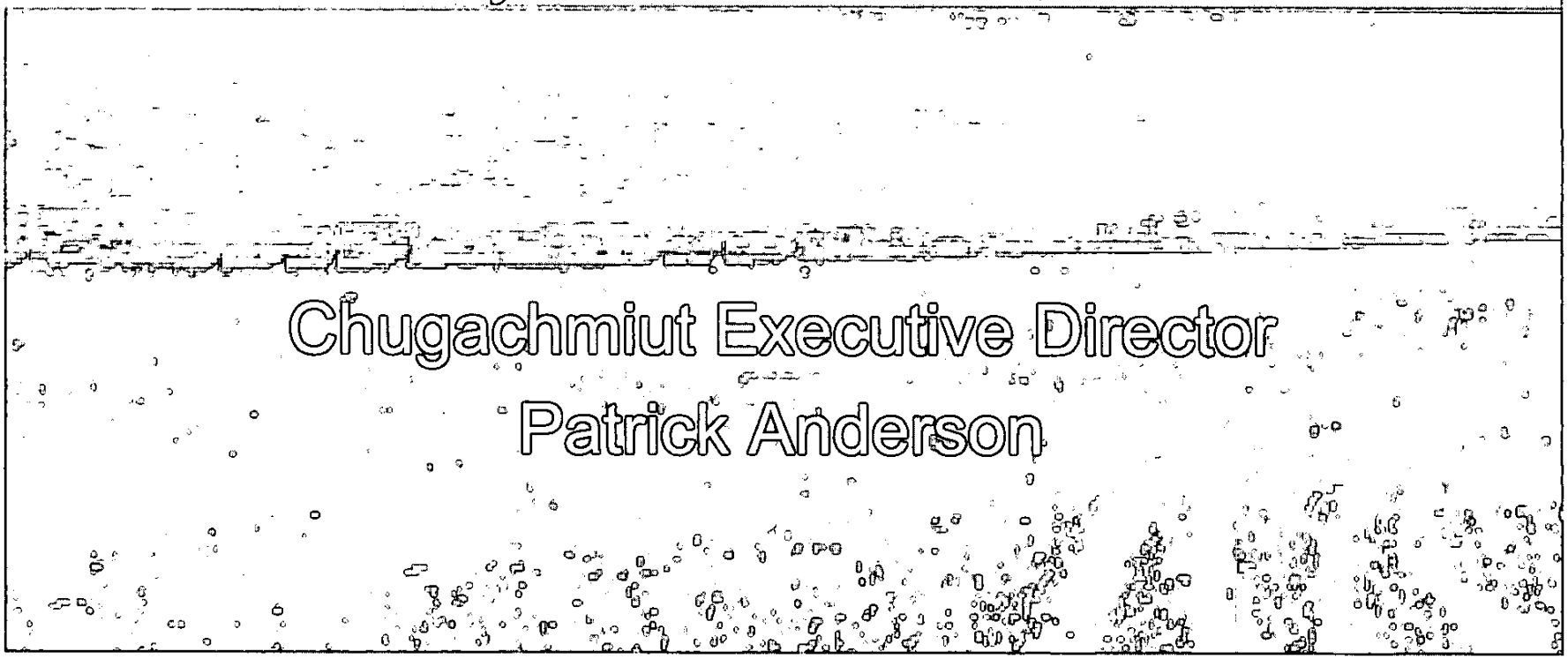
CIRI

diverse,
economical,
responsible
energy for Alaska



CIRI.COM

AFN 2009 House Energy Committee Testimony for Chugach Region Friday October 23, 2009



Chugachmiut Executive Director

Patrick Anderson

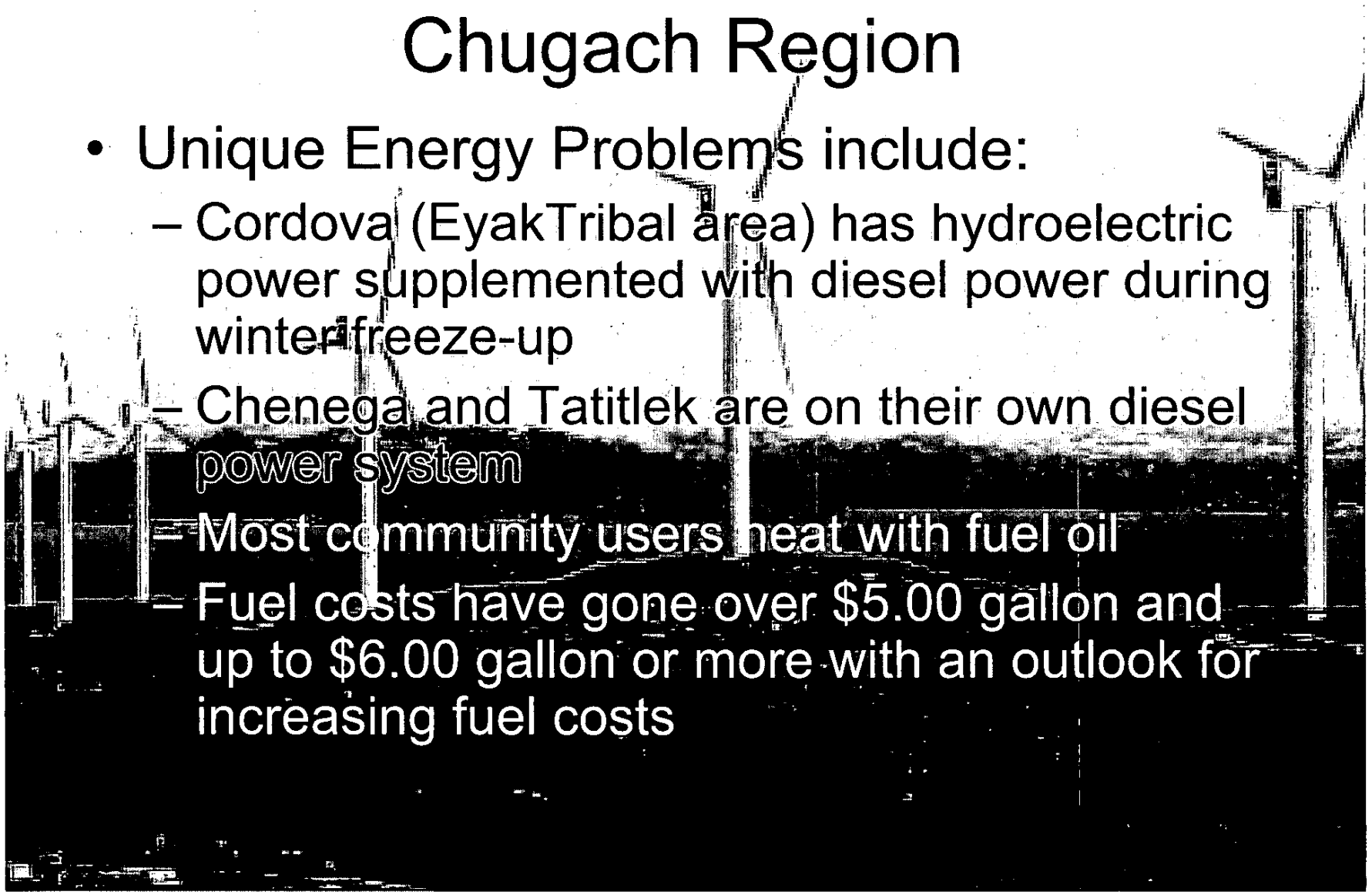
Unique Energy Problems in the Chugach Region

- There are 7 Tribal Communities in the region
  - Seward is on the Railbelt electrical grid system as well as Port Graham and Nanwalek
  - Valdez is on the Copper Valley Electric Association electrical grid
  - Cordova is a municipal utility powered by hydroelectric power and diesel supplemental power in winter
  - Chenega and Tatitlek are on their own diesel power system
  - Most of these communities use fuel oil for heat

Unique Energy Problems in the Chugach Region

- Unique Energy Problems include:
  - Cook Inlet natural gas power is experiencing decreasing supply and high capital energy replacement costs that will affect Railbelt power consumers
  - This winter, Railbelt customers will experience brown outs
  - Port Graham and Nanwalek have single-phase 220-volt power supplied by Homer Electric Association
  - Port Graham Cannery, Port Graham Hatchery Project, Nanwalek Hatchery Project, and potential Nanwalek area material rock source project all require three-phase 220-volt power

Unique Energy Problems in the Chugach Region



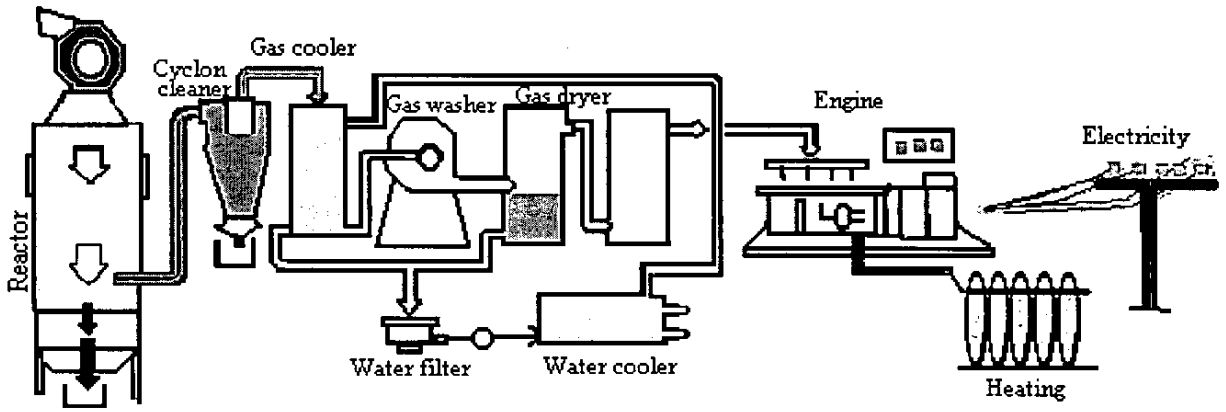
- Unique Energy Problems include:
  - Cordova (EyakTribal area) has hydroelectric power supplemented with diesel power during winter freeze-up
  - Chenega and Tatitlek are on their own diesel power system
  - Most community users heat with fuel oil
  - Fuel costs have gone over $5.00 gallon and up to $6.00 gallon or more with an outlook for increasing fuel costs

Local Solutions and Results

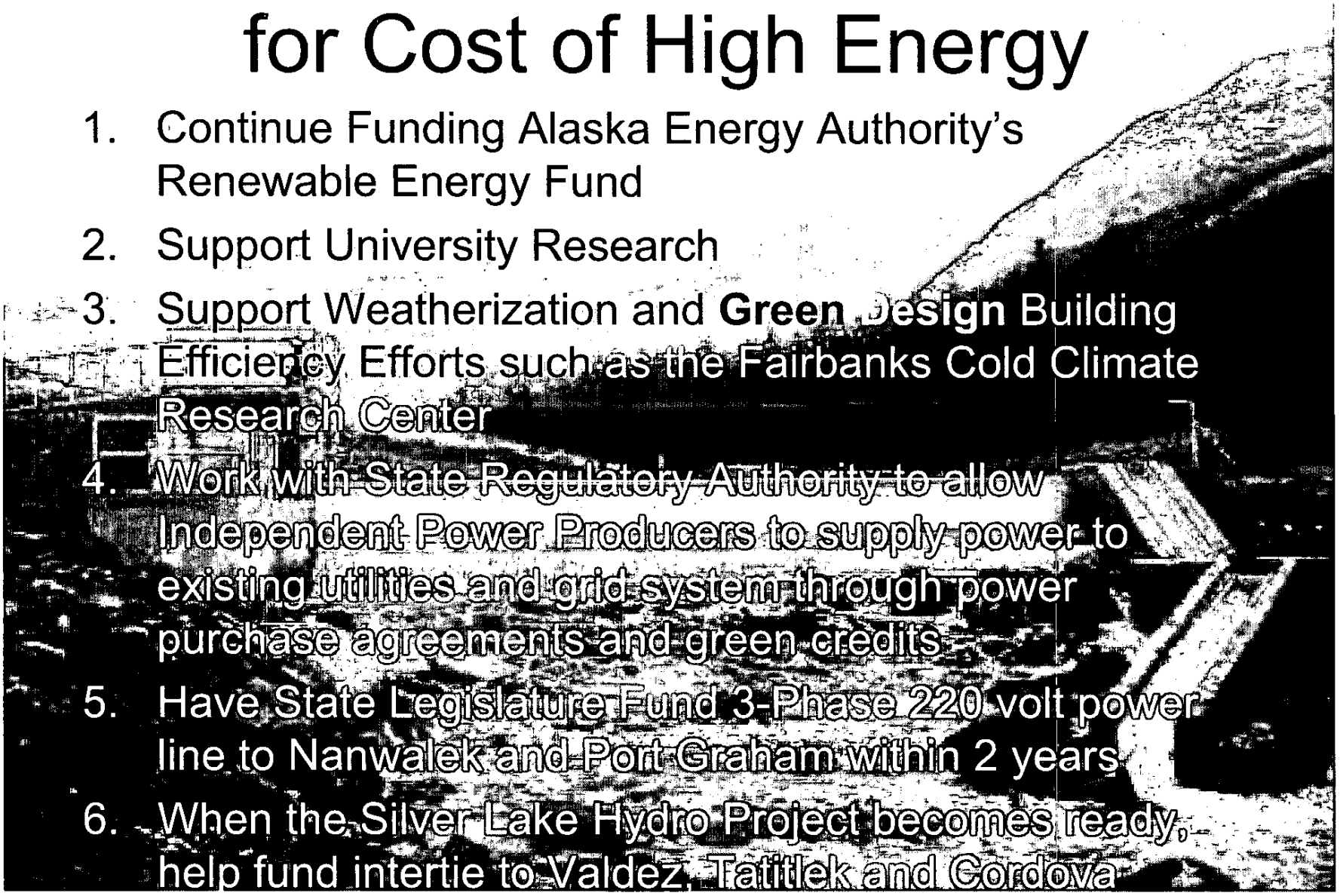
Chenega Small Hydroelectric Power Project (250 kW) Revitalization	Turbine replacement of existing old cannery small hydropower project	Alaska Energy Grant Phase II awarded for project development
Eyak Tribal Council in Cordova Biomass/Refuse Gasifer Heat and Power Project—size not determined yet	Unknown	Alaska Energy Grant Phase II awarded for project development Power to burn municipal waste and biomass to supplement power loads
Eyak Tribal Council Wind Power Study Project	2-year Wind Tower Data Study completed	Seeking data on other sites before apply for funding To supplement power loads
Tatitlek Wind Power Study Project	Desire to conduct Wind Tower Data Study	To displace diesel fuel heat consumption and cost
Silver Lake Hydroelectric Project near Tatitlek and Valdez, could include Cordova intertie	Interest in region renewed since studies done 1988-92 by U.S. Department of Agriculture and others	Feasibility study may be applied for and project could produce up to 15 megawatts of power to Copper Valley grid system

Local Solutions and Results

Nanwalek Community Heat Project	May apply for feasibility study for community heating	To displace diesel fuel heat consumption and cost
Port Graham Biomass Community Heat and Power Project (1.5 megawatts), excess power to Nanwalek and Seldovia and to Homer Electric Association grid	Department of Energy Grant completed July 2007 by Energy and Environment Research Center out of the University of North Dakota	Applying for Alaska Energy Authority Grant Phase III and/ or Department of Energy Tribal Energy Program Grant And BIA or DoE 80/20 loan



What State of Alaska Could Do for Cost of High Energy



1. Continue Funding Alaska Energy Authority's Renewable Energy Fund
2. Support University Research
3. Support Weatherization and **Green Design** Building Efficiency Efforts such as the Fairbanks Cold Climate Research Center
4. Work with State Regulatory Authority to allow Independent Power Producers to supply power to existing utilities and grid system through power purchase agreements and green credits
5. Have State Legislature Fund 3-Phase 220 volt power line to Nanwalek and Port Graham within 2 years
6. When the Silver Lake Hydro Project becomes ready, help fund intertie to Valdez, Tatitlek and Cordova

Testimony of
Gordon L. Pullar
Vice President of Community Development
Kodiak Area Native Association
to
House Energy Committee, Senate Resources/Energy Committees and
the Bush Caucus

Hearing on Rural Alaska Energy Concerns

October 23, 2009
Anchorage, Alaska

Thank you for the opportunity to report on energy issues for the Koniag Native region. I am speaking today on behalf of the Kodiak Area Native Association (KANA), the regional non-profit corporation for our region, at the request of its president Andy Teuber. Our regional ANCSA corporation is Koniag, Inc. led by president Will Anderson.

The region that KANA serves is the Kodiak Archipelago, a group of islands separated from the mainland by the Shelikof Strait. The archipelago is about 177 miles long and includes nearly 5,000 square miles. Kodiak Island, the largest island of the group, is the second largest island in the United States behind only the island of Hawaii. The City of Kodiak (*Sun'aq*) is located 252 air miles southwest of Anchorage and is the population center of the region. There are six outlying Alutiiq (or Sugpiaq) villages, Akhiok (*Kasukuak*), Karluk (*Kal'ut*), Larsen Bay (*Uyaqsaq*), Old Harbor (*Nuniaq*), Ouzinkie (*Uusenkaaq*), and Port Lions (*Masiqsiraq*). The villages range in population from 24 to 256 and their distances from the City of Kodiak range from 11 miles to 90 miles. All villages are accessible only by air or sea. As with many places in rural Alaska, this is at the core of the high price of meeting energy needs.

Travel to and from Kodiak Island villages is particularly influenced by the weather. The climate of the Kodiak archipelago is dominated by a strong marine influence which often brings severe storms with strong winds, heavy cloud cover and frequent fog. Together these conditions can make travel, including fuel delivery, difficult at best. While storms can hit at any time of the year they are most frequent in the winter. Two of the villages have no docking facilities making wintertime fuel delivery nearly impossible by sea and a third village's dock is not suitable for fuel delivery. The only alternative is air delivery when weather permits and it is prohibitively expensive.

The villages of Kodiak Island have historically depended on the fishing industry as the basis for their livelihood. With the downturn in the fishing industry many people have been forced to leave the industry, often without ready alternatives for making a living. With this change, the high cost of fuel becomes a particularly difficult burden and creates significant roadblocks to viable economic development.

In the area of energy needs in the form of electricity there have been, and continue to be, efforts to install viable alternatives. The village of Larsen Bay installed a small hydroelectric facility in 1991. Over the years, however, there have been significant operating issues to deal with making the system unreliable. The City of Larsen Bay has received a Community Development Block Grant to do a complete upgrade of the hydro facility, a project that is scheduled for completion this year. The result will be the displacement of a majority of the city's diesel fuel used for electrical generation.

The Kodiak Archipelago Rural Regional Leadership Forum is an island-wide grass roots group that addresses issues brought forth from the communities. It operates with funding and in-kind support from the Kodiak Island Housing Authority and Kodiak College of the University of Alaska Anchorage. A work session of the group that was held on October 1, of this year included the Alaska Energy Authority (AEA). The Forum looked at a variety of potential renewable energy projects including wind generation, hydro power, and tidal energy. Two villages, Ouzinkie and Old Harbor, have installed wind-metering towers to determine wind potential. Ouzinkie's tower was destroyed and a new one is planned. Old Harbor's wind study revealed that the wind is not consistent enough to justify continuation.

Old Harbor is, however, investigating another energy approach. The Old Harbor Native Corporation, the ANCSA village corporation representing the village of Old Harbor, has recently announced its plans to develop a new hydro electric project. If no serious concerns are revealed during scoping meetings scheduled for this week, funding for the project will be pursued. The project will be a collaborative effort among the Old Harbor Native Corporation, City of Old Harbor, Alaska Village Electric Cooperative (AVEC), and the U.S. Fish and Wildlife Service.

The villages of the Kodiak archipelago have been well aware of the challenges they face in meeting their energy needs. They have been and continue to investigate partnership opportunities with private enterprise. Because of the small scale of the villages it is crucial that they identify opportunities to partner with both private enterprise and government agencies. They are aware of the need to expand and improve solid transportation infrastructure with docks that have the capability to support fuel off-loading as well as serve economic development opportunities.

Within the past five years community plans funded by the Kodiak Island Housing Authority have been developed for four of the six Kodiak Island villages. This planning was done outside the Kodiak Island Borough planning process which, due to its small staff size, primarily focuses on land use planning and not economic development or energy planning.

The State of Alaska's involvement should focus first on short-term relief, sustainable energy planning, and long-term capital support. The state should support energy efficiency education programs and community energy audits to identify areas where individual households and community buildings can conserve energy, such as are currently being supported by the Alaska Energy Authority. Where appropriate, direct financial support to defray the high cost of fuel will be needed until less expensive projects can be implemented. State agencies should increase collaboration with local governments and regional agencies in support of community and regional energy plans that identify viable sustainable energy alternatives. Support for feasibility studies may also be needed. To support these planning efforts, the state should consider expanding the ability of the Alaska Energy Authority to offer planning assistance to rural communities. There is a need for statewide support of inter-agency cooperation in funding identified capital projects.

When new alternative energy projects are implemented there will be a crucial need for training and education on how to effectively manage them for success. Without this training there is a much higher probability of failure. This critical need will best be met by state supported programs.

It is always a challenge when small rural villages express their needs for the basic amenities that many urban dwellers take for granted. There will always be those who claim that if Alaska Natives can't afford to live in rural Alaska they should move to a city. This position does not deserve serious consideration as it is a basic human right for indigenous people to live in their homelands where they have resided for thousands of years. Culture change brought on them from the outside has shifted the requirements for survival but it has not changed who they are or changed their strong connection to their traditional land. The challenges surrounding energy issues for the Native villages of the Koniag region may seem daunting at times but they are not insurmountable. The Alutiiq villages of Kodiak Island have overcome many adversities in the past and with help they will overcome these adversities as well. The solutions to energy issues in Kodiak Island villages will take strong efforts from all those involved from the State of Alaska, relevant federal agencies, regional organizations, and the villages themselves. With all of these entities working together there is nothing that can't be accomplished.

Quyanaasinaq! Thank you very much.

