HB

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CS FOR HOUSE BILL NO. 305(ENE)

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-SIXTH LEGISLATURE - SECOND SESSION

BY THE HOUSE SPECIAL COMMITTEE ON ENERGY

Offered:
Referred:

Sponsor(s): HOUSE SPECIAL COMMITTEE ON ENERGY

A BILL

FOR AN ACT ENTITLED

"An Act relating to energy; relating to construction plans, operating costs, and energy efficiency standards for school construction and major maintenance by the Department of Education and Early Development, to energy efficiency, energy conservation, and alternative energy, to the renewable energy grant fund, to an emerging energy technology fund, to a renewable energy refundable tax credit, and to the board of directors of the Alaska Energy Authority; creating a Department of Energy; amending the size and composition of the board of directors of the Alaska Energy Authority by removing the members of the Alaska Industrial Development and Export Authority as directors of the Alaska Energy Authority and providing for designation or appointment of other members; amending the quorum requirement for the board of directors of the Alaska Energy Authority; relating to the alternative energy revolving loan fund; and relating to nuclear energy production and facilities and nuclear waste material."

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

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

(a) The department shall

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

(2) study the conditions and needs of the public schools of the state, adopt or recommend plans, administer and evaluate grants to improve school performance awarded under AS 14.03.125, and adopt regulations for the improvement of the public schools;

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

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

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

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

(7) prescribe by regulation, after consultation with the state fire marshal and the state sanitarian, standards that will assure healthful and safe conditions in the public and private schools of the state, including a requirement of physical examinations and immunizations in pre-elementary schools; the standards for private schools may not be more stringent than those for public schools;

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

(9) exercise general supervision over elementary and secondary

correspondence study programs offered by municipal school districts or regional educational attendance areas; the department may also offer and make available to any Alaskan through a centralized office a correspondence study program;

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

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

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

(13) administer the grants awarded under AS 14.11;

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

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

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

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

(B) an end date for departmental intervention, as described in AS 14.07.030(14)(A) and (B) and (15), after the district demonstrates three consecutive years of improvement consisting of not less than two percent

increases in student proficiency on standards-based assessments in math, reading, and writing as provided in AS 14.03.123(f)(2)(A); and

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

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

(18) adopt regulations that set standards for energy efficiency for school construction and major maintenance to provide energy efficiency benefits for all school locations in the state and that address energy efficiency in design and energy systems that minimize long-term energy and operating costs.

*** Sec. 2.** AS 14.11.135(6) is amended to read:

(6) "major maintenance" means a project described in AS 14.11.013(a)(1)(C)**,** [OR] (D)**, or (E)**;

*** Sec. 3.** AS 14.11.135(7) is amended to read:

(7) "school construction" means a project described in AS 14.11.013(a)(1)(A), (B), [(E),] (F), or (G).

*** Sec. 4.** AS 18.45.020 is amended to read:

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

*** Sec. 5.** AS 18.45.025 is amended to read:

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

the facility on land designated by the legislature under (b) of this section.

(b) The legislature shall designate by law the land in the state on which a nuclear fuel production **facility**, nuclear utilization **facility, utilization facility,** nuclear reprocessing **facility**, or nuclear waste disposal facility may be located. In designating the land in the state on which

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

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

(c) The Department of Environmental Conservation shall adopt regulations governing the issuance of permits required by (a) of this section. However, a permit may not be issued until

[(1) REPEALED

(2)] the municipality with jurisdiction over the proposed facility site has approved the permit [; AND

(3) REPEALED

(4) THE GOVERNOR HAS APPROVED THE PERMIT].

* **Sec. 6.** AS 18.56.090(c) is amended to read:

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

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

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

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

(4) money or another form of housing assistance payable from corporate earnings or assets of the corporation, other than money appropriated to the corporation for the specific purpose, for a program set out in **AS 18.56.400 - 18.56.810** [AS 18.56.400 - 18.56.850].

*** Sec. 7.** AS 18.65.340(f)(1) is amended to read:

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

*** Sec. 8.** AS 22.05.025(a) is amended to read:

(a) The supreme court has authority over

(1) all matters relating to the

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

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

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

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

*** Sec. 9.** AS 35.10 is amended by adding a new section to article 1 to read:

Sec. 35.10.085. Alternative energy for public works. (a) For each public work subject to AS 35.10.010 - 35.10.080, the construction of which begins on or after January 1, 2011, the department shall consider using a nonfossil fuel fired alternative energy system for heat or electrical power if the department reasonably believes that an alternative energy system to supply heat or power is available that

(1) is comparably reliable to a fossil fuel fired system; and

(2) if used over the course of the life of the facility will not cost more than a fossil fuel fired system to purchase, install, maintain, and operate.

(b) If the department determines that an alternative energy system described in (a) of this section is available and can be used as a primary or secondary source of heat or electrical power, as to a public work the construction of which under this chapter begins on or after January 1, 2011, the department shall construct the public work to accommodate or be compatible with the alternative energy system.

(c) In this section, "construction" does not include reconstruction, alteration, improvement, or major repair.

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

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

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

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

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

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

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

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

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

grants; and

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

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

(m) The authority shall enter into a contract or agreement with experts to assist in conducting an independent economic or financial analysis for each recommended application. The information shall be included in the report to the legislature required by (d) of this section.

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

Article 7A. Emerging Energy Technology.

Sec. 42.45.375. Emerging energy technology fund. (a) The emerging energy technology fund is established. The 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 and loans for energy projects;

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

(3) interest earned on the fund balance; and

(4) investments to be managed by the Department of Revenue, which shall be the fiduciary of the fund under AS 37.10.071.

(b) The fund is not a dedicated fund.

(c) The authority, in consultation with the advisory committee established under (e) of this section, may make grants or loans from the fund to eligible applicants for

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

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

(B) improve an existing energy technology; and

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

(d) In making grants and loans under this section, the authority, in consultation with the advisory committee established under (e) of this section, shall give priority to

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

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

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

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

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

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

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

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

(5) a department or agency of the state.

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

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

(h) In this section,

(1) "eligible applicant" means

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

(B) an independent power producer;

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

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

(E) a nonprofit organization.

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

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

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

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

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

(B) waste energy utilization and energy conservation; or

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

* **Sec. 16.** AS 43.20 is amended by adding a new section to article 1 to read:

Sec. 43.20.046. Renewable energy credit. For purposes of calculating the tax payable under this chapter, a taxpayer shall apply as a credit against tax liability any renewable energy refundable tax credits earned under AS 43.98.040.

* **Sec. 17.** AS 43.98 is amended by adding a new section to read:

Sec. 43.98.040. Renewable energy refundable tax credit. (a) A person that produces renewable energy may claim a renewable energy refundable tax credit in the amount of 15 percent of the retail rate charged by the person, as determined by the Regulatory Commission of Alaska for each kilowatt-hour of electricity produced from renewable energy.

(b) A person may claim a credit under this section in the first year the capital investment used to produce electricity from renewable energy is placed into service

and for the four years following that year.

(c) A person may claim a credit under this section only for a capital investment

(1) to produce electricity from renewable energy that is placed into service on or after the effective date of this Act; or

(2) to expand production of electricity from renewable energy if the investment for production expansion is made on or after the effective date of this Act.

(d) A person

(1) shall use a credit under this section to offset taxes imposed under AS 43.20 (Alaska Net Income Tax Act); and

(2) may not calculate and apply the credit against the alternative minimum tax levied under the authority of AS 43.20.021(f).

(e) The department shall provide a form and adopt procedures to allow a person to claim a refundable credit under this section. The commissioner shall pay the amount of a tax credit under this section to a person who submits a form and follows procedures adopted under this subsection. A credit under this section shall be paid in the manner provided in AS 43.20.030(e) for the payment of refunds. Payments may not be made under the authority of this subsection without an appropriation for that purpose.

(f) A credit claimed under this section may not exceed 10 percent of the person's capital investment for the production of electricity from renewable energy. In calculating a person's capital investment, a person may not include any state or federal grant the person received for the capital investment.

