HB

152

Alaska State Legislature

Session: (Jan-May)
State Capitol, Room 208
Juneau, AK 99801-1182
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Interim: (June-Dec)
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John Harris

Speaker of the House

SPONSOR STATEMENT
HOUSE BILL 152:
"An Act Establishing a Renewable Energy Fund and Describing its Uses and Purposes"

The high cost of fuel in Alaska has made it increasingly difficult for Alaskan residents to prosper. Home heating fuel and gasoline prices have skyrocketed in recent years leaving some Alaska families, who already struggle to make ends meet, left to prioritize between basic necessities of life: heat, food, or health care. This has a direct impact on Alaska's economy and Alaskans way of life.

This problem promises to worsen as the supplies of Alaska's most precious nonrenewable resources dwindle. With the decline in production in Alaska's oil fields and the prospect for a gasline years away other sources of energy are imperative. The time has come to seriously explore other renewable sources of energy. Alaska is widely known for its nonrenewable resources; however, Alaska also has excellent sources of renewable energy such as wind, geothermal, solar and hydropower.

Many of our communities have already been researching ways to secure cleaner and more cost effective energy. These Alaskans need funding to help harness these renewable sources of power. House Bill 152 establishes a renewable energy fund, which will be administered by the Alaska Energy Authority (AEA). AEA will take advice from an advisory committee with members appointed by the Governor from various utilities, environmental, business, state, and Native stakeholders groups. The Fund will offer both loan and grant options for Alaskans to develop alternative energy projects throughout our State.

These renewable energy projects will not only move Alaska's communities into the future, but they will also assist those completely crippled by the rising costs of fuel. By reducing the cost of power in some areas with renewable energy projects, Alaskans can become more self-sufficient.

Alaska has been an energy state for decades. House Bill 152 is a logical progression toward developing our inexhaustible energy resources. Alaska's communities have waited long enough and are poised to take control of their future energy needs. We urge your support for this crucial piece of legislation.

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SECTIONAL ANALYSIS

HOUSE BILL 152

"An Act establishing a renewable energy fund and describing its uses and purposes."

SECTION 1: Provides legislative findings stating the many reasons why renewable energy is important and in the public interest, including the economic, environmental and security benefits. The findings point out that this legislation is consistent with the recommendation made by the Legislative Energy Policy Task Force in 2004 to "increase the proportion of renewables in long term fuel sources." The section also mentions natural gas, and states that it is considered a last alternative for possible funding from the Fund if a community does not have any viable renewable energy resources available.

SECTION 2: (New in CS) Adds a new subsection in AS 42.45, the Rural and Statewide Energy Programs Act, to establish the Renewable Energy Project Account within the Power Project Fund in consultation with the advisory committee will make funding reccomendations.

SECTION 3: Adds a new section to AS 42.45 to creates the Renewable Energy Fund consisting of funds appropriated by the Legislature, gifts, bequests, contributions from other sources, federal funds, and interest earned on the money in the Fund (subsections (a) and (b).

Subsection (c) provides that the Fund is not a dedicated fund.

Subsection (d) provides that Alaska Energy Authority, in consultation with the advisory committee (established later in the bill), will develop appropriate methodologies to determine priority projects for receive assistance, for allocating money from the fund, and for renewable power production debt reimbursement grants.

These provisions describing how the fund is managed are new in the proposed CS.

Unchanged in the CS is subsection (e), directing the authority to make grants under the program for feasibility studies, reconnaissance studies, energy resource monitoring, and

construction of projects, including renewable energy, natural gas, or transmission and distribution projects.

Subsection (f) provides criteria under which proposed renewable energy projects could qualify under the program. Such a project would have to be new, and either a hydroelectric project, a project employing direct use of renewable energy resources, a fuel cell project using renewable energy or natural gas, a project generating energy from in-stream kinetic turbines, or one using renewable energy resources. In this section, the CS drops a requirement that a hydro project be a minimum of 50 kilowatts and serve a minimum of 20 end users.

Subsection (g) requires that for a natural gas project to be eligible under this section, it must serve fewer than 10,000 and the community has no viable renewable energy resources it can develop.

Subsection (h) requires that to qualify under this section, a transmission or distribution project must connect a renewable energy or natural gas project to transmission or distribution infrastructure.

Subsection (i) provides a percent of market value-type mechanism allowing not more than five percent of the value of the Fund to be used each year for grants. In the CS, this provision replaces a more complicated funding mechanism.

Subsection (j) creates a citizen advisory committee made up of seven diverse renewable energy stakeholders who are appointed by the governor to staggered terms. The intent is to include those stakeholders in the use of the Fund. The existence of the advisory committee gives the Authority a group of experts to help the Authority get the program established also providing input on funding decisions.

Subsection (k) provides boilerplate language consistent with other boards and commissions relating to compensation for members of the advisory board.

Subsection (l) provides definitions for some of the terms used in the statute.

SECTION 4: Adds a new section to uncodified law to accommodate the initial appointments by the governor to the advisory committee created by sec. 2 of this Act.

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John Harris
Speaker of the House

SECTIONAL ANALYSIS
HOUSE BILL 152

"An Act establishing a renewable energy fund and describing its uses and purposes."

SECTION 1: LEGISLATIVE FINDINGS. The legislature finds that

(1) An adequate, reliable, reasonably priced and safe supply of electrical energy is necessary for Alaska's basic infrastructure, and economic and technological development; and

(2) Alaska possesses vast amounts of renewable energy resources in the form of wind, geothermal, biomass, solar, tidal, wave, and hydro power; and

(3) the Alaska Legislature established the Alaska Energy Policy Task Force in 2003 to review and analyze the state's current and long term energy needs; and

(4) the Task Force found that one of Alaska's long term energy needs is to "identify and evaluate long term fuel resources," and recommended that the state should "increase the proportion of renewables in long term fuel sources;" and

(5) the cost of fuels such as natural gas and diesel that Alaskans rely on in large part to generate electric power is steadily rising; and

(6) residents of rural Alaska pay far more electricity than residents who live on the Railbelt energy grid; and

(7) there is virtually no fuel cost associated with renewable energy resources; and

(8) other states and nations are working successfully to develop their renewable energy resources; and

(9) the continued competitiveness and stability of the state's economy requires that the legislature consider national trends toward renewable energy development; and

(10) renewable energy technology development promotes both industry and job creation; and

(11) clean renewable energy has many environmental and health benefits; and

(12) locally produced renewable energy has many security benefits; and

(13) modern, affordable, and efficient renewable energy technologies now exist;

(14) it is in the public's interest for Alaska to develop its zero fuel cost renewable energy resources.

(15) natural gas should be considered as a last alternative for communities with no other reasonable renewable resources.

These findings state the many reasons why renewable energy is important and in the public interest, including the economic, environmental and security benefits. The findings point out that this legislation is consistent with the recommendation made by the Legislative Energy Policy Task Force in 2004 to "increase the proportion of renewables in long term fuel sources." The section also mentions natural gas, and states that it is considered a last alternative for possible funding from the Fund if a community does not have any viable renewable energy resources available.

SECTION 2: Adds a new section to AS 42.45. Creation of a Renewable Energy Fund.

(a) A renewable energy fund is established as a separate fund to finance new utility scale renewable energy projects in Alaska. The fund consists of money appropriated to it, including appropriations of interest earned by the fund, and appropriations of repayments of loans.

This section creates the Fund and states that it will be financed by general appropriations. It also states that all interest earned from the Fund principal accrues to the Fund, as does all repayments of loans made by the Fund. The section contemplates that any legislature is free to make additional appropriations to the Fund.

The creation of a renewable energy fund signals the state's recognition that energy is the backbone of any economy and that there is a need to elevate renewable energy development by creating separate loan and grant funds that are dedicated to renewable energy.

(b) The fund shall be administered by the Alaska Energy Authority with the advice of an advisory committee as provided for in sections (d) and (e) of this section. The committee consists of seven members, with one representative appointed by the Governor to staggered three year terms from each of the following groups:

(1) small Alaska rural utilities that serve less than 10,000 people;

(2) large Alaska urban utilities;

(3) non-profit environmental groups;

(4) non-profit consumer groups;

(5) Alaska Native organizations;

(6) businesses engaged in the renewable energy sector; and

(7) state government.

This section creates a citizen advisory committee made up of seven diverse renewable energy stakeholders that are appointed by the governor to staggered terms. The intent is to include those stakeholders in the formation of the Fund, including the regulations that govern the Fund. The existence of the advisory committee gives the Authority a group of experts to help the Authority get the Fund started, as well as help it make funding decisions.

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

This section is consistent with other state boards and commissions.

(d) The authority shall

(1) in consultation with the advisory committee, establish regulations to develop a methodology for determining the order of projects that receive assistance, including separate criteria for grant and loan eligibility, and establish criteria to evaluate the benefit and feasibility of projects applying for support from the fund. Significant weight shall be given to the amount of matching funds a project is able to make available;

This subsection states that the advisory committee will assist the Authority in establishing regulations that govern the order and priority of projects that will be eligible for funding. The committee and Authority are meant to work together to establish these regulations before any funding decisions are made. The section states that the committee and Authority shall establish criteria for funding both grant and loans (the amount of each is further restricted by sections (d)(2)(A) and (B)).

This section contemplates that criteria be established to demonstrate that a project is feasible and has a positive benefit–cost ratio before it is funded. It also contemplates that criteria be established that give some advantage to projects that already have some funding source that will be matched by a grant or loan from the Fund.

(2) In consultation with the advisory committee, establish regulations to develop a methodology for distributing a proportionate share of funds under this section to finance feasibility studies, reconnaissance studies, renewable energy resource monitoring and construction of new utility scale renewable energy projects in Alaska using the following guidelines:

(A) not more than 10 percent of the annual average amount of the fund shall be used for feasibility studies, reconnaissance studies, and renewable energy resource monitoring and;

(B) not less than 90 percent of the average annual amount of the fund shall be used for design and construction of new utility scale renewable energy projects that qualify under (f) of this section, natural gas projects that qualify under (g) of this

section, and distribution and transmission infrastructure that qualifies under (h) of this section.

This section states that the committee and Authority must work together to establish regulations that outline in greater detail the amounts that will be made available under both the grant and loan programs, and whether or not applicants may apply for both. However, the regulations must follow the overall goal of this section, which is to spend the lion's share (at least 90%) of the Fund on actual design and construction of projects. Three types of projects, which are further defined later, are eligible for that design and construction money: renewable energy projects, natural gas projects, and transmission projects that link a renewable energy or natural gas project to the electric grid. This heavy emphasis on actual design and construction is intended to construct projects that have already been demonstrated to be viable.

The section also contemplates that grants and loans can be made from the Fund to finance activities that are necessary to determining whether a renewable energy or natural gas exist in sufficient quantity and quality to warrant further development. Those activities include feasibility studies, reconnaissance studies, and renewable energy resource monitoring. A much smaller percentage of the fund (no more than 10%) may go toward these activities.

The concept of "annual average amount of the fund" is introduced in this section. It is important because, in order to follow mandates in the statute to spend certain percentages on certain things, the Authority must first have some baseline number from which to calculate those percentages. The concept of the "annual average amount of the fund" contemplates that the Authority would determine one date each year to measure what the Fund balance was, and use that number to define percentages for that year. It would make the most sense to make a date sometime after the legislative session was over, and near the beginning of the fiscal year. That would allow the Authority to account for any new appropriations that may have been made to the Fund, and to mesh the accounting for the Fund with the general accounting for the fiscal year. The result would be the establishment of a loan and grant year that the Authority would operate under.

(3) in consultation with the advisory committee, establish regulations to provide for power production incentives to help reduce the principal balance on loans made from the fund;

This subsection directs the advisory committee and the Authority to establish production credits for entities that borrow money from the fund to build renewable energy projects. Those credits would lower the principal balance on a loan for every kilowatt-hour of renewable energy that is produced. The committee and authority will need to decide how much credit every kilowatt-hour is worth and for how long the credits can be taken. The federal production tax credit (PTC) is just one benchmark that the committee and Authority make look at. The PTC currently gives a tax credit of 1.9 cents per kilowatt-hour to the owners of qualifying projects for the first ten years of the project. Other examples of production credits that exist

the advisory committee and Authority may look at include New Mexico, which has a corporate production tax credit of 1.0 cent per kilowatt-hour for 10 years.