House Energy Committee Testimony—Patrick Anderson, Executive Director Chugachmiut

A) Chugach Region Unique Energy Problems
   a. Port Graham and Nanwalek, Alaska have single-phase 220-volt power supplied by Homer Electric Association.
   b. Port Graham Cannery needs three-phase 220-volt power that currently could use diesel three-phase power.
   c. Other business projects will need three-phase power such as a hatchery project in Port Graham and one in Nanwalek.
   d. Heating fuel oil costs in Port Graham and Nanwalek are $5.40 per gallon.
   e. Chenega and Tatitlek use diesel power.
   f. Cordova uses hydropower in the summer but has to supplement with diesel power in the winter when the creeks freeze and water flow decreases.
   g. Valdez is on the Copper River Electric Association power grid yet has a need for additional power.
   h. Seward is on the Railbelt power grid and is supplied power by Homer Electric Association.

B) What local solutions have been attempted and what are the results?
   a. We are working on placing a woody biomass community heat and power system (CHP) into Port Graham and Nanwalek.
   b. A U. S. Department of Energy grant was obtained that funded a feasibility study that was completed July 2007 by Energy and Environment Research Center out of University of North Dakota.
   c. We are currently applying for grant funding for a downpayment to purchase and install a woody biomass plant.
   d. Chenerga Village Council received funding from Alaska Energy Authority to revitalize a small hydroelectric plant that previously was used by San Juan Cannery located in Sawmill Bay across from Chenega. Plant size is approximately 250kW and is still in development.
   e. Eyak Village Council and Eyak Corporation have been working with Municipality of Cordova to supplement their power needs by adding a biomass gasifier that would burn both refuse and woody biomass. They recently received funding from Alaska Energy Authority.
   f. Eyak Corporation wishes to assess their biomass supply sustainability and has asked Chugachmiut foresters for assistance. An assessment of Port Graham biomass supply was done during their feasibility study.
   g. Eyak Council and Corporation have also conduct 2-years of wind tower studies, finding a suitable location for one wind tower and are seeking other site locations. They have yet to seek funding for purchase of wind tower systems.
   h. Tatitlek's diesel costs have risen considerably and they are looking to wind technology to help defray use of diesel and its cost.
   i. Recently, it has come to the attention of Chugachmiut and other stakeholders in the region of studies done by U. S. Department of

Agriculture and others about hydroelectric power development at Silver Lake approximately 10 miles northeast of Tatitlek and 15 miles south of Valdez. Project size is estimated at 15 megawatts of power that could be produced. Enough to supply power for the Copper River power grid that includes Valdez and could intertie to Tatitlek and Cordova. Chugach Alaska Corporation owns the land and Municipality of Valdez is very interested in seeing in this project could be developed. One of us could seek feasibility funding to gather past work completed and assess the current regulatory and market conditions.

C) What State of Alaska Could do with the High Cost of Energy
   a. Continue funding Alaska Energy Authorities Renewable Energy Fund.
      i. State funding provides critical amounts for down payment on loans and or coupled with other funding sources to bring energy projects to fruition.
      ii. Federal funding generally requires certain match funding that many small communities could not normally afford that state funding could be used as that match.
   b. Provide direction to the State of Alaska Regulatory Commission to allow self-power generation entities to enter power purchase agreements with local power utility cooperatives when they provide greater than 50 kilowatts of power that is accorded individual homeowners being credited for power production for their use. If a self-power generation entity develops a project that provides more power than could be used privately or locally and is near enough to supply power to an electric grid, then excess and off-peak power production could be sold at a wholesale price and make such projects more economical and affordable.
   c. Continue support of University of Alaska Fairbanks' Cold Climate Center on Research. Weatherization and development of "Green" housing is the new norm for housing. Efficient housing development and weatherization are key due to the fact that buildings in the U. S. consume approximately 80% of energy used. State support of such innovation and implementation of techniques and technologies is important to all of us. Support for university research for alternative energy programs for small Alaska communities is as important as solving large Alaska communities energy needs.
   d.

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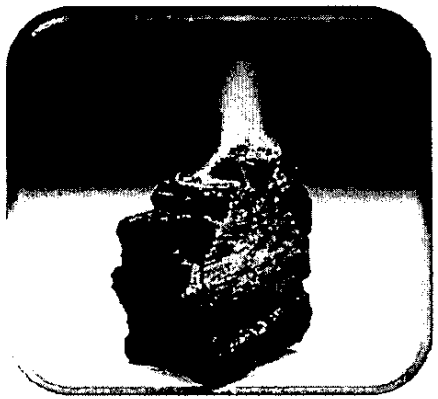
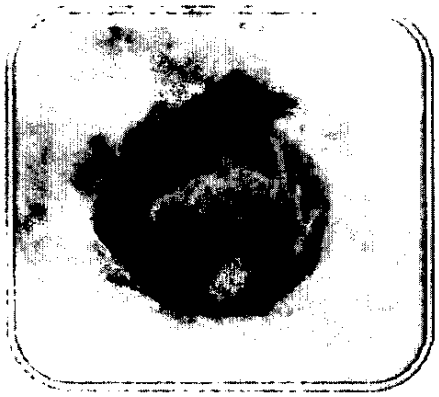
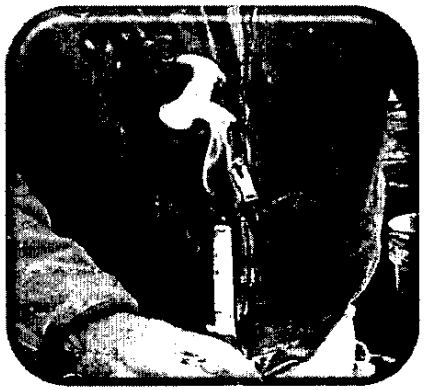
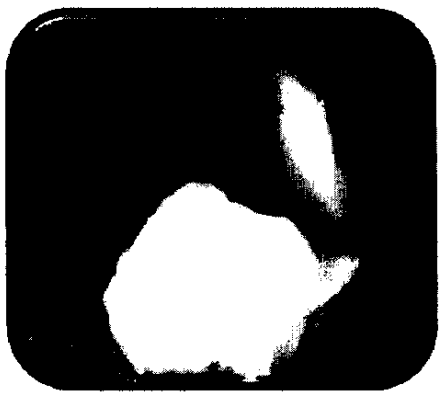
North Slope Borough
Department of Public Works

October 23, 2007

AFN Convention
House and Senate Energy and Senate Resources Committees
Rural Energy Issues

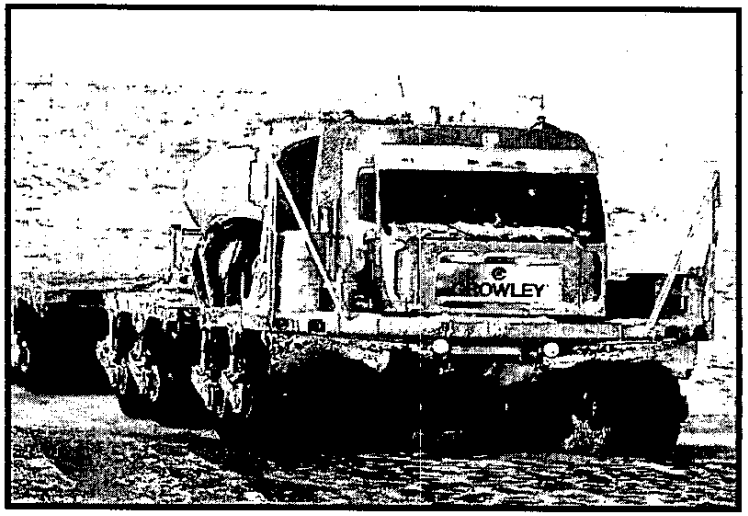
Local Energy Resource Use

North Slope Borough
Local Energy Resource Use

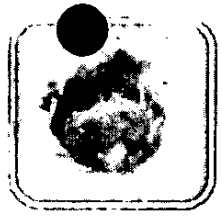
NSB Energy Problem

- ✓ **Imported Oil**
- ✓ **Transportation of Oil**
- ✓ **Oil Regulations**



Not only are the prices unstable and climbing, new and upcoming federal and state regulations will also drive up the cost of using fuel oil.

North Slope Borough
Local Energy Resource Use



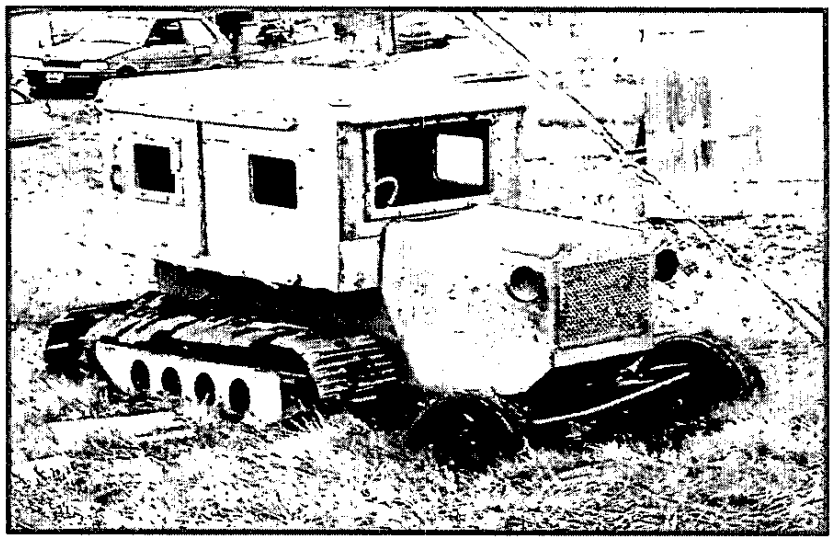
Recent Regulation Changes

- ✓DEC Regulation C-Plan Amendments 2006 - 2008
- ✓DEC Air Permit Emissions Fee Rate doubled in 2007
- ✓EPA STI,(small tank inspections) – July 1, 2009
- ✓EPA – Rural Alaska is required to use Ultra Low Sulfur Diesel in diesel engines by October 2010
- ✓EPA New Source Performance Standards Tier III & IV–lower air emission levels of new diesel gensets, 2007 to 2012

North Slope Borough
Local Energy Resource Use

IMPACT of ULTRA LOW SULFUR DIESEL REGULATIONS

EPA requires all diesel fueled vehicles in rural Alaska to transition to ULSD by October 2010.



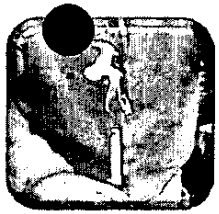
ISSUES:

- **$0.10 to 0.30 per gallon increase in product cost.**
- **unknown additional costs to transport ULSD in dedicated barges and aircraft.**
- **Only one supplier of Arctic Grade ULSD #1in 2010.**
- **ULSD cannot be mixed with any other fuels. Additional storage tankage, supply and distribution pipelines are required in the Villages.**

How do we do this?

North Slope Borough

Local Energy Resource Use



Energy Cost Reduction Measures

Since the 70's the NSB has completed many conservation projects and used several fuel purchasing strategies :

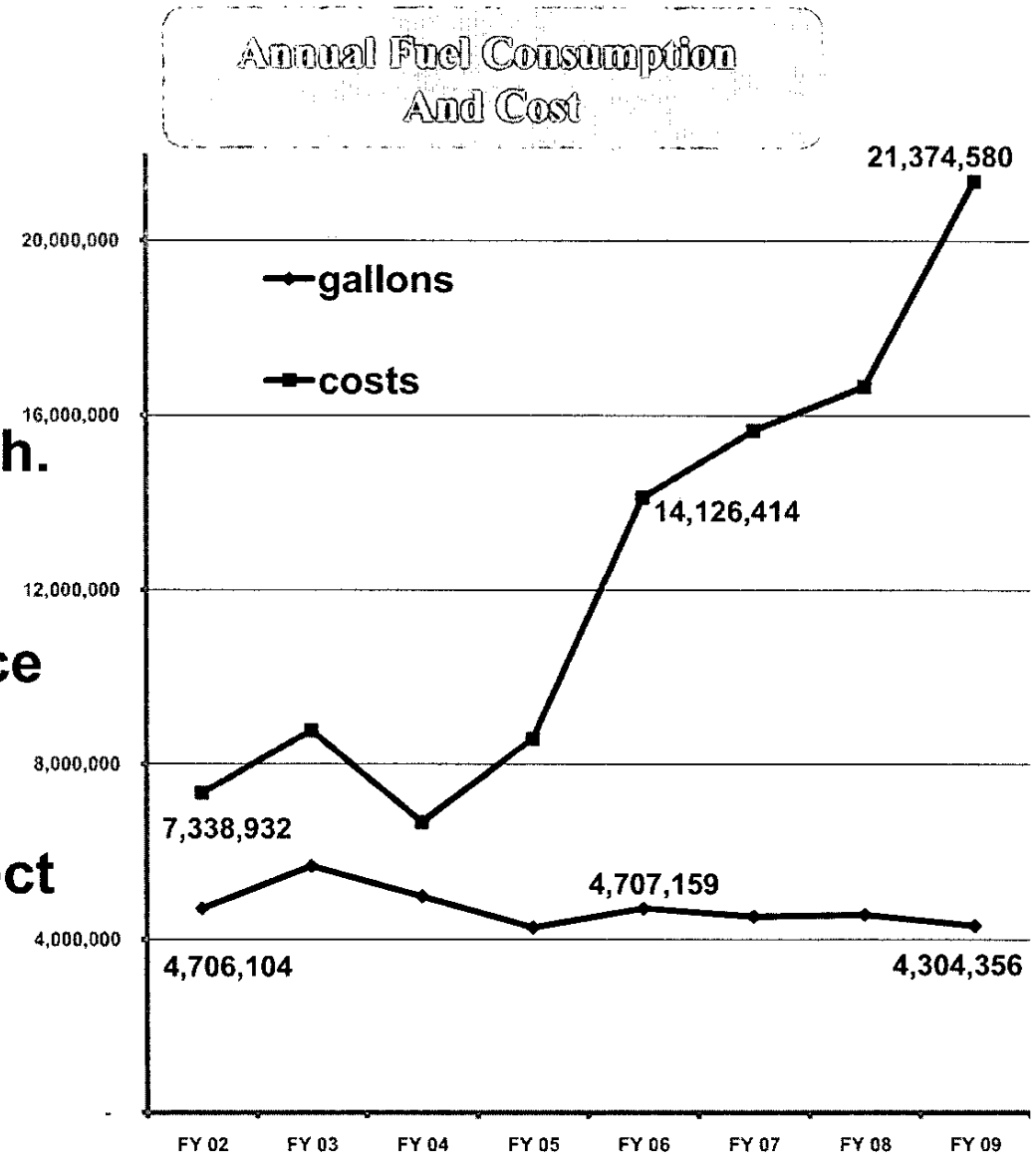
- Weatherization and End-use Efficiency Technology Projects
  - Home Energy-Saving Practices Education Programs
- Electric Power Plant & Distribution Efficiency and Upgrade Projects
  - Waste Heat Utilization Projects
- Building Lighting, HVAC and Motion Sensor Projects
  - Consolidated Fuel Purchases
- Use of Fuel Pricing Options

North Slope Borough
Local Energy Resource Use

Conclusion:

- **Energy conservation, efficiency and purchasing strategy efforts are not enough.**

- **As long as our energy source is tied into the forces of the global oil market we are subject to high and unstable energy costs**



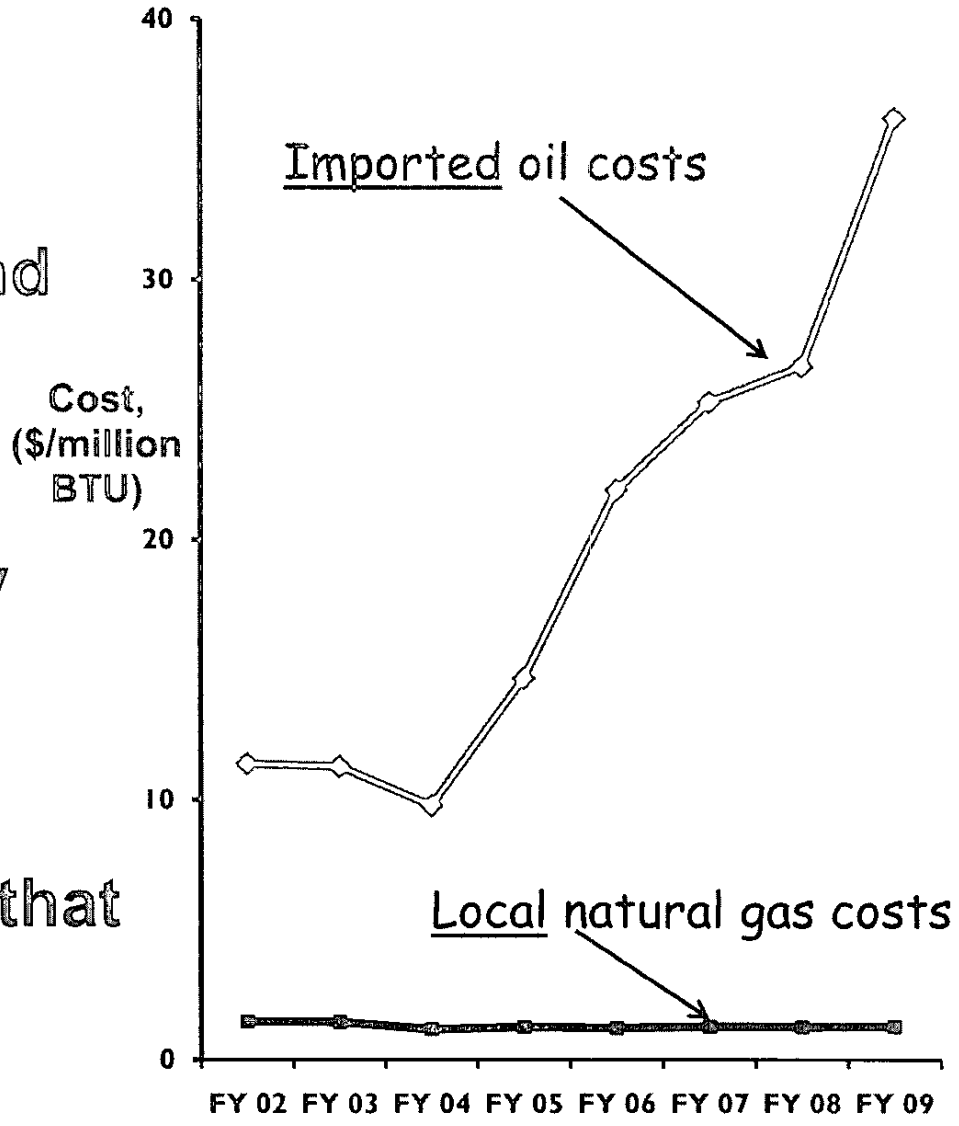
North Slope Borough
Local Energy Resource Use

Solution:

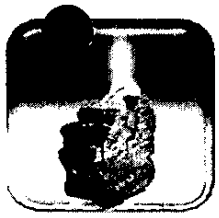
1. Partnership with government, private and academic entities

2. Develop both non and renewable local energy sources

3. Develop an electrical transmission highway that connects communities



North Slope Borough
Local Energy Resource Use



NSB Projects:

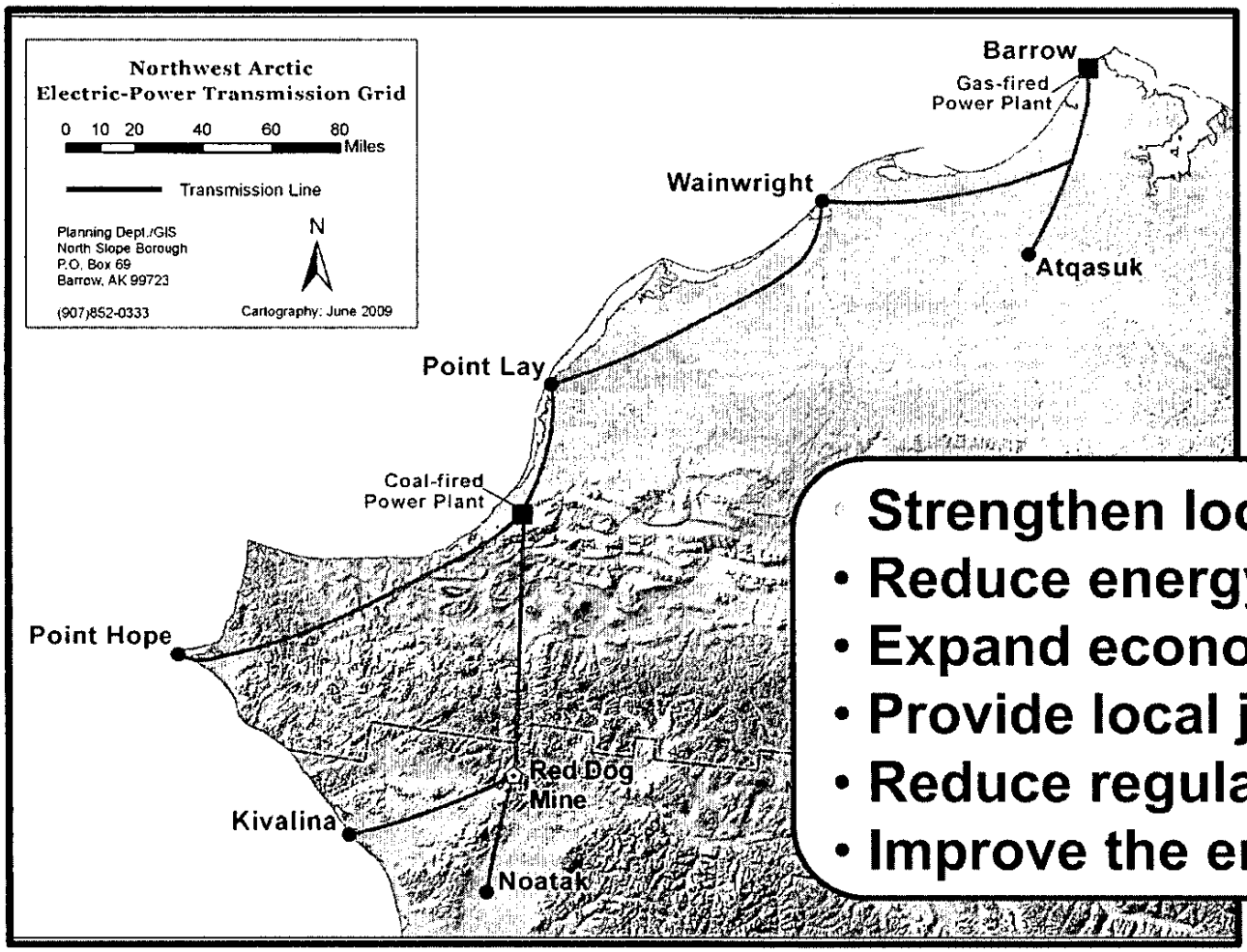
Project	*Agencys*	*Status*	*Annual Savings*
Nuiqsut Conversion to Natural Gas	NSB, NPRA Grants	Phase I near completion	$2 million
Borough Wide Waste Heat Recovery	NSB	Phase II upgrades starting	$2 million
Borough Wide Wind Assessment	NSB	RFP issued for installation	N/A
Atqasuk Energy Assessment	NPRA Grant	Study Draft Report Complete	N/A
AKP NSB Buildings Energy Audit	NSB	Construction start up	$300,000
Methane Hydrates Characterization	NSB, NETL	Phase I near completion	N/A
AIN Coal Bed Methane	NSB, BLM, ASRC	Phase I completed	N/A