(g) In this section,

(1) "capital investment" means an expenditure made

(A) for real property or tangible personal property used in this state in the production of electricity from renewable energy; and

(B) for an asset first placed in service for the production of electricity from renewable energy in the state during or before the tax year in which the credit is claimed; in this subparagraph, "placed in service for the production of electricity from renewable energy in the state" means that the

first use of the capital investment is in this state; if the property on which the claim of the credit is based has been used outside the state in the tax year of acquisition and is brought to this state during that year or a subsequent year, the property does not qualify as a capital investment;

(2) "credit" means the renewable energy refundable tax credit authorized by this section;

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

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

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

(1) Office of the Governor

(2) Department of Administration

(3) Department of Law

(4) Department of Revenue

(5) Department of Education and Early Development

(6) Department of Health and Social Services

(7) Department of Labor and Workforce Development

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

(9) Department of Military and Veterans' Affairs

(10) Department of Natural Resources

(11) Department of Fish and Game

(12) Department of Public Safety

(13) Department of Transportation and Public Facilities

(14) Department of Environmental Conservation

(15) Department of Corrections

(16) Department of Energy.

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

Chapter 38. Department of Energy.

Sec. 44.38.010. Commissioner of energy. The principal executive officer of

the Department of Energy is the commissioner of energy.

Sec. 44.38.020. Duties. The Department of Energy shall

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

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

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

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

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

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

(1) a home energy loan program;

(2) a rural capital retrofit program; and

(3) an energy efficiency and weatherization program.

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

*** Sec. 20.** AS 44.42 is amended by adding a new section to read:

Sec. 44.42.067. Retrofits for energy efficiency and energy efficiency report. (a) Not later than January 1, 2020, the department shall retrofit at least 25 percent of all public facilities, starting with those it determines are the least energy efficient, if

the department determines that retrofitting the public facilities will result in a net savings in energy costs to the state within 15 years after completion of the retrofits for a public facility and if funding for the retrofits is available.

(b) A retrofit, new construction, or deferred maintenance of a public facility performed under this section shall, to the extent feasible, meet or exceed the most recently published edition of the ASHRAE/IESNA Standard 90.1, Energy Standard for Buildings Except for Low-Rise Residential Buildings, as published by the American Society of Heating, Refrigerating and Air-Conditioning Engineers.

(c) Not later than January 1 of each year, the department, in consultation with the Department of Administration, shall submit a report to the legislature detailing the department's progress in meeting the requirements of this section to reduce state energy consumption and costs and carrying out the duties listed in AS 44.42.020 related to energy use.

(d) In this section, "public facility" means a facility owned and controlled by the state for government or public use that is 10,000 square feet or more and that is not a legislative building or court building.

*** Sec. 21.** AS 44.83.020 is amended to read:

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

*** Sec. 22.** AS 44.83.030 is amended to read:

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

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

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

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

(4) four public members appointed by the governor to serve overlapping terms of two years [MEMBERS OF THE ALASKA INDUSTRIAL

DEVELOPMENT AND EXPORT AUTHORITY].

*** Sec. 23.** AS 44.83.040(a) is amended to read:

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

*** Sec. 24.** AS 44.83.990(6) is amended to read:

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

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

(B) waste energy utilization and energy conservation; or

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

*** Sec. 25.** AS 45.88.010(a) is amended to read:

(a) There is established in the Department of Commerce, Community, and Economic Development the alternative energy **conservation** revolving loan fund to carry out the purposes of AS 45.88.010 - 45.88.090. Loans made under AS 45.88.010 - 45.88.090 are to be used

(1) to develop means of energy production utilizing **one or more alternative energy systems; and**

(2) to purchase, construct, and install energy conservation

improvements in commercial buildings [ENERGY SOURCES OTHER THAN FOSSIL OR NUCLEAR FUEL, INCLUDING, BUT NOT LIMITED TO, WINDMILLS, WATER AND SOLAR ENERGY DEVICES].

* **Sec. 26.** AS 45.88.010 is amended by adding a new subsection to read:

(e) The alternative energy conservation revolving loan fund consists of

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

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

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

(4) money chargeable to principal or interest that is collected through liquidation by foreclosure or other processes on loans made under AS 45.88.010 - 45.88.090 and appropriated to the fund.

* **Sec. 27.** AS 45.88.020(a) is amended to read:

(a) The department may

(1) make loans for the purchase, construction, and installation**, in commercial buildings that are located in the state,** of

(A) alternative energy systems**; and**

(B) energy conservation improvements;

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

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

* **Sec. 28.** AS 45.88.025 is amended by adding a new section to read:

Sec. 45.88.025. Eligibility. To be eligible for a loan under AS 45.88.010 - 45.88.090, an applicant must

(1) be an individual and physically reside in the state and maintain a domicile in the state during 12 consecutive months prior to the date of application for a loan and may not have

(A) declared or established residency in another state; or

(B) received residency or a benefit based on residency from

another state;

(2) be at least 51 percent owned by individuals described in (1) of this section if the applicant is a corporation, joint venture, or partnership; or

(3) be a nonprofit organization under AS 10.20.

* **Sec. 29.** AS 45.88.030(a) is repealed and reenacted to read:

(a) A loan made under AS 45.88.010 - 45.88.090 may not exceed $50,000. If the requested loan amount exceeds $30,000, the applicant must deliver to the department a document from a financial institution stating that

(1) the applicant has been denied a loan for the same purpose; or

(2) the loan from the financial institution is contingent on the applicant also receiving a loan from the fund.

* **Sec. 30.** AS 45.88.030(e) is amended to read:

(e) The rate of interest for a loan **under AS 45.88.010 - 45.88.090 is the prime rate, as defined by AS 44.88.599, plus one percentage point, but may not be less than five percent a year** [FOR AN ALTERNATIVE ENERGY SYSTEM IS FIVE PERCENT FOR THE FIRST $15,000 OF THE LOAN AND 15 PERCENT FOR THE AMOUNT OF THE LOAN THAT EXCEEDS $15,000].

* **Sec. 31.** AS 45.88.030 is amended by adding a new subsection to read:

(f) A loan under AS 45.88.010 - 45.88.090 must be secured by a mortgage or other security instrument in the real property to be improved and a lien on the improvements financed with the loan.

* **Sec. 32.** AS 45.88.090(a) is amended to read:

(a) In AS 45.88.010 - 45.88.090,

(1) "alternative energy system"

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

(B) [(2)] includes

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

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

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

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

(v) a high efficiency wood pellet stove;

(C) [(3)] does not include

(i) [(A)] a stove that uses only wood, coal, or oil for fuel; or

(ii) [(B)] a fireplace or fireplace insert;

(2) "commercial building"

(A) means a building that is intended to be used for commercial purposes;

(B) does not include

(i) a residential structure or mobile home that contains one to four family housing units; or

(ii) individual units of condominiums or cooperatives;

(3) "energy conservation improvement" means

(A) structural insulation;

(B) thermal windows and doors;

(C) a furnace replacement burner designed to achieve a reduction in the amount of fuel consumed as a result of increased combustion efficiency;

(D) a device for modifying flue openings designed to increase the efficiency of operation of the heating system;

(E) an electrical or mechanical furnace ignition system that replaces a gas pilot light;

(F) an automatic energy-saving setback thermostat;

(G) a meter that displays the cost of energy usage;

(H) caulking and weather stripping of doors and windows;

(I) insulating shades and shutters;

(J) air and water recuperators.

*** Sec. 33.** AS 46.11.900(1) is amended to read:

(1) "alternative energy system"

(A) means a source of thermal, mechanical, or electrical energy that is not dependent on oil or gas [OR A NUCLEAR FUEL] for the supply of energy for space heating and cooling, refrigeration and cold storage, electrical power, mechanical power, or the heating of water;

(B) includes

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

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

*** Sec. 34.** AS 18.45.027; AS 18.56.850; AS 45.88.010(c), 45.88.030(c), 45.88.030(d), and 45.88.040(a) are repealed.

*** Sec. 35.** AS 43.20.046, enacted by sec. 16 of this Act, and AS 43.98.040, enacted by sec. 17 of this Act, are repealed January 1, 2025.

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

INITIAL APPOINTMENT OF DIRECTORS. Notwithstanding the terms set in AS 44.83.030(4), enacted by sec. 22 of this Act, the governor shall make initial appointments so that two public directors of the Alaska Energy Authority shall be appointed to one-year terms and two shall be appointed to two-year terms.