The production credits are designed to give a borrower an added incentive to keep its renewable energy project running at maximum efficiency because the more electricity that is produced, the less the borrower has to repay on the loan. It is the intent that all loans be entitled to receive production credits.

(e) The Authority shall, in consultation with the advisory committee, make grants and loans to eligible applicants to finance feasibility studies, reconnaissance studies, renewable energy resource monitoring and construction of new utility scale renewable energy projects, natural gas projects, or transmission or distribution infrastructure located in Alaska that meet the requirements of (f), (g), or (h) of this section, as applicable, and, at least once each year, solicit from the advisory committee funding recommendations for all loans and grants.

This subsection simply restates that the Fund shall make grants and loans, for the type of projects named (renewable energy projects, natural gas projects, and transmission projects to link those to the electric grid). It also states that the Authority must solicit funding recommendation for all grants and loans from the advisory committee. The recommendation by the advisory committee is considered advisory only, and the final decision to make a loan or grant shall remain with the Authority.

(f) For a renewable energy project to qualify for a grant or loan under (e) of this section, the project must

(1) be a new renewable energy project not in operation on the effective date of the Act or an addition to an existing project made after the effective date of this Act;

(2) generate more than 50 kilowatts of electricity and distribute the electricity to more that twenty end users; and

(3) be

(A) a hydroelectric facility;

(B) a direct use of renewable energy resources;

(C) a facility that generates energy from fuel cells that run on renewable energy resources or natural gas;

(D) a facility that generates energy from in-stream kinetic turbines; or

(E) a facility that generates energy from renewable energy resources.

This subsection sets out the qualifications necessary for renewable energy projects to be eligible for grants or loans from the Fund. First, the project must either be new and not in operation when the legislation passes or an addition to an existing project that is made after passage of the bill.

Second, the project must generate at least 50 kilowatts of electricity. This cutoff is deemed to be the smallest sized project that would be for community, rather than individual use. To be certain that the use is a community use, there is an added qualification that the power be distributed to at least twenty households. The 50 kilowatts and twenty household benchmarks are intended to cover the smallest village.

Finally, the section sets out the types of renewable energy projects that can qualify for loans and grants.

* **Hydroelectric facilities are further defined below.**

* **"Direct use" of renewable energy refers primarily to the direct use of a geothermal resource to heat a space. Examples include using geothermal heat to heat a greenhouse, pool or a building.**

* **A fuel cell project or facility qualifies for assistance from the Fund whether the hydrogen used to operate the fuel cell is obtained from the steam reformation of natural gas, or from the electrolysis of water using a renewable energy resource such as wind to generate the electricity.**

* **In-stream kinetic turbines specifically include turbines that are placed in a river or tidal stream and generate power without impounding or diverting water.**

* **"Renewable energy resources" is a catch all category that is further defined below.**

(g) To qualify for a grant or loan under (e) of this section, a natural gas project must benefit a community that

(1) has a population of 10,000 or less;

(2) not have viable renewable energy resources that it can develop; and

(3) can demonstrate that development of the natural gas project will have no local adverse environmental impacts.

This section allows for loans and grants to be made from the Fund for natural gas projects other than methane that is captured at a landfill or from a methane digester. It contemplates small, local sources of natural gas rather than large, deep conventional gas resources. Funds are only available if all three stated conditions are met. First, the community must be less than 10,000 people. The intent is to help small, stand-alone communities rather than suburbs of large cities. For example, a remote village of 5,000 people would qualify while an area with less than 10,000 people that is part of larger town or city would not. Second, the community must not have a viable renewable energy resource that can be developed. So, if a community has no renewable energy resource with a favorable benefit-cost ratio, but does have local supplies of natural gas, it may apply for assistance under the Fund. This section also contemplates the possibility that a community near a future gas transmission pipeline may apply for assistance to build a small spur line to connect itself to the larger line. Third, the community must be able to show that

there will be no local adverse environmental impacts from the natural gas project. The section specifically states *local* because it may be argued that any combustion of natural gas that releases CO_2 has adverse *global* environmental impacts. Adverse local impacts that the section intends to prevent include decreases in water quality and quantity that may result from certain processes involved with developing coal bed methane, or shallow natural gas.

(h) To be eligible or a grant or loan under (e) of this section, transmission or distribution infrastructure must link a renewable energy project or natural gas project to the electric grid. A grant or loan may be made under this subsection even if the grant or loan is not itself financing the construction of the renewable energy project or natural gas project.

This section makes it clear that transmission and distribution infrastructure to connect a renewable energy project or natural gas project may be funded, even if the Fund does not make any contributions to the underlying project. It is not uncommon for there to be a need for assistance to build transmission but no need for assistance for the underlying project. An example is where a renewable energy project is built by an independent power producer (IPP) who then sells the electricity back to a local utility via a power purchase agreement (PPA). In such an example, it may be that the renewable energy project itself can be built without any economic assistance but would be stranded from the power grid without the assistance necessary to build the transmission and/or distribution infrastructure.

(i) The authority may not loan or grant more than 5 percent of the annual average amount of the fund for natural gas projects under (g) of this section.

The intent of this section is to cap the total amount that can be granted and loaned for natural gas projects in any given loan and grant year. For example, if the annual average amount of the Fund was $10 million in a given year, no more than $500,000 could be directed towards natural gas projects. In such an example, it would be possible for the Authority to grant $250,000 and loan $250,000 toward natural gas projects.

(j) The authority may not loan more than 20 percent of the annual average amount of the fund without interest.

This section contemplates that zero interest loans may be given. However, no more than a total of 20% of the Fund in any given loan and grant year may be loaned at zero interest.

(k) The authority may not give more than 50 percent of the annual average amount of the fund in the form of grants.

This section caps the total amount of money that can be given in the form of grants in any given loan and grant year to half of the amount of the Fund in that year.

This is intended to preserve at least half of all appropriations made to the Fund for the purpose of making loans. This, in effect, will create a revolving loan Fund that is dedicated to renewable energy projects, natural gas projects as defined and restricted by this statute, and transmission and distribution infrastructure that connects either of them to the power grid. The size of this revolving loan fund will grow as the more appropriations are made to the Fund.

(l) In this section,

(1) "eligible applicant" means an electric utility holding a certificate of public convenience and necessity under AS 42.05, independent power producer, local government, and other government entities, including tribal councils and housing authorities.

(2) "Fund" means the renewable energy fund;

(3) "hydroelectric facilities" has the meaning given to the term "project" under AS 42.45.350(g) as applicable to licensing water-power development projects, unless the authority adopts a different definition based on a determination made by a nationally recognized independent nonprofit corporation that considers the environmental effects of hydropower practices;

(4) "natural gas project" means use or access of natural gas other than landfill gas or digester gas.

(5) "renewable energy resources" means

(A) wind, solar, geothermal, wave, or tidal power;

(B) low-emission nontoxic biomass based on solid or liquid organic fuels from wood, forest and field residues, or animal products;

(C) dedicated energy crops available on a renewable basis;

(D) landfill gas and digester gas.

This section defines some of the terms used in the statue.

Eligible applicants includes the entities listed, and excludes by implication individuals. The Fund, as currently designed, is not intended to be a source of financing for individuals.

* **Hydroelectric projects as defined by AS 42.45.350(g) refers to projects larger than 5 megawatts and governed by regulations promulgated by the Regulatory Commission of Alaska that protect the public interest to the same extent provided by the requirements for licensing and regulation by the Federal Energy Regulatory Commission under 16 U.S.C. 792 - 823c and other applicable federal laws. Projects under AS 42.45.350(g) must also protect other interests such as energy conservation, protection and enhancement of fish and wildlife, recreational opportunities, other aspects of environmental quality, and the interests of resident Alaska Natives and other Alaska residents.**

The definition also contemplates that the authority may adopt a different definition

that is based on determinations made by a nationally recognized independent nonprofit corporation that considers the environmental effects of hydropower practices. This refers to a body such as the Low Impact Hydro Institute of Maine that has adopted stricter environmental standards for hydro projects than FERC or the state of Alaska.

*** Natural gas projects are intended to mean local and discrete supplies of natural gas. Those supplies will probably be in the form of shallow gas deposits rather than deep conventional supplies of large quantities of gas. The definition distinguishes such local supplies of gas from gas that is a product of landfills or methane digesters.**

*** Renewable energy resources includes wind, solar, geothermal, tidal and wave resources.**

*** Low-emission nontoxic biomass based on solid or liquid organic fuels from wood, forest and field residues, or animal products includes wood that is burned using the best available technology to mitigate emissions to generate either heat or electricity, and liquid fuels made from wood or forest residues, including ethanol. It also includes oils that may come from fish or other animals that are used to generate mechanical power, heat or electricity.**

*** Dedicated energy crops available on a renewable basis includes projects designed to utilize crops such as rapeseed to make oils to generate mechanical power, heat or electricity. It may also include the production of other organic material, such as willows, to make products such as ethanol that can generate mechanical power, heat or electricity.**

*** SECTION 3:** Adds a new section to uncodified law. The uncodified law of the State of Alaska is amended by adding a new section to read:

TRANSITION. AS 39.05.055(5) applies to the initial appointments by the governor to the advisory committee under AS 42.45.045(b), added by sec. 2 of this Act.

FISCAL NOTE

STATE OF ALASKA
2007 LEGISLATIVE SESSION

Fiscal Note Number: HB152-COM-AIDEA-03-05-07
Bill Version: HB 152
() Publish Date:

Revision Date/Time (Note if correction):
Dept. Affected: Commerce
Title: Renewable Energy Fund
RDU: AIDEA (125)
Component: AIDEA Operations
Sponsor: Harris and Thomas
Requester: House Community and Regional Affairs
Component No.: 1234

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Personal Services	100.0	100.0	100.0	100.0	100.0	100.0
Travel						
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
CAPITAL EXPENDITURES						
CHANGE IN REVENUES ( )						

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1037 GF/Mental Health						
1007 Interagency Receipts	100.0	100.0	100.0	100.0	100.0	100.0
TOTAL	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Estimate of any current year (FY2007) cost: 0.0
Check this box (X) if funding for this bill is included in the Governor's FY 2008 budget proposal:

POSITIONS

Full-time	1	1	1	1	1	1
Part-time						
Temporary						

ANALYSIS: *(Attach a separate page if necessary)*

This legislation creates a renewable energy fund to be administered by the Alaska Energy Authority (AEA) and establishes a seven member advisory committee. AIDEA provides staff support for AEA programs.

Prepared by: Sara Fisher-Goad, Deputy Director - Operations
Phone 907.269.4623
Division: Alaska Industrial Development and Export Authority
Date/Time 3/5/07 1:50 PM
Approved by: Emil Notti, Commissioner
Date 3/5/2007
Agency: Commerce, Community, and Economic Development

(Revised 9/18/2006 OMB)

FISCAL NOTE

STATE OF ALASKA
2007 LEGISLATIVE SESSION

Fiscal Note Number: HB152-COM-AEA-03-05-07
Bill Version: HB 152
() Publish Date:

Revision Date/Time (Note if correction):
Dept. Affected: Commerce
Title: Renewable Energy Fund
RDU: Alaska Energy Authority (453)
Component: AEA Rural Energy Operations
Sponsor: Harris and Thomas
Requester: House Community and Regional Affairs
Component No.: 2600

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Personal Services						
Travel	20.0	5.0	5.0	5.0	5.0	5.0
Contractual	100.0	100.0	100.0	100.0	100.0	100.0
Supplies	6.0					
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	**126.0**	**105.0**	**105.0**	**105.0**	**105.0**	**105.0**
CAPITAL EXPENDITURES						
CHANGE IN REVENUES ( )						

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1037 GF/Mental Health						
New Renewable Energy Fund	126.0	105.0	105.0	105.0	105.0	105.0
TOTAL	**126.0**	**105.0**	**105.0**	**105.0**	**105.0**	**105.0**

Estimate of any current year (FY2007) cost: 0.0
Check this box (X) if funding for this bill is included in the Governor's FY 2008 budget proposal:

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: *(Attach a separate page if necessary)*

This legislation creates a renewable energy fund to be administered by the Alaska Energy Authority (AEA) and establishes a seven member advisory committee. This legislation requires AEA, in consultation with the advisory committee, to establish regulations to 1) develop a methodology for determining the order of projects that receive assistance; 2) determine grant and loan eligibility; 3) identify criteria to evaluate the benefit and feasibility of potential projects; 4) develop a methodology for distributing funds to finance various studies and construction projects; and 5) provide for power production incentives to reduce principal balances of loans.

