

2-07-09

Alaska Energy

Authority

Statewide Energy

Report, Kotzebue

Testimony

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Statewide Energy Report, Kotzebue
Testimony</subject><comm>HENE26</comm></target>

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF WILDLIFE CONSERVATION

SARAH PALIN, GOVERNOR

Kotzebue Office:
P.O. Box 689
Kotzebue, AK 99752
PHONE: (907) 442-3420
FAX: (907) 442-2420

To: Jackie Hill
Representative Reggie Joule

From: Jim Dau

Subject: Impacts of high gasoline costs in Kotzebue Sound

Jackie and Reggie,

I apologize I will not be able to attend your meeting regarding impacts of high energy costs on residents of Kotzebue Sound. Here are my observations regarding what could be fuel-related effects of high gas prices in this region:

1. Since the late 1980s, I've flown 400-650 hrs each year, mostly within Unit 23 and mostly while conducting wildlife surveys for the Alaska Dept. of Fish and Game. In the 1990s, I rarely got out of range of snow machine tracks on my daily flights. For the past 3 or 4 years, it has been obvious that snow machine activity in this unit has substantially declined based on tracks and direct observations of hunters in the field. I now see few sno-go tracks beyond roughly 30 mi of individual villages where I used to encounter heavy sno-go trails.
2. For about 1 week each September, we collect blood samples and radio collar caribou at Onion Portage on the middle Kobuk River. In the past several years, there seems to have been a decrease in the number of boats hunting caribou in this area. I've been told that some hunters in the upper Kobuk villages have switched from using boats to hunt caribou to using 4-wheelers because the latter use less gas. I've also been told that hunters are pooling their money to purchase gas for extended boat hunts, and this is consistent with what we've observed on the river.
3. In the past, residents of Unit 23 were often reluctant to accept meat from visiting hunters who were interested primarily in trophy moose or caribou. For the past several years, it has seemed that local residents have been more willing to accept this meat. This may be partly attributable to high fuel costs making it more difficult for local people to get into the field, and also to educational efforts by local agencies targeting visiting hunters regarding proper care of meat.

Please contact me at 442-1711 or jim.dau@alaska.gov if you have additional question or need me to follow up on any of these points. Again, I apologize for not being able to attend the meeting to be available to answer questions.



MANIILAQ ASSOCIATION

February 6, 2009

Briefing Paper: Energy Crisis in Northwest Alaska

The objective of this briefing paper is to quantify the impact of the dramatic increase in energy costs to Maniilaq Association (Maniilaq). The recent increase in the cost of crude oil is affecting the entire nation and world but affects arctic regions of rural Alaska significantly more.

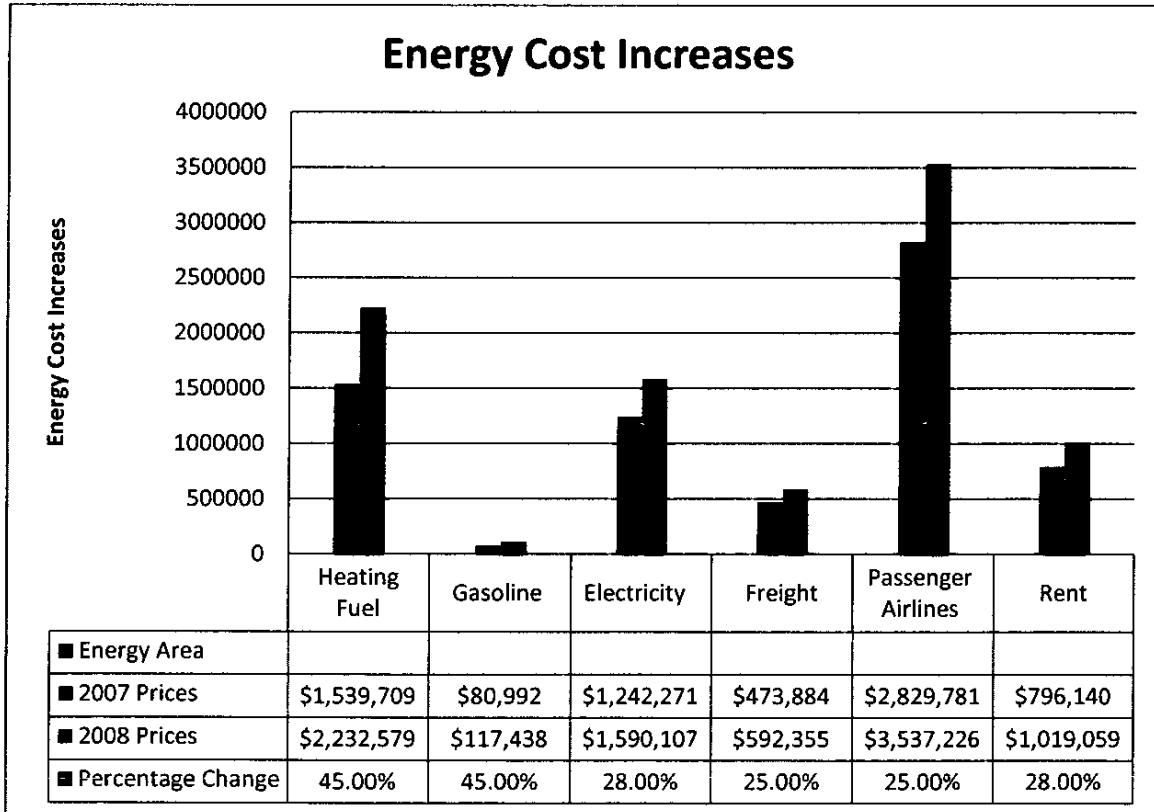
Maniilaq is a Tribal Non-Profit Health Care corporation with a staff of over 500 people located throughout our service area in Northwest Alaska. Maniilaq has been providing the healthcare, social services, and many Tribal services to the people of the region for over twenty years. Our service area is approximately the size of the state of Indiana with most of our service delivery area located just above the Arctic Circle in Northwest Alaska. Our service delivery area includes the hub village of Kotzebue and the surrounding villages of Ambler, Buckland, Deering, Kiana, Kivalina, Kobuk, Noorvik, Noatak, Point Hope, Selawik, and Shungnak. The population of the service area is approximately 8,500 people.