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

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES. Not later than one year after the effective date of this Act, the Department of Transportation and Public Facilities, in consultation with the Alaska Energy Authority, shall adopt and implement a

systematic process for prioritizing the retrofitting of state facilities for a long-term increase in energy efficiency and reduction of energy costs.

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

REVISOR'S INSTRUCTION. The revisor of statutes shall change the heading of art. 1 of AS 45.88 from "Alternative Energy Revolving Loan Fund" to "Alternative Energy Conservation Revolving Loan Fund."

Alaska Legislature
House Special Committee on Energy

Rep. Charisse Millett
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Juneau, AK 99801
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Rep_Charisse_Millett@legis.state.ak.us

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Date : 1/25/10
Version : 26-LS1223\R

SPONSOR STATEMENT – HB 305

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

The 2010 Omnibus Energy Bill is the result of a year-long effort by the House Special Committee on Energy to have meaningful energy legislation pass this session. The bill ties together nine bills that were introduced last session into one bill that will help establish the overall framework necessary to make affordable and reliable energy available to all Alaskans.

The following bills were incorporated into the omnibus energy bill:

- HB148 – Energy Efficiency Standards for Public Buildings (Gara)
- HB191 – Nuclear Power Production (Johnson)
- HB196 – Alternative Energy Revolving Loan Fund (HENE)
- HB218 – State Dept of Energy (HENE)
- HB219 – Renewable Energy Grant Requirements (HENE)
- SB31 – Renewable Energy Tax Credits (McGuire)
- SB71 – Alternative Energy Systems for Public Works (Therriault)
- SB121 – Energy Efficiency Standards for Public Buildings (SRES)
- SB150 – Emerging Energy Technology Fund (McGuire)

House Bill 305 is the product of about a dozen field hearings held outside of Juneau, in communities on and off the road system. Hundreds of Alaskans testified about energy issues in their region and how the state can help the communities to help themselves.

Co-chairs Rep. Bryce Edgmon, D-Dillingham, and Rep. Charisse Millett, R-Anchorage, believe the omnibus bill is the critical first step to addressing the long-term energy needs of all Alaskans.

All the materials submitted at the field hearings and to create the omnibus energy bill are posted on the House Energy Webpage:

http://www.housemajority.org/coms/hene/hene_background.php

The legislation was referred to the House Special Committee on Energy and the House Resources and Finance Committees.

Sec. ⏩18.45.027⏪. Transportation of nuclear waste material.

(a) The transportation of high level nuclear waste material, except for purposes of disposal outside the state, is prohibited.

(b) For purposes of this section, "high level nuclear waste material"

(1) means

(A) used nuclear reactor fuel;

(B) waste produced during the reprocessing of used nuclear reactor fuel; and

(C) elements having an atomic number greater than 92 and containing 10 or more nanocuries per gram;

(2) does not include radioactive materials used in medicine, education, or scientific research that are stored or disposed of in conformity with procedures established by the Department of Environmental Conservation by regulation adopted under AS 46.03.250 (3).

Sec. ⏩18.45.900⏪. Definitions.

In this chapter,

(1) "atomic energy" means all forms of energy released in the course of nuclear fission or nuclear transformation;

(2) "by-product material" means radioactive material, except special nuclear material, yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material;

(3) "nuclear fuel production facility" means a facility that purifies radioactive mineral concentrates and fabricates fissionable material to be used for producing energy in a nuclear reactor;

(4) "nuclear utilization facility" means an apparatus, device, or equipment in which nuclear fission is sustained in a self-supporting and controlled chain reaction; the term does not include an apparatus, device, or equipment used exclusively for educational, medical, or research purposes;

(5) "production facility" means equipment or a device capable of the production of special nuclear material in quantity of significance to the common defense and security, or to affect the health and safety of the public; or any important component part especially designed for the equipment or device;

(6) "radiation" means gamma rays and X-rays, alpha and beta particles, high-speed electrons, neutrons, protons, and other nuclear particles; but not sound or radio waves, or visible, infrared, or ultra-violet light;

(7) "special nuclear material" means plutonium, uranium 233, and uranium enriched in the isotope 233 or in the isotope 235, and any other material that the governor declares by order to be special nuclear material after the Nuclear Regulatory Commission has determined the material to be special nuclear material; or material artificially enriched by any of the foregoing material;

(8) "utilization facility" means equipment or a device, except an atomic weapon, capable of making use of special nuclear material in a quantity significant to the common defense and security, or in a manner affecting the health and safety of the public, or peculiarly adapted for making use of atomic energy in a quantity significant to the common defense and security, or in a manner affecting the health and safety of the public; or an important component part especially designed for the equipment or device.

Sec. ⏩18.56.850⏪. Home energy conservation and weatherization program.

(a) The corporation shall plan, study, implement, and assist programs for home energy conservation and weatherization including, without limitation, the

(1) home energy loan program;

(2) rural capital retrofit program; and

(3) energy efficiency and weatherization program.

(b) In the development of a home energy conservation or weatherization program under (a) of this section, the corporation may not consider the value of Alaska longevity bonus payments under AS 47.45 or permanent fund dividends under AS 43.23 in determining whether a person meets income guidelines established under AS 18.56.088 and (a) of this section for a state or, to the extent permitted by federal law, a federal energy conservation or weatherization program.

Sec. ⏩35.10.010⏪. Standard plans and specifications and limitation on cost.

The department shall prepare and adopt plans and specifications and determine standards for the construction of each public work. Each public work shall be limited in cost to the amount of the appropriation made for that purpose. The plans and specifications may be amended from time to time as the department considers advisable. This section does not apply to the construction of school buildings.

Sec. ⏩45.88.010⏪. Fund established.

(a) There is established in the Department of Commerce, Community, and Economic Development the alternative energy revolving loan fund to carry out the purposes of AS ⏩ 45.88.010 ⏪- 45.88.090. Loans made under AS ⏩45.88.010 ⏪- 45.88.090 are to be used to develop means of energy production utilizing energy sources other than fossil or nuclear fuel, including, but not limited to, windmills, water and solar energy devices.

(b) Money in the fund may be used by the legislature to make appropriations for costs of administering AS ⏩45.88.010 ⏪- 45.88.090.

(c) On June 30 of each fiscal year the unexpended and unobligated cash balance of the fund that is attributable to loans owned by the fund lapses into the general fund.

(d) Notwithstanding any other provision in AS ⏩45.88.010 ⏪- 45.88.090, a multifuel heating system that uses the combination of wood or fossil fuel for fuel does qualify under this loan fund.

Sec. 45.88.030. Loan terms.

(a) A loan for the development of an alternative energy system under AS 45.88.010 - 45.88.090 may not exceed $30,000.

(b) The duration for repayment of the loan may not exceed 20 years.

(c) Loans made under AS 45.88.010 - 45.88.090 may be used to finance the cost of purchase, construction, and installation of an alternative energy system or "centralized multifuel heating systems" which is likely to result in energy conservation or energy cost savings.

(d) All principal and interest payments, and money chargeable to principal or interest that is collected through liquidation by foreclosure or other process on loans made under AS 45.88.010 - 45.88.090, shall be paid into the alternative energy revolving loan fund.

(e) The rate of interest for a loan for an alternative energy system is five percent for the first $15,000 of the loan and 15 percent for the amount of the loan that exceeds $15,000.

Sec. 45.88.040. Sale or transfer of mortgages and notes.

(a) The commissioner may sell or transfer at par value or at a premium or discount to any bank or other private purchaser for cash or other consideration the mortgages and notes held by the Department of Commerce, Community, and Economic Development as security for loans made under AS ⏩45.88.010⏪ - 45.88.090.

Alaska Legislature
House Special Committee on Energy

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March 10, 2010

Governor Sean Parnell
State Capitol Building
Juneau, Alaska 99801

Dear Governor Parnell,

On behalf of the Alaska House of Representatives' Special Committee on Energy we request your Administration provide the Committee with—

1. An organizational chart showing all state agencies and advisors involved in energy policy and projects. This chart should include, but not be limited to: the Alaska Energy Authority; Alaska Housing Finance Corporation (AHFC); the Alaska Department of Natural Resources; the Alaska Department of Commerce, Community and Economic Development; and, Governor's Special Assistants Gene Therriault and Joe Balash.