Prepared by: Sara Fisher-Goad, Deputy Director - Operations
Phone 907.269.4623
Division: Alaska Energy Authority
Date/Time 3/5/07 1:50 PM
Approved by: Emil Notti, Commissioner
Date 3/5/2007
Agency: Commerce, Community, and Economic Development

STATE OF ALASKA **BILL NO.** HB 152
2007 LEGISLATIVE SESSION

ANALYSIS CONTINUATION

In consultation with the advisory committee, AEA shall make grants and loans to eligible applicants to finance feasibility studies, reconnaissance studies, energy resource monitoring, and construction of renewable energy projects, natural gas projects, or transmission or distribution infrastructure located in Alaska. AEA shall annually solicit funding recommendations from the advisory committee for all grants and loans.

This legislation establishes project eligibility criteria for a renewable energy project, a natural gas project and a transmission or distribution infrastructure project.

This fiscal note represents costs associated with a new project manager who will be responsible for developing the regulations in consultation with the advisory committee: $100.0 in contractual costs for AIDEA and one-time $6.0 supply costs associated with the position. The fiscal note also provides estimated travel costs for the seven member committee to meet four times in FY 2008 for the initial development phase of regulations and annually to solicit funding recommendations.

The funding source is assumed to be the newly established Renewable Energy Fund, assuming this legislation becomes law and an appropriation to the newly established fund is provided.

25-LS0413\O
Kane
3/16/07

CS FOR HOUSE BILL NO. 152( )

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-FIFTH LEGISLATURE - FIRST SESSION

BY

Offered:
Referred:

Sponsor(s): REPRESENTATIVES HARRIS, Thomas, Crawford, Gara, Salmon, Johnson, Guttenberg, Gardner, Nelson

A BILL

FOR AN ACT ENTITLED

"An Act establishing a renewable energy project account and a renewable energy fund and describing their uses and purposes."

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

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

LEGISLATIVE FINDINGS. The legislature finds that

(1) an adequate, reliable, reasonably priced, and safe supply of electrical energy is necessary for Alaska's basic infrastructure, and economic and technological development;

(2) Alaska possesses vast amounts of renewable energy resources in the form of wind, solar, geothermal, wave, tidal, biomass, river and stream, and hydropower;

(3) the legislature established the Alaska Energy Policy Task Force in 2003 to review and analyze the state's current and long-term energy needs;

(4) the task force found that one of Alaska's long-term energy needs is to

identify and evaluate long-term fuel resources, and recommended that the state should increase the proportion of renewables in long term-fuel sources;

(5) the cost of fuels such as natural gas and diesel that Alaskans rely on in large part to generate electric power is steadily rising;

(6) residents of rural Alaska pay far more for electricity than residents who live on the Railbelt energy grid;

(7) there is virtually no fuel cost associated with renewable energy resources;

(8) other states and nations are working successfully to develop their renewable energy resources;

(9) the continued competitiveness and stability of the state's economy requires that the legislature consider national trends toward renewable energy development;

(10) renewable energy technology development promotes industry and creates jobs;

(11) clean renewable energy has many environmental and health benefits;

(12) locally produced renewable energy has many security benefits;

(13) modern, affordable, and efficient renewable energy technologies now exist;

(14) it is in the interest of the public for Alaska to develop its zero fuel cost renewable energy resources; and

(15) natural gas should be considered as a last alternative for communities with no other reasonable renewable resources.

* **Sec. 2.** AS 42.45.010 is amended by adding a new subsection to read:

(k) The renewable energy project account is established as a special account within the power project fund. The renewable energy project account consists of appropriations to the account, loan repayments, and interest earned by loans from the account, and money from the power project fund allocated to the account by the authority. The authority may make loans from the renewable energy project account for renewable energy projects described in AS 42.45.045(f).

* **Sec. 3.** AS 42.45 is amended by adding a new section to read:

Sec. 42.45.045. Renewable energy fund. (a) A renewable energy fund is established as a separate fund to finance certain energy projects in Alaska.

(b) The authority shall administer the fund as a fund distinct from other funds of the authority. The fund consists of

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

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

(3) interest earned on the fund balance.

(c) The fund is not a dedicated fund.

(d) The authority shall, in consultation with the advisory committee established under (j) of this section,

(1) develop a methodology for determining the order of projects that receive assistance, including separate requirements for grant and loan eligibility, and adopt regulations identifying criteria to evaluate the benefit and feasibility of projects for which an applicant applies for support from the fund, with significant weight being given to the amount of matching funds an applicant is able to make available;

(2) develop a methodology for allocating money from the fund; and

(3) provide for renewable power production debt reimbursement grants to help reduce the principal balance loans for projects meeting the requirements of (f), (g), or (h) of this section.

(e) In consultation with the advisory committee established in (j) of this section, the authority shall make grants to eligible applicants to finance feasibility studies, reconnaissance studies, energy resource monitoring, and construction of renewable energy projects, natural gas projects, or transmission or distribution infrastructure located in Alaska that meet the requirements of (f), (g), or (h) of this section, as applicable, and shall at least once each year, solicit from the advisory committee funding recommendations for all loans and grants.

(f) For a renewable energy project to qualify for a grant or loan under (e) of this section, the project must

(1) be a new project not in operation on the effective date of this Act or an addition to an existing project made after the effective date of this Act; and

(2) be

(A) a hydroelectric facility;

(B) a direct use of renewable energy resources;

(C) a facility that generates energy from fuel cells that run on renewable energy resources or natural gas;

(D) a facility that generates energy from in-stream kinetic turbines; or

(E) a facility that generates energy from renewable energy resources.

(g) To qualify for a grant under (e) of this section, a project that is a natural gas project must benefit a community that

(1) has a population of 10,000 or less; and

(2) does not have viable renewable energy resources it can develop.

(h) To qualify for a grant under (e) of this section, transmission or distribution infrastructure must link a renewable energy project or natural gas project to the transmission or distribution infrastructure. A grant or loan may be made under this subsection even if the grant or loan applicant is not itself financing the construction of the renewable energy project or natural gas project.

(i) Not more than five percent of the market value of the fund on June 30 of the preceding fiscal year may be used for grants under this section in a fiscal year. The authority may not loan or grant more than five percent of the amount of the fund available on June 30 of the preceding fiscal year for natural gas projects under (g) of this section.

(j) An advisory committee is established and consists of seven members appointed by the governor to staggered three-year terms, with one representative to be appointed from each of the following groups:

(1) small Alaska rural utilities serving not more than 10,000 people;

(2) large Alaska urban utilities;

(3) nonprofit environmental groups;

(4) nonprofit consumer groups;

(5) Alaska Native organizations;

(6) businesses engaged in the renewable energy sector; and

(7) state government.

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

(*l*) In this section,

(1) "eligible applicant" means an electric utility holding a certificate of public convenience and necessity under AS 42.05, independent power producer, local government, or other governmental utility, including a tribal council and housing authority;

(2) "fund" means the renewable energy fund;

(3) "hydroelectric facility" has the meaning given to the term "project" under AS 42.45.350(g) as applicable to licensing water-power development projects, unless the authority adopts a different definition based on a determination made by a nationally recognized independent nonprofit corporation that considers the environmental effects of hydropower practices;

(4) "natural gas project" means use or access of natural gas other than landfill or digester gas;

(5) "renewable energy resources" means

(A) wind, solar, geothermal, wave, tidal, river and stream, or hydropower;

(B) low-emission nontoxic biomass based on solid or liquid organic fuels from wood, forest and field residues, or animal products;

(C) dedicated energy crops available on a renewable basis; or

(D) landfill gas and digester gas.

*** Sec. 4.** The uncodified law of the State of Alaska is amended by adding a new section to read:

TRANSITION. AS 39.05.055(5) applies to the initial appointments by the governor to the advisory committee under AS 42.45.045(j), added by sec. 3 of this Act.

25-LS0413\V
Kane
3/20/07

CS FOR HOUSE BILL NO. 152( )

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-FIFTH LEGISLATURE - FIRST SESSION

BY

Offered:
Referred:

Sponsor(s): REPRESENTATIVES HARRIS, Thomas, Crawford, Gara, Salmon, Johnson, Guttenberg, Gardner, Nelson, Edgmon

A BILL

FOR AN ACT ENTITLED

"An Act establishing a renewable energy project account and a renewable energy fund and describing their uses and purposes."

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 FINDINGS. The legislature finds that

(1) an adequate, reliable, reasonably priced, and safe supply of electrical energy is necessary for Alaska's basic infrastructure, and economic and technological development;

(2) Alaska possesses vast amounts of renewable energy resources in the form of wind, solar, geothermal, wave, tidal, biomass, river, in-stream, and hydropower;

(3) the legislature established the Alaska Energy Policy Task Force in 2003 to review and analyze the state's current and long-term energy needs;

(4) the task force found that one of Alaska's long-term energy needs is to

identify and evaluate long-term fuel resources, and recommended that the state should increase the proportion of renewables in long term-fuel sources;

(5) the cost of fuels such as natural gas and diesel that Alaskans rely on in large part to generate electric power is steadily rising;

(6) residents of rural Alaska pay far more for electricity than residents who live on the Railbelt energy grid;

(7) there is virtually no fuel cost associated with renewable energy resources;

(8) other states and nations are working successfully to develop their renewable energy resources;

(9) the continued competitiveness and stability of the state's economy requires that the legislature consider national trends toward renewable energy development;

(10) renewable energy technology development promotes industry and creates jobs;

(11) clean renewable energy has many environmental and health benefits;

(12) locally produced renewable energy has many security benefits;

(13) modern, affordable, and efficient renewable energy technologies now exist;

(14) it is in the interest of the public for Alaska to develop its zero fuel cost renewable energy resources; and

(15) natural gas should be considered as a last alternative for communities with no other reasonable renewable resources.

*** Sec. 2.** AS 42.45.010 is amended by adding a new subsection to read:

(k) The renewable energy project account is established as a special account within the power project fund. The renewable energy project account consists of appropriations to the account, loan repayments, and interest earned by loans from the account, and money from the power project fund allocated to the account by the authority. The authority, in consultation with the advisory committee established under AS 42.45.045(j), may make loans from the renewable energy project account for renewable energy projects described in AS 42.45.045(f).

*** Sec. 3.** AS 42.45 is amended by adding a new section to read:

Sec. 42.45.045. Renewable energy fund. (a) A renewable energy fund is

established as a separate fund to finance certain energy projects in Alaska.

(b) The authority shall administer the fund as a fund distinct from other funds of the authority. The fund consists of

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

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

(3) interest earned on the fund balance.

(c) The fund is not a dedicated fund.

(d) The authority shall, in consultation with the advisory committee established under (j) of this section,

(1) develop a methodology for determining the order of projects that 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 fund, with significant weight being given to the amount of matching funds an applicant is able to make available;

(2) develop a methodology for allocating money from the fund; and

(3) provide for renewable power production debt reimbursement grants to help reduce the principal balance loans for projects meeting the requirements of (f), (g), or (h) of this section.

4 - efficiency.

(e) In consultation with the advisory committee established in (j) of this section, the authority shall make grants to eligible applicants to finance feasibility studies, reconnaissance studies, energy resource monitoring, and construction of renewable energy projects, natural gas projects, or transmission or distribution infrastructure located in Alaska that meet the requirements of (f), (g), or (h) of this section, as applicable, and shall at least once each year, solicit from the advisory committee funding recommendations for all grants.

(f) For a renewable energy project to qualify for a grant under (e) of this section, the project must

(1) be a new project not in operation on the effective date of this Act or an addition to an existing project made after the effective date of this Act; and

(2) be

(A) a hydroelectric facility;

(B) a direct use of renewable energy resources;

(C) a facility that generates energy from fuel cells that run on renewable energy resources or natural gas;

(D) a facility that generates energy from in-stream kinetic turbines; or

(E) a facility that generates energy from renewable energy resources.

(g) To qualify for a grant under (e) of this section, a project that is a natural gas project must benefit a community that

(1) has a population of 10,000 or less; and

(2) does not have economically viable renewable energy resources it can develop.