Since there are no roads to the hub village of Kotzebue from the State of Alaska road system and no roads from one village to another, transportation is limited to air travel and either snow machine, ATV, or boats when conditions permit.

The only alternative renewable energy source currently available locally is wind. It is used to generate approximately twenty percent of the electricity in Kotzebue and a small amount in Selawik. All other heating and energy generation is provided by fossil fuel systems. All of the oil and gasoline used in the region must be either barged in or flown in. The primary source of heat is #1 fuel oil. With the summer barge deliveries completed to Kotzebue, the cost of fuel increased by 45 percent and the cost of gasoline increased by 42%. Most electricity is generated from #2 heating oil. Based on fuel cost estimates, Kotzebue Electric Association is projecting an electric rate increase of 28 percent for the year.

Unfortunately, the impact of these increases is not limited to heat and electricity. We have endured rate increases in housing and commercial rental units from vendors to cover the costs of the energy increases. Similarly, we have experienced increases in airline fares, transportation costs, medical evacuation costs, food costs, and many other services areas affected by the increase in energy costs.

What this all boils down to is that we are managing a crisis situation in all aspects of our business expenses and service delivery to our clientele. If this was simply a retail business then we could simply adjust our prices and pass the costs on to the customers. However, since we are a tribal and medical service provider for this Region, there is not a simple answer to increasing the costs of our services. Finding a viable solution to the "Energy Disaster" in Rural Alaska is critical if we are to ensure the health and safety of our people.





Kotzebue, Ambler Ak 10 Feb 2009

Report from the NWAB Resource & Energy Coordinator.

The infrastructure of the Villages in the North West Arctic Borough is at this point in peril due to high fuel prices.

The two most affected areas are The City Governments and the Schools.

The City Governments can no longer continue to operate their water and sewer systems effectively and without basic services the people will move out.

Currently W&S in the Village of Ambler is \$ 140.00/month, however the actual cost is closer to \$ 450.00/month per Household.

The Schools are in the same shape with large areas to heat and high electric cost.

A good solution would be to allow the City and the Schools to co-generate electricity and set up solar-arrays and maybe wind turbines, co-generating power with the utility.

House bill HB-66 would allow Co-generation Kw for Kw . Creating credits to use in later billing cycles.

The School could then generate solar-electricity in the summer when it is closed and use the credits accumulated in the fall season.

This could offset a 3rd of their electric bill.

Extra energy could be used to heat buildings using dump loads, however this would only work if the School owned the alternate energy system.

It would be nice to combine this with a bill to create a curriculum, starting at high-school level and extending into College for a vocational education in different technologies.

This would get the whole Alaska Bush the skilled personal necessary for the future.

The High-school student could get hands on experience, installing their own solar systems.

This same scenario can apply to the City Governments also, to offset their electric usage on the W&S systems.

The same scenario could be done in all

HB-66 is important, we need it to pass, to be able to have leverage with the energy producers.

Sincerely

Ingemar Mathiasson

NWAB Resource & Energy Coordinator

907-445-2031 & 2102

IMathiasson@Nwabor.org

NORTHWEST ARCTIC BOROUGH

P.O. Box 1110

Kotzebue, Alaska 99752

(907) 442.2500 or (800) 478.1110

Fax: (907) 442.3740 or 2930

February 4, 2009

House Special Committee on Energy
Co-chair Bryce Edgmon & Co-chair Charisse Millett
State of Alaska – Capitol
Juneau, AK 99811

Dear Committee Members:

On behalf of the Northwest Arctic Borough, welcome to our borough and region. As you know, affordable energy is key to the quality of life in our borough and has become a high priority regionally as well as for each community. We welcome your assistance and resources to help our residents and communities during this crisis.

As background, the borough's economic development department in partnership with NANA and Maniilaq held a Regional Energy Summit during July 2008 to address the high cost of energy. This was a well attended summit and included many recommendations by communities to begin addressing needs with ideas that could work in our unique arctic environment. The summit report documents our average cost of heating oil is currently \$7.02/gallon, and average for gas is \$7.14/gallon, with the highest for heating oil at \$9.79/gallon and for gas at \$9.29/gallon both in Noatak.

The borough assists in comprehensive planning in the communities of Ambler, Buckland, Deering, Kiana, Kivalina, Kobuk, Kotzebue, Noatak, Noorvik, Selawik, and Shungnak. Attached for your review are goals, objectives and projects related to energy projects from the community plans. Although these plans were made prior to the energy crisis currently upon us, it shows the forward thinking of our villages to address already high costs of living and promote clean-renewable resources.

We look forward to working with you especially with the high needs of our borough with remote locations and poverty rates of families. Taikuu/thank you for your consideration.