North Slope Borough

Local Energy Resource Use

Future Consideration

Development of a Northwest Arctic Power Grid

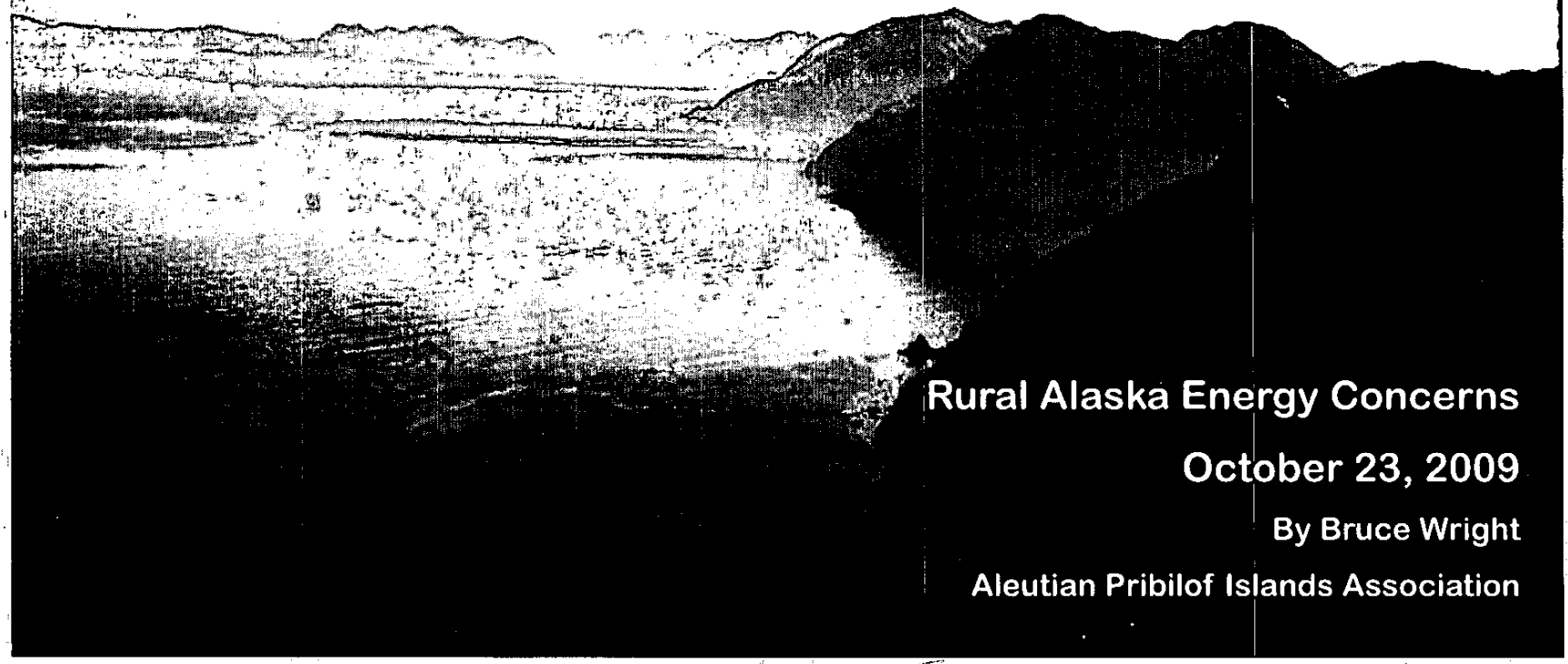


Goals:

- Strengthen local economy
- Reduce energy cost to residence
- Expand economic opportunities.
- Provide local jobs
- Reduce regulatory influence
- Improve the environment

Energy

In the Aleutian Pribilof Islands

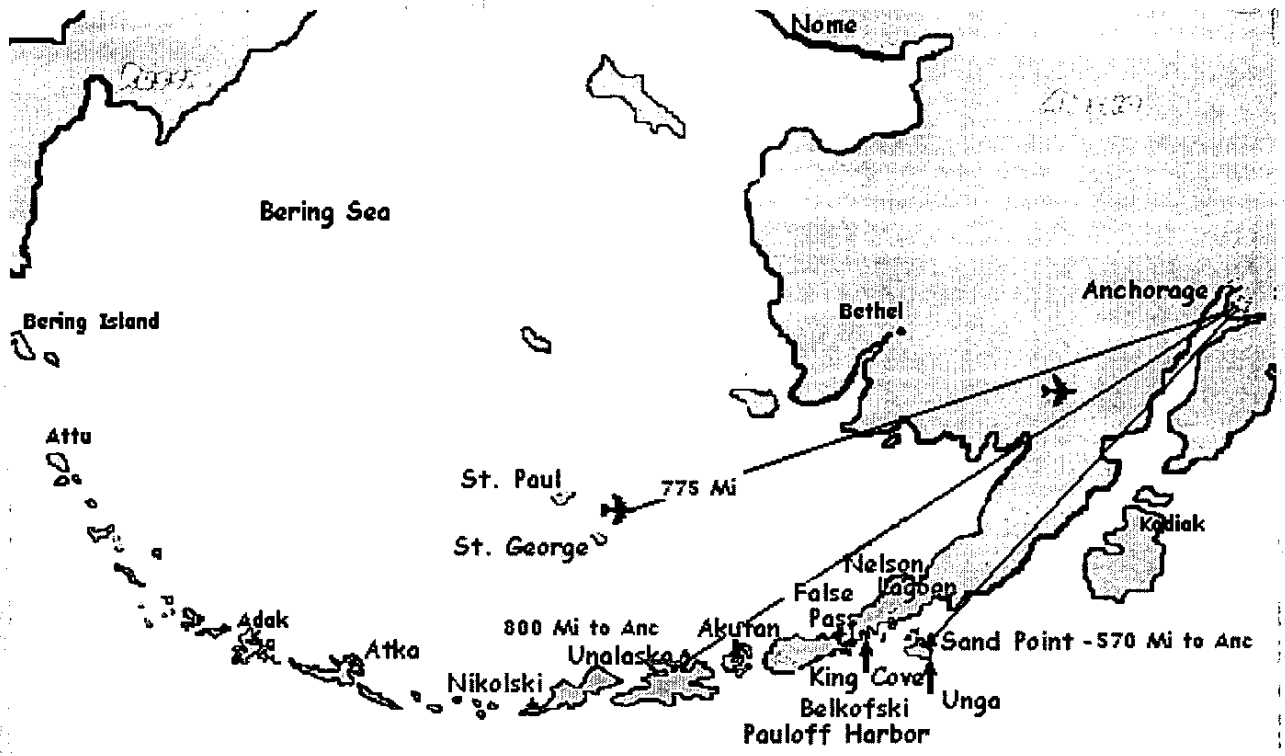


Rural Alaska Energy Concerns

October 23, 2009

By Bruce Wright

Aleutian Pribilof Islands Association



LOGISTICS

- Adak is the only community with jet service.
- During the fishing season a refundable ticket to Nikolski costs $2,648 rt.
- Last winter in St. Paul the fuel barge delay resulted in rationing gas to 5 gal./week at a cost of $11/gallon.
- Weather Rules.

Aleutian Pribilof Energy Partners

AHFC

USFWS

USDA/RUS

Aleut Corporation

Denali Commission

Department of Interior

Aleutians East Borough

US Department of Energy

Aleutian Housing Authority

State of Alaska Energy Authority

Aleutian Pribilof Islands Association

Tanadgusix Corporation / TDX Power

State of Alaska Renewable Energy Grant Fund

Aleutian Pribilof Islands Community Development Association

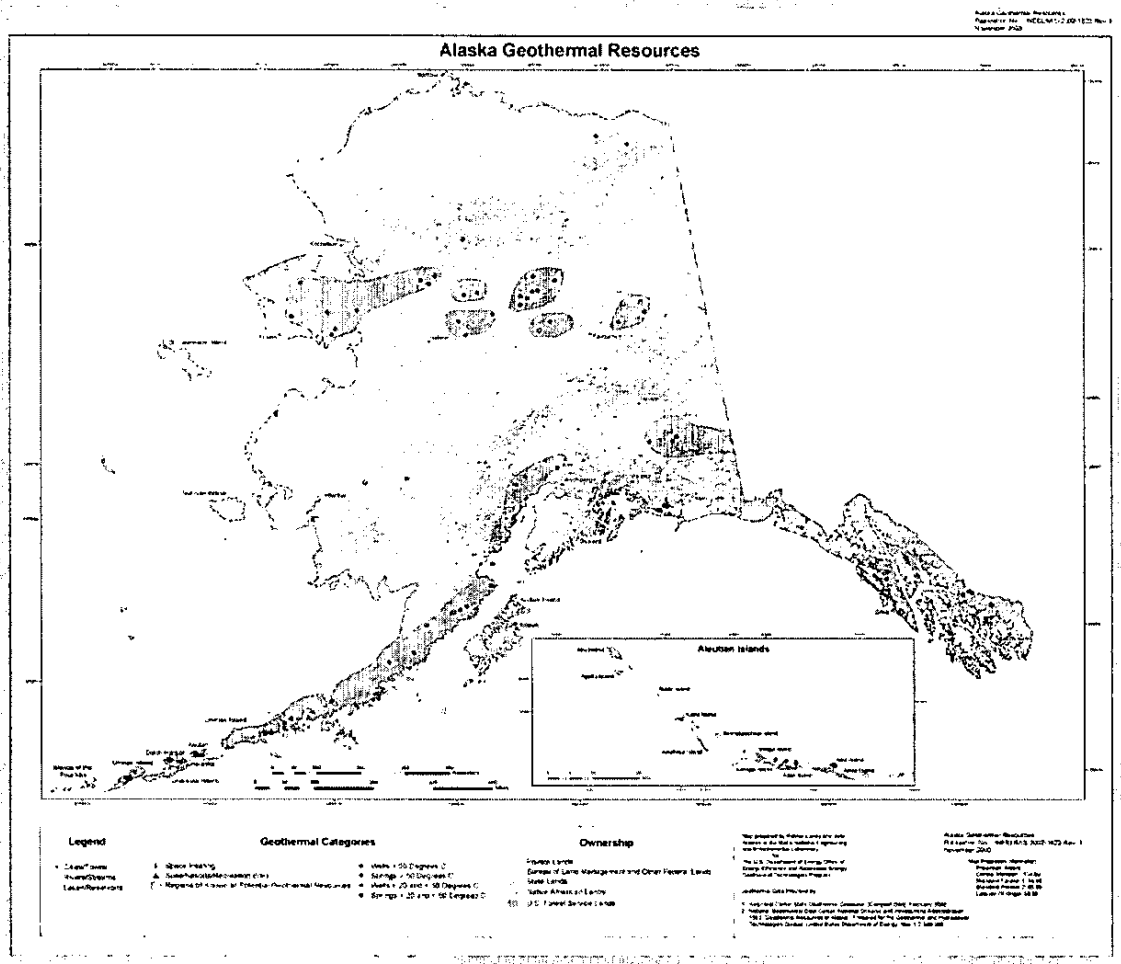
Native Village of False Pass, Native Village of Nikolski, Qagan Tayagungin Tribe of Sand Point, Native Village of Nelson Lagoon, Native Village of Atka, Aleut Community of St. Paul, Native Village of Akutan, Native Village of Belkofski, Native Village of Unga, Agdaagux Tribe of King Cove, Aleut Community of St. George Qawalangin Tribe of Unalaska, Pauloff Harbor Tribe

SWAMC Energy Task Force,

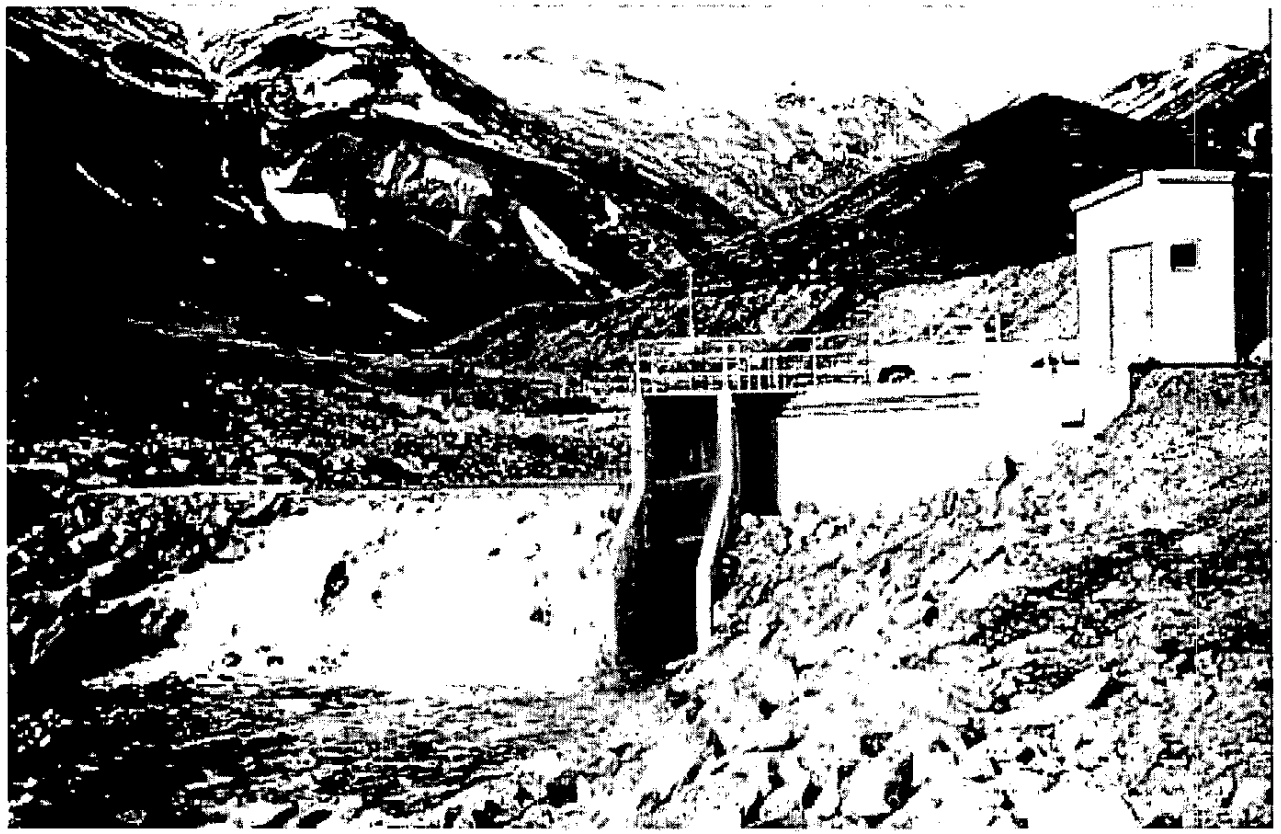
REAP

Okmok Caldera on Umnak Island is considered North America's largest geothermal resource.

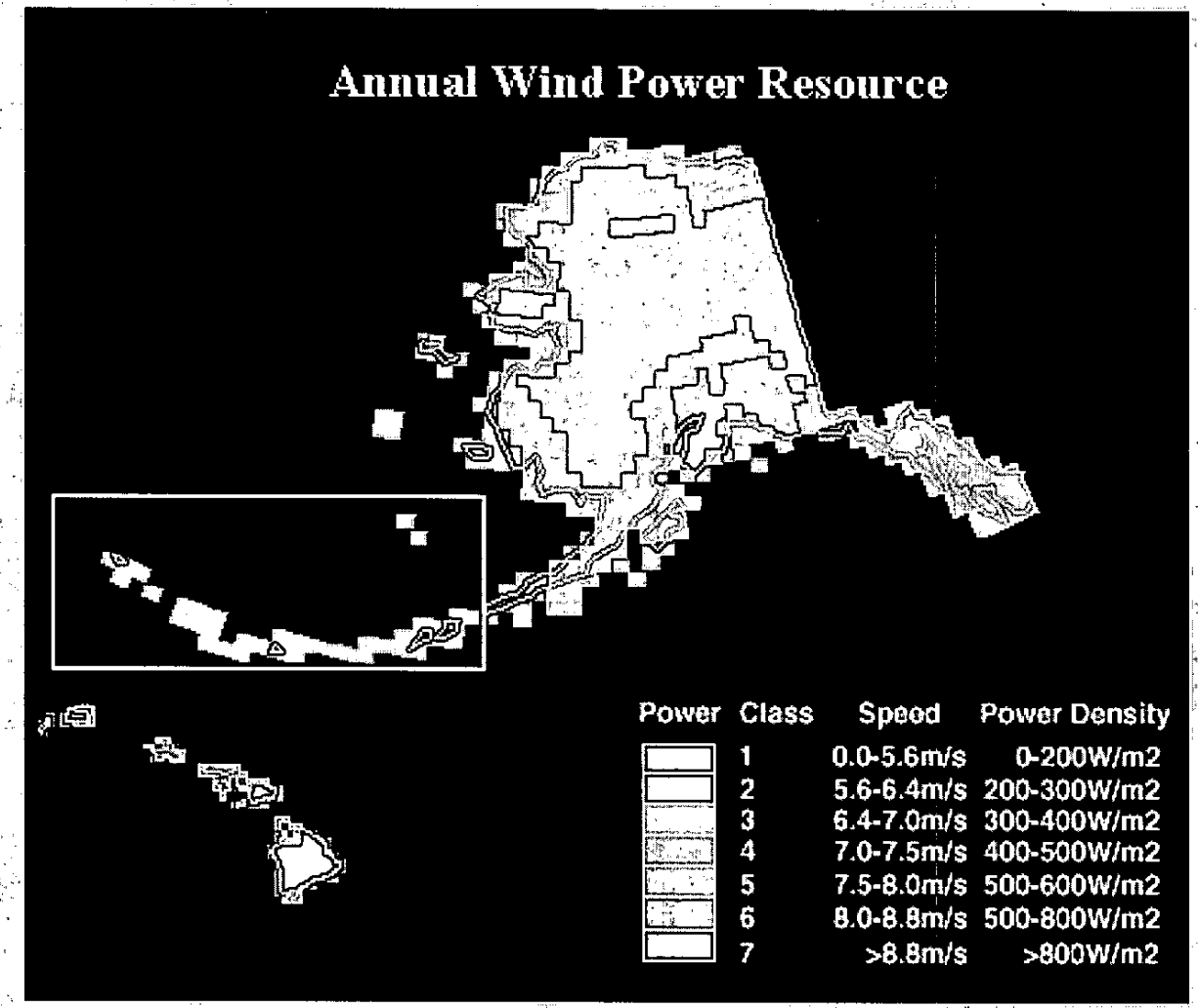
Geothermal Unalaska and Akutan



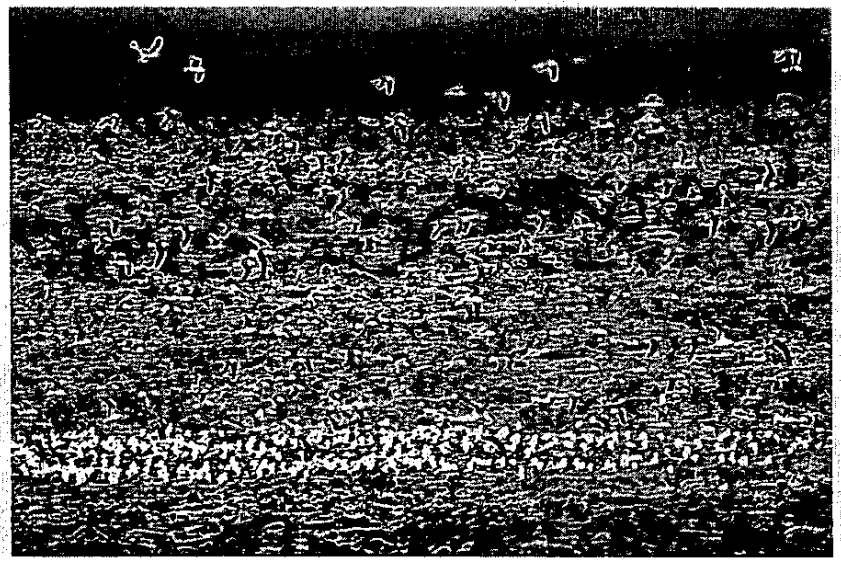
Hydropower in Akutan, Atka, and King Cove