(h) To qualify for a grant under (e) of this section, transmission or distribution infrastructure must link a renewable energy project or natural gas project to the transmission or distribution infrastructure. A grant may be made under this subsection even if the grant applicant is not itself financing the construction of the renewable energy project or natural gas project.

(i) Not more than five percent of the market value of the fund on June 30 of the preceding fiscal year may be used for grants under this section in a fiscal year. The authority may not grant more than five percent of the amount of the fund available on June 30 of the preceding fiscal year for natural gas projects under (g) of this section.

(j) An advisory committee is established and consists of seven members appointed by the governor to staggered three-year terms, with one representative to be appointed from each of the following groups:

(1) small Alaska rural utilities serving not more than 10,000 people;

(2) large Alaska urban utilities;

(3) nonprofit environmental groups;

(4) nonprofit consumer groups;

(5) Alaska Native organizations;

(6) businesses engaged in the renewable energy sector; and

(7) the Denali Commission established under P.L. 105-277, 42 U.S.C. 3121 note.

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

(*l*) In this section,

(1) "eligible applicant" means an electric utility holding a certificate of public convenience and necessity under AS 42.05, independent power producer, local government, or other governmental utility, including a tribal council and housing authority;

(2) "fund" means the renewable energy fund;

(3) "hydroelectric facility" has the meaning given to the term "project" under AS 42.45.350(g) as applicable to licensing water-power development projects, unless the authority adopts a different definition based on a determination made by a nationally recognized independent nonprofit corporation that considers the environmental effects of hydropower practices;

(4) "natural gas project" means use or access of natural gas other than landfill or digester gas;

(5) "renewable energy resources" means

(A) wind, solar, geothermal, wave, tidal, river, in-stream, or hydropower;

(B) low-emission nontoxic biomass based on solid or liquid organic fuels from wood, forest and field residues, or animal products;

(C) dedicated energy crops available on a renewable basis; or

(D) landfill gas and digester gas.

* **Sec. 4.** The uncodified law of the State of Alaska is amended by adding a new section to read:

TRANSITION. AS 39.05.055(5) applies to the initial appointments by the governor to the advisory committee under AS 42.45.045(j), added by sec. 3 of this Act.

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF THE COMMISSIONER

SARAH PALIN, GOVERNOR

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March 9, 2007

Speaker of the House, John Harris
House of Representatives
State Capitol Room 208
Juneau, Alaska 99801

Dear Speaker Harris:

I appreciate the opportunity for DNR to offer comments and suggestions regarding HB 152. DNR understands that the intent of HB 152 is to provide financial assistance for development of renewable energy sources that will supplement, or possibly replace current local energy systems. We look forward to working with you and the rest of the legislature to help diversify the energy picture in Alaska and provide a clean and sustainable energy base for future generations.

As an important part of that base, DNR fully supports developing all energy resources that are technically developable, economically and operationally feasible, and limit the impact on the local environment. As you know, it is vitally important that an energy consumer have current and reliable data on all possible energy sources for a given location so that informed decisions can be made. It is equally important that economics, long-term maintenance requirements, reliability, sustainability, and relative environmental impact be fully considered during the development of an energy-source portfolio. As is the case for any energy policy, it should likewise include incentives for taking advantage of efficiencies (such as waste-heat from generators) and conservation efforts that will help decrease overall consumption.

With respect to the "renewable energy fund" set out in Sec. 2 of HB 152, DNR understands that the Alaska Energy Authority already has a similar fund. However, should you retain some aspect of the "renewable energy fund" in the bill, we have the following recommendations.

. irst, the advisory committee set out in AS 42.45.045(b) should include at least one professional staff member from the Department of Natural Resources that has expertise in energy resources and permitting of energy exploration and development. We would also recommend that if natural gas is to be kept as a

possible energy source in this bill, that you consider adding a representative from the oil and gas industry and that "nonprofit environmental groups" be replaced with "an environmental scientist."

In addition, the advisory board should be expanded to include at least one Alaska Energy Authority member and one member from the Department of Community and Economic Development.

Second, if the goal of this legislation is to provide a source of renewable energy, we recommend that you delete references to natural gas throughout the bill, including AS 42.45.045(g). If the goal is rural energy, then we recommend that in AS 42.45.045(f) you add a population restriction, such as 10,000 or less. Regardless, we would point out that AS 42.45.045(g)(2)and (3) are problematic both economically and environmentally.

AS 42.45.045(g)(2) forces a rural community or utility (or smaller communities) to rule out renewable energy sources before it can consider a local natural gas source, regardless of the cost of developing the renewable energy source. Likewise, AS 42.45.045(g)(3) makes an assumption that harvesting renewable energy has no adverse environmental impacts. This assumption is incorrect For example, both hydroelectric and wind farms can have adverse impacts, particularly on fish and wildlife. In effect, AS 42.45.045(g) sets a higher standard environmentally and economically for natural gas than for renewable energy sources.

In the opinion of DNR, including reference to and limiting the assistance options in relation to natural gas will create a situation that disadvantages some rural communities that may have such a local undeveloped resource, and could result in a negative economic impact by discouraging development of the most feasible alternative. It is DNR's recommendation that both AS 42.45.045(g)(2) and (3) (Page 4, lines 26-29) be deleted.

DNR also recommends language be added requiring that before a loan or grant is given, the recipient obtain authorization for the use of any state lands that might be needed for the project. This site control may include authorizations from several state agencies and may include the need for survey. There is no guarantee that permission will be granted to use state land just because a grant is issued. It has been our experience that some recipients of grants and loans begin projects on state lands and have already expended funds before obtaining authorization from the state for use of its lands.

In addition to the comments above, DNR offers the following specific suggestions:

Pg. 1, line 9: DNR suggests that you include a finding suggesting that conservation should play a significant part in any energy policy.

Pg. 2, line 5: This statement is misleading. It may be better to state that the primary cost of renewable energy systems is exploration, development, and long-term maintenance, rather than purchase of the resource. Given there are tangible costs to develop any kind of energy resource, we would recommend deleting this statement.

Page 2, Line 16: We would recommend that the descriptive phrase "zero fuel cost" be deleted as this is not necessarily accurate. For example, biofuels and geothermal sources can have costs associated with leasing activity, purchase, or royalties.

Pg. 2, line 18-19: (15) This broad statement should be deleted. It does not seem reasonable to suggest that a community should develop a renewable resource regardless of long-term cost or environmental impact, especially in a community that may have an undeveloped conventional resource available. The statement fails to take into account the particular location as well as the particular source of energy, either renewable or nonrenewable, that might be available. It also overlooks the economics and particular environmental factors of a particular location. For example, building a dam on a critical salmon migration river to produce hydroelectric energy may not be the better alternative to natural gas. We recommend deleting this sentence.

Page 5, Line 1 "electric grid" should be defined.

My staff would be happy to speak with you further about these concerns. Again, I appreciate the opportunity to submit comments and look forward to working with you during the session.

Sincerely,

Thomas E. Irwin
Commissioner

cc: Representative Bill Thomas
Robert Swenson, Acting Director, DNR, Division of Geological & Geophysical Surveys
Kevin Banks, Acting Director, DNR, Division of Oil & Gas
Wyn Menefee, DNR, Division of Mining, Land & Water
Melanie Lesh, Legislative Liaison, DNR
Marie Crosley, DNR, Division of Oil & Gas

TUES., 06 MAR 07

TESTIMONY REQUESTED

BY C&I RA COMMITTEE

ON HB 152

Tuesday, 06 March 2007
Testimony (and related insertions) on HB 152
By Todd Hoener, GVEA Energy Efficiency Specialist

TO: HOUSE COMMUNITY & REGIONAL AFFAIRS Standing Committee

- CO-CHAIR: Representative Fairclough
- CO-CHAIR: Representative LeDoux
- Representative Dahlstrom
- Representative Neuman
- Representative Olson
- Representative Cissna
- Representative Salmon

Good morning Madam Chair and members of the committee,

My name is Todd Hoener. I am the Energy Efficiency Specialist for Golden Valley Electric Association here in Fairbanks. I am also the Sustainable Natural Alternative Power (SNAP) program administrator for GVEA.

(Unrecorded NOTE not provided in testimony but for full disclosure: I am, also, chair of the State of Alaska's (Alaska Housing Finance Corporation's) Policy Advisory Council for the Low-Income Weatherization Assistance Program – as required under the U.S. Department of Energy's regulations, 10 CFR Part 440.17)

Thank you for this opportunity to testify on HB 152, a bill to establish a renewable energy fund. The GVEA board of directors has passed a resolution supporting HB 152. On Monday night, however, I talked with GVEA's CEO & president informing him that I would be giving this testimony with suggested inclusions into this bill.

I am 100 percent in support of this bill, but it only represents 50 percent of the renewable energy equation. The other 50 percent of this the renewable energy equation is energy efficiency and energy conservation, and this bill does not address these inseparable and integrated energy resources necessary for renewable energy to be fully cost effective.

To make this connection between energy efficiency and renewable energy as simple and succinct as possible for the committee members, I ask that members take a few minutes of their day and simply open up any of the U.S. Department of Energy web pages that distribute the public information on renewable energy. If one were simply to surf to the National Renewable Energy Laboratory web site, or to the Office of Energy Efficiency and Renewable Energy web pages, one would learn that renewable energy is joined-at-the-hip with energy efficiency practices.

Tuesday, 06 March 2007
Testimony (and related insertions) on HB 152
By Todd Hoener, GVEA Energy Efficiency Specialist

HB 152 is only half of the equation; it only deals – once again – with supplying more energy, not demanding that the energy is used efficiently and cost-effectively.

Energy efficiency, or demand side management (both have the same meaning), has been treated as an important energy source – a fuel source – by utilities for decades. It is treated as a clean energy source and the cheapest fuel source available. For example, last week two significant news items appeared that clearly demonstrate the over-due recognition, the growing trend and the significant importance that energy efficiency has in addressing the energy needs, the security benefits and environmental and health benefits of the world.

One news item was that Australian officials and European lighting manufacturers have announced plans to phase-out the incandescent bulb. The incandescent bulb is just one example of our continued use of old and inefficient technologies, but it is an energy hog. Just 5 percent of the electricity it uses goes to light the bulb; the other 95 percent is electric heat (the most expensive BTU in Alaska). The energy that these countries purchase is just too valuable to waste, as is the energy purchased by Alaskans.

The other news was that Texas electric utility giant, TXU Corporation, was reducing its planned construction of 11 coal-fueled power plants down to 3 and that it intended to meet its customers growing demand for electricity by investing $400 million into demand-side management initiatives – that is, energy efficiency – and by investing in alternative energy technologies, including renewable energy.

These are just two very recent examples of the global trends to increase energy independence, reduce environmental and health risks associated with greenhouse gases, and produce energy security benefits while reducing volatile energy costs that exist in continually using fossil fuels. As HB 152 suggests, such national trends should be required to be considered by the legislature.

I am not asking that HB 152 be rewritten, although I wish it had been more carefully deliberated while being drafted. What I am suggesting is that language be inserted into this bill that addresses the need to integrate energy efficiency technologies and energy conservation practices into funding renewable energy projects.

First I recommend that the proposed advisory committee consist of at least one member from a non-profit agency or for-profit business that is engaged in the energy efficiency sector and there are many to choose from in Alaska. This energy efficiency-oriented committee member would oversee the assurance that renewable energy projects include energy efficiency (for example, inclusion of ENERGY STAR appliances, energy efficiency practices and client education, etc) in their planning, development and as a condition for funds.

Second, I recommend that the bill's designated administer, the Alaska Energy Authority, in consultation with this revised advisory committee, establish methodology and

regulations for determining projects that include the need to address energy efficiency issues, demand-side management issues, in the consideration of any and all such projects.

If these concerns are not addressed, then this bill is just another supply-side energy bill, albeit a better energy supply bill that contributes to the competitiveness and stability of the states economy, creates new jobs and has many environmental, health and security benefits.

These are small but important changes to the language of HB 152. However, if this concern is not met, and energy efficiency requirements and issues are not addressed and included with renewable energy projects, then the state is, again, wasting the precious energy and money resources of Alaskan citizens.

I am sure this time we can work to get our energy priorities on the right path and create a bill that addresses 100 % of the energy concerns. We deserve it for our future.