Sincerely,



Ukallaysaaq Tom Okleasik, Planning Director

Cc: Mayor Siikauraq Whiting

NORTHWEST ARCTIC BOROUGH

P.O. Box 1110

Kotzebue, Alaska 99752

(907) 442.2500 or (800) 478.1110

Fax: (907) 442.3740 or 2930

Northwest Arctic Borough Comprehensive Plan – March 1993

Comprehensive Plan Mission Statement

The Northwest Arctic Borough will help the people of the Borough build a higher quality of life while promoting Inupiat cultural values and ways of life

Capital Projects and Infrastructure Issues and Objectives / Utilities Objectives

- Continue efforts to ensure full-funding for the Power Cost Equalization program
- Work to establish standards of basic levels of service for all utilities within the Borough
- Work with villages to develop strategies to upgrade all sub-standard utility systems within the Borough
- Coordinate with all community and regional utilities to ensure adequate funding and training for system operation maintenance and upkeep
- Work with villages, regional utilities and organizations and strive to find innovative and cost-effective alternatives and technologies to manage and administer public utilities

Borough Strategies – Power Generation

1. Agency and Program Coordination

Work with appropriate villages, utilities and the Alaska Energy Authority to gain support and funding for the following programs:

- Waste heat utilization
- Energy audits
- Bulk fuel purchasing and storage
- Alternative power generation technologies and fuel sources

2. Funding Assistance

Continue advocating for maintaining or increasing funding to the PCE program.

3. Village Assistance

Work with villages, AVEC and Kotzebue Electric Authority (KEA) to determine the feasibility of conducting village energy audits on power generation systems and public facilities, and consolidation, maintenance and management alternatives.

NORTHWEST ARCTIC BOROUGH

P.O. Box 1110

Kotzebue, Alaska 99752

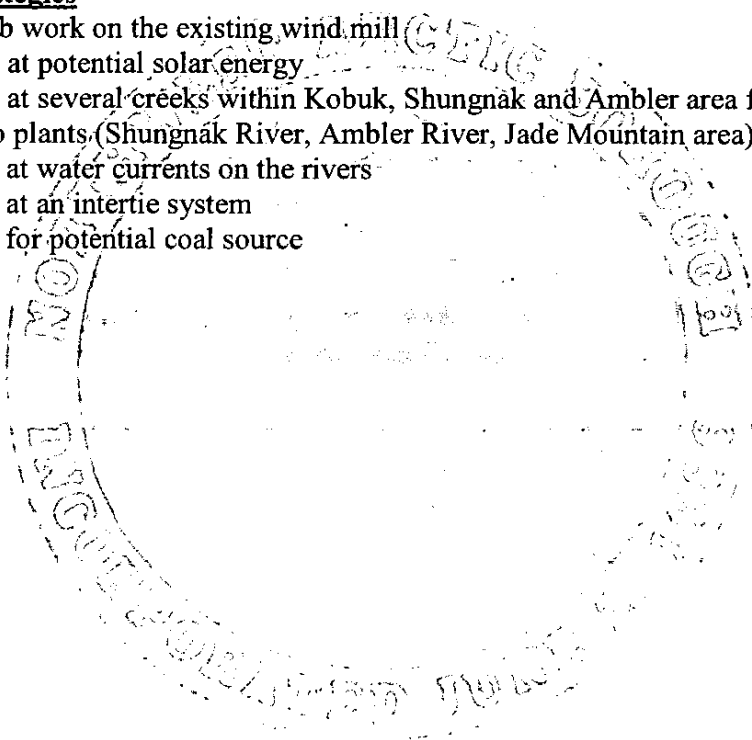
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Fax: (907) 442.3740 or 2930

Ambler Comprehensive Planning Meetings – April 14, 1999

Energy Vision: to provide a low cost energy source for the communities of Ambler, Shungnak and Kobuk

Energy Strategies

1. Rehab work on the existing wind mill
 2. Look at potential solar energy
 3. Look at several creeks within Kobuk, Shungnak and Ambler area for possible hydro plants (Shungnak River, Ambler River, Jade Mountain area)
 4. Look at water currents on the rivers
 5. Look at an intertie system
 6. Look for potential coal source
- 

NORTHWEST ARCTIC BOROUGH

P.O. Box 1110

Kotzebue, Alaska 99752

(907) 442.2500 or (800) 478.1110

Fax: (907) 442.3740 or 2930

Buckland Community Comprehensive Development Plan, 2006-2016

Buckland Development Goal 2:

To plan and develop safe utility infrastructure and services for our growing community while protecting our environment and ensuring sustainability

Objective 2.4: To upgrade the power and communication utility systems for community and economic growth with affordability and conservation

Recommendations to apply Buckland's community values to the objective and projects:

- ◇ Encourage our local students to seek higher education in utility systems so that we could have local people staff the operations and maintenance
- ◇ Share your knowledge and talents with outsiders when developing alternative energy

Projects in priority order:

1. Alternative energy development – e.g. wind, hydro, natural gas, etc.
2. Upgrade electrical utility and generators to meet the needs of a growing community and future housing growth
3. Cell phone communication system installed
4. Oil and gas development for local energy source – e.g. the Flats area

NORTHWEST ARCTIC BOROUGH

P.O. Box 1110

Kotzebue, Alaska 99752

(907) 442.2500 or (800) 478.1110

Fax: (907) 442.3740 or 2930

Deering Community Comprehensive Development Plan, 2006-2016

Deering Development Goal 3:

To improve, construct and maintain a healthy business and community environment with infrastructure for development and sustainability of employment and economy with equal opportunity

Objective 3.4: To pursue and encourage long-term, affordable and sustainable energy for supporting community development.