World Class Wind: A Mixed Blessing



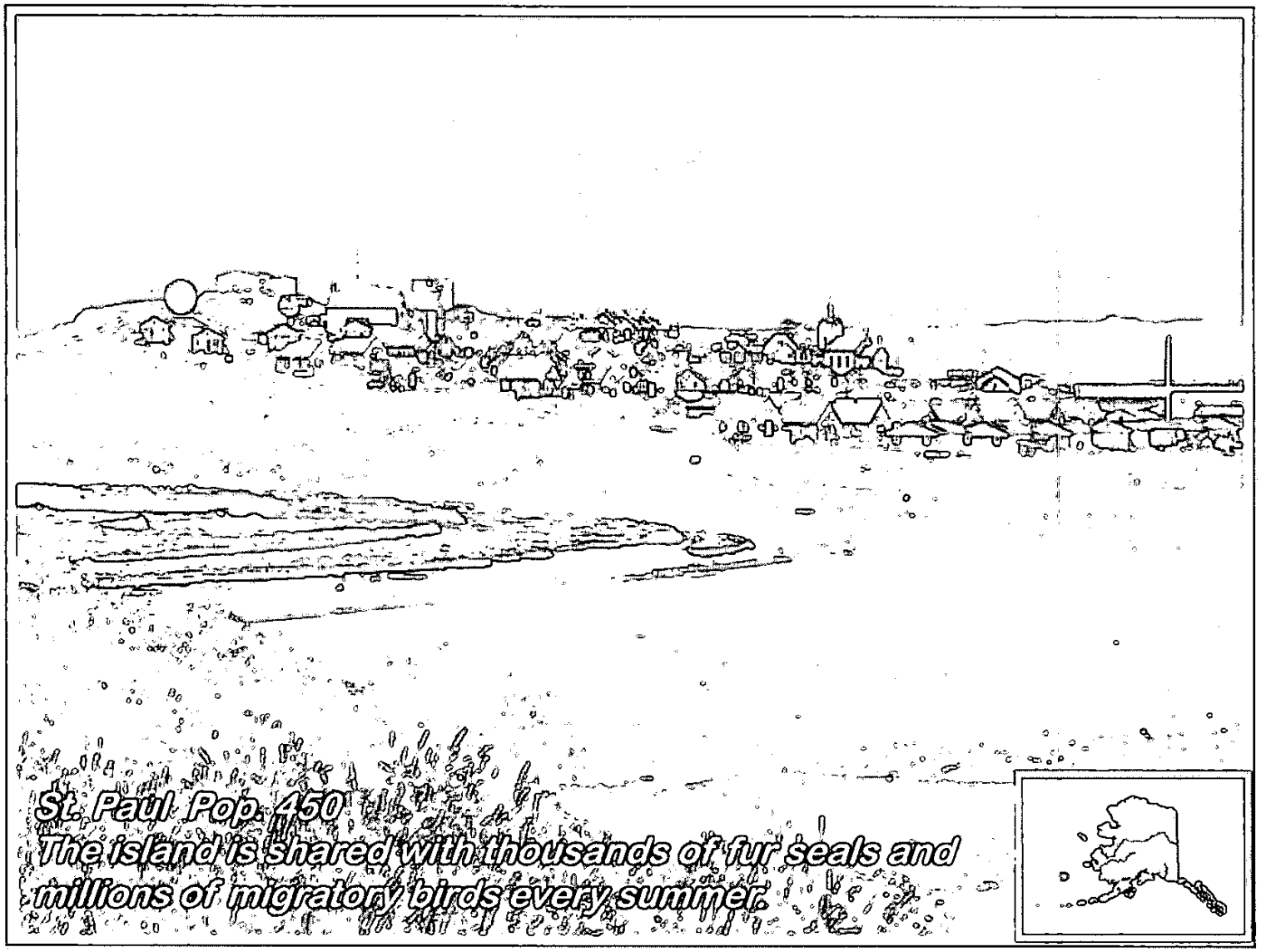
- 150 mph gusts
- Extreme Turbulence
- Stranded Resources



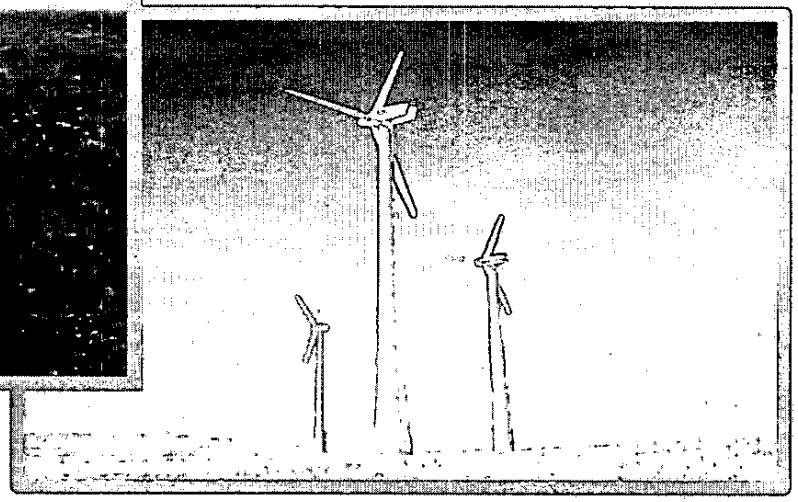
Millions of Migratory Birds live in the Region.

The World's Largest Breeding Colony of Red-legged Kittiwakes - St. George Island

APIA works with local hunters, bird watchers, students, USFWS and power plant operators to prevent and monitor avian interaction.


St. Paul Pop. 450
The island is shared with thousands of fur seals and millions of migratory birds every summer.

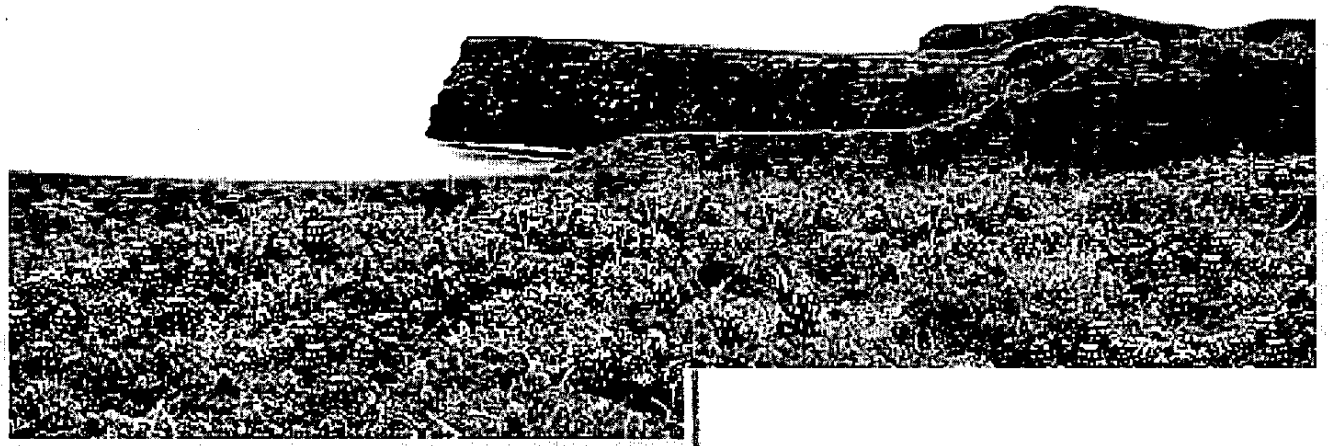
A charging station for electric vehicles is in the planning stages.

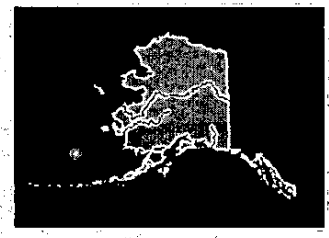


Barefoot Motors Electric ATV 9-12-09

Two refurbished Vestas V27-225 kW wind turbines were added in 2007, to be integrated as funds become available. Excess electricity will be used for additional heat and charging a fleet of electric vehicles.

ST. GEORGE ISLAND

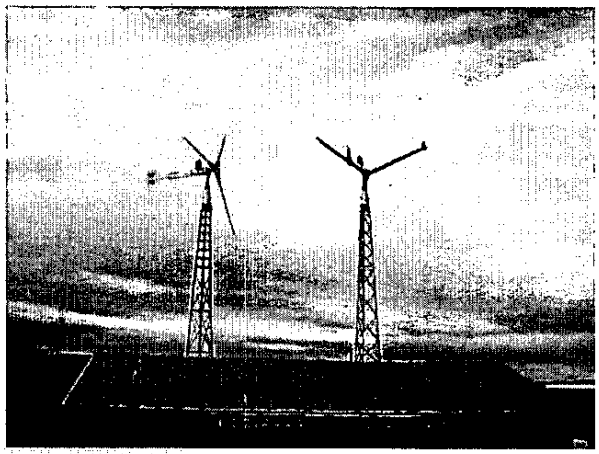




- A refurbished Vestas Vestas V27225kW wind turbine to be installed summer 2010
- Excess electricity wll go to hot water tanks in the school and clinic.

SAND POINT
Population 958

Projected fuel savings 152,000 gal/yr.

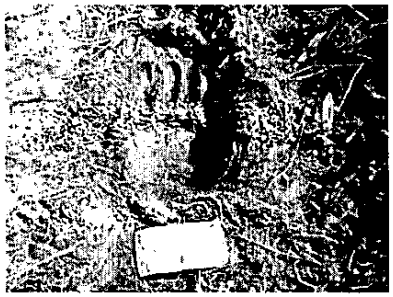


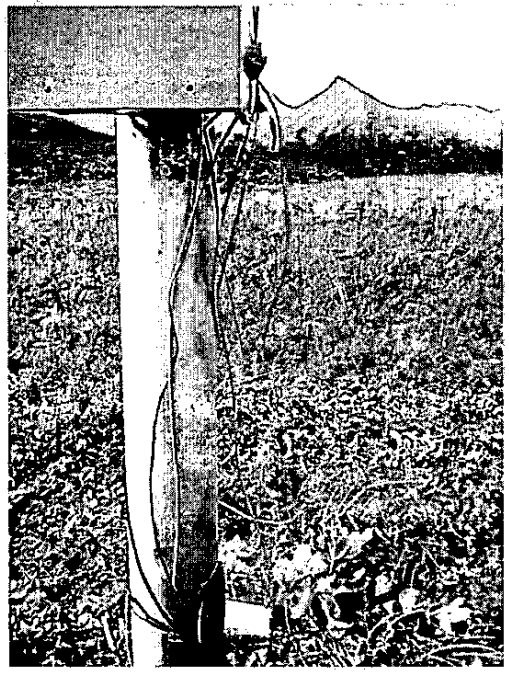
A DOE required eagle study held up this project for 3 years. These 2 old turbines/eagle perches will be dismantled as a mitigating effort.

- **2 refurbished Vestas V39-500 kW wind turbines to be installed summer 2010.**
- **Excess electricity will go to hot water tanks in the school and clinic.**
- **Waste Heat Recovery System already supplements heat to the utility offices and apartments above.**

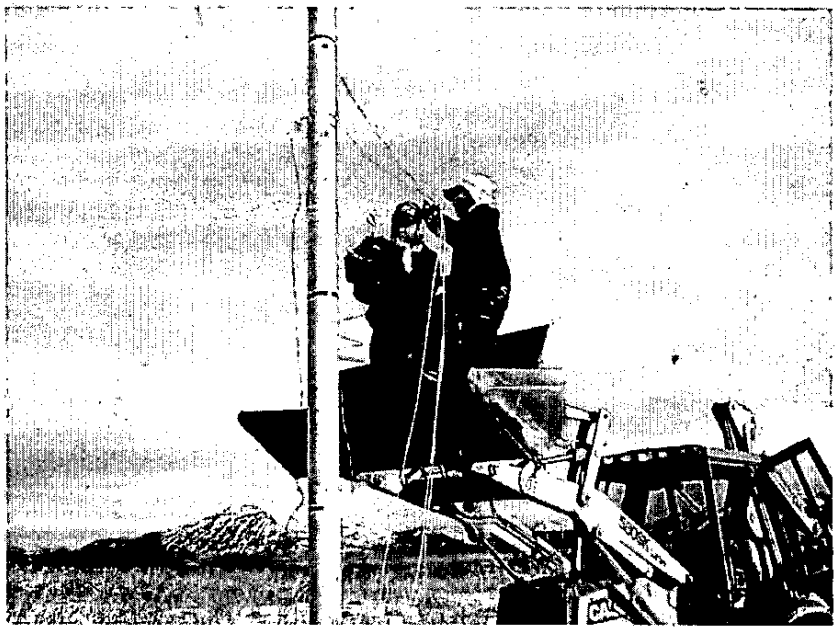
FALSE PASS

A bear chewed through wiring in July 2005, delaying data collection.



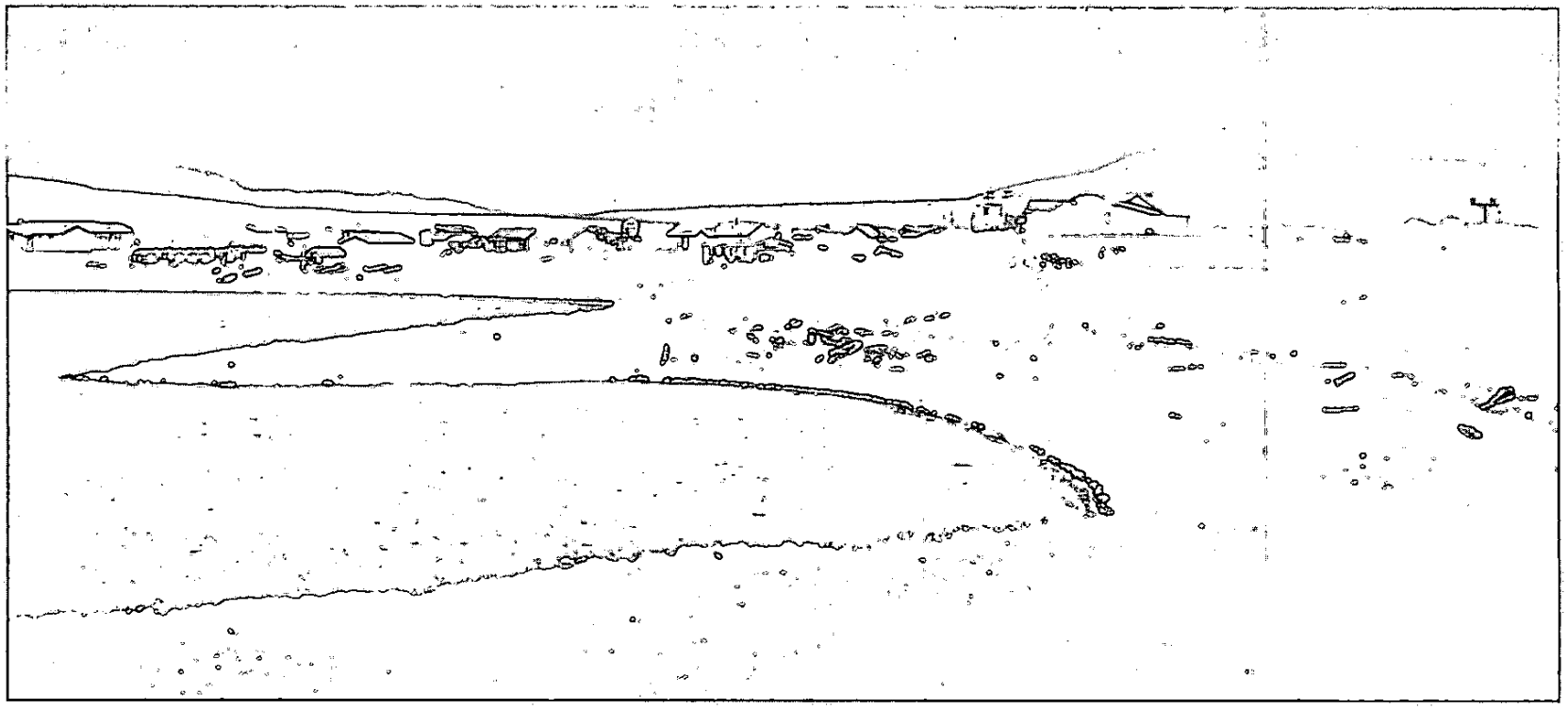


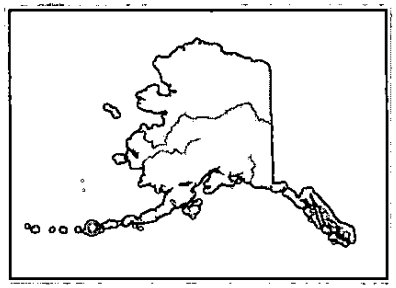
Mia Devine and George Jackson raise the data logger.



Raising the data logger to 25' in November 2005 prevented repeat damage. But attempts to install the predator proof fence around the tower (required by USFWS) were abandoned after persistent bear "intervention".

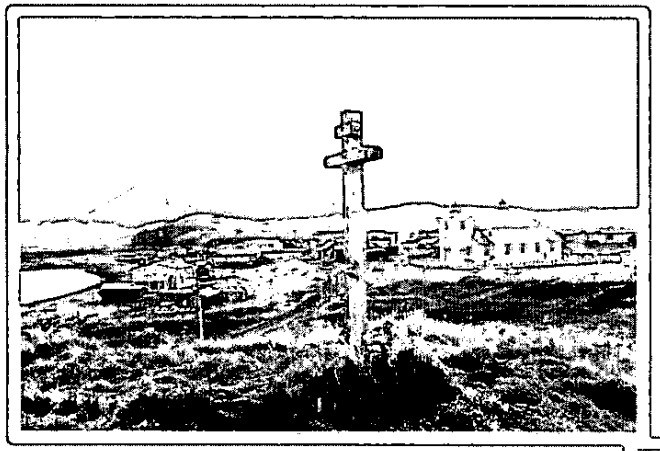
1797





Nikolski, Umnak Island

Continuously inhabited for over 10,000 years

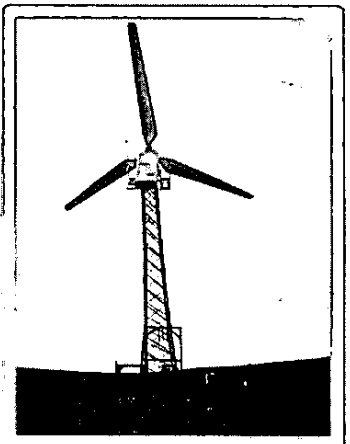


Nikolski Wind-Diesel Project

Pop. 27

Projected fuel savings: 15,500 gal./yr.

Sometimes fuel is not available at any price when the barge doesn't deliver.



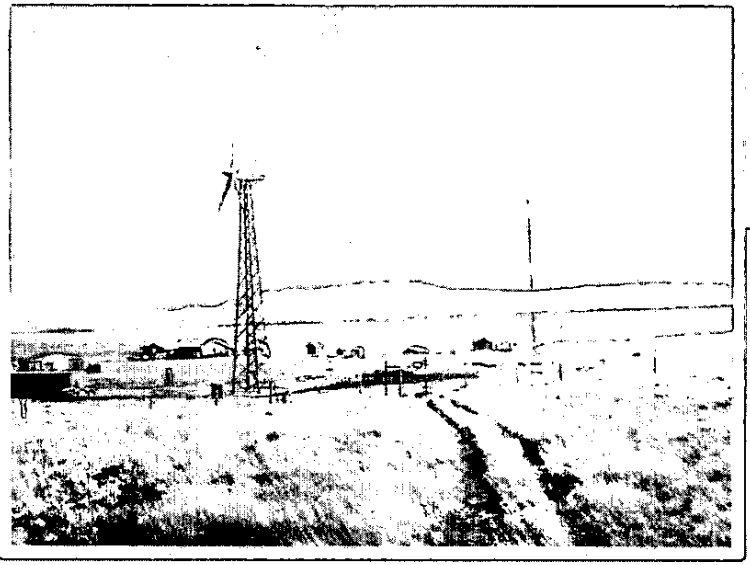
By the end of 2009 TDX will:

Integrate the wind turbine with the 179 kW diesel plant

Install hot water "dump loads" in the Lodge and School

Install Waste Heat Recovery System to Community Center

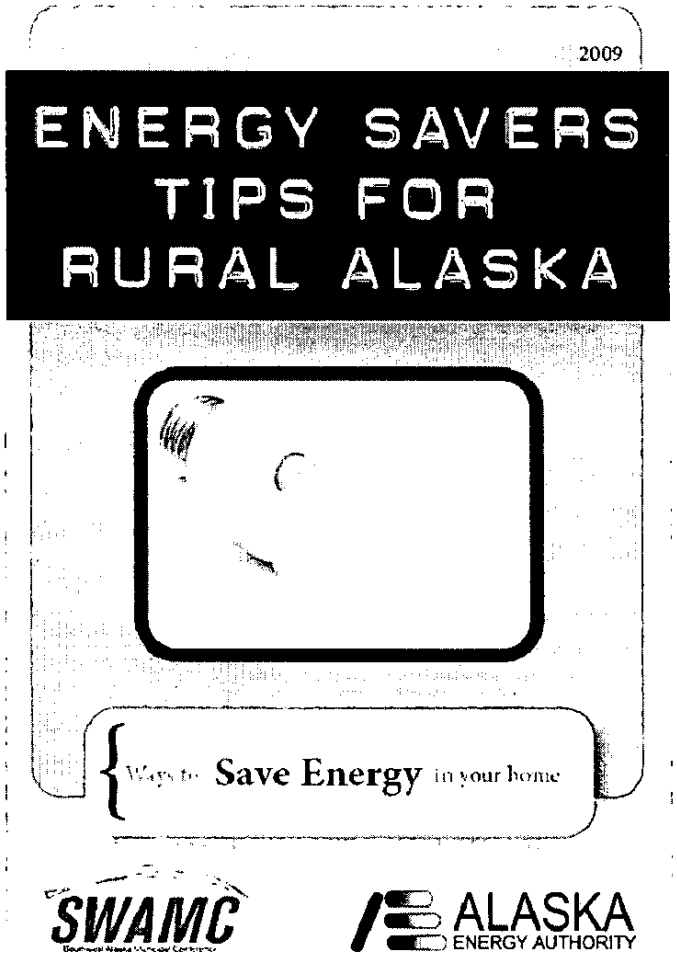
Train operator(s) to safely climb and maintain the wind turbine



This specially designed tilt up tower eliminated the need for a crane.

A refurbished Vestas V17-65 kW wind turbine was installed July 28, 2007.