Thank you very much. I would be glad to answer any questions from committee members.

Todd Hoener
GVEA Energy Efficiency Specialist
Sustainable Natural Alternative Power program administrator
907 451 5607

References:

- National Renewable Energy Laboratory: http://www.nrel.gov/learning/
- Office of Energy Efficiency and Renewable Energy: http://www.eere.energy.gov/
- GVEA's Energy$ense programs: http://www.gvea.com/memserv/energysense/
- GVEA's SNAP program: http://www.gvea.com/alternative-energy/snap/

Suggested language to be inserted into HB 152:

Page 2

Line 5: (7) there is virtually no fuel cost associated with renewable energy resources **or energy efficiency or conservation**;

Line 10: (10) renewable energy **and energy efficiency** technology development promotes industry and creates jobs;

Tuesday, 06 March 2007
Testimony (and related insertions) on HB 152
By Todd Hoener, GVEA Energy Efficiency Specialist

Line 12: (11) clean renewable energy **and energy efficiency have** many environmental and health benefits;

Line 14: (13) modern, affordable, and efficient renewable energy **and energy efficient** technologies now exist;

Line 25: *subsection (b) should include either substituting one of the seven advisory committee members for an energy efficiency specialist or increasing the advisory committee to nine (9) members, which ever is best.*

Page 3

Line 13: ...applying for support from the fund, with significant weight being given **to energy efficiency criteria included in the project** and to the amount of matching...

Line 18: ...resource monitoring, **energy efficiency determination within the end-users that would benefit from such a project,** and construction of renewable energy projects...

Line 2: ...reconnaissance studies, **energy efficiency criteria determination,** and energy resource...

Page 4

Line 23: **(4) be a project that is certified by the authority as its end-user meeting the standards and criteria for energy efficiency or demand-side management practices.**

Page 5

Line 15: (2) **"energy efficiency, energy conservation, demand side management practices or criteria" means ... (TBD)**

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Golden Valley Electric Association, Inc.

Fax

To:	To whom it may concern	**From:**	Todd M. Hoener
Firm:		**Pages:**	4 (including cover sheet)
Fax:	19074652819	**Date:**	3/20/2007 7:34:26 AM
Re:		**CC:**	

¤ **Urgent** ¤ **For Review** ¤ **Please Comment** ¤ **Please Reply**

Note: If there were any problems receiving this fax, please call: Todd M. Hoener @ 907 451-5607.

1 **Comments:**

Tuesday, 20 March 2007
Testimony (and related insertions) on HB 152
By Todd Hoener, GVEA Energy Efficiency Specialist

TO: HOUSE COMMUNITY & REGIONAL AFFAIRS Standing Committee

- CO-CHAIR: Representative Fairclough
- CO-CHAIR: Representative LeDoux
- Representative Dahlstrom
- Representative Neuman
- Representative Olson
- Representative Cissna
- Representative Salmon

DATE: 20 March 2007

Good morning Madam Chair and members of the committee,

My name is Todd Hoener. I am the Energy Efficiency Specialist for Golden Valley Electric Association here in Fairbanks. I am also the Sustainable Natural Alternative Power (SNAP) program administrator for GVEA.

Thank you, again, for this opportunity to testify on HB 152, a bill to establish a renewable energy fund. I testified during the first hearing on this bill but am unable to testify this morning due to a conflict in schedules.

I am reiterating my original positon on this bill (please see and review my 06 March testimony) and, again, strongly feel it is necessary to consider the demand side (the energy effieicny side) of the energy needs associated with renewable energy as well as the supply side, which this bill only addresses.

As I mentioned before, the GVEA board of directors has passed a resolution supporting HB 152. My testimony is purely as the energy efficiency specialist for GVEA, which is my job to represent.

My testimony is essentially the same message: I am 100 percent in support of this bill, but it only represents 50 percent of the renewable energy equation. The other 50 percent of this the renewable energy equation is energy efficiency and energy conservation, and this bill does not address these inseparable and integrated energy resources necessary for renewable energy to be fully cost effective. Again, please re-read my original testimony.

Energy efficiency, or demand side management (both have the same meaning), has been treated as an important energy source – a fuel source – by utilities for decades. It is treated as a clean energy source and the cheapest fuel source available. For example, last week two significant news items appeared that clearly demonstrate the over-due recognition, the growing trend and the significant importance that energy efficiency has

in addressing the energy needs, the security benefits and environmental and health benefits of the world.

I am not asking that HB 152 be rewritten, although I wish it had been more carefully deliberated while being drafted. What I am suggesting is that language be inserted into this bill that addresses the need to integrate energy efficiency technologies and energy conservation practices into funding renewable energy projects.

First I recommend that the proposed advisory committee consist of at least one member from a non-profit agency or for-profit business that is engaged in the energy efficiency sector and there are many to choose from in Alaska. This energy efficiency-oriented committee member would oversee the assurance that renewable energy projects include energy efficiency (for example, inclusion of ENERGY STAR appliances, energy efficiency practices and client education, etc) in their planning, development and as a condition for funds.

Second, I recommend that the bill's designated administer, the Alaska Energy Authority, in consultation with this revised advisory committee, establish methodology and regulations for determining projects that include the need to address energy efficiency issues, demand-side management issues, in the consideration of any and all such projects.

If these concerns are not addressed, then this bill is just another supply-side energy bill, albeit a better energy supply bill that contributes to the competitiveness and stability of the states economy, creates new jobs and has many environmental, health and security benefits.

These are small but important changes to the language of HB 152. However, if this concern is not met, and energy efficiency requirements and issues are not addressed and included with renewable energy projects, then the state is, again, wasting the precious energy and money resources of Alaskan citizens.

Suggested language to be inserted into HB 152:

Page 2

Line 5: (7) there is virtually no fuel cost associated with renewable energy resources **or energy efficiency or conservation**;

Line 10: (10) renewable energy **and energy efficiency** technology development promotes industry and creates jobs;

Line 12: (11) clean renewable energy **and energy efficiency have** many environmental and health benefits;

Line 14: (13) modern, affordable, and efficient renewable energy **and energy efficient** technologies now exist;

Line 25: *subsection (b) should include either substituting one of the seven advisory committee members for an energy efficiency specialist or increasing the advisory committee to nine (9) members, which ever is best.*

Page 3

Line 13: ...applying for support from the fund, with significant weight being given **to energy efficiency criteria included in the project** and to the amount of matching...

Line 18: ...resource monitoring, **energy efficiency determination within the end-users that would benefit from such a project,** and construction of renewable energy projects...

Line 2: ...reconnaissance studies, **energy efficiency criteria determination,** and energy resource...

Page 4

Line 23: **(4) be a project that is certified by the authority as its end-user meeting the standards and criteria for energy efficiency or demand-side management practices.**

Page 5

Line 15: **(2) "energy efficiency, energy conservation, demand side management practices or criteria" means ... (TBD)**

I am sure this time we can work to get our energy priorities on the right path and create a bill that addresses 100 % of the energy concerns. We deserve it for our future.

Thank you very much. I would be glad to answer any questions from committee members.

Todd Hoener
GVEA Energy Efficiency Specialist
Sustainable Natural Alternative Power program administrator
907 451 5607

ALASKA FEDERATION OF NATIVES INC.

2006 ANNUAL CONVENTION

RESOLUTION 06-34

TITLE: CALLING FOR THE ESTABLISHMENT OF A RENEWABLE ENERGY FUND

WHEREAS: Alaska possesses vast amounts of renewable energy resources in the form of wind, geothermal, biomass, solar, tidal, wave and hydro power; and

WHEREAS: The Alaska Legislature established the Alaska Energy Policy Task force in 2003 to review and analyze the state's current and long term energy needs; and

WHEREAS: The Task Force found that one of Alaska's long term energy needs is to "identify and evaluate long term fuel resources" and recommends that the state "increase the proportion of renewable energy in long term fuel sources"; and

WHEREAS: There is virtually no fuel costs associated with renewable energy resources; and

WHEREAS: Renewable energy technology development promotes both industry and job creation; and

WHEREAS: The Institute of Social and Economic Research's December 2005 research summary states "Diesel is the main energy source in remote communities--and in 2004 diesel outside the rail belt cost about 5 times as much per unit of energy as natural gas;"and

WHEREAS: Community facilities such as electrical plants, water & sewer services and health clinics use diesel fuel, and

WHEREAS: Rural Alaskan residents are dependent on diesel fuel to generate heat for homes and the high cost of energy seriously impacts economic conditions in rural Alaska. The average price of diesel fuel in the Bering Straits Region is $4.39 a gallon; and

WHEREAS: There are numerous agencies dealing with energy assistance, both federal state and international specialists. We urge the State to appoint a cabinet level position to coordinate and centralize resources to provide leadership and begin to develop a solution to the long term energy crisis; and

NOW THEREFORE BE IT RESOLVED by the Delegates to the 2006 Annual Convention of the Alaska Federation of Natives that President Bush is urged to include in his budget for FY 2008, more funding for alternative fuel projects; and

BE IT FURTHER RESOLVED, that the Alaska Congressional Delegation and the State Administration is urged to address the energy needs of rural Alaska families by:

1. Creating a Renewable Energy Fund to finance new utility scale renewable energy projects in Alaska funded by general appropriations. The fund shall be distinct from funds administered by Alaska Energy Authority and will conduct programs of energy research, development, demonstration and application; and
2. Creating a cabinet level position to coordinate efforts and centralize state and federal resources to solve the long term energy crisis; and
3. Creating a revolving loan fund to allow individuals and businesses to purchase and install alternative energy products.

SUBMITTED BY: KAWERAK, INC.; NAPAKIAK CORPORATION

COMMITTEE ACTION: DO PASS

CONVENTION ACTION: AMENDED AND PASSED

ML&P Resolution 01-07
A Resolution Supporting the Establishment of a Renewable Energy Fund for Alaska

WHEREAS: An adequate, reliable, reasonably priced and safe supply of electrical energy is necessary for Alaska's basic infrastructure, economic and technological development; and

WHEREAS: Alaska possesses vast amounts of potential renewable energy resources including wind, geothermal, biomass, solar, tidal, wave, and hydro power; and

WHEREAS: The Alaska Legislature established the Alaska Energy Policy Task Force in 2003 to review and analyze the state's current and long term energy needs; and

WHEREAS: The Task Force found that one of Alaska's long term energy needs is to "identify and evaluate long term fuel resources", and recommended that the state should "increase the proportion of renewable in long term fuel sources"; and

WHEREAS: There is virtually no fuel cost associated with renewable energy resources; and

WHEREAS: Other states and nations are working successfully to develop their renewable energy resources; and

WHEREAS: The continued competitiveness and stability of the state's economy requires that the legislature consider national and international trends toward renewable energy development; and

WHEREAS: Renewable energy technology development promotes both industry investment and job creation; and

WHEREAS: Clean, renewable energy has many environmental and health benefits; and

WHEREAS: Locally produced renewable energy has many security benefits; and

WHEREAS: Modern, affordable, and efficient renewable energy technologies now exist; and

WHEREAS: It is in the public's interest for Alaska to develop its renewable energy resources.

NOW THEREFORE BE IT RESOLVED: That the Anchorage Municipal Light & Power Advisory Commission finds that a Renewable Energy Fund for Alaska should be established as a separate fund to finance new utility scale renewable energy projects in Alaska with grants and/or loans; and

BE IT FURTHER RESOLVED: That the Fund should be funded by general appropriations so that Alaska can leverage a portion of today's oil and gas wealth into a renewable energy industry that can and will provide perpetual benefits to Alaskans.

Approved and passed in the ML&P Commission meeting held January 24, 2007.

Russell Nogg, Chairman
ML&P Advisory Commission

ATTEST:
Linda R. Davidovics
ML&P Commission Secretary

01 02 07

CHUGACH

Resolution in Support of a Renewable Energy Fund

WHEREAS, the Chugach Electric Association Board of Directors recognizes that renewable energy will play an important role in Alaska's future energy supply;

BE IT RESOLVED that the Chugach Electric Association Board of Directors supports the establishment of a renewable energy fund where the funding comes from the Alaska State Legislature in the form of appropriations, general funds, or through an endowment.