Recommendations to apply Deering's community values to the objective and projects:

- ◇ Community members remember to adjust to modern technology when researching, studying and implementing alternative energy such as solar power
- ◇ Work with the Northwest Arctic Borough for reducing fuel costs that uses our value of cooperation and interaction

Projects in priority order:

1. Alternative and renewable energy development (wind, solar, hydro, tidal, coal) – lower electric costs and add capacity for future community growth
2. Fuel conservation and efficiencies – electrical generators, home heating, vehicles
3. Improve fuel distribution services
4. Lower fuel prices by (a) working with legislative representatives for state funding, and (b) working with the Northwest Arctic Borough for cooperative buying to lower the cost per gallon

NORTHWEST ARCTIC BOROUGH

P.O. Box 1110

Kotzebue, Alaska 99752

(907) 442.2500 or (800) 478.1110

Fax: (907) 442.3740 or 2930

Kiana Community Comprehensive Development Plan, 2006-2016

Kiana Development Goal 3:

To build and strengthen the capacity of our community and to meet community needs

Objective 3.1: To develop infrastructure and economic growth for the betterment of our community

Recommendations to apply Kiana's community values to the objective and projects:

- ◇ Land, Water and Sewer, Natural Resources, Safety & Health, Subsistence Resources, Community Wellness

Projects in priority order:

Natural Resources Development

1. *Wind Turbine*

Housing

1. Need Housing
2. *Weatherization for homes*

Roads and Transportation

1. Fixing roads
2. Street Lights
3. *Inter-village connecting roads to and from Kotzebue*

NORTHWEST ARCTIC BOROUGH

P.O. Box 1110

Kotzebue, Alaska 99752

(907) 442.2500 or (800) 478.1110

Fax: (907) 442.3740 or 2930

Kobuk Community Comprehensive Development Plan, 2006-2011

Kobuk Development Goal 3:

To have improved sanitation and waste management, sustainable clean low cost energy and environmental responsible development.

Objective 3.1: To improve and expand on existing sanitation and waste management, while developing appropriate renewable energy such as wind and solar, and protecting our subsistence resources for sustainable, and clean and lower cost energy and environmentally responsible resource and economic development.

Recommendations to apply Kobuk's community values to the objective and projects:

- ◇ Land, Water and Sewer, Natural Resources, Safety & Health, Subsistence Resources, Community Wellness

Projects in priority order:

Natural Resource Development

1. No Hydro energy (community feels it would have negative effects on environment)
2. Local Mining experts and education (community wants to be properly educated on all issues dealing with mining so they can make informed decisions when it comes to the issue of mining that could have a negative impact on their community and environment)
3. Wind power energy
4. Solar energy

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P.O. Box 1110

Kotzebue, Alaska 99752

(907) 442.2500 or (800) 478.1110

Fax: (907) 442.3740 or 2930

City of Kotzebue – Comprehensive Plan, Adopted December 7, 2000

Vision - Kikiktagruk: A healthy, viable, proactive Inupiaq community of excellence.

3. Economic Development Goals

Alternative Energy: support alternative energy sources and types. Support KEA experimentation on alternative forms of energy and investigate ways the City can reduce fuel/energy costs [e.g. not heating the water lines so much in the system-insulating pipes and storage better, use waste heat, air circulation instead of heat as is used in the Devil's Lake intake system]

This will include active support of private industry efforts to find alternative or to reduce energy needs. KEA's efforts at wind, solar, waste heat, fuel cells and other such innovations will be fully supported. Likewise, insulation products such as those proposed by Tupiq Services will be supported. Improving insulation on water pipes, thus reducing the energy needs for heating water, is the type of activity directly under the City's control. This goal may include a combination of many sub-objectives and ongoing or continued studies and partnering actions.

Economic or Enterprise Development Plans / E. Utility Expansions

KEA has an ongoing wind energy system under development and testing. This is likely to expand from the current 10 windmills, to provide over 30% of the electric power for the community and reduce rates by 10% or more. Experimentation in use of waste heat, fuel cells, and solar panels are also planned by KEA. It is important that all energy alternatives to the expense of shipping fuel into Kotzebue continue to be explored.

It is important to consider locating fuel tanks, bulk storage, and distribution lines in a safer, more centralized location. The long-term plan could include moving the fuel storage to the old dump area south of the Airport [however, this area is currently being extensively monitored for hazardous materials or leakage]. Additionally, moving fuel storage would require trucking or a fuel line running from the new location, and fuel lines or trucking back into town. These alternatives may be less desirable than the present situation and require more study.

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P.O. Box 1110

Kotzebue, Alaska 99752

(907) 442.2500 or (800) 478.1110

Fax: (907) 442.3740 or 2930

Noatak Community Comprehensive Development Plan, 2006-2016

Noatak Development Goal 2:

To maintain and develop public infrastructure and services for accommodating community growth with maximum efficiencies, cost-effectiveness and environmental protection

Objective 2.3: To plan and coordinate with utility entities for maximizing efficiencies, reducing costs and promoting service stability and enhancements

Recommendations to apply Noatak's community values to the objective and projects:

- ✧ Involve our children in the community during planning and organizational meetings to help consider future growth and development
- ✧ Utilize partnerships among our government entities – e.g. tribe, state, federal agencies, etc.
- ✧ Encourage improvements to our utility services for lower energy costs and are environmentally friendly

Projects in priority order:

1. Repair and maintain the underground fuel line from the airport to the tanks
2. Build a new centrally located bulk fuel tank farm for improving safety, avoiding drainage into the river and providing savings in operational costs
3. Improve the AVEC power plant for reduced costs and less air pollution
4. Develop alternative energy to reduce electrical costs – wind, solar, hydro (river), geothermal, etc.