   This chart should also include a description of duties and responsibilities related to energy of each agency, department and individual identified and how their respective functions are coordinated as part of an overall energy plan.

2. An analysis demonstrating the fiscal impacts on the state budget from establishing an Alaska Department of Energy that will serve as a "one-stop shop" for all state energy programs and services. This analysis should reflect the increment that would be created with the formation of the new agency and decrements created in the budgets of other agencies resulting from consolidating state energy programs within the new department.

3. An explanation of why, in light of AO 230 which identifies the Alaska Energy Authority as the State of Alaska's Energy Office, AHFC's Research and Rural Development Department claims to be the state energy office? This is a source

of confusion to the U.S. Department of Energy and gives the appearance that the Alaska state government is disorganized or given to bureaucratic in-fighting.

Given the compressed time schedule we are facing until adjournment, the Committee wishes to receive the requested information by March 16, 2010 at 12:00 p.m.

Sincerely,

Representative Charisse Millett
Co-Chair

Representative Bryce Edgmon
Co-Chair

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

Fiscal Note Number: 1
Bill Version: **CSHB 305, version E**
() Publish Date:

Identifier (file name):CSHB305-DOR-AHFC-3-15-10
Title OMNIBUS ENERGY BILL
Sponsor House Energy Committee
Requester

Dept. Affected: Revenue
RDU Alaska Housing Finance Corp.
Component Operations
Component Number 110

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2011**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**
Personal Services	(3,145.0)						
Travel	(62.9)						
Contractual	(385.3)						
Supplies	(25.2)						
Equipment	0.0						
Land & Structures	0.0						
Grants & Claims	(830.0)						
Miscellaneous							
TOTAL OPERATING	**(4,448.4)**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
CAPITAL EXPENDITURES							
CHANGE IN REVENUES ( )							

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts	(176.0)						
1003 GF Match							
1004 GF							
1103 AHFC Receipts	(2,028.3)						
1061 CIP Receipts	(1,444.1)						
Other Interagency Receipts	(800.0)						
TOTAL	**(4,448.4)**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimate of any current year (FY2010) cost:

POSITIONS

Full-time	**(24.0)**						
Part-time							
Temporary							

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

This fiscal note gives an estimate of the effects of moving all of the Alaska Housing Finance Corporation's energy efficiency staff into a new Department of Energy. This includes a total of 24 PFT employees that are funded with a combination of AHFC Receipts, Federal Receipts, CIP Receipts and Interagency Receipts.

These programs include the Weatherization program, the Home Energy Rebate program, the State Energy Program, the Research and Information Center, Building Energy Efficiency Standards (BEES), Low-Income Home Energy Assistance program and the Builder and Rater Education program.
Attached is another fiscal note that will list out the increment in general funds of these positions going into this new department.

Prepared by: Bryan Butcher, Director, Governmental Relations/Public Affairs — Phone 330-8445
Division Alaska Housing Finance Corporation — Date/Time 3/15/10 12:00 AM
Approved by: Ginger Blaisdell, Director — Date 03-16-10; 12:37pm
Administrative Services Division

(Revised 11/6/2009 OMB)

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

Fiscal Note Number:
Bill Version: **CSHB 305, version E**
() Publish Date:

Identifier (file name): HB306-GOV-OMB-3-16-10
Dept. Affected: Energy
Title: Omnibus energy bill
RDU
Component
Sponsor: House Energy Committee
Requester: House Energy Committee
Component Number

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2011**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**
Personal Services	199.5						
Travel	7,748.2						
Contractual	56.0						
Supplies	15.0						
Equipment							
Land & Structures	36,100.0						
Grants & Claims	0.0						
Miscellaneous							
TOTAL OPERATING	**44,118.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
CAPITAL EXPENDITURES							
CHANGE IN REVENUES ( )							

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts	571.9						
1003 GF Match	0.0						
1004 GF	13,558.4						
1005 GF/Program Receipts	0.0						
1037 GF/Mental Health	0.0						
Other Interagency Receipts	29,988.4						
TOTAL	**44,118.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimate of any current year (FY2010) cost:

POSITIONS

Full-time							
Part-time							
Temporary							

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

This fiscal note is the second note that reflects the increments associated with the transfer of the Alaska Energy Authority from the Department of Commerce, Community and Economic Development into the newly created Department of Energy. The corresponding decrements are shown in a separate fiscal note. There are no personal services expenses involved with this transfer because the bill does not change the current prohibition of having direct employees within Alaska Energy Authority.

Prepared by: Jack Kreinheder, Senior Analyst — Phone 465-4676
Division: Office of Management and Budget — Date/Time 3/16/10 8:30 AM
Approved by: Karen Rehfeld, Director — Date 3/16/2010
Office of Management and Budget

(Revised 11/6/2009 OMB)

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

Fiscal Note Number:
Bill Version: CSHB 305, version E
() Publish Date:

Identifier (file name): HB306-GOV-OMB-3-16-10 note 2
Dept. Affected: Energy
Title: Omnibus energy bill
RDU
Component
Sponsor: House Energy Committee
Requester: House Energy Committee
Component Number

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2011**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**
Personal Services	626.7		626.7	626.7	626.7	626.7	626.7
Travel	50.0		50.0	50.0	50.0	50.0	50.0
Contractual	378.0		378.0	378.0	378.0	378.0	378.0
Supplies	30.0		30.0	30.0	30.0	30.0	30.0
Equipment	287.0						
Land & Structures							
Grants & Claims							
Miscellaneous							
TOTAL OPERATING	**1,371.7**	**0.0**	**1,084.7**	**1,084.7**	**1,084.7**	**1,084.7**	**1,084.7**
CAPITAL EXPENDITURES							
CHANGE IN REVENUES ( )							

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts							
1003 GF Match							
1004 GF	1,371.7						
1005 GF/Program Receipts							
1037 GF/Mental Health							
Other Interagency Receipts							
TOTAL	**1,371.7**	**0.0**	**1,084.7**	**1,084.7**	**1,084.7**	**1,084.7**	**1,084.7**

Estimate of any current year (FY2010) cost:

POSITIONS

Full-time	6		6	6	6	6	6
Part-time							
Temporary							

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

This fiscal note estimates the costs for a commissioner and associated commissioner's office staff for a new department of energy (6 positions total). In addition, this note includes the costs for leasing and equipping office space for a total department staff of 30, including the 24 energy-related positions to be transferred from AHFC to the new department.

Note: moving costs for AHFC staff are not included. See next page for details.

Prepared by: Jack Kreinheder, Senior Analyst — Phone 465-4676
Division: Office of Management and Budget — Date/Time 3/16/10 8:30 AM
Approved by: Karen Rehfeld, Director — Date 3/16/2010
Office of Management and Budget

(Revised 11/6/2009 OMB)

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

BILL NO. CSHB 305, version E

ANALYSIS CONTINUATION

Dept. of Energy Cost Estimate

Commissioner's Office Staff	Salary and benefits ($000)
Commissioner	190.8
Special Assistant	116.1
Secretary	87.5
Administrative Assistant	63.9
Accountant III	82.9
Micro/Network specialist	85.5
Personal Services total	626.7
Office lease cost (contractual)	378.0
Travel	50.0
Commodities/Supplies	30.0
TOTAL	1,084.7

Note: Moving costs for AHFC energy staff are not included.