I, Jan Nordlund, do hereby certify that I am that I am Secretary of Chugach Electric Association, Inc., an electric non-profit cooperative membership corporation organized and existing under the laws of the State of Alaska; that the foregoing is a complete and correct copy of a resolution adopted at a meeting of the Board of Directors of this corporation, duly and properly called and held on the 21st day of February, 2007, that a quorum was present at the meeting; that the resolution is set forth in the minutes of the meeting and has not been rescinded or modified.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the seal of this corporation the 21st day of February 2007

Jan Nordlund

Secretary

Golden Valley Electric Association
PO Box 71249, Fairbanks, AK 99707-1249 • (907) 452-1151 • www.gvea.com
Your Touchstone Energy® Cooperative

RESOLUTION NO. 102-07
GOLDEN VALLEY ELECTRIC ASSOCIATION, INC.
SUPPORTING THE CONCEPT OF A RENEWABLE ENERGY FUND

WHEREAS, the GVEA Board recognizes that renewable energy will play an important role in Alaska's future energy supply;

BE IT FURTHER RESOLVED that the Golden Valley Electric Association Board of Directors supports the concept of a renewable energy fund where the funding comes from an appropriation, general funds or through an endowment.

CERTIFICATION

I, William D. Digan, do hereby certify that I am the Secretary of Golden Valley Electric Association, Inc., an electric not-for-profit cooperative membership corporation organized and existing under the laws of the State of Alaska; that the foregoing is a complete and correct copy of a resolution adopted at a regular meeting of the Board of Directors of this corporation, duly and properly called and held on the 29th day of January 2007; that a quorum was present at the meeting; that the resolution is set forth in the minutes of the meeting and has not been rescinded or modified.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the seal of the corporation this 29th day of January, 2007.

GOLDEN VALLEY ELECTRIC ASSN INC CORPORATE SEAL ALASKA

William D. Digan

William D. Digan, Secretary

Alaska State Chamber of Commerce
2007 Position
Create a Renewable Energy Fund for Alaska

The Alaska State Chamber of Commerc · supports the establishment of a Renewable Energy Fund by the legislature, financed with general fund appropriations, to finance the construction of zero fuel cost renewable energy projects across Alaska.

ALASKA MUNICIPAL LEAGUE
Resolution No. 2007-14

A RESOLUTION ESTABLISHING A RENEWABLE ENERGY FUND

WHEREAS. Alaska possesses vast amounts of renewable energy resources in the form of wind, geothermal, biomass, solar, tidal, wave and hydro power; and

WHEREAS. the Alaska Legislature established the Alaska Energy Policy Task Force in 2003 to review and analyze the state's current and long-term energy needs. The Task Force found that one of Alaska's long-term energy needs is to "identify and evaluate long-term fuel resources: and recommends that the state "increase the proportion of renewables in long-term fuel sources"; and

WHEREAS. there is virtually no fuel costs associated with renewable energy resources; and

WHEREAS. renewable energy technology development promotes both industry and job creation; and

WHEREAS. ISER's December 2005 Research Summary states, "Diesel is the main energy source in remote communities....and in 2004, diesel outside the rail belt cost about 5 times as much per unit of energy as natural gas." Community facilities such as electrical plants, water & sewer services and health clinics use diesel fuel; and

WHEREAS. there are numerous agencies dealing with energy assistance, both federal, state and international specialists. We urge the State to appoint a cabinet level position to coordinate and centralize resources to effectively solve the long-term energy crisis; and

NOW, THEREFORE BE IT RESOLVED, by the Alaska Municipal League, that we request our Alaska State Legislature and Alaska Congressional Delegation to address the energy needs by:

1. Creating a Renewable Energy Fund to finance new utility scale renewable energy projects in Alaska. The Fund shall be funded by general appropriations. The Fund shall be distinct from funds administered by the Alaska Energy Authority.

2. The Fund will conduct a program of energy research, development, demonstration and application.

3. Create a cabinet level position to coordinate efforts and centralize state and federal resources to solve the long-term energy crisis.

4. Creating a revolving loan and grant program to assist individuals, organizations, and businesses in purchasing and installing alternative and renewable energy products.

PASSED AND APPROVED BY THE ALASKA MUNICIPAL LEAGUE on the 17th day of November 2006.

Signed:_____
Tim Bourcy, President
Alaska Municipal League

Attest:

_____

SWAMC

Southwest Alaska Municipal Conference

3300 Arctic Boulevard, Suite 203 Anchorage, AK 99503 p: 907.562.7380 f: 907.562.0438 www.swamc.org

Alaska Peninsula
Aleutian Ch.
Bristol Bay
Kodiak Isla
Pribilof Islands

Resolution 07 - 07

A resolution of the Southwest Alaska Municipal Conference in support of the Establishment of a Renewable Energy Fund for Alaska.

WHEREAS, an adequate, reliable, reasonably priced and safe supply of electrical energy is necessary for Alaska's basic infrastructure, and economic and technological development; and

WHEREAS, Alaska possesses vast amounts of renewable energy resources in the form of wind, geothermal, biomass, solar, tidal, wave and hydro power; and

WHEREAS, the Alaska Legislature established the Alaska Energy Policy Task Force in 2003 to review and analyze the state's current and long term energy needs; and

WHEREAS, the Task Force found that one of Alaska's long term energy needs is to "identify and evaluate long term fuel resources," and recommended that the state should "increase the proportion of renewable in long term fuel sources;" and

WHEREAS, the cost of fuels such as natural gas and diesel that Alaskans rely on in large part to generate electric power and heat is steadily rising; and

WHEREAS, residents in rural Alaska pay far more for electricity than residents who live on the Rail belt energy grid; and

WHEREAS, there is virtually no fuel cost associated with renewable energy resources; and

WHEREAS, other states and nations are working successfully to develop their renewable energy resources; and

- m o r e -

WHEREAS, the continued competitiveness and stability of the state's economy requires that the legislature consider national and international trends towards renewable energy development; and

WHEREAS, renewable energy technology development promotes both industry investment and job creation; and

WHEREAS, clean, renewable energy has many environmental and health benefits; and

WHEREAS, locally produced renewable energy has many security benefits; and

WHEREAS, modern, affordable, and efficient renewable energy technologies now exist; and

WHEREAS, It is in the public's interest for Alaska to develop its zero fuel cost renewable energy resources.

NOW THEREFORE BE IT RESOLVED that the Board of Directors of the Southwest Alaska Municipal Conference support a Renewable Energy Fund for Alaska to be established as a separate fund to finance new utility-scale renewable energy projects in Alaska with grants and loans; and

BE IT FURTHER RESOLVED that the Fund should be funded by general appropriations so that Alaska can leverage a portion of today's oil and gas wealth into a renewable energy industry that can and will provide perpetual benefits to Alaskans.

PASSED AND ADOPTED by a duly constituted quorum of the Southwest Alaska Municipal Conference membership this 26th day of January, 2007.

Signed:

Glen Gardner
President

Attest:

Wanetta Ayers
Executive Director

Reviewed by Board: January 24, 2007
Referral(s): Energy Committee
Report from Energy Committee: Do Pass
Membership Meeting:
Motion to Adopt: Linda Freed
Second: Ernest Weiss
Motion Passed
Ratified by Board: January 27, 2007

Alaska Energy Authority

HB 152 – Recommendations

March 6, 2007

Recommendations for the committee to consider during deliberations of HB 152:

1) We recommend that the ability to make loans be removed from the fund. We believe that the loan provision is a duplication of the Power Project Fund. The PPF is a long-standing AEA loan fund that is available for energy projects. Three of the most recent loans from this fund were for renewable energy projects. Chena Power's geothermal project, the City of Craig for its wood-waste fired district heating system and Aleutian Wind Energy for its Sand Point wind-diesel hybrid project.

   We propose that grant criteria be developed to require a match that the applicant could either fulfill by applying for a PPF loan or coming up with an equity contribution by other means. This is the model successfully used in AEA's energy cost reduction program.

2) We recommend that the guidelines pertaining to the "annual average amount of the fund" be removed. Depending on the capitalization or balance of the fund, it may be more appropriate for AEA to determine the allocation amount. For example, if the balance of the fund was $1 million, the most beneficial use of the fund may be feasibility studies, reconnaissance studies and energy resource monitoring. Design and construction may not be a viable use with limited funds. An alternative approach may be for AEA to establish annual funding priorities in consultation with the advisory committee.

3) On page 4, we recommend section (g) (3) be removed. All projects, prior to construction must have the necessary site control and environmental permits. This is not a unique requirement for natural gas projects. For example, biomass and hydroelectric projects require environmental permits.

4) We recommend providing an effective date of July 1, 2007 coinciding with the start of the fiscal year.

5) During the bill hearing testimony and discussions, we came up with one more recommendation – On page 2 - remove the (f) (2) criteria for 50kw and 20 end users. The applicant eligibility (page 5) eliminates individual – single site users. In addition, removing this project criteria will allow the direct use of renewable energy projects such as small wind turbines that provide <50kw utility power and biomass boilers that do not provide electricity but directly provide heat to small schools.

Let me know if you have any questions. Thanks for the opportunity to testify.

Sara Fisher-Goad

Deputy Director – Operations

AIDEA and AEA

269-4623

Sonya Hymer

From: Rep. Gabrielle LeDoux
Sent: Tuesday, March 06, 2007 12:39 PM
To: sonya_hymer@legis.state.ak.us
Subject: FW: HB 152 comments from Greg Egan

more.....

Suzanne Hancock, Chief of Staff
Representative Gabrielle LeDoux
State Capitol
District 36
Juneau, AK 99801-1121
phone: (907) 465-2487 (office)
(907) 465-4230 (direct)
fax: (907) 465-4956

From: Greg Egan [mailto:greg@remotepowerinc.com]
Sent: Tuesday, March 06, 2007 12:14 PM
To: Rep. Gabrielle LeDoux; Rep. Anna Fairclough
Subject: HB 152 comments from Greg Egan

Hello again,

I spoke briefly in support of HB152 this morning from the LIO in Fairbanks. (I'm the one who designs and installs wind and solar power systems) After I spoke there was testimony regarding the inclusion of energy conservation and efficiency measures in the bill. I disagree – here's why.

Efficiency and conservation are very important concepts but I can't heat my office or run this computer on efficiency. For example, I drive a Toyota hybrid that gets ~ 45mpg. This is an improvement over the car I used to drive but it still needs fuel or it's not going anywhere – no matter how efficient it is.

I can however run my car on renewable energy. In the future I will be able to charge the batteries in my car at night from utility power. This could be power generated from wind blowing through Healy, tidal power from the coast, geothermal from Chena Hot Springs, hydro from Bradley Lake or another renewable energy source. This is actually being done today in California and parts of Canada.

Renewable energy is being used to generate hydrogen which is then used to fuel internal combustion engines for powering vehicles and generators. Hydrogen can also be used for heating, cooking, welding etc. Again, this is being done today. (Fuel cells on the other hand are not economical or reliable as of yet.)

So although energy conservation and efficiency are a step in the right direction, renewable energy can be the solution to high energy prices in Alaska and for that reason I believe HB152 should be passed into law in its present form. It should also, and this is very important, be adequately funded to do any good.

Conservation projects should continue to be funded through AIDEA via the Power Project Loan Fund.

Thank you very much,

Greg Egan

Remote Power Inc.

981 Gold Mine Trail

Fairbanks, AK 99712

907-457-4299

6th March 2007

TO: The Committee for Community and Regional Affairs

RE: House Bill 152

The following is an attempt at transcribing what I said verbally on March 6th at the hearing on this bill from the Fairbanks Legislative Information Office.

My name is Richard Seifert and I am the Energy and Housing Specialist for Cooperative Extension Service. Much of what I do everyday involves applications of renewable energy and energy conservation. I teach a course on integrating solar energy into the building of new homes and a course on cold or marine climate homebuilding techniques customized to regions of Alaska, to enable people to build with the best technology they have for energy conservation.

I was really pleased to follow in my testimony the excellent points made by Mr. Todd Hoener of Golden Valley Electric Association and personal comments by him and Mr. Brad Reed of Kotzebue Electric. I wanted to particularly emphasize my endorsement of Todd's points regarding a match for the investment in renewables, which generally I support in this bill, with a benefits match for conservation as well. By doing this I'm suggesting a sort of double benefit/double incentive system to reward people for doing the wisest things.