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P.O. Box 1110

Kotzebue, Alaska 99752

(907) 442.2500 or (800) 478.1110

Fax: (907) 442.3740 or 2930

Noorvik Community Comprehensive Development Plan, 2006-2016

Noorvik Development Goal 2:

To construct and improve community housing and infrastructure for supporting affordability, cost effectiveness and future growth

Objective 2.2: To build and utilize community infrastructure for increasing cost effectiveness, delivering quality services and enhancing future growth activities

Recommendations to apply Noorvik's community values to the objective and projects:

- ✧ By designing and constructing affordable and durable infrastructure with employment opportunities, community members can become self-reliant and self-supportive
- ✧ Consolidate all public and safety services/buildings in order to retain dedicated and safe workers, and save efforts

Projects in priority order:

1. Complete a Noorvik infrastructure plan – e.g. a need assessment for present and future community infrastructure and utilities with options for expansion and plan to combat erosion
2. Generator and jack hammer equipment for the grave yard
3. Acquire and operate community weather monitoring equipment – temperature, wind, solar, etc.
4. Alternative energy development and implementation to help produce electricity – e.g. wind generator and solar

NORTHWEST ARCTIC BOROUGH

P.O. Box 1110

Kotzebue, Alaska 99752

(907) 442.2500 or (800) 478.1110

Fax: (907) 442.3740 or 2930

Selawik Community Comprehensive Development Plan, 2007-2017

Selawik Development Goal 1:

To jointly and in unity develop community plans, funding and projects for cost-effective infrastructure and services that advance the well-being of residents

Objective 1.1: To improve our public utilities and services for promoting unity, strengthening local capacity and realizing cost savings

Recommendations to apply community values to the objective and projects:

- ✧ We need to meet together among the City and IRA to better our modern conveniences with our residents.
- ✧ Secure funding jointly and in unity to improve community sanitation systems and services.

Projects in priority order:

A. Governance Capacity Building and Public Services Enhancement

B. Utilities Management Enhancement

1. Solar energy development to lower electricity costs/rates
2. Street lights – current ones more efficient (smaller or more energy efficient light bulbs, co-power with solar panels or mini-wind mills, etc) and add new lights for safe walking/driving in the winter when dark
3. Develop a warranty clause for City/IRA construction contracts in Selawik before signing agreements with contractors to ensure the community is not left paying for faulty work and design mistakes – e.g. past construction of the water and sewer with contractor design and installation problems could have been avoided
4. Water and sewer operations improvements – e.g. one accounts receivable/payable, regular maintenance, regular collection of bills, etc.
5. See the wind generator savings in residential rates and bills – already installed but need to see the savings in implementation
6. Address the wind noise of the Selawik wind generators
7. GIS mapping of Selawik lands, roads, trails, camp sites, etc.

NORTHWEST ARCTIC BOROUGH

P.O. Box 1110

Kotzebue, Alaska 99752

(907) 442.2500 or (800) 478.1110

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Shungnak Community Comprehensive Development Plan, 2006-2016

Shungnak Development Goal 5:

To use our natural resources responsibly to create employment opportunities, stabilize our economy and lower our cost of living

Objective 5.1: To use natural resources responsibly and sustainably for lowering our cost of living and creating jobs.

Recommendations to apply community values to the objective and projects:

- ◇ Alternative energy sources
- ◇ Lower costs of fuel/groceries
- ◇ Feasibility studies to ensure good investment
- ◇ Small business support locally

Projects in priority order:

1. Alternative energy resources
2. Solar energy
3. Windmills for energy
4. Big game guidelines
5. Water source
6. Gravel source
7. Community gardening projects
8. Responsible mining
9. Community-industry partnership
10. Affordable electricity
11. Creating our own portable sawmill

AVCP Calista Region

Biennial Energy Plan 2008-2010

Nuvista Light and Electric Cooperative, Inc.

A regional wholesale cooperative participated by
Calista Corporation/AVCP/AVCPRHA/YKHC/AVEC/Chaninik Wind
Group/MKEC/Kwethluk Power/Lower Yukon Delta

Biennial Energy Plan 2008-2010

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Introduction

The 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 a development of a plan for sustainable energy for the region. It is the goal of the stakeholders to work collectively and combine the resources to achieve a sustainable energy plan. The Biennial Energy Plan will work towards identifying conventional and non-conventional renewable energy development; identify strategies for funding; and to identify deployments methods that will provide affordable and sustainable energy. The biennial energy planning process will identify action and activity plans for each strategy identified.

AVCP Calista Regional Energy Leadership consists of the 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 to work 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. In the mid-1990's Calista Corporation worked with other regional organizations and helped establish Nuvista Light and Electric Cooperative to conduct energy feasibility studies for the region and the development project at Donlin Creek. An energy study was completed by Nuvista in 2002 and a feasibility study in 2004. Nuvista is now fully engaged in this energy planning and development process for the AVCP Calista region.

During the policy development process, three working committees were formed to complete certain sections of the policy:

Bob Charles, AVCP / Nuvista provided staff support to each committee.