Energy Conservation, Education, Weatherization and Planning



Energy Project Funding Comes from Multiple Sources:

AHFC

USFWS

USDA/RUS

Aleut Corporation

Denali Commission

Department of Interior

Aleutians East Borough

US Department of Energy

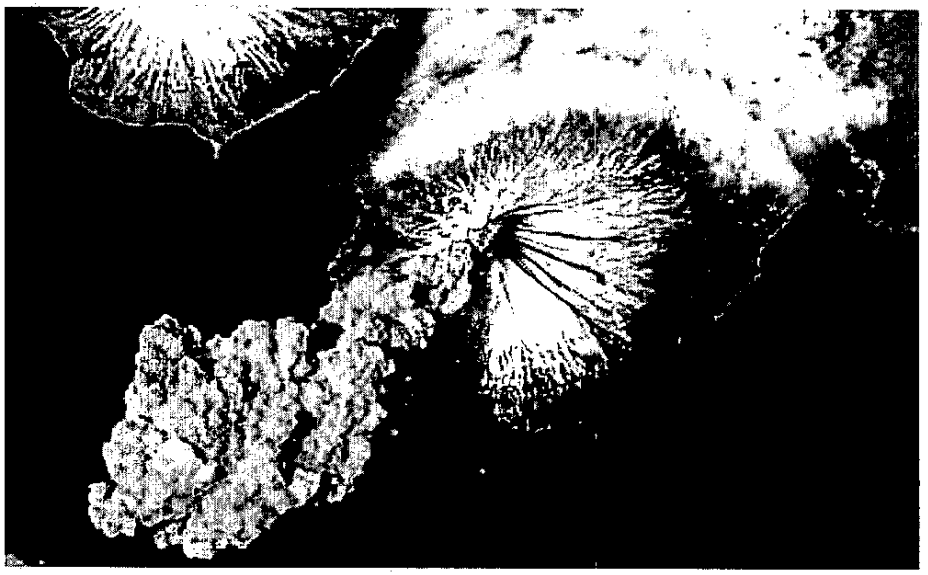
Aleutian Housing Authority

State of Alaska Energy Authority

Tanadgusix Corporation / TDX Power

State of Alaska Renewable Energy Grant Fund

Aleutian Pribilof Islands Community Development Association



Concerns and Suggestions

- Bulk Fuel Loans – Flexibility and Multi-year loans.
- AK Renewable Energy Fund – expedite award and reimbursement process.
- Investigate assistance for commercial ratepayers.
- Ensure PCE rules are not a disincentive to developing renewable energy resources.
- Recognize the value of pre-pay electric meters as conservation tools – and fund accordingly.

AVCP Calista Regional Energy

Calista

NORTHSTAR GAS
Native Owned Petroleum Retailer

YKHC

AVEC
ALASKA VILLAGE ELECTRIC COOPERATIVE

Middle Kuskokwim Electric Cooperative

Chaninik Wind Group

Kwethluk Power House

Introduction

- The AVCP CALISTA Regional Biennial Energy Plan is the work and the progress of the AVCP Calista Regional Leadership to:
  - develop and adopt a long term energy policy for sustainable energy
  - work collectively and combine our resources
  - identifying conventional and non-conventional renewable energy development
  - identify strategies for funding and deployments methods

Regional Leadership

- Executive officers, board members, staff of the major regional organizations, local governments, utilities and the business community.
- The Leadership is using the Nuvista Light and Electric Cooperative on the Biennial Energy Plan.
- The Nuvista Light and Electric Cooperative, Inc. a regional wholesale utility formed by Calista Corporation and currently administered by the Association of Village Council Presidents.

Energy Planning Participants

- Sven Paukan, Nuvista Chairman, AVCP Board, Algaaciq Tribe
- Paul George Guy, Nuvista Vice-Chairman, Calista Board, Kwethluk Power Company and Kwethluk Inc.
- Arthur S. Heckman Sr., Nuvista Secretary, Calista Board, Pilot Station Village Corporation
- Daniel Waska, Nuvista Treasurer, AVCP Board, Atmautluak Tribe
- Moses Owen, Nuvista Board, AVCP Board, Akiak Tribe
- Willie Kasayulie, Nuvista Board, Calista Board
- Myron Naneng, AVCP President
- Ron Hoffman, AVCP Regional Housing Authority CEO
- Robert Nick, AVCP Regional Housing Authority Board Chairman
- Martin B. Moore, City of Emmonak
- William Igkurak, Chaninik Wind Group Chairman
- Matthew Nicolai, Calista Corp., President & CEO
- Andrew Guy, Calista Corp., General Counsel
- Doug Nicholson, Donlin Creek, LLC, General Manager
- Brent Petrie, Alaska Village Electric Cooperative, VP
- Ernie Baumgartner, Middle Kuskokwim Electric Cooperative, CEO
- Gene Peltola, Yukon Kuskokwim Health Corporation, CEO

Task Force and Committees

Regional CEO's

- *Ron Hoffman, AVCP Regional Housing*
- *Myron Naneng, AVCP*
- *Matt Nicolai, Calista*
- *Gene Peltola, YKHC*
- *Meera Kohler, AVEC*
- *Elaine Brown, NorthStar Gas*
- *Deborah Vo, YDFDA*

Western Alaska Fuel Task Force

- *Chair - Meera Kohler, AVEC*
- *Elaine Brown, Northstar Gas*
- *Greg McIntyre, YKHC*
- *Ivan M. Ivan, Akiak TC*
- *Willie Kasayulie, Calista Corporation*
- *Deborah Vo, Yukon Delta Fisheries Development Association*
- *Allen Joseph, AVCP Regional Housing*

Legislative Committee

- *Chair- Michelle Sparck, AVCP*
- *Elaine Brown, North Star Gas*
- *Rep. Bob Herron*
- *Allen Joseph, AVCP Regional Housing Authority*
- *Meera Kohler, AVEC*
- *Mary Nelson, Donlin Creek LLC Biennial Energy Plan*

Renewable Energy Committee

- *Chair - John Sargent, City of Bethel*
- *William Igkurak, Chaninik Wind Group*
- *Brent Petrie, AVEC*

Goals and Deployment Objectives

Energy Security and Economic Stability

- Develop integrated energy solutions that meet local energy requirements and economic development needs

Energy Parity and Stability

- Establish statewide energy cost parity to make home heating affordable and equitable

Energy Generation and Transmission

- Pursue an All Alaskan Generation and Transmission Utility to save energy dollars and reduce electricity rates across All Alaska

Goals and Deployment Objectives

Integrated Renewable Energy Solutions

- Expand Wind Energy Projects along the eastern Bering Sea Coast and the Bethel area
  - determine feasibility for integrated wind/diesel/solar/biomass heating and electric systems with community heat storage system.
- Determine feasibility of Regional Hydroelectric Project (Lake Chikuminuk) to provide region-wide electricity and heat.
- Develop and install Biomass projects: including wood fired boilers, heaters and wood chippers for community facilities and buildings.

Goals and Deployment Objectives

All Alaskan G&T Utility

- Takes ownership of G&T Assets across Alaska
- Power costs are pooled and power bought back at postage-stamp rate or a 2 tier rate (utilities then add their costs and sell it to customers)
  - Costs range from 5¢ to 50¢ kWh
  - Distribution costs range from 3¢ to 20¢ kWh
  - PCE currently costs $30 million per year
  - Rural school electricity costs $20 million per year
  - Other state rural offices pay $20 million per year

Goals and Deployment Objectives

- By going to All Alaska G&T the state saves energy money to pay for a significant portion of major project investments thereby driving generation costs down to stabilize rates.
- Rural utilities can work together to reduce their delivered costs via shared services and other methods.
- End results are rates costing about 25¢ kWh and making PCE unnecessary.
- Regions and communities no longer have to compete for investment grants as the AAG&T would build the projects to benefit all Alaskans.
- Rural villages will no longer have to struggle with O&M.

Goals and Deployment Objectives

- Consolidate local individual utilities into Regional Cooperative Utilities
  - Bethel and nearby 12 villages
  - Coastal and Tundra villages

- Pursue sub-regional inter-ties and distribution systems beginning with an inter-tie to connect the villages of Alakanuk and Emmonak; and the villages of St. Mary's, Mountain Village and Pilot Station.

Goals and Deployment Objectives

Bulk Fuel – Western Alaska Fuel Task Force

- 1. Reduce fuel consumption in 2009 by 10%
  - a. Determine fuel users, consumption, and storage capacity of each community (utility, schools, village corporations, local organizations, tribal council)
  - b. Link villages/users together under cooperative purchase agreements
- 2. Seek changes to State and Federal Fuel Programs
- 3. Conduct Education Outreach

Goals and Deployment Objectives

Statewide heating fuel price parity capped at $3 per gallon (Sept. 1 through March 31) to reduce the cost of heating for all Alaska residents

- ***Formula (delivered fuel cost above $3.00 X total gallons for number of households served) not including O&M, overhead cost, etc.***

- ***Fuel Price Parity set only when price of oil per barrel results in delivered cost of fuel above $3.00 per gallon (note: in 2009 most communities delivered costs are under $3.00 per gallon)***

Alaska State Legislative Priorities for 2010

- Statewide G&T utility to include Rural, Southeast and Railbelt
- Introduce statewide heating fuel price parity legislation to cap at $3 per gallon (September 1 through March 31) for all Alaska residents
  - ★ Formula (delivered cost above $3.00 X total gallons for number of households served) not including O&M, overhead cost, etc.

	Coast		L Kusko		M Kusko		U Kusko		Yukon	
	HF Spring	HF Fall	HF Spring	HF Fall	HF Spring	HF Fall	HF Spring	HF Fall	HF Spring	HF Fall
2004	2.0076	1.9455	2.0076	1.9455	2.0876	2.0255	2.1476	2.0855	2.0076	1.9455
2005	2.4000	2.6700	2.4000	2.6700	2.4800	2.7500	2.5400	2.8100	2.4000	2.6700
2006	3.1150	3.2930	3.1150	3.2930	3.1950	3.3730	3.2550	3.4330	3.1150	3.2930
2007	2.9070	2.9210	2.9070	2.9210	2.9890	3.0030	3.0510	3.0650	2.9080	2.9220
2008	4.8920	3.8960	4.8920	3.9860	4.9740	4.0680	5.0350	4.1290	4.8920	3.9860
2009	$2.7122	3.1984	$2.6997	3.1859	$2.6722	3.0792	3.4226	3.9088	3.0726	2.9992

NORTHSTAR GAS
Native Owned Petroleum Retailer

	Coast		L Kusko		M Kusko		U Kusko		Yukon	
	UL Spring	UL Fall	UL Spring	UL Fall	UL Spring	UL Fall	UL Spring	UL Fall	UL Spring	UL Fall
2004	2.4260	2.2090	2.4260	2.2090	2.5060	2.2890	2.5660	2.3490	2.4260	2.2090
2005	2.5770	2.8670	2.5770	2.8670	2.6570	2.9470	2.7170	3.0070	2.5770	2.8670
2006	3.3650	3.1430	3.3650	3.1430	3.4450	3.2230	3.6320	3.4100	3.3650	3.1430
2007	3.4600	2.9460	3.4600	2.9460	3.5420	3.0280	3.6040	3.0900	3.4600	2.9460
2008	4.2400	4.1200	4.2400	4.1200	4.3220	4.2020	4.3830	4.2640	4.2400	4.1200
2009	3.2636	3.3069	3.2513	3.2944	3.2738	3.4943	3.7242	4.0173	3.6242	3.4514

Alaska Energy Authority Renewable Energy Grants Round I

	Cost	Grant
Bethel Wind Power x 4	$3,197,986	$2,598,320
Hooper Bay Wind Farm	$2,220,141	$2,220,141
Kongiganak Wind Farm	$3,200,000	$1,700,000
Kwigillingok Wind Farm	$3,200,000	$1,700,000
Mekoryuk Wind Farm	$3,506,406	$3,155,765
Quinhagak Wind Farm	$4,313,603	$3,882,243
Toksook Bay Wind Farm	$1,153,056	$1,037,750
TOTALS	$20,791,192	$16,294,219

AEA Grants Round II - pending

	Cost	Grant
Akiachak Wind ANCEC	$600,000	$4,500,000
Akiak Wind	$200,000	
Emmonak Wind & Transmission AVEC	$1,062,818	$10,733,179
Scammon Bay Wind Analysis AVEC	$6,190	$4,436,800
St. Mary's Wind Analysis AVEC	$5,500	$6,310,000
Mountain Village Wind City and Tribe	$11,155	$133,255
Chikuminuk Lake Hydro AVCP	$150,000	$400,000
Bethel Wind Power x4	$599,666	$3,197,986
Crooked Creek Hydro Kinetic		$368,000
Kipnuk Wind Diesel Heat	$1,600,000	$10,188,000
Kotlik Pellet Stove KYE	$50,000	$626,400
Orutsaramiut Native Council	$771,900	$70,200
Tuntutuliak Wind Diesel	$1,600,000	$3,360,000

American Recovery & Reinvestment Act

- DoE Energy Efficiency and Conservation Block Grant: tribes receive 2% set-aside of $2.8 billion.
- Clean Renewable Energy Bonds: One-third of the authorized amount is available to tribes.
- Qualified Energy Conservation Bonds: allocations to tribes as local governments.
- DoE support for tribal Smart Grid Demonstration projects.
- $18,142,580 Alaska Weatherization Assistance Program and $28,232,000 for the State Energy Program (declined by Governor Palin)

DoE Energy Efficiency and Conservation Block Grants

- The amount of funding for each Tribe based on a formula published in the Federal Register.

  In addition to the $56 million EECBG tribal set-aside funds, tribes were eligible to receive awards on a competitive basis for $400,000,000 made available under the Act. These funding amounts include administrative, training, and technical assistance costs that will reduce available funding for grants by 1-2%.
- General program information is available at http://apps1.eere.energy.gov/wip/block_grants.cfm

2009 Omnibus Appropriation Act

Appropriations Act Provides Nearly $2 Billion in New Funding to DoE Energy Efficiency & Renewable Energy

- $217 million for biomass energy;
- $175 million for solar energy
- $30 million for concentrating solar power
- $55 million for wind energy
- $40 million for "water power," which includes both conventional hydropower and tidal and marine technologies.
- Infrastructure development activities, and other supporting activities also received funding increases under the appropriations act.

Quyana Cakneq

Mr. Chairman, Members of the [redacted]mittee I am Percy Frisby, Director of Energy for the Central Council Tlingit & Haida Indians Tribes of Alaska. I was invited to testify before you on Rural Alaska Energy Concerns in the Southeast Region. I was asked to cover three areas of energy development.

A) **Unique Energy Problems:**

In many ways, it seems that the primary problem is not unique for the villages of all the regions. The demand for electricity is small for each utility, but the energy per individual or home is quite expensive. Most of the small communities in Southeast Alaska are powered with diesel fuel - exception being Metlakatla and most of Prince of Wales Island.

However, the most unique aspect of Southeast Alaska is that there is an abundance of renewable energy available with most of the resources being developed by the larger communities - but very little of these resources are shared with the smaller communities. And the cost for smaller communities to develop these resources is greater than the costs for diesel-generated energy.

The biggest problem that small communities face is the economies of scale. Their populations are too small to justify the expense of developing and constructing a complete power system. Southeast Alaska is in a unique position because we can bus surplus power to a retail market when British Columbia completes its Northwest BC Transmission Line to Bob Quinn Lake. All that we in Southeast have to do is build the AK/BC section from Wrangell to the border. By having this transmission line built it would change the economies of scale throughout the region. Small communities then can afford to build adjacent power systems because they will have a market for surplus power.

B) **Local Solutions Attempted:**

- Many of the smaller communities are pursuing hydro facilities, but costs are excessive and permitting is arduous. Not much progress to date.
- Yakutat: Is looking at wind and wave technology
- Hoonah: Is looking at Gartina and Elephant Creek hydro plants; biomass gasification project at Pt Sophia; and an Intertie with AEL&P in Juneau.
- Angoon: Is looking at developing Thayer Creek hydro
- Kake: Is looking at an Intertie with Petersburg
- Tenakee Springs: Is looking at developing Indian River
- Hydaburg: Is developing Reynolds Creek Hydro

nected to the now set for completion Swan Lake - Tyee Transmission Line) - but they need an intertie to bus their surplus power.

C) **State Assistance:**

The state could help lay the ground work for development of renewable resources. There is so much preliminary work that needs to be completed before engineering and construction is even planned.

- Continued analysis, evaluation, and definition of potential renewable resources. This includes alpine lake tap generation potential, hydrokinetics, wind, wave, tidal, biomass, and geothermal.
- Hydro potential near the communities is well determined - the potential in the more remote areas is not.
- Wind is known to exist, but the quality as an area source is not known, sites are poorly defined.
- EPRI (Roger Bedard) published a good & promising report about tidal energy in SE - but it is very broad brushed with no correlation with current technology or application to specific sites.
- The state published a report and map illustrating potential geothermal sites in SE, but the real capacities of these sites is unknown. And the data does not address all known potential.
- Wave energy is a very new technology with a very positive outlook along the west coast - significant research and development is occurring in Oregon and British Columbia.

Strategic planning:

Example - Oregon is taking a very progressive position with the development of Wave Energy. They are quite involved with developing a Territorial Sea Plan - this plan defines allowable areas for Wave Energy development as well as allowable extent of generation. This type of planning should occur to some extent for all types of energy development to protect other stakeholders of the resources and uses of the land or sea.

Facilitate more research and development:

The best resources available to the communities, involves development of new technology. Our state now has the opportunity to take a greater leadership role in the application of new technology.

This is pretty much a shotgun approach with a wide distribution of ideas. I think that the two areas the state should address is the need for strategic planning and a much more progressive commitment to developing new technology and resources.

Thank you for allowing me to testify

Testimony to the House Energy Committee, Senate Resources/ Energy Committees and to the Bush Caucus

Myron P. Naneng, Sr. President

Association of Village Council President

October 23, 2009

Good Afternoon respected members of the Panel, Thank you for allowing me the opportunity to address the panel on an issue that is important to every single household in our communities.

My Name is Ciisaaq; Myron Naneng, I grew up in Hooper Bay in South West Alaska.

I am currently the President of the Association of Village Council Presidents that represents 56 communities of the Yukon Kuskokwim Delta.

I want to address issues that my communities experienced during the dreadful winter of 2009, something I feel will be experienced again in a matter of weeks.

Life has always been hard in our remote part of the State, but the people are hardier. The winter of 2009 started out like any other winter. During the summer, the families put away meat and fish despite the restrictions and the scarcity of game and finances.

The village of Akiachak had the highest price per gallon of Heating Fuel and Gasoline at $5.30 gallon. In a matter of weeks, the same village, had the lowest price in the YK delta at $5.30 a gallon.

Kim Murphy from the Los Angeles Times noted in her article printed on January 25, 2009 that Bush residents:

> ... Nearly every one ...is performing a perilous balancing act between food and fuel -- the building blocks of survival in a frigid winter that still has months to go. Life in rural Alaska always has been treacherous. But last year's dramatic escalation in fuel prices, combined with a disastrous fishing season, plunged the ramshackle villages of America's frontier into one of the worst crises in decades, prompting calls for humanitarian aid and demands for pricing reform.
>
> "Holy Jiminy Christmas, what we're going through," said Dora Napoka, 49, the librarian at the village school. "It's like we have to choose between six gallons of stove oil or six gallons of gas to go out and get the firewood -- or does my baby need infant milk? Which one is more important?"
>
> At the moment, villagers ... say their greatest hope is that Venezuelan President Hugo Chavez will come through again on his pledge to deliver free fuel to Native Americans -- a promise that could mean 100 gallons for many families.

"What most people do not realize is that what our country as a whole has been seeing for the past year or so is nothing compared to the economic conditions that have been prevailing in many of our Native communities for over 100 years," Senator Lisa Murkowski (R-Alaska) told the Senate Committee on Indian Affairs on January 15.

"It is truly tragic," she said, "that Alaska Native villages must depend on Venezuela for their safety net."

Here we are, a year later, we still depend on bulk fuel purchases for essential needs and practices. From heating our homes, running our generators to light our homes, running our boats, ATVs or snowmobiles. Our infrastructure does not yet host alternatives, though we are catching up with renewable energy projects – but prices that are shaping up this year for fuel, groceries, air transportation and the like are also predicting another massive need for humanitarian aid, and demand for price reform.

The average price of heating fuel is $6.95 a gallon, gasoline is at the average price of $6.85. The lowest vendor prices is at the village of $5.45 in Platnium with a population of only 41. The highest price for heating fuel is in the village of Kwethluk, population 716 at $8.10 gallon.

The reason for the high fuel prices stem from several different reasons; among them, the Bulk Fuel Vendors would not extend credit to our local fuel vendors because of the peak fuel prices from last year.

Without the option to extend credit, local fuel vendors had to scramble to obtain grants and/or bulk fuel loans from the State of Alaska and other financial institutions. This is not an easy or simplified process despite similar hurdles and challenges for over thirty years – the State does not have a process in place to ensure its communities are equipped to deal with energy needs for its citizens.

While this process flounders in the State's archaic bureaucracy, the window for fuel deliveries via fuel barges become narrower and narrower. With a no-fault clause, villages bulk fuel purchases often end up getting iced out in the Kuskokwim and the Yukon Rivers, preventing fuel deliveries and requiring an extra costly emergency air or ice-road delivery. Airlifting or driving in the fuel at this exorbitant cost directly affects the cost of living, from the price of groceries to the price of utilities.

Even with the price of oil fluctuating to more affordable levels, the high cost of fuel is still prevalent in our region and more remote parts of the State because the fuel stock bought with last year's exorbitant prices have not been sold.

Adding insult to injury, last year's (and this year's) commercial salmon fishing season was severely restricted if not completely shut down. This source of revenue for village fishermen is conventionally used to pay for other Subsistence activities to gather more foods for winter. Native foods greatly make up the bulk of our nutrition with costly processed / commercial products only supplementing our diet; there is no way that our households can survive without Subsistence.

The poorer (than usual) economy in tandem with the high fuel costs added pressure to AVCP's social services. Food donations were up and festivities for holidays and special events were disappointing.