Lease cost estimate for staff of 30: 9,000 square feet X $3.50 per square foot per month
= $31,500/mo, $378,000/yr

Furnishings:

$232,000 = 29 x 8,000 (workstation/ea)
$10,000 = 1 (conventional furniture)
$6,000 = conference room
$248,000 furnishings total

Equipment:
$9,000 = 30 x $300 (phones)
$30,000 = computers, printers, copier
$39,000 equipment total

$287,000 furnishings and equipment total

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

Fiscal Note Number:
Bill Version: **HB305**
() Publish Date:

Identifier (file name): HB305-EED-ESS-3-15-10
Dept. Affected: Education & Early Development
Title "An Act relating to energy; relating to the Board of Directors of the Alaska Energy Authority; ..."
RDU Education Support Services
Component School Finance & Facilities
Sponsor House Special Committee on Energy
Requester House Energy
Component Number 2737

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2011**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**
Personal Services	150.0						
Travel							
Contractual							
Supplies							
Equipment							
Land & Structures							
Grants & Claims							
Miscellaneous							
TOTAL OPERATING	**150.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
CAPITAL EXPENDITURES							
CHANGE IN REVENUES ( )							

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts							
1003 GF Match							
1004 GF	150.0						
1005 GF/Program Receipts							
1037 GF/Mental Health							
Other Interagency Receipts							
TOTAL	**150.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimate of any current year (FY2010) cost:

POSITIONS

Full-time	**0.0**		0	0	0	0	0
Part-time							
Temporary							

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

Section 1 of the legislation requires the department to reveiw cost information for proposed facilities. It is anticipated that this review will not result in additional cost to the department. Section 1 also requires the department to adopt regulations setting standards for energy efficiency. The cost associated with section one would include the costs adopting regulations (estimated at $150,000).

Prepared by: Eddy Jeans, Director
Phone 465-8679
Division School Finance
Date/Time 3/15/10 12:00 AM
Approved by: Larry LeDoux
Date 3/15/2010
Commissioner

(Revised 10/13/2009 OMB)

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

Fiscal Note Number:
Bill Version: CSHB 305
() Publish Date:

Identifier (file name): HB305CS(ENE)-CED-AEA-3-15-10
Dept. Affected: DCCED
Title: Energy Omnibus
RDU: Alaska Energy Authority
Component:
Sponsor: House Energy Committee
Requester: House Energy Committee
Component Number:

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2011**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**
Personal Services							
Travel	(199.5)						
Contractual	(7,748.2)						
Supplies	(56.0)						
Equipment	(15.0)						
Land & Structures							
Grants & Claims	(36,100.0)						
Miscellaneous							
TOTAL OPERATING	**(44,118.7)**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
CAPITAL EXPENDITURES							
CHANGE IN REVENUES ( )							

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts	(571.9)						
1003 GF Match							
1004 GF	(13,558.4)						
1005 GF/Program Receipts							
1037 GF/Mental Health							
Other Interagency Receipts	(29,988.4)						
TOTAL	**(44,118.7)**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimate of any current year (FY2010) cost:

POSITIONS

Full-time							
Part-time							
Temporary							

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

Section 21 of this bill moves the Alaska Energy Authority from the Department of Commerce, Community and Economic Development into the newly created Department of Energy. There are no personal services expenses involved with this transfer because the bill does not change the current prohibition of having direct employees within Alaska Energy Authority.

Prepared by: Sara Fisher-Goad, Deputy Director — Phone 771-3012
Division: Alaska Energy Authority — Date/Time 3/15/10 12:00 AM
Approved by: Emil Notti, Commissioner — Date 3/15/2010
Commerce, Community and Economic Development

(Revised 11/6/2009 OMB)

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

Fiscal Note Number:
Bill Version: **CS HB 305 (ENE)**
() Publish Date:

Identifier (file name): HB305CS(ENE)-DEC-CO-3-10-10
Title: Omnibus Energy Bill
Sponsor: House Energy Committee
Requester: House Energy Committee

Dept. Affected: Environmental Conservati
RDU: Administration
Component: Office of the Commissioner
Component Number: 633

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2011**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**
Personal Services							
Travel							
Contractual							
Supplies							
Equipment							
Land & Structures							
Grants & Claims							
Miscellaneous							
TOTAL OPERATING	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
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							
Other Interagency Receipts							
TOTAL	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimate of any current year (FY2010) cost: 0.0

POSITIONS

Full-time							
Part-time							
Temporary							

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

While section 5 of the bill amends statutes which are to be implemented by the Department of Environmental Conservation, the amendments will have no additional fiscal impact. It should be noted, however, that there is currently no budget for implementing these statutes pertaining to permitting nuclear facility sites.

Prepared by: Marit Carlson-Van Dort — Phone 465-5871
Division: Office of the Commissioner — Date/Time 3/10/10 2:00 PM
Approved by: Larry Hartig — Date 3/10/2010
Commissioner

(Revised 11/6/2009 OMB)

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

Fiscal Note Number:
Bill Version: **CSHB 305,version E**
() Publish Date:

Identifier (file name):CSHB305-DOR-AHFC-3-15-10
Title: OMNIBUS ENERGY BILL
Sponsor: House Energy Committee
Requester: House Energy Committee

Dept. Affected: Energy
RDU: Energy Efficiency
Component: Operations
Component Number: n/a

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2011**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**
Personal Services	3,145.0						
Travel	62.9						
Contractual	385.3						
Supplies	25.2						
Equipment	0.0						
Land & Structures	0.0						
Grants & Claims	830.0						
Miscellaneous							
TOTAL OPERATING	**4,448.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
CAPITAL EXPENDITURES							
CHANGE IN REVENUES ( )							

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts	176.0						
1003 GF Match							
1004 GF	2,028.3						
1005 GF/Program Receipts							
1061 CIP Receipts	1,444.1						
1007 I/A Receipts	800.0						
TOTAL	**4,448.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimate of any current year (FY2010) cost:

POSITIONS

Full-time	**24.0**						
Part-time							
Temporary							

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

This second fiscal note shows the increment for the 24 PFT positions that would be transferred from the Department of Research and Rural Development into a new state Department of Energy.

These programs include the Weatherization program, the Home Energy Rebate program, the State Energy Program, the Research and Information Center, Building Energy Efficiency Standards (BEES), Low-Income Home Energy Assistance program and the Builder and Rater Education program.

Prepared by: Bryan Butcher, Director, Governmental Relations/Public Affairs — Phone 330-8445
Division: Alaska Housing Finance Corporation — Date/Time 3/15/10 12:00 AM
Approved by: Ginger Blaisdell, Director — Date 03-16-10; 8:36am
Administrative Services Division

(Revised 11/6/2009 OMB)

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

Fiscal Note Number: 1
Bill Version: **CSHB 305, version E**
() Publish Date:

Identifier (file name):CSHB305-DOR-AHFC-3-15-10
Title: OMNIBUS ENERGY BILL
Sponsor: House Energy Committee
Requester:

Dept. Affected: Revenue
RDU: Alaska Housing Finance Corp.
Component: Operations
Component Number: 110

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2011**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**
Personal Services	(3,145.0)						
Travel	(62.9)						
Contractual	(385.3)						
Supplies	(25.2)						
Equipment	0.0						
Land & Structures	0.0						
Grants & Claims	(830.0)						
Miscellaneous							
TOTAL OPERATING	**(4,448.4)**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
CAPITAL EXPENDITURES							
CHANGE IN REVENUES ( )							

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts	(176.0)						
1003 GF Match							
1004 GF							
1103 AHFC Receipts	(2,028.3)						
1061 CIP Receipts	(1,444.1)						
Other Interagency Receipts	(800.0)						
TOTAL	**(4,448.4)**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimate of any current year (FY2010) cost:

POSITIONS

Full-time	**(24.0)**						
Part-time							
Temporary							

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

This fiscal note gives an estimate of the effects of moving all of the Alaska Housing Finance Corporation's energy efficiency staff into a new Department of Energy. This includes a total of 24 PFT employees that are funded with a combination of AHFC Receipts, Federal Receipts, CIP Receipts and Interagency Receipts.

These programs include the Weatherization program, the Home Energy Rebate program, the State Energy Program, the Research and Information Center, Building Energy Efficiency Standards (BEES), Low-Income Home Energy Assistance program and the Builder and Rater Education program.
Attached is another fiscal note that will list out the increment in general funds of these positions going into this new department.