Legislative Committee

Chair- Michelle Sparck, AVCP

Elaine Brown, North Star Gas

Bob Herron, YKHC

Allen Joseph, AVCP Regional Housing Authority

Meera Kohler, AVEC

Mary Nelson, Donlin Creek LLC

Renewable Energy Committee

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

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
Gary Fredericks, LKSD
Allen Joseph, AVCP Regional Housing

AVCP Regional Energy Panel for 2008 AVCP Convention

Bob Charles, AVCP / Nuvista Light & Electric Cooperative

Western Alaska Fuel Task Force:

Ron Hoffman, AVCPHA (Home Construction)
Meera Kohler, AVEC (Electrical)
Elaine Brown, North Star Gas (Fuel)
Greg McIntyre, YKHC (Health Care)
John Sargent, City of Bethel (Renewable Energy)
Lyman Hoffman, State Legislature

Nuvista Board of Directors and Energy Planning Participants

Sven Paukan, Nuvista Chairman, AVCP Board, Andreafski 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, Atmaultluak 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

AVCP Calista Region's Energy Agenda

Vision

The AVCP Calista Region will attain affordable, long term energy sustainability and self-sufficiency.

Mission

The mission of the AVCP Calista Regional Leadership in this energy plan is to ensure that the people of the AVCP Calista region have an adequate supply of reliable and affordable energy and is secure from outside economic influences, by helping tribal and community members save energy, develop clean energy resources, promote renewable energy and economic development.

Values

The Core Values as expressed by the AVCP Calista Regional Leadership include the following statements:

Integrity and Ethical Standards

To uphold the integrity of each participating organization, corporation and tribe while maintaining the highest ethical standards and professional performance

Respect

To hold in high esteem the diversity and value of all individuals, corporations, tribes and organizations

Communication

To maintain open, consistent communications

Excellence

Pursue continuous improvement, development and learning

Local Cultural Knowledge and Resources

To appreciate and enhance the cultures, traditions of the AVCP Calista Region and the human, technical and organizational resources of each organization, corporation and tribe

Collaboration

Working in partnership with each organization, corporation and tribes in the AVCP Calista Region to achieve long term energy security and sustainability

Environmental Stewardship

Maintain the respect for and future sustainability of the land and resources of the AVCP Calista Region.

I. Policy

The AVCP Calista Region promotes the development and implementation of public/private support strategies that effectively reduce the cost of energy for utilities and consumers in the region.

The AVCP Calista Region promotes the development of local community energy conservation and efficiency policies and plans that brings together local residents, schools, local governments, businesses and organizations.

The AVCP Calista Region supports all of its utilities and their need for efficient operations, maintenance, upgrades and new development.

The AVCP Calista Region promotes the utilization of energy efficiency technologies, conservation and weatherization programs for commercial and public facilities, and private homes as a way to maximize the effectiveness of energy resources.

The State of Alaska is encouraged to expand its weatherization and energy efficiency programs to include community facilities and buildings to enable weatherization improvements and deployment of energy cost savings technologies.

The AVCP Calista Region will engage its combined efforts in renewable energy resource assessment, development and deployment that assist in achieving energy self-sufficiency.

The State of Alaska is encouraged to provide a renewable resource deployment assessment of the region based upon a MM/BTU cost. This would assist in development and deployment of renewable energy projects based upon available renewable resources in the region.

The AVCP Calista Region will develop multiple, sub-regional proposals for the region which will identify specific renewable energy projects based upon appropriate resources available in each sub-region.

The AVCP Calista Region promotes the planning and development of regional wind energy projects along the eastern Bering Sea coast, the lower Kuskokwim coast, the Bethel area; and potential build-out from these areas to other nearby communities.

The AVCP Calista Region promotes the development and deployment of Biomass projects in the Middle Kuskokwim and Lower Yukon regions to provide community facility heating needs with biomass boilers, and wood chippers that would provide feed stock for these and a variety of community facility and home heating wood boilers.

Participants in this energy plan promote investigation of the application of In-Stream Turbines in the Kuskokwim and Yukon Rivers to determine whether or not in-stream turbines will work in different communities in the region. The state is encouraged to develop financing to help organizations buy these devices. The community can then apply for funding to purchase the in-stream turbine once they have established feasibility.

The AVCP Calista Regional Energy Leadership desires that the state determine ocean wave energy development potential, and electrical equipment and transmission requirements for communities along the eastern Bering Sea coast.

The AVCP Calista Regional Energy Leadership seeks the state to help determine geothermal potential at Ophir Creek near the NYAC mine, including in-river hydroelectric potential for the nearby communities.

The AVCP Calista Region promotes the exploration and development of oil and gas resources that may exist in the region for local market utilization.

Tribes for the first time have recently rescinded their long standing resolution banning oil and gas exploration. There are two potential targets identified in the AVCP region permissive for hydrocarbon exploration.

The participants in this AVCP Calista Region Energy Plan respects the rights and privileges of each land owner /stakeholder directly involved in the utilization and development of renewable resource energy on their property

and will cooperate with affected land owners and stakeholders concerning land owner/stakeholder policies and procedures for utilization and development of renewable resource energy projects on their property.

Key industries in the region that provide jobs and income, and enable energy sustainability are to be promoted and assisted in achieving energy security.

The AVCP Calista Region will achieve fuel economy and savings by engaging in engaging in collective and cooperative purchasing, bulk fuel storage and transportation.

AVCP, Calista and all interested participants in this planning process promote the marketing and investment of industry into the region that supports its goals for renewable energy sustainability.

The AVCP Calista Region promotes the planning and development of regional and sub-regional community inter-ties; and supports the consideration of an inter-tie to the railbelt based upon the economic development potential for projects such as the Donlin Creek Gold Mine Development Project.