For the State's part, the Governor included a $1,200 fuel subsidy to all recipients of the Permanent Fund Dividend. Not a lot of people make the PFD application deadline, which effectively ruled out a lot of needy households for this unexpected and unprecedented attempt at addressing the energy costs. Had the State gone with the Legislature's plan to apply subsidies directly to the vendor's, it would have more effectively dealt with homes having trouble keeping their homes lit and warm.

People living on the energy grid enjoyed a financial windfall, whereas the average price of stove oil in our region was around $7.00 a gallon which equates to buying 3.1 drums of heating fuel. It is perhaps comparable to the Venezuelan program.

For our part, AVCP and its regional counterparts are proactively advocating and promoting alternative energy, with wind, solar and hydro power products; but these are costly long term projects and our area does not have the time to wait for these developments.

Senator Lyman Hoffman, a seasoned veteran of the Alaska Legislature, proposed legislation in SB 4002 that more than adequately addressed energy challenges in rural and remote areas in the State in the form of a fuel price cap on all heating fuel sales, a State subsidy, amending the bulk fuel bridge loan fund and the bulk fuel revolving loan fund; amending the power cost equalization program, repealing the exclusion from eligibility for Power Cost Equalization (PCE) for certain power projects that take their power from hydroelectric facilities, and amending the definition of 'eligible electric utility' as it applies to the PCE program and the grant program for small power projects for utility improvements; relating to establishing a gas pipeline development fund in the Department of Revenue; and establishing the Alaska resource rebate program. These measures mean to equalize or lower the cost of energy costs for Rural and Remote parts of the State of Alaska.

Alaska is an oil rich state, we have a high profile personality and continuing Administration touting energy expertise and plans to help make free this country's dependency on foreign fuel. I think that is fine, but it would be imperative that we deal with it in Alaska first before taking on the world.

Wednesday, October 21, 2009

Kawerak Management:

The House Energy Committee, Senate Resources / Energy Committees and the Bush Caucus are holding a hearing on AFN's ***main stage on Friday, October 23, from 2 to 5 PM***. The subject of the hearing is "Rural Alaska Energy Concerns." They have decided to invite testimony from each of the 12 ANCSA regions and have allotted the **first two hours to invited testimony** (committee members might have questions after your presentation). They are hoping to hold each region to approximately 10 min.

Below please find my input on the three questions they would like answered which I hope you will find of assistance in preparing your presentation:

A) What kind of unique energy problems exist in our area of the state?

- **SKILLS AND ABILITIES**
  - **Skills and abilities necessary to operate and maintain electrical generation equipment and renewable energy assets not present.**
  - **Renewable energy projects currently at too small a scale to justify hiring a full time employee. (Banner is a notable exception)**
- **ACCESS**
  - **Renewable energy resources are not readily accessible via existing road system. Promising resource development projects can be rendered financially impractical by anticipated transmission line and road construction costs (Pilgrim – problem with transmission line cost).**
  - **Heavy equipment necessary to construct larger more efficient wind turbines is not available in the region.**
  - **None of the Villages are connected to the State utility grid.**
  - **Fuel can only be delivered in bulk by barge during summer months. Each village must store enough to last the winter.**

Walter H Rose – Energy Specialist – Kawerak Inc
Phone: 443-4366 – Fax: 443-4449 – email: wrose@kawerak.org

- **EROSION**: A number of Villages are threatened by erosion, in Golovin, a non-AVEC Village, flooding has shut the power plant down a number of times.
- **TUNDRA HEAVE**: Unstable ground makes building reliable foundations for wind turbines much more costly and challenging than in other regions.
- **HARSH CLIMATE**: Technologies considered "proven" in milder climates often fail in this region; there is a steep learning curve associated with new technologies.

B) What local solutions have been attempted and what are the results;

The Alaska Renewable Energy Fund administered by the Alaska Energy Authority has, to date, provided $11.4 million in funding for renewable energy projects in our region.

This summer AVEC installed:

- Six (6) one hundred (100) kilowatt wind turbines in Unalakleet.
- Three (3) one hundred (100) kilowatt turbines in Gambell.

This summer AVEC initiated wind studies in:

- Stebbins
- Teller

Last summer AVEC installed:

- Two (2) one hundred (100) kilowatt turbines in Savoonga. One of the turbines experienced some down during last winter; both are back in operation now.

Last summer BSNC and Sitnasauk installed:

- eighteen (18) fifty (50) kilowatt turbines on top of Banner Peak in Nome. The wind farm was shut down all summer due to technical problems but should be coming back on line shortly.

SIDE NOTE: If you mention Banner everybody is going to want to know exactly what went wrong. The way it was explained to me last:

- The device the wind farm uses to measure the wind speed froze up and started spinning much more slowly than it should have (registering a wind much slower than it actually was). The

Walter H Rose – Energy Specialist – Kawerak Inc
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turbines, which should have shut down automatically when the wind reached a certain speed, kept operating; this put a lot of wear and tear on the gearboxes. Additionally, the air in Nome turned out to be much heavier (denser) than expected. The angle (pitch) of the propellers (rotors) was set wrong and they were spinning too fast; they are fixing both these things.

- They have been up on the hill with parts, equipment, and good help for nearly a month now; while I'm not directly involved, the feeling I get is that we'll see the wind farm producing electricity shortly.

REGIONAL ENERGY SPECIALIST

Kawerak hired a regional energy specialist in Mid-March 2009 to assist Native Villages with energy related issues.

REGIONAL MEETINGS FOCUSING ON ENERGY

Representatives from the IRA Councils of more than two thirds of the Villages in the region recently met in Nome and reached a consensus regarding renewable energy priorities for the region:

1) Research, Education, and Planning - in order to gain a good understanding of emerging technologies, to address the need for local energy related skills and abilities, and to efficiently arrive at an optimal solution.
2) "Multipower" Energy Resources - Multipower is defined as any technology which tends to offset but not completely replace diesel generated electricity including wind, solar, and tidal.
3) Regional Geothermal Cooperation & development - two areas of our region, the Pilgraim/Mary's Igloo/ Teller area and the Elim/ Koyuk/White Mountain/Golovin area both need further geothermal investigation.

A separate survey of energy priorities at the village level reveals that both Wind/Diesel hybrid system development and Continued Weatherization are equally high priorities. While solar heating technology, better wood stoves, and more efficient wood gathering and chopping techniques were of considerably lesser interest.

C) What do we think the State of Alaska should be doing to help with the high cost of energy?

Walter H Rose – Energy Specialist – Kawerak Inc
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- Encouraging and enabling the sustainable, fiscally and environmentally responsible development of local and renewable energy resources is the most sensible long run strategy because:
  - It promises to permanently reduce the size of PCE and other energy related transfer payments by reducing rural energy costs.
  - It is consistent with this region's values of self sufficiency and independence.
- So far we have mostly gone after electricity. I recommend they tailor incentives including the PCE to encourage high penetration renewable projects (projects that produce more electricity than the village needs) and use the extra electricity to reduce heating fuel requirements (like Toksook Bay).

WALT'S STATISTICS:

- According to the Alaska Energy Authority, as of March 23, 2009, the weighted average cost per kilowatt hour of electricity in the Bering Strait Region was forty two cents per kilowatt hour ($0.42/kWh); the second highest of any region in Alaska.

[redacted]

NOTE: The above figures are for full time (not seasonal) residents (registered PFD recipients) who are not self employed or working for the federal government or military.

NOTE: I used 2008 wage totals from labor.alaska.gov, DCCED 2008 Certified Municipal Populations data for FY 10 Programs, and energy expenses information from the Alaska Energy Authority's Wednesday, January 14, 2009 village by village survey pages 121 to 188 to arrive at the above figures. I am entirely confident they are not overstated. (I have actually understated them because I find them so hard to believe)

If you have any questions or require any clarifications I am at your disposal.

Walter H Rose – Energy Specialist – Kawerak Inc
Phone: 443-4366 – Fax: 443-4449 – email: wrose@kawerak.org

Good afternoon. My name is Ralph Andersen. I'm the CEO of the Bristol Bay Native Association. I'm also the Chairman of the Bristol Bay Partnership; our leadership group composed of the chief executives of our regional organizations.

The summer of 2008 was painful for us in rural Alaska. That's when we first felt the pinch of high fuel costs. The price of crude oil went to nearly 200 dollars a barrel and the prices we pay for gas, diesel and heating fuel doubled. The high crude prices added millions to the state's revenues, but emptied the bank accounts of us living in rural Alaska.

In the summer of 2008, a study by the Institute of Social and Economic Research showed that rural Alaskans pay 41 percent of our monthly incomes on energy, and Anchorage residents pay only 4 percent.

Last winter our hearts went out to our village people who were having to choose between paying the oil or electricity bill or buying food for their families.

Some could not afford the gas for their BOATS OR snow machines for subsistence hunting. We saw emergency food deliveries made in villages across the State to keep families and children from going hungry.

During the past 2 years, we've seen more friends, more families and more neighbors move out of our villages and out of our region because of the high cost of living. The high price of fuel is the biggest factor raising our cost of living and affects every part of our lives.

The price of groceries, fresh milk, a dozen eggs, airline tickets, toothpaste, medicine, diapers, clothing, lumber and building materials, car and truck parts – *everything* – have gone up.

When the price of crude was cut in half this past summer to about $70 a barrel, we expected to see at least an equal cut in fuel prices. Our hopes were dashed when we saw prices drop just a few dollars.

Not only do we continue to pay high prices, but the prices are all over the board, up and down the west coast, and even between villages in our region.

Why are prices in South Naknek, for example, a dollar more than the prices at Naknek only 300 yards away? And why is it that fish processors can sell diesel for $2 a gallon to their fleet from a barge like they did this past summer, when we were paying more than $6.00 a gallon at the fuel pump?

We know that we will depend on oil for many years to come. Our commercial fishing boats, fish tenders and processors, outboard motors, chainsaws, snow-machines, cars, and trucks all run on diesel or gas.

The airlines, cargo planes, air taxi's, and tugs and barges that deliver our supplies all run on diesel or gas. And our village generators still run on diesel.

We all want cheaper fuel to heat our homes and generate electricity, and we need it now. The problem is there is no control over how fuel prices are set.

Unless a new state law is made or price controls are put in place, the prices we rural residents pay for fuel will continue to be at the mercy of Delta Western and Crowley.

Some of our residents have installed wood-fired stoves, heating systems and hot water heaters. Some of our villages have installed or are planning to install wind generators to lower energy costs and reduce consumption of diesel fuel.

But until the transition to another power source is total or complete, diesel will continue to power our village generators and we will need fuel to heat our homes.

It takes years and millions of dollars to develop renewable or alternative power sources, and we need electricity now for our homes, schools, clinics, fire stations, stores, and community buildings.

We encourage the State to adopt an energy policy--one that covers every region of the State with the goal of lowering or equalizing energy costs for all Alaskans.

The policy should address energy needed for electricity, heating and transportation. It should require or be supplemented with an energy plan for every region in Alaska with specific milestones to measure progress and for accountability.

We support establishing an Energy Department and a commitment of sufficient funds for the department to carry out the policy. We also support funding to develop the potential alternative and renewable energy sources that were identified last year by the Alaska Energy Authority.

In Bristol Bay, we have geo-thermal, solar, wood, wind, tidal, and hydro resources that can be developed. Some of our residents and villages have taken the initiative to develop some of them to reduce their energy costs, and our utility companies are trying to secure funds to develop other energy sources on a larger scale.

At BBNA, we will operate the LIHEAP program under contract with the State this year. We want to make sure that every eligible resident in Bristol Bay gets the help they need and qualify for under the program.

It was disturbing to learn that only 15 percent of eligible families in our region were served last year. We can do better than that.

Our tribal TANF Program educates, assists and encourages clients to incorporate energy efficiency measures into their homes, such as installing CFL light bulbs, as a way to help clients meet their household budgets.

We also coordinate delivery of 100 gallons of free heating fuel to those in Bristol Bay who want to participate in the CITGO program. While some may choose not to participate, the free fuel program offers relief to the majority of our elders and village residents and we hope CITGO continues its fuel program again this year.

Last Fall, our Board established a new Tribal Energy Program. Generally, the program is charged assisting

and providing information to tribes on energy projects, initiatives and opportunities. The funds to operate the program are limited by our BIA compact but we are now seeking additional funds for full program operation on a regional basis.

BBNA is united in partnership with other Bristol Bay organizations to address the energy issue in a coordinated way.

In April 2008, a few months before the fuel crisis hit us, the Bristol Bay Partners adopted our first Energy Policy and Crisis Recovery Plan. The Recovery Plan is focused on ways of reducing the costs of electricity.

Our Plan recommends building interties between our villages. Economies of scale tell us that it's cheaper to have one power plant generating enough electricity for 2 or 3 villages than it is to have smaller power plants in each of those villages.

Finally, I have 4½ recommendations that I hope you will consider:

1. Adopt a State Energy Policy and establish an Energy Department to carry it out.

2. Hold a hearing about the pricing of the transportation and delivery of fuel products to western Alaska. ~~As I understand it, Enstar buys natural gas from producers then transports and delivers it to Anchorage consumers at a cost regulated by the RCA. How is that any different than Delta Western and Crowley buying gasoline, diesel, and heating fuel from producers and transporting and delivering them to rural consumers?~~

3. TAKE ACTION ON SENATOR HOFFMAN'S BILL TO CAP FUEL PRICES FOR RURAL ALASKANS.

I appreciate this opportunity to testify. Thank you.

4. TAKE ACTION ON THE 4 REMAINING AFN ENERGY PRIORITIES.

Good afternoon - Thank you for this opportunity to testify on Energy issues in Rural Alaska. My name is Robert Keith. I am President of the Native Village of Elim and Chairman of Kawerak Inc., the tribally authorized non-profit regional consortium serving the Bering Straits region of Alaska.

Like the rest of rural Alaska, our region has experienced ever-escalating costs for fuel and energy production. Over the past five years, we estimate energy costs have doubled, if not tripled, in most of our villages. Currently fuel prices in the Bering Straits Region range from $5-$8 a gallon. Over the long term, we see fuel prices only going up. We need to develop other, low cost means of generating energy in Rural Alaska. In light of this, we recommend the State of Alaska undertake the following:

1) Expand and continue the P.C.E. Program to offset the high cost of electricity until such time as alternative energy is developed ~~to offset the cost~~ in Rural Alaska;

2) explore and set in place means to assist rural communities to purchase fuel when the price is low, as opposed to the summer high;

3) explore and set in place means to ~~maximize~~ reduce the cost of transporting fuel to rural Alaska;

4) should the State of Alaska make additional resources available to homeowners for energy assistance, we recommend that the state issue energy vouchers similar to the CITGO model as opposed to checks;

5) establish a state office to provide technical expertise in planning, installing, implementing and managing alternative energy technology - we can't afford to constantly recreate the wheel - or make mistakes along the way;

6) ~~[illegible]~~ create a state clearinghouse on alternative energy approaches and technology in terms of what works in the arctic, ease of operation, cost of equipment, maintenance and upkeep;

7) develop plans, material lists and provide low interest loans to enable rural Alaskans to install proven alternative Energy technology in their homes;

8) Develop a long term alternative energy plan ~~[illegible]~~ for the State of Alaska to lessen our dependence on fossil fuels; and

9) Appropriate dedicated alternative energy funds such that we can implement and achieve all of the above!

Qwianna!

INSIDE PASSAGE ELECTRIC COOPERATIVE, INC.
Testimony before the House Energy Committee
October 23, 2009

IPEC has actively pursued reduced and stable priced electric rates on behalf of its member owners for many years. The high and volatile price of diesel has and will continue to be a detriment to the villages we serve by limiting their economic development opportunities and sustainability enjoyed by the urban areas. In 2008, IPEC spent a total of $2,492,881 on fuel for electrical generation which consumed 687,854 gallons of fossil fuel. One of our biggest challenges is the fact we maintain four different power plants that run independently from each other and are not connected to a power grid.

IPEC has adopted an Energy Plan to become diesel independent by 2015. In order to accomplish this goal we have outlined the following plan for each of our service areas:

Angoon

IPEC, Southeast Conference, the Alaska Energy Authority, the City of Angoon, Representative Bill Thomas, Senator Albert Kookesh, and residents of Angoon are seeking common ground to work together to build the Thayer Creek Hydro Project. Kootznoowoo has the rights to develop the project, and IPEC is the certificated and regulated electric provider for Angoon. It is conceived that IPEC will buy power from Kootznoowoo when the project is built as long as it is cheaper than diesel-generated power. This project would eliminate approximately 143,108 gallons of fossil fuel on a yearly basis.

Hoonah

IPEC had no choice but to abandon its decade long effort to secure funding for the Hoonah-Juneau intertie after the price of submarine cable construction put the project at up to $45 million. Submarine cable is expensive and risky, and the section of Chatham Strait we would need to cross was very deep, the deepest the cable manufacturer had ever attempted.

The new direction for lower cost renewable power for Hoonah is two-fold. First, we are working with AEA to develop two small hydro projects for Hoonah which would displace up to 70% of Hoonah's diesel-generation which is approximately 348,704 gallons annually. Second, IPEC and Sealaska, with the help of AEA, have submitted a grant to study the geothermal generation potential of a site at the head of Tenakee Inlet, known as site SE-3. Grant awards

are expected to be announced in November, and exploration activities will begin next spring if the grant proposal bears fruit.

IPEC is also hoping to work with the other communities of Chichagof Island to build roads and a communication/electric transmission grid to serve all communities. This idea is in its infant stages, but would solve many problems for the island residents, including access to healthcare facilities, an airstrip, better and more transportation options, and improved communication services.

Kake

IPEC is working with the Alaska Energy Authority, Southeast Conference, the City of Kake, the State DOT, and SEAPA to build a road/intertie project between Kake and Petersburg. The intertie would allow IPEC to buy hydro power from the SEAPA, which is the only existing power purchase vendor for Kake today. Although progress seems slow, we were able to secure grant funding from the State Renewable Energy Fund to conduct the environmental review and final design work. This project will eliminate approximately 196,042 gallons of fossil fuel annually.

Chilkat Valley/Klukwan

IPEC is working with legal counsel to pursue purchase of the 10 Mile Hydro Project. These negotiations are preliminary and confidential. This service area also has approximately $6.7 million of debt associated with underground services that were installed at the time of electrification.

IPEC has pursued debt relief in the past but has been unsuccessful. An advantage of relieving this debt is immediate rate reductions for all IPEC customers and relatively low cost compared to construction costs.

IPEC's Rates

According to the State's Power Cost Equalization Statistical Report, IPEC's average residential rate for the period 7/1/2007 – 6/30/2008 was $.5196 per kWh. According to IPEC's calendar year statistics for the year ended 12/31/2008 IPEC's average cost to produce and sell a kWh was $.5351. In 2008, IPEC's fuel component climbed to $.2618/kWh, up from $.2039 in 2007 and $.1998 in 2006. This number would have been higher, but we buy hydro power from two vendors for Chilkat Valley and Klukwan.

Last year was an especially tough year for IPEC's members, but the PCE program paid about $.3252/kWh up to 500 kWh for residential accounts, with a net cost per kWh of $.1944/kWh. The PCE program is a big help to residential customers, but does not help schools, businesses, or government entities. Only about 30% of IPEC kWh sales receive the PCE subsidy, with non-residential entities subject to the full rate. Business planning is especially difficult when fuel price volatility leads to high and increasing electric rates. This underscores the need to bring lower cost, stable-priced power to rural Southeast Alaska. Many residents and businesses have already left, leaving more of a rate burden on those who remain.

How can the State of Alaska help?

1) Fully fund and consider expanding the Power Cost Equalization program. While rural residents are extremely appreciative of the PCE program, it encourages extreme conservation and limits the utility's economies of scale. Indeed, many residents use only one light in the house during the dark winter months in order to stay under the 500 kWh limit – this is considered by some to be a quality of life issue.

   The PCE program does not help businesses, schools, churches, or other non-residential services. These types of customers exist within stringent budget constraints, and when fuel prices increase electric rates must also increase. In the case of a business, they must increase retail prices in order to cover increasing electric costs, which makes business planning very difficult, and rural costs of living less affordable. In the case of a school, student programs or staff positions must be cut in order to cover increasing electric costs. It is easy to see how increasing costs of diesel-generated electricity due to volatile fuel prices directly impact the lives and costs of living in rural areas dependent on diesel. The fuel price volatility of 2008 was a lesson in vulnerability for diesel-dependent communities and the utilities that serve them.
2) Provide a grant program for debt relief. IPEC sought debt relief for about 10 years from both the State and Federal appropriation. We were finally successful in receiving $2 million through a State appropriation in 2006, but it would have saved a lot of time and utility resources if a State grant program for debt relief was available.
3) Provide additional funding for the Renewable Energy Fund Grant program. Most rural construction projects are very expensive. The REF is a great program, but it currently has dollar caps on projects. Many projects will require additional grant funds above the caps to be economic.
4) In Southeast, fund power projects for the benefit of regional residents and businesses. Excess renewable energy can be used to attract new industry to create jobs for our residents. Southeast needs jobs to boost local economies. Alaskans first!
5) Support Sealaska's land bill currently before Congress. Many of our rural communities have suffered due to lost jobs in the timber industry, and many residents have moved to urban areas in search of employment. Fewer residents in a community make per unit electric costs higher due to negative economies of scale. It is our hope that the passing of Sealaska's land bill will revive Southeast's timber industry, thereby boosting local economies and bringing people back to rural communities.

Alaska Legislature
House Special Committee on Energy

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AGENDA

Tuesday, November 17, 2009
3:00 – 5:00 p.m.
Rep. Charisse Millett, Chair

1) Presentation on the House Energy Committee Stakeholders Draft Legislation. Bill Popp, President & CEO, Anchorage Economic Development Corporation and Chris Rose, Executive Director, REAP

2) Testimony on a statewide energy plan by members of the Alaska Conference of Mayors.