As I mentioned in my testimony, I undertook this myself to be an example through my work and retrofitted my 1975 prepipeline house with insulation and $10,000 worth of new windows in the summer of 2005. By doing this I have learned a great deal about my house and with the present weather we're having I'm very grateful that I insulated against the rising costs of fossil fuels.

It is very important that we provide some kind of incentive, which will work for everyone. For that reason I do not appreciate the limit of 50 kilowatts for investing in these power projects. The problem of just supplying power doesn't give people an incentive to do the right things and lower their power use. People don't need energy, they need the services that energy provides. If it can be done much more comfortably with a better housing stock that's more durable and serves the people in the state better. We should provide incentives to get there first and then provide the double benefit of lower cost, renewable energy. The price of the fuel is zero: we pay for the equipment, the house, and the insulation. That's what this bill should achieve.

I also mentioned that the important thing to consider about both of these options, both energy conservation and renewable energy, is that a'' the costs are upfront, capital costs. And if you're going to provide funding, it should at least be made equitable to both reduce the need for energy and to reduce the cost for energy infrastructure. Doing both of these is the only sane way to approach this problem. Recall that we are the most energy consuming, most energy expensive people on earth. Alaskans live at a very high standard of living and consequently use a huge amount of fossil energy now. There is no reason we can't live at a very high standard of living but do it renewably with the resource base that we have, if we wisely invest the capital in renewable energy equipment and an energy efficient housing stock.

We have had many false starts in regard to renewable energy funding and it is very important that this funding mechanism and this incentive program for investing renewables works well. I submit that the energy trust concept (example: Energy Trust of Oregon) where much of the investment decision is made by a non-profit, depoliticized agency is a very good strategy. I also suggest that it might be good to somehow tie investment in renewables for communities to weatherization and retrofit of those communities through programs that are now administered by the Alaska Housing Finance Corporation.

Alaska Housing Finance Corporation deals with housing stock and should be encouraged to help finance retrofitting of communities and improving the existing housing stock to meet the future that I think we're going to be facing in energy costs. This will provide the incentive needed to get renewably off the power cost equalization money and the fossil fuel bind that Rural Alaska now finds itself in.

I think this would also work well for the urban areas of Alaska. Anything we can do to minimize our energy use for fossil fuels will pay huge benefits in being an example to the rest of the world and not contributing to global warming. All indications are we're doing ourselves future harm by "over-contributing" our share of fossil fuel emissions to the problem of global warming. We should at least be in a position to say, "We're doing our best to limit our own ultimate affects on global warming. The world should follow suit."

Sincerely,

Richard D. Seifert, Professor
Energy and Housing

UAF, Cooperative Extension Service
6th March 2007

Anna

Alaska Energy Authority

HB 152 – Recommendations

March 6, 2007

Recommendations for the committee to consider during deliberations of HB 152:

1) We recommend that the ability to make loans be removed from the fund. We believe that the loan provision is a duplication of the Power Project Fund. The PPF is a long-standing AEA loan fund that is available for energy projects. Three of the most recent loans from this fund were for renewable energy projects. Chena Power's geothermal project, the City of Craig for its wood-waste fired district heating system and Aleutian Wind Energy for its Sand Point wind-diesel hybrid project.

   We propose that grant criteria be developed to require a match that the applicant could either fulfill by applying for a PPF loan or coming up with an equity contribution by other means. This is the model successfully used in AEA's energy cost reduction program.

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3) On page 4, we recommend section (g) (3) be removed. All projects, prior to construction must have the necessary site control and environmental permits. This is not a unique requirement for natural gas projects. For example, biomass and hydroelectric projects require environmental permits.

4) We recommend providing an effective date of July 1, 2007 coinciding with the start of the fiscal year.

5) During the bill hearing testimony and discussions, we came up with one more recommendation – On page 2 - remove the (f) (2) criteria for 50kw and 20 end users. The applicant eligibility (page 5) eliminates individual – single site users. In addition, removing this project criteria will allow the direct use of renewable energy projects such as small wind turbines that provide <50kw utility power and biomass boilers that do not provide electricity but directly provide heat to small schools.

Let me know if you have any questions. Thanks for the opportunity to testify.

Sara Fisher-Goad

Deputy Director – Operations

AIDEA and AEA

269-4623

March 5, 2006

Representative John Harris, Speaker
House of Representatives
State Capital, Room 404
Juneau, AK 99801-1182

Representative Harris,

The Alaska State Chamber of Commerce strongly supports sustainable energy solutions for Alaska. Alaska's vast geography and isolated communities create energy problems, energy shortages, and high-energy costs unparalleled by any other state. Thank you for sponsoring HB 152 and for your work with Rep. Bill Thomas. We appreciate your diligent work in searching out cheaper and alternative energy solutions for Alaska.

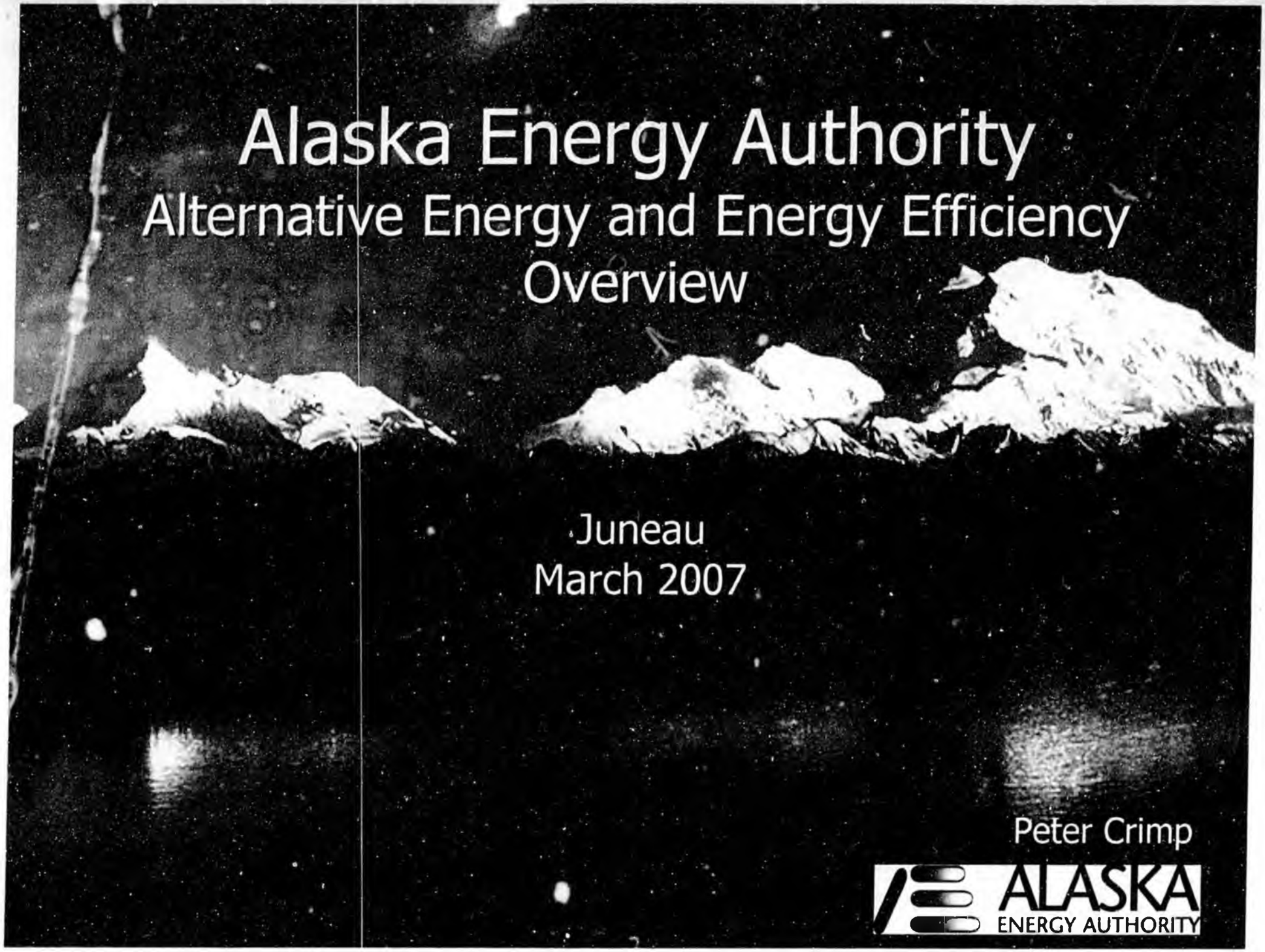
Existing and new businesses in Alaska must often jump through high-energy hurdles in order to prosper and maintain any level of sustainability. Finding solutions to Alaska's energy problems should be paramount for Alaska's political leaders. Especially in rural Alaska where transportation of energy creates additional costs, Alaska's businesses will continue to struggle as crude prices continue to escalate. HB 152 attempts to address Alaska's unique energy problems by creating an alternative energy fund, by studying and recommending energy solutions that will ultimately help all Alaskans and Alaska's businesses.

The Alaska State Chamber of Commerce strongly supports HB 152. We believe the bill will ultimately help the state configure alternative energy solutions that will help lower the cost of energy in Alaska's remotest regions allowing all Alaskan's to prosper.

Yours in economic prosperity,

Wayne A. Stevens
President/CEO
Alaska State Chamber of Commerce

cc: Rep. Bill Thomas



Alaska Energy Authority

Alternative Energy and Energy Efficiency Overview

Juneau
March 2007

Peter Crimp

ALASKA ENERGY AUTHORITY

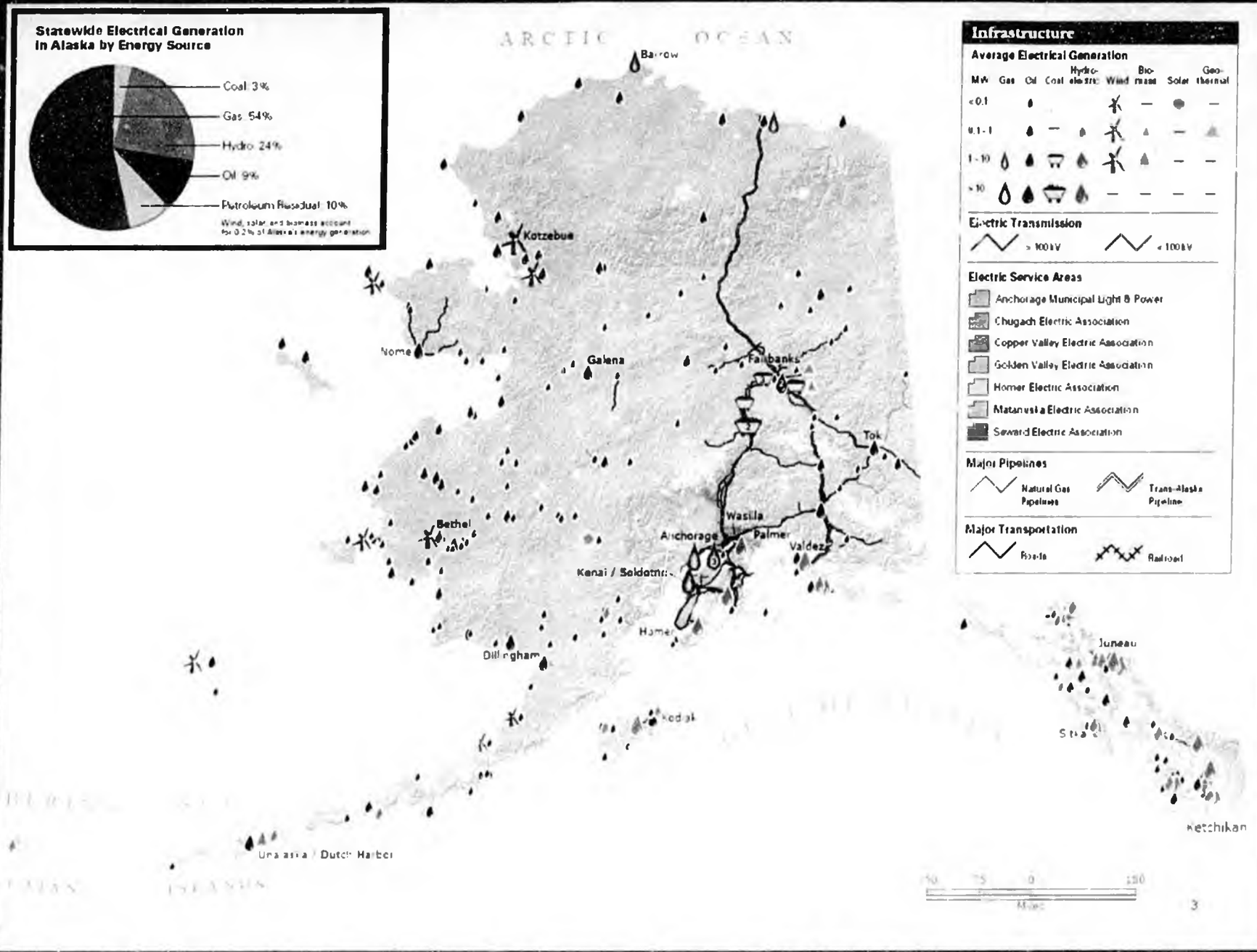
AEA Programs

- Statewide Energy Planning
- Infrastructure owner—Bradley Lake Hydro, Willow-Healy intertie
- Bulk Fuel Upgrades
- Rural Power System Upgrades
- Alternative Energy and Energy Efficiency
- Power Cost Equalization (PCE)
- Project Financing
- Training