Prepared by: Bryan Butcher, Director, Governmental Relations/Public Affairs — Phone 330-8445
Division: Alaska Housing Finance Corporation — Date/Time 3/15/10 12:00 AM
Approved by: Ginger Blaisdell, Director — Date 03-16-10; 12:37pm
Administrative Services Division

(Revised 11/6/2009 OMB)

2884

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

Fiscal Note Number:
Bill Version: HB305
() Publish Date:

Identifier (file name): HB305-DOA-DGS-03-12-10
Title "An act relating to energy..."
Sponsor (H) ENE
Requester (H) ENE

Dept. Affected: DOA
RDU Centralized Administrative Services
Component Purchasing
Component Number 81

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2011**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**
Personal Services							
Travel							
Contractual							
Supplies							
Equipment							
Land & Structures							
Grants & Claims							
Miscellaneous							
TOTAL OPERATING	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
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							
Other Interagency Receipts							
TOTAL	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimate of any current year (FY2010) cost:

POSITIONS

Full-time							
Part-time							
Temporary							

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

This bill does not have a direct fiscal impact on the Department of Administration.

Prepared by: Vern Jones, Chief Procurement Officer
Division General Services
Phone 907-465-2250
Date/Time 3/12/10 2:00 PM

Approved by: Kevin Brooks, Deputy Commissioner
Department of Administration
Date 3/12/2010

(Revised 11/6/2009 OMB)

2885

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

Fiscal Note Number:
Bill Version: CSHB305
() Publish Date:

Identifier (file name):HB305CS(ENE)-CED-AEA-3-12-10
Title: Omnibus Energy Bill
Sponsor: House Energy Committee
Requester: House Energy Committee

Dept. Affected: DCCED
RDU: 453
Component: Statewide Project Development
Component Number: 2888

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2011**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**
Personal Services							
Travel	37.9		37.9	37.9	37.9	37.9	37.9
Contractual	358.5		276.5	276.5	276.5	276.5	276.5
Supplies							
Equipment							
Land & Structures							
Grants & Claims							
Miscellaneous							
TOTAL OPERATING	**396.4**	**0.0**	**314.4**	**314.4**	**314.4**	**314.4**	**314.4**
CAPITAL EXPENDITURES							
CHANGE IN REVENUES ()							

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts							
1003 GF Match							
1004 GF	396.4		314.4	314.4	314.4	314.4	314.4
1005 GF/Program Receipts							
1037 GF/Mental Health							
Other Interagency Receipts							
TOTAL	**396.4**	**0.0**	**314.4**	**314.4**	**314.4**	**314.4**	**314.4**

Estimate of any current year (FY2010) cost:

POSITIONS

Full-time							
Part-time							
Temporary							

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

HB 305, titled the "Omnibus Energy Bill," financially impacts the Alaska Energy Authority as follows:

Sec 12,13) amending the Renewable Energy Fund grant recommendation program by a) explicitly requiring significant weight be given to projects that are likely to have a financial benefit that exceeds the amount of the grant funds received c) requiring activity reports for each project d) requiring AEA to contract with experts to assist in conducting an independent economic analysis for each project recommended for funding. AEA does not anticipate increased costs with these changes.

(Continued)

Prepared by: Sara Fisher-Goad, Deputy Director-Operations
Phone 907-771-3012
Division: Alaska Energy Authority
Date/Time 3/12/10 12:00 AM
Approved by: Emil Notti, Commissioner
Date 3/12/2010
Commerce, Community and Economic Development

STATE OF ALASKA
2010 LEGISLATIVE SESSION

BILL NO. CSHB305

ANALYSIS CONTINUATION

Sec 14) establishing the "Emerging Energy Technology Fund" and requiring the authority to administer the fund by making grants or loans to eligible applicants. Cost Assumptions:
Approximately **$82,000** in one-time start up costs to develop program ciriteria, RFA process, review process, grant/loan agreements, etc. (Contractual)
Approximately **$14,400** per year to cover Advisory Committee expenses (travel)
Approximately **$276,518** per year to cover contract for personal services with AIDEA
Positions required: 1 Range 22 for program/project management; 1 Range 15 for finance/grant administration; 1Range 12 for administrative support.(Contractual)

Sec 15,24) changing the definition of a power project relative to the power project fund to include nuclear production. AEA's fiscal note is zero because there are currently no projects of this type. However, in the event viable nuclear projects are identified, annual operating costs would increase by $365,000 for each nuclear pwer project that has to be managed; $165,000 for a project manager with technical nuclear knowledge and $200,000 for contractual advisory service in the field.

Sec 18,19,21) Creates the Department of Energy and moves AEA to the Department of Energy; however, this bill does not change AEA's responsibilities for the management of energy programs. HB 305 designates the new Department of Energy as the State energy office for all USDOE funds. Currently AHFC is the designated energy office and AEA receives funds via RSA from AHFC for non-residential energy efficiency programs. This analysis assumes AEA will continue to manage energy efficiency programs and receive funding from the new Department rather than AHFC. Therefore, AEA's fiscal impact due to the creation of the Department is zero.

Sec 24,25) changing the composition of the AEA Board of Directors. Cost assumptions based on six one day meetings per year for seven board members. $560 per member, per meeting for travel and per diem. **($23,500 for travel)**

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

Fiscal Note Number:
Bill Version: CSHB 305
() Publish Date:

Identifier (file name): HB305CS(ENE)-CED-AIDEA-3-12-10
Title: Omnibus Energy Bill
Sponsor: House Energy
Requester: House Energy

Dept. Affected: DCCED
RDU: 125
Component: AIDEA operations
Component Number: 1234

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2011**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**
Personal Services	276.5		276.5	276.5	276.5	276.5	276.5
Travel							
Contractual							
Supplies							
Equipment							
Land & Structures							
Grants & Claims							
Miscellaneous							
TOTAL OPERATING	**276.5**	**0.0**	**276.5**	**276.5**	**276.5**	**276.5**	**276.5**
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							
Other Interagency Receipts	276.5		276.5	276.5	276.5	276.5	276.5
TOTAL	**276.5**	**0.0**	**276.5**	**276.5**	**276.5**	**276.5**	**276.5**

Estimate of any current year (FY2010) cost:

POSITIONS

Full-time	**3.0**		3	3	3	3	3
Part-time							
Temporary							

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

HB 305, "An Act relating to energy" impacts the Alaska Industrial Development and Export Authority by increasing needed positions for Alaska Energy Authority requirements.

HB 305 establishes the "Emerging Energy Technology Fund" and requires AEA to administer the fund by making grants to eligible applicants. Cost assumptions include:
Approximately **$276,518** per year to cover contract for personal services with AIDEA
Positions required: 1 Range 22 for program/project management; 1 Range 15 for finance/grant administration; 1Range 12 for administrative support.

Prepared by: Sara Fisher-Goad, Deputy Director-Operations — Phone 907-771-3012
Division: Alaska Industrial Development and Export Authority — Date/Time 3/12/10 12:00 AM
Approved by: Emil Notti, Commissioner — Date 3/12/2010
Commerce, Community and Economic Development

(Revised 11/6/2009 OMB)

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MEMORANDUM February 5, 2010

SUBJECT: State constraints on construction and operation of nuclear power facilities and on transportation, disposal, and storage of nuclear wastes (HB 305 -- Work Order No. 26-LS1223\R)

TO: Representative Pete Petersen

FROM: Brian Kane BJK
Legislative Counsel
and
Jack Chenoweth
Assistant Revisor

This is by way of response to a set of recent questions submitted by David Dunsmore.

1. Is it possible to legally construct a nuclear power plant in Alaska?
State law does not now affirmatively prohibit nuclear power plant construction in the state.

2. Is it possible to legally transport nuclear waste within or through Alaska or to store nuclear waste in the state?
State law purports to prevent transportation of nuclear waste within the state except for the purpose of disposal outside the state. The applicable statute is AS 18.45.027[1] and its prohibition is expressed in terms of one involving the transport of "high level nuclear waste material."[2]

---

[1] The text of AS 18.45.027(a) provides

(a) The transportation of high level nuclear waste material, except for purposes of disposal outside the state, is prohibited.

[2] The definition of this phrase reads, in relevant part:

(b) For purposes of this section, "high level nuclear waste material"

(1) means

(A) used nuclear reactor fuel;

(B) waste produced during the reprocessing of used nuclear reactor fuel; and

State statutes are silent on the permissibility of in-state storage of nuclear waste (that is, of used nuclear reactor fuel or of waste associated with the reprocessing of that fuel). Nonetheless, by implication arising out of the reading of AS 18.45.027(a) ("except for purposes of disposal outside the state"), the better argument is that state statutes permit transportation only to final storage outside Alaska -- that any transportation for the purpose of storage within the state is not authorized.