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Energy Policy for Alaska

Presented by:
Chris Rose, Renewable Energy Alaska Project
Bill Popp, Anchorage Economic Development Corporation
The House Energy Committee
November 17, 2009

The Stakeholder Advisory Panel

- Rep. Bryce Edgmon & Rep. Charisse Millett, House Energy Committee Co-Chairs
- Adam Berg, Jeff Turner & Larry Persily, Legislative Staff
- Gwen Holdmann, Alaska Center for Energy & Power
- Robert Venables, Southeast Conference
- Scott Goldsmith, ISER
- Jason Brune, RDC
- John Davies, Alaska Cold Climate Housing Research Center
- Ralph Anderson, Bristol Bay Native Association
- Bill Popp, AEDC
- Bob Pawlowski, Denali Commission
- Denali Daniels, Denali Commission
- Caitlin Higgins, Alaska Conservation Alliance
- Stacy Schubert, Municipality of Anchorage
- Marilyn Leland, Alaska Power Authority
- Meera Kohler, Alaska Village Electric Cooperative
- Ron Miller, Energy Consultant
- Chris Rose, REAP

The Purpose

- To develop a statewide energy policy as the basis for a long-term vision to address Alaska's energy challenges and opportunities
- Through adopted policy, align state government in a unified set of strategic goals for the State of Alaska
- Lead to the development of a comprehensive energy plan to achieve the strategic goals of the State of Alaska

The Key Steps

1. **Establish the Energy Policy**
2. **Develop Strategic Goals**
3. **Create the Plan to Achieve the Goals**
4. **Implement Programs and Projects**

Principles Guiding the Process

- The future success of Alaska's statewide economy is tied to available, reliable, and affordable energy for:
  - Residential users
  - Commercial users
  - Industrial users
- Worldwide supply and demand for fossil fuels and concerns about global climate change will affect the price of fossil fuels in the future

The Starting Point of the Policy

- Tri-Borough Commission Energy Policy
  - Matanuska-Susitna Borough Mayor Curt Menard
  - Municipality of Anchorage Mayor Mark Begich
  - Kenai Peninsula Borough Mayor John Williams
- Established a diverse 13 member task force to develop proposed energy policy in October, 2007
- Adopted Southcentral region energy policy proposal February 7, 2008
- **The House Energy Policy Stakeholders Advisory Panel agreed that many of the principles in this policy could be applied statewide**

The Fundamentals of the Policy

- Promotes energy efficiency and conservation
- Promotes development of renewable and non-renewable energy resources
- Promotes economic development through cost-effective, long-term sources of energy for communities statewide
- Supports energy research, education, and workforce development
- Supports coordination of governmental functions and promotes streamlining of regulatory processes, avoiding duplication of effort, and overall coordination of effort by all levels of government

The Key Steps Going Forward

1. **Establish the Energy Policy**
2. **Develop Strategic Goals**
3. **Adopt the Plans to Achieve the Goals**
4. **Implement Programs and Projects**


Thank You!

PROPOSED ENERGY POLICY DRAFT WITH LANGUAGE CHANGES

"An Act declaring a state energy policy."

Section 1. As 44.99 is amended by adding a new section to read:

Section 44.99.115. Declaration of state energy policy. The State of Alaska recognizes that the state's economic prosperity is dependent on available, reliable, and affordable residential, commercial and industrial energy to supply the state's electric, heat and transportation needs. The state also recognizes that worldwide supply and demand for fossil fuels and concerns about global climate change will likely increase the price of fossil fuels consumed by Alaskans and exported from the state to other markets. The state also recognizes the immense diversity of the state's geography, cultures, and resource availability in establishing this A ct. Therefore, it is the policy of the state to

1) Institute a comprehensive and coordinated approach to supporting energy efficiency and conservation by

   A) Establishing statewide energy efficiency codes for new and renovated residential, commercial, and public buildings;
   B) Decreasing public building energy consumption through conservation measures and energy-efficient technologies; and
   C) Initiating and supporting a program to educate state residents on the benefits of energy efficiency and conservation, including dissemination of information on state and federal programs that offer incentives for energy efficiency;

2) Encourage economic development by

   A) Promoting the development of renewable energy resources, including geothermal, wind, solar, hydroelectric, hydrokinetic, tidal, and biomass energy, for use by Alaskans and for export;
   B) Promoting the development, transport, and efficient use of nonrenewable enrgy resources, including natural gas, coal, oil, gas hydrates, heavy oil, and nuclear energy, for use by Alaskans and for export;
   C) Working to identify and assist with development of the most cost-effective, innovative, long-term sources of energy for regions and communities statewide;
   D) Creating and maintaining incentives that provide long-term certainty and encourage private sector development of the state's energy resources;

3) Support energy research, education, and workforce development by

A) Investing in training and education programs that address energy conservation, efficiency and availability, including programs addressing workforce development and workforce transition;
B) Investing in applied energy research and development of emerging technologies, including university programs, to achieve reductions in energy costs and stimulate industry investment in the state;

4) Coordinate governmental functions by

A) Reviewing and streamlining guiding regulatory processes and balancing the economic costs of review with the level of review necessary to protect the public interest;
B) Coordinating the state's energy-related functions through designated Statea Energy Office to avoid fragmenting and duplication, and to increase effectiveness;
C) Actively collaborating with federal agencies to achieve the state's energy goals and to meet national emission and renewable energy and production targets.

Alaska Legislature
House Special Committee on Energy

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AGENDA

Friday, December 11, 2009
10:00 a.m. – 2:00 p.m.
Rep. Charisse Millett, Chair

1) Presentation on the State Energy Policy Bill by Bill Popp and Caitlin Higgins

2) Presentation on the House Energy Committee's Omnibus Energy Bill by Ron Miller

3) Public Testimony

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26-LS1223\A
Kane
12/7/09

HOUSE BILL NO.

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-SIXTH LEGISLATURE - SECOND SESSION

BY

Introduced:
Referred:

A BILL

FOR AN ACT ENTITLED

"An Act relating to energy; relating to the board of directors of the Alaska Energy Authority; amending the size and composition of the board of directors of the Alaska Energy Authority by removing the members of the Alaska Industrial Development and Export Authority as directors of the Alaska Energy Authority and providing for designation or appointment of other members; amending the quorum requirement for the board of directors of the Alaska Energy Authority; and relating to nuclear waste material."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

*** Section 1.** AS 14.07.020(a) is amended to read:

(a) The department shall

(1) exercise general supervision over the public schools of the state except the University of Alaska;

(2) study the conditions and needs of the public schools of the state,

adopt or recommend plans, administer and evaluate grants to improve school performance awarded under AS 14.03.125, and adopt regulations for the improvement of the public schools;

(3) provide advisory and consultative services to all public school governing bodies and personnel;

(4) prescribe by regulation a minimum course of study for the public schools; the regulations must provide that, if a course in American Sign Language is given, the course shall be given credit as a course in a foreign language;

(5) establish, in coordination with the Department of Health and Social Services, a program for the continuing education of children who are held in detention facilities in the state during the period of detention;

(6) accredit those public schools that meet accreditation standards prescribed by regulation by the department; these regulations shall be adopted by the department and presented to the legislature during the first 10 days of any regular session, and become effective 45 days after presentation or at the end of the session, whichever is earlier, unless disapproved by a resolution concurred in by a majority of the members of each house;

(7) prescribe by regulation, after consultation with the state fire marshal and the state sanitarian, standards that will assure healthful**, energy efficient,** and safe conditions in the public and private schools of the state, including a requirement of physical examinations and immunizations in pre-elementary schools; the standards for private schools may not be more stringent than those for public schools; **energy use standards established under this paragraph shall meet or exceed the requirements of the most recently published version of the ANSI/ASHRAE/IESNA Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings, as published by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers;**

(8) exercise general supervision over pre-elementary schools that receive direct state or federal funding;

(9) exercise general supervision over elementary and secondary correspondence study programs offered by municipal school districts or regional

educational attendance areas; the department may also offer and make available to any Alaskan through a centralized office a correspondence study program;

(10) accredit private schools that request accreditation and that meet accreditation standards prescribed by regulation by the department; nothing in this paragraph authorizes the department to require religious or other private schools to be licensed;

(11) review plans for construction of new public elementary and secondary schools and for additions to and major rehabilitation of existing public elementary and secondary schools and, in accordance with regulations adopted by the department, determine and approve the extent of eligibility for state aid of a school construction or major maintenance project; for the purposes of this paragraph, "plans" include educational specifications, schematic designs, and final contract documents;

(12) provide educational opportunities in the areas of vocational education and training, and basic education to individuals over 16 years of age who are no longer attending school;

(13) administer the grants awarded under AS 14.11;

(14) establish, in coordination with the Department of Public Safety, a school bus driver training course;

(15) require the reporting of information relating to school disciplinary and safety programs under AS 14.33.120 and of incidents of disruptive or violent behavior;

(16) establish by regulation criteria, based on low student performance, under which the department may intervene in a school district to improve instructional practices, as described in AS 14.07.030(14) or (15); the regulations must include

(A) a notice provision that alerts the district to the deficiencies and the instructional practice changes proposed by the department;

(B) an end date for departmental intervention, as described in AS 14.07.030(14)(A) and (B) and (15), after the district demonstrates three consecutive years of improvement consisting of not less than two percent increases in student proficiency on standards-based assessments in math, reading, and writing as provided in AS 14.03.123(f)(2)(A); and

(C) a process for districts to petition the department for continuing or discontinuing the department's intervention;

(17) notify the legislative committees having jurisdiction over education before intervening in a school district under AS 14.07.030(14) or redirecting public school funding under AS 14.07.030(15).

* **Sec. 2.** AS 14.07.020 is amended by adding a new subsection to read:

(d) In reviewing plans under (a)(11) of this section, the department shall review

(1) the construction, rehabilitation, and siting plans to ensure that the proposed construction or rehabilitation achieves the maximum efficiency in energy use by the subject school; and

(2) the siting plans for new school construction to determine the potential use of cogeneration capabilities of local power plants to provide heat to the newly constructed school.

* **Sec. 3.** AS 18.45.020 is amended to read:

Sec. 18.45.020. United States licenses or permits required. A person may not manufacture, construct, produce, transfer, acquire, or possess a special nuclear material **facility**, by-product material **facility**, production facility, or utilization facility, or act as an operator of a production **facility** or utilization facility, wholly within the state without first obtaining a license or permit for the activity in which the person proposes to engage from the Nuclear Regulatory Commission if the commission requires a license or permit to be obtained by persons proposing to engage in the activities.

* **Sec. 4.** AS 18.45.025 is amended to read:

Sec. 18.45.025. Facilities siting permit required. (a) A person may not construct a nuclear fuel production facility, **nuclear utilization or** utilization facility, reprocessing facility, or nuclear waste disposal facility in the state without first obtaining a permit from the Department of Environmental Conservation to construct the facility on land designated by the legislature under (b) of this section.

(b) The legislature shall designate by law the land in the state on which a nuclear fuel production **facility**, nuclear utilization **facility**, [NUCLEAR] reprocessing

facility, or nuclear waste disposal facility may be located. In designating the land in the state on which

(1) a nuclear utilization facility or utilization facility may be located, the legislature shall act in the interest of regulating the economics of nuclear energy;

(2) a nuclear fuel production **facility**, [NUCLEAR UTILIZATION,] nuclear reprocessing **facility**, or nuclear waste disposal facility may be located, the legislature shall act to protect the public health and safety.

(c) The Department of Environmental Conservation shall adopt regulations governing the issuance of permits required by (a) of this section. [HOWEVER, A PERMIT MAY NOT BE ISSUED UNTIL

(1) REPEALED

(2) THE MUNICIPALITY WITH JURISDICTION OVER THE PROPOSED FACILITY SITE HAS APPROVED THE PERMIT; AND

(3) REPEALED

(4) THE GOVERNOR HAS APPROVED THE PERMIT.]

* **Sec. 5.** AS 18.56.090(c) is amended to read:

(c) The corporation may not provide money or another form of housing assistance authorized by (b) of this section unless the board identifies in the corporation's proposed operating budget the money available to the corporation, including the corporation's own assets, for the proposed housing assistance. The provisions of this subsection apply to

(1) subsidies authorized by the home ownership assistance program under AS 18.56.091;

(2) mortgage subsidies authorized by the graduated payment mortgage loan program under AS 18.56.098(c);

(3) interest rate deductions authorized in the housing development fund under AS 18.56.100(b)(1) and (*l*);

(4) money or another form of housing assistance payable from corporate earnings or assets of the corporation, other than money appropriated to the corporation for the specific purpose, for a program set out in **AS 18.56.400 - 18.56.810**

[AS 18.56.400 - 18.56.850].

*** Sec. 6.** AS 18.65.340(f)(1) is amended to read:

(1) "department" means a department of state government listed in **AS 44.17.005(2) - (16)** [AS 44.17.005(2) - (15)];

*** Sec. 7.** AS 22.05.025(a) is amended to read:

(a) The supreme court has authority over

(1) all matters relating to the

(A) maintenance, occupancy, and operation of all court facilities;

(B) rent or lease of facilities for court system purposes, subject to AS 36.30.080(c); and

(C) acquisition of facilities for court system purposes by lease-purchase or lease-financing agreements, subject to AS 36.30.085; and

(2) the planning, design, and construction of court facilities but, in the exercise of its authority under this paragraph, the supreme court shall cooperate and coordinate with the Department of Transportation and Public Facilities so that court facility construction projects are carried out in accordance with the statutes and regulations applicable to state public works projects **and comply with the state energy use reduction plan under AS 44.42.067**.

*** Sec. 8.** AS 35.10 is amended by adding a new section to article 1 to read:

Sec. 35.10.085. Alternative energy for public works. (a) When preparing and adopting plans and specifications and determining standards for the construction of a public work under AS 35.10.010, the department shall review the option of using a viable alternative energy system for heat or electrical power for the public work.

(b) If a viable alternative energy resource is available and can be used as a primary or secondary source of heat or electrical power or the department determines a viable alternative energy source will become available, a public work constructed under this chapter shall be constructed to accommodate or be compatible with the viable alternative energy system.

(c) In this section, "viable alternative energy system" means a system that uses a nonfossil fuel fired system for heat or electrical power that, if used over the course of

the life of the facility, will cost not more than a fossil fuel fired system to purchase, install, maintain, and operate and will have less measurable adverse effect on the environment than a fossil fuel fired system.

* **Sec. 9.** AS 37.07.062 is amended by adding a new subsection to read:

(d) In addition to the requirements of (a) of this section, if an agency is requesting an appropriation of $1,000,000 or more for capital improvements to an existing public facility, the agency must submit with the request for review by the legislature

(1) the most recent energy audit report as described in AS 44.42.065 for the public facility;

(2) a proposal for energy efficiency improvements for the public facility; and

(3) a cost-savings analysis for the proposed energy efficiency improvements for the public facility.

* **Sec. 10.** AS 39.50.200(b) is amended by adding a new paragraph to read:

(64) the board of directors of the Alaska Energy Authority (AS 44.83.030).

* **Sec. 11.** AS 41.41.010(b) is amended to read:

(b) The authority is a public corporation and an instrumentality of the state within the Department of **Energy** [REVENUE].

* **Sec. 12.** AS 42.45.045(d) is amended to read:

(d) The authority shall, in consultation with the advisory committee established under (i) of this section and the Department of Natural Resources,

(1) develop a methodology for determining the order of projects that may receive assistance, including separate requirements for grant eligibility, and adopt regulations identifying criteria to evaluate the benefit and feasibility of projects for which an applicant applies for support from the legislature, with the most weight being given to projects that serve any area in which the average cost of energy to each resident of the area exceeds the average cost to each resident of other areas of the state, and significant weight being given to a statewide balance of grant funds, [AND] to the amount of matching funds an applicant **has verified to the authority that are**

[IS ABLE TO MAKE] available **for a project, and to projects that are likely to have a financial benefit that exceeds the amount of grant funds received**;

(2) make recommendations to the legislature for renewable power production reimbursement grants; [AND]

(3) not later than 10 days after the first day of each regular legislative session, submit to the legislature a report summarizing and reviewing each grant application submitted under this section and a recommended priority for awarding grants**; and**

(4) require activity reports for each project funded at intervals determined by the authority.

*** Sec. 13.** AS 42.45.045 is amended by adding a new subsection to read:

(m) The authority shall enter into a contract or agreement with an economist or financial analyst with experience in the area of renewable energy for the economist to prepare a written evaluation for each project the authority recommends under (e) of this section and submit a report to the legislature detailing the results of the evaluation.

*** Sec. 14.** AS 42.45 is amended by adding a new section to read:

Article 7A. Emerging Energy Technology.

Sec. 42.45.375. Emerging energy technology fund. (a) The emerging energy technology fund is established. The fund consists of

(1) money appropriated to the fund by the legislature to provide grants and loans for energy projects; and

(2) gifts, bequests, contributions from other sources, and federal money appropriated to the fund.

(b) The fund is not a dedicated fund.

(c) The fund shall be administered by the interdisciplinary research unit of the arm of the College of Engineering and Mines of the University of Alaska known as the Alaska Center for Energy and Power, whose mission is to research energy sources and the way in which energy fits into the state's economic development. The annual costs of administering the fund for a given year may not exceed 20 percent of the total annual disbursements from the fund for grants and loans during that year. The Alaska Center for Energy and Power may contract for the investment of money appropriated

to the fund but not disbursed for a grant or loan. The Alaska Center for Energy and Power, in consultation with the advisory committee established under (f) of this section, may make grants or loans from the fund to eligible applicants for

(1) research, development, or demonstration projects designed to

(A) test new energy technologies or methods of conserving energy; or

(B) improve an existing energy technology; and

(2) applied research projects that employ energy technology with a reasonable expectation that the technology will be commercially viable in not more than five years.

(d) In making grants and loans under this section, the Alaska Center for Energy and Power, in consultation with the advisory committee established under (f) of this section, shall give priority to

(1) Alaska residents, associations, organizations, or institutions;

(2) projects that demonstrate partnership with the University of Alaska or another Alaska postsecondary institution; and

(3) projects supported by matching funds or in-kind partnerships.

(e) If the University of Alaska alters the status of the Alaska Center for Energy and Power, the president of the University of Alaska shall promptly notify the revisor of statutes and the presiding officer of each house of the state legislature of that change.

(f) An advisory committee is established and consists of five members. Each member of the committee shall have a degree in science or engineering and at least two years of experience working in the state. Members of the committee shall be appointed by the governor to staggered three-year terms. The committee consists of one representative of each of the following groups:

(1) a business or organization engaged in the renewable energy sector;

(2) a business or organization engaged in the fossil fuel energy sector;

(3) the Alaska Power Association or an Alaska electric utility;

(4) the Denali Commission established under P.L. 105-277 and mentioned in a note at 42 U.S.C. 3121;

(5) a department or agency of the state.

(g) A member of the advisory committee appointed under (f) of this section serves without compensation but is entitled to per diem and travel expenses as provided in AS 39.20.180.

(h) A member of the advisory committee or a business or organization to which the advisory member belongs may not receive a loan or grant from the fund during that member's term on the advisory committee or for a period of one year after the termination of the member's service on the advisory committee.

(i) In this section,

(1) "eligible applicant" means

(A) an electric utility holding a certificate of public convenience and necessity under AS 42.05;

(B) an independent power producer;

(C) a local government, quasi-governmental entity, or other governmental entity, including a tribal council or housing authority;

(D) a business holding an Alaska business license; or

(E) a nonprofit organization.

(2) "energy technology" means technology that promotes, enhances, or expands the diversity of available energy supply sources or means of transmission, increases energy efficiency, or reduces negative energy-related environmental effects; "energy technology" includes technology related to renewable sources of energy, conservation of energy, enabling technologies, efficient and effective use of hydrocarbons, and integrated energy systems;

(3) "fund" means the emerging energy technology fund.

* **Sec. 15.** AS 42.45.990(4) is amended to read:

(4) "power project" or "project" means a plant, works, system, or facility, together with related or necessary facilities and appurtenances, including a divided or undivided interest in or a right to the capacity of a power project or project, that is used or is useful for the purpose of

(A) electrical or thermal energy production [OTHER THAN NUCLEAR ENERGY PRODUCTION];

(B) waste energy utilization and energy conservation; or

(C) transmission, purchase, sale, exchange, and interchange of electrical or thermal energy, including district heating or interties;

* **Sec. 16.** AS 43.20.021(d) is amended to read:

(d) Where a credit allowed under the Internal Revenue Code is also allowed in computing Alaska income tax, it is limited to 18 percent for corporations of the amount of credit determined for federal income tax purposes **that** [WHICH] is attributable to Alaska. This limitation does not apply to a special industrial incentive tax credit under AS 43.20.042 **or to a renewable energy production tax credit under AS 43.20.046**.

* **Sec. 17.** AS 43.20 is amended by adding a new section to article 1 to read:

Sec. 43.20.046. Renewable energy production tax credit. (a) An energy producer that produces renewable energy may claim a renewable energy production tax credit in the amount of 15 percent of the retail rate for each kilowatt-hour of electricity charged by the energy producer, as determined by the Regulatory Commission of Alaska; however, a tax credit may not be less than 2.1 cents for each kilowatt-hour of renewable energy produced or more than five cents for each kilowatt-hour of renewable energy produced.

(b) An energy producer may claim a renewable energy tax credit under this section for each kilowatt-hour of renewable energy produced or sold for each of the first five tax years after the date the capital investment used to produce renewable energy is placed into service if the energy producer sells all or part of the energy produced.

(c) A renewable energy tax credit under this section may be claimed only for a capital investment

(1) to produce renewable energy that is placed into service on or after July 1, 2010; or

(2) to expand production of renewable energy if the investment for production expansion is made on or after July 1, 2010.

(d) An unused renewable energy tax credit under this section may be carried forward and applied against the tax liability of the energy producer.

(e) A renewable energy tax credit provided under this section may be sold, assigned, exchanged, conveyed, or otherwise transferred, in whole or in part.

(f) A taxpayer acquiring a renewable energy tax credit under (a) or (e) of this section may use the tax credit or a portion of the tax credit to offset taxes imposed under this chapter. Any portion of the credit not used may be used at a later time or transferred under (e) of this section.

(g) A renewable energy tax credit acquired under (a) or (e) of this section, when combined with any state aid that the energy producer receives for the capital investment made to produce renewable energy for which the credit is acquired, may not exceed 10 percent of the energy producer's capital investment for production of renewable energy, aggregated over the five years within which the credit is allowed to be claimed under (b) of this section.