The AVCP Calista Region promotes the development of a regional energy coalition that includes all the utilities, major electrical consumers and fuel operators in the region, that can consider regional electrical utility and fuel agreements, in order to achieve energy cost savings and efficiencies.

The AVCP Calista Region promotes the education of its members in energy conservation, energy efficiency, renewable energy development and deployment. This education programming must be made available for both schools and the general public through curriculum development, educational materials, annual energy conferences, workshops and summits.

The AVCP Calista Region promotes the continuation of the State of Alaska Power Cost Equalization Program with improvement of its qualifying requirements for utilities, and to include schools and other government facilities affected by the current energy crisis and special provisions for renewable energy deployment.

The AVCP Calista Region promotes the establishment of a dedicated State of Alaska Department of Energy cabinet office and representation in the region for direct support, training and technical assistance.

The AVCP Calista Region supports the establishment of a dedicated renewable energy deployment and energy efficiency equipment loan and grant fund made available in the region that is coordinated jointly with local banking and financing institutions.

The AVCP Calista Region supports the planning, development and utilization of North Slope gas for the region and other rural Alaska communities, whereby gas from the proposed gas pipeline can be delivered to communities in the region.

The AVCP Calista Region promotes legislation that will create an Alaska Fuel Subsidy that will take Alaska Royalty Oil and have it refined in western Alaska in order to help reduce fuel shipment distances to villages, and have heating fuel, gasoline, diesel, aviation fuel, and propane delivered to all of communities in Alaska.

The AVCP Calista Region supports the existing USPS bypass mail system as amended in the Rural Services Improvement Act passed in 2006. The region does not support the current U.S. Postal Service proposal to add 14 villages as hub communities for mainline bypass which would be subsidized at lower rates.

II. Energy Crisis

People throughout the AVCP Calista region are facing an energy crisis of monumental proportions. Fuel prices are high and electric rates keep increasing due to high diesel costs. It has been noted that fuel in some villages is over \$10.00 a gallon in many villages of the region during summer of 2008. Some local utilities are faced with a decision to shut down later this winter due to these high prices in order to conserve fuel. Families are forced to make decisions about choosing to stay warm, hunting for food or paying their bills. Delinquency rates in some of the region's AVCPRHA HUD housing projects are at an all time high. Fuel and store credit accounts in many of village stores are also up due to the energy crisis. Recently, the AVCP Executive Board adopted a resolution declaring an energy crisis and demanding the state take steps to reduce fuel prices for utilities and consumers. This resolution followed a similar resolution submitted by the Alaska Village Electric Cooperative which proposed the state take measures to help keep the delivered cost of fuel for utilities at \$10.00 per MM/BTU and a cap for other fuels at \$12.50 per MM/BTU. Additional efforts are being pursued by the Alaska Federation of Natives to seek family and individual fuel subsidies as well as adopt other energy cost reduction efforts.

III. Goals and Deployment Objectives

Bulk Fuel

Western Alaska Fuel Task Force

Vision

Affordable, sustainable energy for Western Alaska.

Mission

Reduce fuel prices to the consumer by cooperative and collaborative bulk fuel purchases.

Goals

Goal 1: Reduce fuel consumption in 2009 by 10%

Objective 1: Determine fuel users, consumption, and storage capacity of each community (utility, schools, village corporations, local organizations, tribal council)

Tasks:

- Conduct inventory of bulk fuel storage
- Determine financing commitments and fuel purchase procurement procedures

Objective 2: Link villages/users together under cooperative purchase agreements

Tasks:

- Organize fuel distributors/purchasers via letter of intent
- Collaborate with all school districts in the region – determine incentives for cooperation / collaboration
- Promote utilizing 7(i) agreements for credit
- Seek wellhead prices/purchases
- Identify potential wellhead partnerships
- Determine transportation/lease or own options
- Purchase locally policy
- Consider potential unintended consequences of collaborative/cooperative fuel purchases on non-participating fuel purchasers

Objective 3: Seek changes to State and Federal Fuel Programs

Tasks:

- Streamline funding sources and state fuel loan program changes to include streamlining and pre-authorization in application process
- Identify potential waivers of federal/state taxes - universal exemption/waiver Identify credit worthiness issues and strategies for improving credit

Goal 2: Conduct Education Outreach

Objective 1: Develop collaborative education program with local schools to establish energy curriculum; local energy inventory model (identify energy sources: diesel, gasoline, jet fuel, propane, wood, peat, other local utilized energy resources); identify energy inefficiencies and no-cost and low cost substitute to reduce energy consumption (energy audits); local community energy database (local community energy consumption).

Objective 2: Establish statewide "Energy tip of the day" public service announcements with media (i.e. statewide tv weather programs) providing energy conservation suggestions and ideas.

Western Alaska Refinery

Pursue the development and establishment of a Western Alaska Fuel Refinery to reduce the cost of fuel delivery throughout western Alaska; include the development of bulk fuel storage and delivery for western Alaska and other bulk fuel customers in the Pacific Rim, including the Department of Defense.

Renewable Energy

Expand Wind Energy Projects along the eastern Bering Sea Coast and the Bethel area.

Develop and install Biomass projects in communities along the Yukon and Kuskokwim rivers; including wood fired boilers, heaters and wood chippers for community facilities and buildings.

Install Run of River Small Hydro Projects in communities where the use of this technology is feasible and appropriate.

Pursue continued funding and support for the Denali Commission alternative energy projects.

Regional Utilities

Pursue the development of a wholesale non-profit utility for Bethel and surrounding villages to consider both a consolidated power delivery system and renewable energy deployment.