3. If construction of a nuclear power plant is permitted, what permitting or other requirements must be met to legally build the plant?

State statutes set out two principal permitting requirements that appear to be applicable to new nuclear power plant construction.[3] The first, AS 18.45.020,[4] requires the party intending to construct the nuclear power plant to first obtain a license or permit from the appropriate federal regulatory agency, the Nuclear Regulatory Commission. The second, AS 18.45.025,[5] imposes specific facility siting permit requirements.

(C) elements having an atomic number greater than 92 and containing 10 or more nanocuries per gram; . . . .

[3] The threshold question as to whether these two statutes apply at all turns on the definition of "nuclear power plant," the specific term that you used in your inquiry. It is likely, though by no means certain, a "nuclear power plant" would fall within the parameters of the definition of a "nuclear utilization facility," defined, for purposes of AS 18.45 as

> . . . [a place containing] an apparatus, device, or equipment in which nuclear fission is sustained in a self-supporting and controlled chain reaction; the term does not include an apparatus, device, or equipment used exclusively for educational, medical, or research purposes;

AS 18.45.900(4). If a "nuclear power plant" fits the terms of this definition, the licensing, permitting, and siting requirements mentioned in the two statutes apply.

[4] This section reads, in relevant part:

> **United States licenses or permits required.** A person may not . . . construct . . . a . . . utilization facility, or act as an operator of a . . . utilization facility wholly within the state without first obtaining a license or permit for the activity in which the person proposes to engage from the Nuclear Regulatory Commission if the commission requires a license or permit to be obtained by persons proposing to engage in the activities.

[5] The text of this section reads, in relevant part,

There are, of course, other considerations, apart from the standards of AS 18.45.025, that apply.

4. Must there be in place a plan to dispose of and store the nuclear waste that a nuclear power plant generates before the plant can be built or operate?

State statutes do not now specifically so require.

*

That said, let me add the following so as to reduce (if not eliminate) any confusion on the major point of regulating nuclear activity.

This state's initiatives touching upon nuclear power regulation may not be as effective in practice as they may appear as set out in the set of statutes.

In the nuclear energy field, the federal Atomic Energy Act of 1954, 42 U.S.C. 2011 et seq., and its amendments are the particular statutory enactments as to which general preemption rules must be applied. The 1954 Act was passed to encourage private sector involvement in the nuclear energy production field. A 1959 amendment to the Act, commonly referred to as the "cooperation with the states" amendment, set out procedures by which the principal federal regulator of that day, the Atomic Energy Commission,

---

> **Facilities siting permit required.** (a) A person may not construct a . . . utilization facility . . . in the state without first obtaining a permit from the Department of Environmental Conservation to construct the facility on land designated by the legislature under (b) of this section.
>
> (b) The legislature shall designate by law the land in the state on which a . . . nuclear utilization . . . may be located. In designating the land in the state on which a . . . nuclear utilization . . . may be located, the legislature shall act to protect the public health and safety.
>
> (c) The Department of Environmental Conservation shall adopt regulations governing the issuance of permits required by (a) of this section. However, a permit may not be issued until
>
> (1) -- *repealed* --
>
> (2) the municipality with jurisdiction over the proposed facility site has approved the permit; and
>
> (3) -- *repealed* --
>
> (4) the governor has approved the permit.

For reasons discussed in the remaining text of this memo, the involvement of the legislature in the siting decision made under subsection (a) and the standards on which the legislature may base its decision, as set out in (b), are questionable.

could transfer its regulatory authority over certain types of nuclear material to the states. The Commission was prohibited, however, from ceding its authority over especially hazardous activities and materials. The 1959 amendment's operative sections do not focus on the subjects preempted by federal law. Instead, the amendment details the regulatory duties which the Commission may or may not wholly surrender to the states. As a result, the preemptive intent of Congress was not expressly set out but, instead, it is to be implied.[6]

In matters related to nuclear facility siting, two significant decisions predominate.

In *Northern States Power Co. v. Minnesota*, 447 F.2d 1143 (8th Cir. 1971), aff'd mem. 405 U.S. 1035 (1972),[7] the Eighth Circuit Court of Appeals held that state regulations setting strict limits on the release of radioactive effluents from nuclear power plants were preempted by the Atomic Energy Act. The court implied preemption on the grounds that the federal government had exclusive authority to regulate radiation hazards under the 1959 amendment noted above.[8]

Northern States remained the leading decision on the scope of federal preemption in the area of radiation hazards until 1983 when the United States Supreme Court delivered its opinion in *Pacific Gas & Elec. Co. v. State Energy Resources. Conservation & Dev. Comm'n*, 461 U.S. 190, 75 L.Ed.2d 752, 103 S. Ct. 1713 (1983). The *Pacific Gas* decision involved a challenge to a California Act that imposed a moratorium on the certification of new nuclear power plants in the state. That moratorium was to last until the Nuclear Regulatory Commission finally approved and adopted a permanent disposal technique for the high level nuclear waste generated by the plants. The statute's purpose, according to its legislative history, was to regulate the economics of nuclear power, not its safety aspects. Without assurance of technology for disposing of the waste, the state maintained that the plants would have to shut down when their interim on-site storage

---

[6] To complete the history: In 1974, Congress passed the Energy Reorganization Act, 88 Stat. 1233, 42 U.S.C. §§ 5801 et seq., which abolished the Atomic Energy Commission and transferred its regulatory and licensing authority to the Nuclear Regulatory Commission. 42 U.S.C. § 5841(f). The 1974 Act also expanded the number and range of safety responsibilities under the Nuclear Regulatory Commission's charge.

[7] The United States Supreme Court's affirmance of the Court of Appeals decision reads in full: "Affirmed on appeal from C.A. 8th Cir. . . . MR. JUSTICE DOUGLAS and MR. JUSTICE STEWART dissent from affirmance."

[8] A set of 1977 amendments to the federal Clean Air Act, Pub. L. No. 95-95, 91 Stat. 685 (1977) (codified in scattered sections of 42 U.S.C. (1982)), has had the effect of statutorily overruling the *Northern States* decision. These amendments have brought all radioactive effluents within the definition of "air pollutant" under the Clean Air Act. 42 U.S.C. § 7602(g). Thus, 42 U.S.C. § 7416 now allows states to regulate effluent emissions more strictly than does the Nuclear Regulatory Commission.

capacity was filled. As a result, plant construction constituted an economic risk since the cost and timing of the permanent disposal technique could not be reasonably estimated in advance.

The utilities affected by the California Act brought the challenge on the ground that the Atomic Energy Act preempted the state imposed moratorium, even if the state law was enacted for economic motives. However, the Supreme Court unanimously held the state law valid. "In doing so," one commentator has written

> . . . the Court purported to explore and define the preemptive scope of the Atomic Energy Act. The Court found that "the federal government maintains complete control of the safety and 'nuclear' aspects of energy generation . . ." while the states retained authority in non-nuclear areas. In reaching its decision, the Court concluded that, ***though a moratorium imposed because of safety concerns would have been struck down, the economic purpose of the California ban saved it from preemption.*** The Court confined its examination of the statute to whether any non-safety rationale existed for the California law. . . . Finally, the Court emphasized the consistency of its holding with its summary affirmation of *Northern States*. The Court distinguished *Northern States* by noting that then a state had attempted to directly legislate in the preempted field of nuclear safety. Similar state efforts, according to the Court, would be preempted under its holding in *Pacific Gas*.

"Note and comment: Federal preemption of the state regulation of nuclear power," 60 Chicago-Kent. L. Rev. 989, 1000-1001 (emphasis added).