(h) An energy producer that claims a renewable energy tax credit under this section and that wishes to transfer the unused tax credit to a taxpayer under (e) of this section may apply to the department for a transferable tax credit certificate. An application under this subsection must be in a form prescribed by the department and must include supporting information and documentation that the department reasonably requires. The department shall grant or deny the tax credit certificate, or grant the tax credit certificate as to a lesser amount than that for which application is made and deny it as to the excess, not later than 120 days after it receives the application.

(i) An energy producer that uses a renewable energy production tax credit to offset the tax imposed by this chapter or transfers the credit under (e) of this section may not also claim the federal renewable energy credit under 26 U.S.C. 45, authorized by AS 43.20.021, for a capital investment associated with the production or expansion of renewable energy that generated the credit under this section.

(j) The department shall

(1) prescribe an application form for a tax credit under this section; and

(2) adopt regulations necessary for the administration of this section.

(k) In this section,

(1) "capital investment" means an expenditure made

(A) as a cash expenditure or binding payment agreement for real property or tangible personal property used in this state in the production of renewable energy; and

(B) for an asset first placed in service for the production of renewable energy in the state during or before the tax year in which the credit is claimed; in this subparagraph, "placed in service for the production of renewable energy in the state" means that the first use of the capital investment is in this state; if the property on which the claim of the credit is based has been used elsewhere in the tax year of acquisition and is brought to this state during that year or a subsequent year, the property does not qualify as a capital investment;

(2) "energy producer" means

(A) an electric utility or independent power producer holding a certificate of public convenience and necessity under AS 42.05; or

(B) an independent power producer producing more than 100 kilowatts of electricity from renewable energy;

(3) "renewable energy" means geothermal, solar, hydroelectric, wind, biomass, hydrokinetic or tidal, and wave energy.

* **Sec. 18.** AS 44.17.005 is amended to read:

Sec. 44.17.005. Offices and departments. There are in the state government the following principal offices and departments:

(1) Office of the Governor

(2) Department of Administration

(3) Department of Law

(4) Department of Revenue

(5) Department of Education and Early Development

(6) Department of Health and Social Services

(7) Department of Labor and Workforce Development

(8) Department of Commerce, Community, and Economic Development

(9) Department of Military and Veterans' Affairs

(10) Department of Natural Resources

(11) Department of Fish and Game

(12) Department of Public Safety

(13) Department of Transportation and Public Facilities

(14) Department of Environmental Conservation

(15) Department of Corrections

(16) Department of Energy.

* **Sec. 19.** AS 44 is amended by adding a new chapter to read:

Chapter 38. Department of Energy.

Sec. 44.38.010. Commissioner of energy. The principal executive officer of the Department of Energy is the commissioner of energy.

Sec. 44.38.020. Duties. The Department of Energy shall

(1) develop and administer a comprehensive energy plan for the state, addressing energy production, distribution, conservation, and consumption statewide;

(2) promote cost-effective energy efficiencies in construction, renovation, and maintenance of public buildings and commercial and residential structures, including the adoption and management of energy-efficiency standards;

(3) encourage the development of new technologies and alternative energy sources to reduce energy use and costs to consumers;

(4) lead the implementation of statewide energy strategies to ensure reliable, stable supplies of electricity, heating fuels, renewable and alternative energy, and other energy resources at reasonable costs to consumers;

(5) serve as the state's designated energy office for all United States Department of Energy funds.

Sec. 44.38.030. Home energy conservation and weatherization program. (a) The Department of Energy shall plan, study, implement, and assist programs for home energy conservation and weatherization, including, without limitation,

(1) a home energy loan program;

(2) a rural capital retrofit program; and

(3) an energy efficiency and weatherization program.

(b) In the development of a home energy conservation or weatherization

program under (a) of this section, the department may not consider the value of Alaska longevity bonus payments under AS 47.45 or permanent fund dividends under AS 43.23 in determining whether a person meets income guidelines established in regulation by the department for a state conservation or weatherization program or, to the extent permitted by federal law, a federal energy conservation or weatherization program.

* **Sec. 20.** AS 44.42.065 is amended to read:

Sec. 44.42.065. Energy use index database maintenance; energy audit [CONSERVATION OF ENERGY IN PUBLIC BUILDINGS]. (a) The department shall

(1) update the energy use index database established in AS 44.83.955 not later than December 31 of each year; and

(2) conduct [, AT LEAST ONCE EVERY SEVEN YEARS, PERFORM] an energy audit of each public **facility whenever, in updating the energy use index under (1) of this subsection, the department determines there is substantial energy inefficiency for the public facility** [BUILDING].

(b) The department shall include in each energy audit required by **(a)(2)** [(a)] of this section recommendations for corrective measures to improve the energy efficiency and to minimize the life-cycle cost of the public **facility** [BUILDING] surveyed. These measures may include (1) energy conservation measures, (2) measures involving solar technology and other **renewable** [ALTERNATIVE] energy systems, (3) energy management, and (4) maintenance and operating procedures and energy-related modifications. In recommending the corrective measures, the department shall give priority to changes in maintenance and operating procedures over measures requiring substantial structural modification or installation of equipment.

(c) In this section, "energy audit" means a determination of

(1) the energy consumption characteristics of a **public facility** [BUILDING], including the size, type, and rate of energy consumption of major energy-consuming systems of the **public facility** [BUILDING] and the climate characterizing the region where the **public facility** [BUILDING] is located; and

(2) a determination of the energy conservation and cost savings likely to result from appropriate energy-conserving maintenance and operating procedures and modifications, including the purchase and installation of energy-related fixtures.

* **Sec. 21.** AS 44.42.065 is amended by adding new subsections to read:

(d) The department shall submit to the legislature a report summarizing the energy audits conducted under this section not later than one year after the completion of an energy audit required under this section.

(e) In this section, "public facility" has the meaning given in AS 44.83.955.

* **Sec. 22.** AS 44.42 is amended by adding a new section to read:

Sec. 44.42.067. State energy use reduction plan and energy efficiency improvements. (a) The department shall prepare and adopt a state energy use reduction plan that will allow the state to achieve a reduction of energy consumption for state facilities, starting one year after the effective date of this section.

(b) The state energy use reduction plan prepared under (a) of this section must contain

(1) a plan to improve, to the extent feasible, the energy efficiency of all state facilities managed by the department;

(2) a requirement that new public facilities managed by the department be designed and constructed in accordance with applicable standards listed in the most recent addition of the International Energy Conservation Code; and

(3) a plan for recovery of costs of efficiency improvements to state facilities managed by the department, including lighting projects, that start after the effective date of this Act through energy cost savings over the 15-year period following completion of the project.

(c) In implementing the plan, the department may waive a requirement listed in (b)(2) of this section if the department makes a determination that a requirement is ineffective or inappropriate due to the climate conditions of the state.

(d) In implementing the plan, the department shall, if cost-effective, consider entering into performance energy contracts. In this subsection, "performance energy contract" means a contract for which payment is conditional on achieving contractually specified energy savings.

* **Sec. 23.** AS 44.83.020 is amended to read:

Sec. 44.83.020. Creation of authority. There is created the Alaska Energy Authority. The authority is a public corporation of the state in the Department of **Energy** [COMMERCE, COMMUNITY, AND ECONOMIC DEVELOPMENT] but with separate and independent legal existence.

* **Sec. 24.** AS 44.83.030 is amended to read:

Sec. 44.83.030. Membership of the authority. The directors of the **authority** [ALASKA ENERGY AUTHORITY] are

(1) the **commissioner of revenue to serve as an ex officio member;**

(2) the commissioner of energy to serve as an ex officio member;

(3) one other person appointed by the governor who serves as the head of a principal department of the executive branch to serve as an ex officio member; and

(4) four public members appointed by the governor to serve overlapping terms of two years [MEMBERS OF THE ALASKA INDUSTRIAL DEVELOPMENT AND EXPORT AUTHORITY].

* **Sec. 25.** AS 44.83.040(a) is amended to read:

(a) The chair and vice-chair of the **authority shall be elected by the directors of the authority** [ALASKA INDUSTRIAL DEVELOPMENT AND EXPORT AUTHORITY SHALL SERVE AS OFFICERS OF THE ALASKA ENERGY AUTHORITY]. The powers of the **authority** [ALASKA ENERGY AUTHORITY] are vested in the directors, and **four** [THREE] directors of the authority constitute a quorum. Action may be taken and motions and resolutions adopted by the **authority** [ALASKA ENERGY AUTHORITY] at a meeting by the affirmative vote of a majority of the directors. The directors of the **authority** [ALASKA ENERGY AUTHORITY] serve without compensation, but they shall receive the same travel pay and per diem as provided by law for board members under AS 39.20.180.

* **Sec. 26.** AS 44.83 is amended by adding a new section to read:

Sec. 44.83.955. Energy use index. (a) The authority shall

(1) develop an energy use index for public facilities to measure

baseline energy consumption;

(2) establish an energy use index database to include baseline energy use data for all public facilities evaluated in (1) of this subsection; and

(3) adopt regulations establishing the methodology to be used in determining the energy use index described in (1) of this subsection.

(b) In this section, "public facility" means a facility owned or controlled and held by the state for government or public use.

*** Sec. 27.** AS 44.83.990(6) is amended to read:

(6) "power project" or "project" means a plant, works, system, or facility, together with related or necessary facilities and appurtenances, including a divided or undivided interest in or a right to the capacity of a power project or project, that is used or is useful for the purpose of

(A) electrical or thermal energy production [OTHER THAN NUCLEAR ENERGY PRODUCTION];

(B) waste energy utilization and energy conservation; or

(C) transmission, purchase, sale, exchange, and interchange of electrical or thermal energy, including district heating or interties;

*** Sec. 28.** AS 45.88.010 is amended by adding a new subsection to read:

(e) The fund consists of

(1) money appropriated to the fund by the legislature;

(2) gifts, bequests, or contributions from other sources; and

(3) principal and interest payments or other income earned on loans or investments in the fund and appropriated to the fund.

*** Sec. 29.** AS 45.88.020(a) is amended to read:

(a) The department may

(1) make loans for the purchase, construction, and installation of alternative energy systems **that are located in the state**;

(2) adopt regulations necessary to carry out the provisions of AS 45.88.010 - 45.88.090, including regulations to establish reasonable fees for services provided and charges for collecting the fees;

(3) collect the fees and collection charges established under this

subsection.

* **Sec. 30.** AS 45.88.030 is amended by adding new subsections to read:

(f) A loan must be secured by a mortgage or other security instrument in the real property to be improved, and a lien on the improvements financed under AS 45.88.010.

(g) The interest rate

(1) may not exceed the maximum rate of eight percent a year and may not be less than five percent a year;

(2) shall be established by the department based on the bank prime rate listed in the Wall Street Journal or its successor during the previous quarter plus one percentage point, set to the nearest one-half point for loans made; and

(3) set for a quarter remains in effect until the department changes the rate.

* **Sec. 31.** AS 45.88.090(a) is amended to read:

(a) In AS 45.88.010 - 45.88.090, "alternative energy system"

(1) means a source of thermal, mechanical, or electrical energy **that** [WHICH] is not dependent on oil or gas or a nuclear fuel for the supply of energy for space heating and cooling, refrigeration and cold storage, electrical power, mechanical power, or the heating of water;

(2) includes

(A) an alternative energy property as defined by 26 U.S.C. 48(a)(3)(A) (Sec. 301, P.L. 95-618, Internal Revenue Code);

(B) a method of architectural design and construction which provides for the collection, storage, and use of direct radiation from the sun;

(C) a woodstove with a catalytic converter or a catalytic converter for a wood stove; [AND]

(D) a steam, hot water, or ducted hot air central heating system that uses wood or coal for fuel; **and**

(E) a high efficiency wood pellet stove;

(3) does not include

(A) a stove that uses only [WOOD,] coal, [OR] oil, **or**

unprocessed wood for fuel; or

(B) a fireplace or fireplace insert.

*** Sec. 32.** AS 46.11.900(1) is amended to read:

(1) "alternative energy system"

(A) means a source of thermal, mechanical, or electrical energy that **may be** [IS NOT] dependent on oil or gas or a nuclear fuel for the supply of energy for space heating and cooling, refrigeration and cold storage, electrical power, mechanical power, or the heating of water;

(B) includes

(i) an alternative energy property as defined by 26 U.S.C. 48(a)(3)(A); and

(ii) a method of architectural design and construction that provides for the collection, storage, and use of direct radiation from the sun;

*** Sec. 33.** AS 18.45.027; AS 18.56.850; AS 45.88.010(c), 45.88.030(e), and 45.88.040(a) are repealed.

*** Sec. 34.** AS 43.20.046 is repealed January 1, 2025.

*** Sec. 35.** The uncodified law of the State of Alaska is amended by adding a new section to read:

EXHAUSTION OF UNUSED RENEWABLE ENERGY PRODUCTION TAX CREDITS. Notwithstanding the repeal of AS 43.20.046 by sec. 34 of this Act, an unused portion of a tax credit acquired under AS 43.20.046(a) or (e), enacted by sec. 17 of this Act, may be carried forward until exhausted, except that the unused portion of the tax credit may not be carried forward to tax years beginning after December 31, 2025.

*** Sec. 36.** The uncodified law of the State of Alaska is amended by adding a new section to read:

ENERGY USE INDEX DATABASE. The Alaska Energy Authority shall establish the energy use index database described in AS 44.83.955, added by sec. 26 of this Act, not later than six months after the effective date of this Act.

*** Sec. 37.** The uncodified law of the State of Alaska is amended by adding a new section to read:

ENERGY AUDIT REPORT. Not later than January 31, 2011, the Department of Transportation and Public Facilities shall submit to the legislature a report summarizing the information gathered and recommendations made by the department related to the department's most recent energy audit conducted under AS 44.42.065, as amended by secs. 20 and 21 of this Act.

*** Sec. 38.** The uncodified law of the State of Alaska is amended by adding a new section to read:

INITIAL APPOINTMENT OF DIRECTORS. Notwithstanding the terms set in AS 44.83.030(4), enacted by sec. 24 of this Act, the governor shall make initial appointments so that two public directors of the Alaska Energy Authority shall be appointed to one-year terms and two shall be appointed to two-year terms.

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Kane
11/24/09

HOUSE BILL NO.

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-SIXTH LEGISLATURE - SECOND SESSION

BY

Introduced:
Referred:

A BILL

FOR AN ACT ENTITLED

"An Act declaring a state energy policy."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

*** Section 1.** The uncodified law of the State of Alaska is amended by adding a new section to read:

LEGISLATIVE INTENT. It is the intent of the legislature that

(1) the state achieve a 15 percent increase in energy efficiency on a per capita basis between 2010 and 2020;

(2) the state receive 50 percent of its electric generation from renewable energy sources by 2025;

(3) the state work to ensure a reliable in-state gas supply for residents of the state;

(4) the power project fund (AS 42.45.010) serve as the main source of state assistance for energy projects.

*** Sec. 2.** AS 44.99 is amended by adding a new section to read:

Sec. 44.99.115. Declaration of state energy policy. The State of Alaska

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recognizes that the state's economic prosperity is dependent on available, reliable, and affordable residential, commercial, and industrial energy to supply the state's electric, heating, and transportation needs. The state also recognizes that worldwide supply and demand for fossil fuels and concerns about global climate change will affect the price of fossil fuels consumed by Alaskans and exported from the state to other markets. In establishing a state energy policy, the state further recognizes the immense diversity of the state's geography, cultures, and resource availability. Therefore, it is the policy of the state to

(1) institute a comprehensive and coordinated approach to supporting energy efficiency and conservation by

(A) establishing statewide energy efficiency codes for new and renovated residential, commercial, and public buildings;

(B) decreasing public building energy consumption through conservation measures and energy-efficient technologies; and

(C) initiating and supporting a program to educate state residents on the benefits of energy efficiency and conservation, including dissemination of information on state and federal programs that reward energy efficiency;

(2) encourage economic development by

(A) promoting the development of renewable energy resources, including geothermal, wind, solar, hydroelectric, hydrokinetic, tidal, and biomass energy, for use by Alaskans and for export;

(B) promoting the development, transport, and efficient use of nonrenewable energy resources, including natural gas, coal, oil, gas hydrates, heavy oil, and nuclear energy, for use by Alaskans and for export;

(C) working to identify and assist with development of the most cost-effective, long-term sources of energy for each community statewide;

(D) creating and maintaining a state fiscal regime that encourages private sector development of the state's energy resources;

(3) support energy research, education, and workforce development by

investing in

(A) training and education programs that address energy conservation, efficiency, and availability, including programs that address workforce development and workforce transition; and

(B) applied energy research and development of emerging technologies, including university programs, to achieve reductions in state energy costs and stimulate industry investment in the state;

(4) coordinate governmental functions

(A) by reviewing and streamlining regulatory processes and balancing the economic costs of review with the level of review necessary to protect the public interest;

(B) using one office or agency, as may be specified by law, to serve as a clearinghouse in managing the state's energy-related functions to avoid fragmentation and duplication and to increase effectiveness;

(C) by actively collaborating with federal agencies to achieve the state's energy goals and to meet national emissions, renewable energy, and energy production targets.

Energy Policy for Alaska

Presented by:
Chris Rose, Renewable Energy Alaska Project
Bill Popp, Anchorage Economic Development Corporation
The House Energy Committee
November 17, 2009

The Stakeholder Advisory Panel

- Rep. Bryce Edgmon & Rep. Charisse Millett, House Energy Committee Co-Chairs
- Adam Berg, Jeff Turner & Larry Persily, Legislative Staff
- Gwen Holdmann, Alaska Center for Energy & Power
- Robert Venables, Southeast Conference
- Scott Goldsmith, ISER
- Jason Brune, RDC
- John Davies, Alaska Cold Climate Housing Research Center
- Ralph Anderson, Bristol Bay Native Association
- Bill Popp, AEDC
- Bob Pawlowski, Denali Commission
- Denali Daniels, Denali Commission
- Caitlin Higgins, Alaska Conservation Alliance
- Stacy Schubert, Municipality of Anchorage
- Marilyn Leland, Alaska Power Authority
- Meera Kohler, Alaska Village Electric Cooperative
- Ron Miller, Energy Consultant
- Chris Rose, REAP

The Purpose

- To develop a statewide energy policy as the basis for a long-term vision to address Alaska's energy challenges and opportunities
- Through adopted policy, align state government in a unified set of strategic goals for the State of Alaska
- Lead to the development of a comprehensive energy plan to achieve the strategic goals of the State of Alaska

The Key Steps

1. **Establish the Energy Policy**
2. **Develop Strategic Goals**
3. **Create the Plan to Achieve the Goals**
4. **Implement Programs and Projects**

Principles Guiding the Process

- The future success of Alaska's statewide economy is tied to available, reliable, and affordable energy for:
  - Residential users
  - Commercial users
  - Industrial users
- Worldwide supply and demand for fossil fuels and concerns about global climate change will affect the price of fossil fuels in the future

The Starting Point of the Policy

- Tri-Borough Commission Energy Policy
  - Matanuska-Susitna Borough Mayor Curt Menard
  - Municipality of Anchorage Mayor Mark Begich
  - Kenai Peninsula Borough Mayor John Williams
- Established a diverse 13 member task force to develop proposed energy policy in October, 2007
- Adopted Southcentral region energy policy proposal February 7, 2008
- **The House Energy Policy Stakeholders Advisory Panel agreed that many of the principles in this policy could be applied statewide**

The Fundamentals of the Policy

- Promotes energy efficiency and conservation
- Promotes development of renewable and non-renewable energy resources
- Promotes economic development through cost-effective, long-term sources of energy for communities statewide
- Supports energy research, education, and workforce development
- Supports coordination of governmental functions and promotes streamlining of regulatory processes, avoiding duplication of effort, and overall coordination of effort by all levels of government

The Key Steps Going Forward

1. **Establish the Energy Policy**
2. **Develop Strategic Goals**
3. **Adopt the Plans to Achieve the Goals**
4. **Implement Programs and Projects**


Thank You!

ALASKA POWER ASSOCIATION
R E S O L U T I O N

A Resolution Issuing an Urgent Legislative and Administrative Call to Action for an Energy Policy

The entire state of Alaska is facing an energy crisis. Alaska's economy was built on affordable energy. Communities statewide are faced with aging generation and transmission facilities. The unstable price and supply of fuel is increasingly impacting Alaskans everywhere.

Without leadership from policy makers Alaska's entire economy will crumble. Policy makers must adopt and implement a statewide energy policy that focuses on regional priorities, provides commitments to short-, mid-, and long-term generation and transmission facilities, and facilitates fuel development and storage infrastructure projects with financial commitments from the State.

A large hydro electric project, developed similar to the Bradley Lake hydro project, should be the primary long-term generation priority of the State of Alaska, since it will meet the needs of 75% of Alaska's population well into the future. Additionally, the State should develop and implement viable long-term generation options for Alaskans not served by the Railbelt system, such that affordable, reliable electricity is available to every Alaskan, regardless of where they might reside.

Finally, the State of Alaska must ensure that reliable and affordable fuel is available for power generation across the state. The State of Alaska must do more to encourage natural gas exploration in Cook Inlet; and should financially participate in building natural gas storage and pipeline infrastructure. The State should ensure that generation fuel for non-interconnected utilities is available at a cost per BTU comparable to the cost of Railbelt fuel sources.

Alaska Power Association urges the Legislature and Administration to make energy policy development the highest priority for the 2010 legislative session.

(Adopted Dec. 2009)

Members

Alaska Electric and Energy Co-op
Alaska Electric Light & Power
Alaska Power & Telephone
Alaska Railbelt Energy Authority JAA
Alaska Village Electric Cooperative
Anchorage Municipal Light & Power
Aurora Energy
Barrow Utilities & Electric Co-op
Chugach Electric Association
Copper Valley Electric Association
Copper Valley Telephone Co-op
Cordova Electric Cooperative
Doyon Utilities
City of Galena
Golden Valley Electric Association
Homer Electric Association
INN Electric Cooperative
Inside Passage Electric Co-op
Kodiak Electric Association
Kotzebue Electric Association
Matanuska Electric Association
McGrath Light and Power
Metlakatla Power & Light
Middle Kuskokwim Electric Co-op
Naknek Electric Association
Nome Joint Utility System
North Slope Borough
Nushagak Cooperative
OTZ Telephone Cooperative
City of Seward
Southeast Alaska Power Agency
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