Statewide Energy Planning

- Rural Energy Plan
- Energy Policy Task Force
  - Railbelt
  - Non-Railbelt
- Rural Energy Action Council
- RE Atlas of Alaska
- Alaska Power Statistics




Statewide Electrical Generation
In Alaska by Energy Source
Coal 3%
Gas 54%
Hydro 24%
Oil 9%
Petroleum Residual 10%
Wind, solar, and biomass account for 0.2% of Alaska's energy generation
ARCTIC OCEAN
Barrow
Kotzebue
Nome
Galena
Fairbanks
Tok
Bethel
Wasilla
Palmer
Anchorage
Valdez
Kenai / Soldotna
Homer
Dillingham
Kodiak
Unalaska / Dutch Harbor
Juneau
Ketchikan
Infrastructure
Average Electrical Generation
MW Gas Oil Coal Hydro-electric Wind Bio-mass Solar Geo-thermal
<0.1
0.1-1
1-10
>10
Electric Transmission
≥ 100 kV
< 100 kV
Electric Service Areas
Anchorage Municipal Light & Power
Chugach Electric Association
Copper Valley Electric Association
Golden Valley Electric Association
Homer Electric Association
Matanuska Electric Association
Seward Electric Association
Major Pipelines
Natural Gas Pipelines
Trans-Alaska Pipeline
Major Transportation
Roads
Railroad
50 25 0 150
Miles
3

Alternative Energy and EE

Hydroelectric

AP&T: South Fork 2 MW

Cordova Electric: Power Creek 6 MW

AEA: Akutan Controls Upgrade

- Program Manager:

AEA: Chuniisax (Atka) 270 kW

Potential Hydro Projects*

Community	Planning Area	Project	IC (MW)	Energy (MWh/yr)
Valdez	Four Dam Pool/SE	Allison Creek	7.0	29,000
Juneau	Four Dam Pool/SE	Lake 3160	7.0	56,800
Hyder	Four Dam Pool/SE	Soule Cr.	50.0	187,000
Sitka	Four Dam Pool/SE	Takatz Lake	20.0	98,000
Eagle River	Railbelt	South Fork Eagle	1.2	6,000
Mat-Su	Railbelt	Archangel Cr.	1.2	5,000
Mat-Su	Railbelt	Fishhook Cr.	1.2	5,000
Tyonek	Railbelt	Chakachamna	430.0	1,301,000

** Provisional list—not comprehensive. Other potential projects to be identified through public solicitations and further research.*

Potential Hydro Projects* (cont.)

Community	Planning Area	Project	IC (MW)	Energy (MWh/yr)
Angoon	Rural	Thayer	10.0	60,000
Chignik Lagoon	Rural	Chignik Lagoon	0.2	600
Chitina	Rural	Chitina RPSU		
Eagle	Rural	Eagle UEK Demo		
Hydaburg	Rural	Reynolds Cr.	5.0	20,000
Pelican	Rural	Pelican Hydro Flume		
Unalaska	Rural	Pyramid Creek	5	20,000
Tanacross	Rural	Yerrick Cr.	1.5	3,000
Tenakee	Rural	Tenakee	0.15	500

** Provisional list—not comprehensive. Other potential projects to be identified through public solicitations and further research.*

Alternative Energy and EE

Biomass

- Wood Energy Program:
  - Alaska Wood Energy Dev Task Group
  - Craig District Heating project
- Fish Oil Biodiesel Program:
  - Engine and handling tests at UAF and NPS
  - Develop fish oil rendering module
- Municipal Waste:
  - Anchorage Landfill Gas feasibility analysis
- Prog Mgr: Peter Crimp (wood, waste)
  James Jensen (biodiesel) jjensen@aidea.org

Potential Biomass Projects

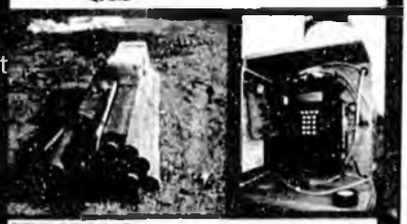
Community	Planning Area	Project	IC (MW)	Energy (MWh/yr)
Anchorage	Railbelt	Anchorage Landfill GTE	2.4	21,000
Fairbanks	Railbelt	Chena Power Biomass	0.2	1,300
Delta Junction	Railbelt	Delta-Greeley SD Wood Boiler		
Delta Junction	Railbelt	Jarvis Creek Biomass-Coal Co-fire	4	
Craig	Rural	Craig Biomass DH		
Tok	Rural	Gateway SD Wood Boiler		
Haines	Rural	Haines SD Wood Boiler		
Tanana	Rural	Tanana SD Wood Boiler		
Statewide		Fish Oil Rendering Module		

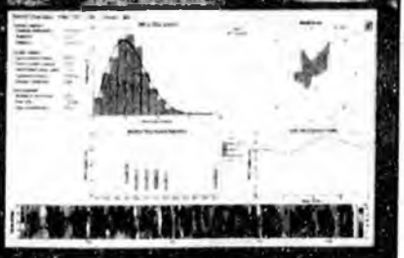
** Provisional list—not comprehensive. Other potential projects to be identified through public solicitations and further research.*

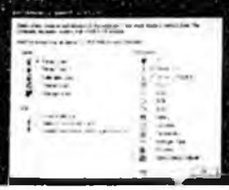
Alternative Energy and EE

Wind

- Anemometer Loan Program:
  - Provide met towers and project siting assistance
  - Wind resource data analysis
- Project Feasibility Assessment:
  - Training and use of HOMER model for project optimization
- Project Financing:
  - RFP 1: TDX Sand Point Wind (1MW)
  - RFP 2: Release in late October
- Program Manager: Martina Dabo, MDabo@aidea.org







Potential Wind Projects*

Community	Planning Area	Project	IC (MW)	Energy (MWh/yr)
Kodiak	Four Dam Pool/SE	Kodiak	2 to 8	
Healy	Railbelt	Eva Creek Wind	40	112,128
Anchorage	Railbelt	Fire Island	50	148,044
Aleutian Islands	Rural	Aleutian Regional		
Bethel	Rural	Bethel		
Chevak	Rural	Chevak	0.4	1,200
Northwest Region	Rural	Northwest Regional		
Nome	Rural	Nome- Energy Planning		
Sand Point II	Rural	Sand Point	0.5	
Unalakleet	Rural	Unalakleet	1 to 2	
Y-K Delta	Rural	Y-K Regional		
Statewide	Statewide	Wind-Training Program		--

** Provisional list—not comprehensive. Other potential projects to be identified through public solicitations and further research.*

Alternative Energy and EE

Geothermal

- Alaska Geothermal Working Group: 47 participants with REAP assistance.
- Chena Hot Springs Project: $846k total grant and loan participation
- Project Development: Mt. Spurr, Manley Hot Springs, Bell Island, Akutan, Pilgrim Hot Springs, etc.
- Program Manager: David Lockard, DLockard@aidea.org

Potential Geothermal Projects*

Community	Planning Area	Project
Tyonek	Railbelt	Mt Spurr
Akutan	Rural	Akutan Geothermal
Unalaska	Rural	Makushin Geothermal
Pilgrim Hot Springs	Rural	Pilgrim HS Geothermal

** Provisional list—not comprehensive. Other potential projects to be identified through public solicitations and further research.*

Alternative Energy and EE

Ocean Energy

- EPRI study on tidal energy potential of Knik Arm completed in May 2006
- new preliminary FERC tidal energy applications filed this year
- Tidal energy conference Ketchikan, January 2007
- Program Manager: David Lockard, DLockard@aidea.org

Alternative Energy and EE

Interties

- Construction Financing through grants and loans
- Intertie Feasibility Assessment
  - Alaska-BC RFP proposals due 10/13
- Program Manager: Jim Strandberg, JStrandberg@aidea.org

Alternative Energy and EE

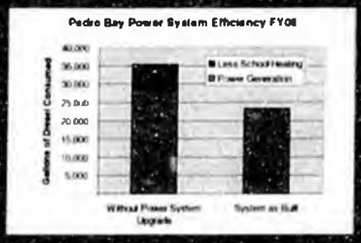
End Use Efficiency

- EE Tech Asst Program: Facility and power system energy audits.
- Village EUE Measures: Upgrades in 100+ facilities in 30 communities.
- State Building Effic Program: Help DOTPF establish energy services contract
- Program Manager: Rebecca Garrett, RGarrett@aidea.org

Construction

Generation Efficiency

Tuluksak: Before and After



Potential Efficiency Projects*

Community	Planning Area	Category	Project
Anchorage	Railbelt	End Use Efficiency	Anchorage School District ECMs
Statewide	Rural	End Use Efficiency	Village End Use Efficiency
Akiak	Rural	Generation Efficiency	Akiak RPSU
Akutan	Rural	Generation Efficiency	Akutan RPSU Distribution
Chignik Bay	Rural	Generation Efficiency	Chignik Bay RPSU Distribution
Elfin Cove	Rural	Generation Efficiency	Elfin Cove RPSU Distribution
Igiugig	Rural	Generation Efficiency	Igiugig RPSU
Ruby	Rural	Generation Efficiency	Ruby RPSU
Tenakee Springs	Rural	Generation Efficiency	Tenakee Springs RPSU Distribution
Unalakleet	Rural	Generation Efficiency	Unalakleet RPSU
Kaltag	Rural	Heat Recovery	Kaltag HR upgrade
Statewide	Rural	Heat Recovery	AEA HR Database (29 projects)

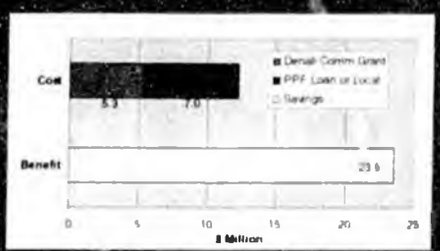
** Provisional list—not comprehensive. Other potential projects to be identified through public solicitations and further research.*

Training and Education

- Training Program
  - Advanced Powerplant Operator
  - Bulk Fuel Operator
  - Bulk Fuel Bookkeeper
  - Bulk Fuel Manager
  - Electrical Utility Bookkeeper
  - Electrical Utility Manager
  - Hydro Operator
  - On-Site Bulk Fuel
  - Power Plant Ope
  - PCE Utility Clerk
- Program Manager: Monica Moore, MMoore@aidea.org
- RE Conference: 4/24-26 Fairbanks
- Workshops
  - HOMER training
  - Wind, Ocean, Biomass, Geothermal...

Project Finance

- Energy Cost Reduction RFP
  - Selection based on life-cycle cost, ranked by B/C ratio
  - 1.4 million gal/year savings in diesel and natural gas
- Bulk Fuel Revolving Loan Fund
- Power Project Fund
- Program specific



Conclusion

- In rural areas continue to support reliable energy delivery through PCE and bulk fuel loans.
- But long-term sustainability will require actions that avoid exporting cash for imported fuels.
- Statewide: Need significant capital investment for cost-effective projects that stabilize long-term energy costs.

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