Pursue the development of sub-regional interties and distribution systems beginning with the development of an intertie to connect St. Mary's, Mountain Village and Pilot Station.

Energy Assistance and Weatherization

Expand energy assistance programs and improvement of weatherization programs by non-profits, tribes and local organizations

Renewable Energy Development Fund

Pursue the development and establishment of a regional renewable energy development fund via public and private financing and the development of a regional cooperative utility.

Natural Gas Exploration and LPG

Pursue the exploration of natural gas in the Lower Yukon Delta and development of an LPG project in the lower Yukon delta region for the development of natural gas and LPG.

Power Cost Equalization

Pursue full funding of PCE, expansion of the program to improve qualification and participation by non-profit organizations and community facilities.

Regional Energy Training and Community Development

Pursue the development of a regional renewable energy training and education center and program for communities and organizations.

Statewide Railbelt Intertie

Pursue Railbelt to YK Region Intertie (establish coalition with Railbelt energy providers)

IV. Legislative Issues

Re-introduce Senate Finance Committee energy resource rebate legislation SB 4002

- \$1200 resource rebate
- suspend the motor fuel tax (8 cents/gallon) for additional year
- lift the ceiling for PCE energy assistance from the current 52.5 cents/kwh to \$1.15/kwh for the first 500 kwh per month per customer
- \$200 million for the States renewable energy grant program – provide for alternative energy project recommendations by the Alaska Energy Authority
- \$5.3 million bulk fuel bridge loan fund – increase maximum loan amount to \$750,000
- \$160 million for the AHFC Energy Efficient Home Grant Fund
- Lowering the PCE floor to allow all utilities in the state to be eligible for the program.
- Electric customers could receive a 5 cent/kwh rebate for up to 2,300kwh a month beyond the first 500 kwh.
- The state would provide a subsidy for all oil heating fuel costs above \$3 per gallon up to 850 gallons per winter (September 1 through March 31).
- Increase funding for the Low Income Heating and Electric Assistance Program

Introduce appropriation legislation for specified annual amounts for Community bulk fuel tank farm storage upgrades to include Denali Commission village bulk fuel tank projects.

Western Alaska Refinery

Introduce state and federal legislation authorizing the establishment of a Western Alaska Fuel Refinery at Adak, Alaska for western Alaska and other bulk fuel customers in the Pacific Rim, including the Department of Defense. This refinery will take Alaska Royalty Oil and have it refined in western Alaska in order to help reduce fuel shipment distances to villages.

Renewable Energy

Wind Energy Projects – coastal villages and Bethel

Wind Project Development

Feasibility Studies \$5 million per year
Geotechnical Data Gathering
Wind Data / Wind Load / Space Heating
Environmental / Bird Issues

Turbine Equipment Procurement

Purchase of 2-3 types of wind turbines

Regional Wind Turbine Deployment \$50 million per year

Community Wind Diesel Projects (beginning with AVEC and
Chaninik Wind Group Projects)

Mekoryuk
Quinhagak
Eek
Kongiganuk
Kipnuk
Kwigillingok

Sub-regional Interties (beginning with AVEC projects)
Mountain Village / St. Mary's / Pilot Station
Alakanuk / Emmonak

Biomass wood fired boilers, heaters and wood chippers for
community facilities and buildings

Wood Heating – Wood Chipper Projects \$5 Million per year

Run of River Small Hydro Projects

Small Hydrokinetic Electric Run-of-River Projects \$15 Million per year

Sub-Regional Hydro Projects

Kiseralik, NYAC Subregional Hydro Feasibility Study \$100,000
(Potential \$250 million total project cost)

Regional Utilities

Sub-regional interties and distribution system: beginning with St. Mary's, Mountain Village and Pilot Station.

Pursue the development of a wholesale non-profit utility for Bethel and surrounding villages to consider both a consolidated power delivery system and renewable energy deployment.

Pursue renewable energy feasibility studies and planning for Bethel and nearby villages (Tuluksak, Akiak, Akiachak, Kwethluk, Oscarville, Napaskiak, Napakiak, Eek, Atmautluak, Kasigluk, Nunapitchuk, Quinhagak)

Hydropower and Subregional Interties – Kiseralik, NYAC

Hydrokinetic – Run of River Power Plants

Wind Energy – Subregional Wind Turbines and interties

Biomass Energy Heating Systems

Power System Upgrades

Energy Assistance and Weatherization

Introduce legislation to expand and consolidate energy assistance programs and improvement of weatherization programs by non-profits, tribes and local organizations, and to also include weatherization assistance and energy savings technologies for community buildings.

Renewable Energy Development Fund

Introduce appropriation legislation for annual statewide renewable energy program and including Denali Commission alternative energy projects.

Pursue the development and establishment of a regional renewable energy development fund via public and private financing and the development of a regional cooperative utility. Public financing from a portion of permanent fund earnings set at \$200 million per year statewide for rural Alaska.

Natural Gas Exploration and LPG

Pursue the exploration of natural gas in the Lower Yukon Delta and development of an LPG project in the lower Yukon delta region for the development of natural gas and LPG.

Establish a western Alaska natural gas exploration program in the state division of oil and gas to promote and pursue exploration in western Alaska.

Power Cost Equalization

Pursue full funding of PCE, expansion of the program to improve qualification and participation by non-profit organizations and community facilities.

Regional Energy Training and Community Development

Introduce legislation for the development of a regional renewable energy training and education center and program for communities and organizations with the University of Alaska and State Department of Education.