Another commentary considering the effect of the *Pacific Gas* decision drew this conclusion as it relates to the continuing role of the states:

> [A s]tate statute [the California statute that was challenged in the *Pacific Gas* decision] imposing moratorium on certification of new nuclear plants until state energy commission finds that there exists demonstrated technology or means for disposal of high-level nuclear waste is not pre-empted by Atomic Energy Act of 1954 (42 USCS §§ 2011 et seq.); [the Atomic Energy] Act does not expressly require states to construct or authorize nuclear power plants or prohibit states from deciding, as absolute or conditional matter[,] not to permit construction of any further reactors; under Act, Federal Government maintains complete control of safety and nuclear aspects of energy generation and state's exercise their traditional authority over need for additional generating capacity, type of generating facilities to be licensed, land use, ratemaking, and like; state cannot completely prohibit new construction of nuclear power plants until its safety concerns are satisfied by Federal Government, since state safety regulation is not pre-empted only when it conflicts with

> federal law, but rather, Federal Government has occupied entire field of nuclear safety concerns, except limited powers expressly ceded to states.

One other decision warrants mention. In *United States v. Kentucky*, 252 F.3d 816 (6th Cir. 2001), cert. den. 534 U.S. 973, 122 S. Ct. 396, 151 L. Ed.2d 300 (2001), the United States Department of Energy successfully challenged Kentucky's imposition of permit conditions imposed by the state environmental agency relating to the disposal of radioactive waste in a landfill operated by the federal department:

> The [Kentucky Natural Resources and Environmental Protection] Cabinet's arguments are not well-taken. As the Supreme Court unequivocally stated in *Pacific Gas & Electric*, "the federal government has occupied the entire field of nuclear safety concerns, except the limited powers expressly ceded to the states." 461 U.S. at 212. ***Accordingly, the A[tomic] E[nergy] A[ct] preempts any state attempt to regulate materials covered by the Act for safety purposes.*** See *id.* Here, the challenged permit conditions specifically limit the amount of "radioactivity" and "radionuclides" that [the United States Department of Energy] may place in its landfill. The sources of such "radioactivity" and "radionuclides" are materials covered by the AEA, i.e., source, special nuclear, and byproduct materials. The Cabinet seeks to impose these conditions to protect human health and the environment. The permit conditions therefore represent an attempt by the Cabinet to regulate materials covered by the AEA based on the Cabinet's safety and health concerns, and are thus preempted.
>
> . . . .
>
> . . . [In addition,] the Cabinet's assertion that it has the "right under state law" to prohibit any radioactive materials from being placed in the landfill is incorrect. The Supreme Court rejected a similar argument in *Pacific Gas & Electric*:
>
> > Respondents . . . argue . . . that although safety regulation of nuclear plants by states is forbidden, a state may completely prohibit new construction until its safety concerns are satisfied by the federal government. We reject this line of reasoning. State safety regulation is not preempted only when it conflicts with federal law. Rather, the federal government has occupied the entire field of nuclear safety concerns . . . .
>
> [*Pacific Gas & Electric*,] 461 U.S. at 212.

252 F.3d at 823 - 824 (emphasis added)

The decision in *Pacific Gas* also endorses the Nuclear Regulatory Commission's preeminent role in matters relating to health: the opinion refers back to an earlier decision, *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 55 L.Ed.2d 460, 98 S. Ct. 1197 (1978), to reiterate this critical distinction:

> There is little doubt that under the Atomic Energy Act of 1954, state public utility commissions or similar bodies are empowered to make the initial decision regarding the need for power. 42 U.S.C. § 2021(k). The Commission's prime area of concern in the licensing context, on the other hand, is national security, public health, and safety. [42 U.S.C.] §§ 2132, 2133, 2201.

435 U.S. at 550. Arguably, while recognizing in *Pacific Gas* that one of the primary purposes of the Atomic Energy Act is, and always has been, to promote the development of nuclear power, the Court concluded that this promotion was not to proceed at all costs. Specifically, the Court found that a state could halt the development of nuclear power if it did so for economic reasons (or presumably for any non-safety or non-public health-related based purpose), thereby narrowing the earlier *Northern States* holding.

These decisions are relevant to atomic energy facility regulation under the laws of Alaska. Under AS 18.45.025(b), cited earlier, the legislature retains to itself authority to "designat[e] the land in the state on which a nuclear fuel production, nuclear utilization, nuclear reprocessing, or nuclear waste disposal facility may be located. . . ." In doing so, however, the last part of subsection (b) recites that "the legislature shall act to protect the public health and safety." However, state regulation, including imposition of a moratorium on development and operation of new facilities, for purposes relating to safety considerations is preempted under the Atomic Energy Act, as the Eighth Circuit concluded in the *Northern States* decision and as the Sixth Circuit has related in its more recent Kentucky decision. The same objection may also apply to public health considerations under a reading of *Vermont Yankee*. In other words, if the legislature is planning to rely on AS 18.45.025(b), it may want, first, to revisit the statute and to reformulate the standard set out in the subsection's last sentence in order to ensure compliance with federal preemption considerations.

The point of this analysis is simply to underscore the need for caution in considering state authority with respect to nuclear power facilities and the transportation, disposal, and storage of nuclear wastes. The current state statutes are "dated" -- they largely pre-date the decision in *Pacific Gas* and, by application of that key decision, in some circumstances, they may have been made obsolete by the intervening court decisions concerning preemption -- and ought not to be relied upon as providing accurate guidance on what a state may or may not now do.

BJK:JBC:plm
10-054.plm

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MEMORANDUM March 11, 2010

SUBJECT: Sectional summary of CSHB 305(ENE)
(Work Order No. 26-LS1223\E)

TO: Representative Bryce Edgmon
Co-Chair of the House Special Committee on Energy
Attn: Adam Berg

FROM: Brian J. Kane BJK
Legislative Counsel

You have requested a sectional summary of CSHB 305(ENE), a bill relating to energy.

Please note that a sectional summary of a bill is not an authoritative interpretation of a bill. The bill itself is the best statement of its contents.

Section 1 of the bill requires the Department of Education and Early Development to provide an operations and maintenance cost report for construction and adopt regulations regarding energy efficiency for construction and maintenance.

Sections 2 and 3 of the bill amend the definitions of "major maintenance" and "school construction" relating to achieving an operating cost savings.

Section 4 of the bill amends AS 18.45.020 to include the phrases "special nuclear material facility" and "by-product material facility" in order to cover more projects or activities in this section for which a license or permit may be needed from the Nuclear Regulatory Commission.

Section 5 of the bill adds the phrase "nuclear utilization facility" to AS 18.45.025(a) in order to conform with definitions listed in AS 18.45.900. The section amends AS 18.45.025(b) to state that when the legislature designates by law the land in the state on which a nuclear utilization facility or utilization facility may be located, it must act only in the interest of regulating the economics of nuclear energy. The section deletes a line of AS 18.45.025(c) that states that a permit may not be issued unless approved by the governor, leaving only a requirement for approval by the Department of Environmental Conservation and a municipality.

Sections 6 and 7 of the bill make conforming amendments to statutory changes within the bill.

Section 8 of the bill requires the Alaska Supreme Court, in relation to court facilities, to comply with the state energy use reduction plan.

Section 9 of the bill tasks the Department of Transportation and Public Facilities with reviewing the option of using alternative energy when adopting plans and specifications for public works.

Section 10 of the bill adds the board of directors of the Alaska Energy Authority to the definition of "state commission or board" in AS 39.50, the chapter that requires financial disclosure by the state's public officials.

Section 11 of the bill states that the ~~Alaska Energy Authority~~ AVEDA is a public corporation and instrumentality of the state within the Department of Energy.

Section 12 of the bill amends a provision of the renewable energy grant fund regarding the methodology for determining the order of projects to receive funding and requiring activity reports to be filed by grant recipients.

Section 13 of the bill amends the renewable energy fund statute by requiring the Alaska Energy Authority to hire an economist or financial analyst to prepare a written evaluation of each recommended grant application.

Section 14 of the bill creates the emerging energy technology fund.

Section 15 of the bill amends the definition of "power project" or "project" in AS 42.45.990(4) as it applies to rural and statewide energy programs that are subject to AS 42.45 to delete the phrase "other than nuclear energy production."

Section 16 of the bill adds the renewable energy production tax credit as an exception to a tax credit limitation set for corporations.

Section 17 of the bill establishes a renewable energy production tax credit as part of the Alaska Net Income Tax Act (AS 43.20).

Section 18 of the bill adds the Department of Energy to the list of state government offices and departments.

Section 19 of the bill establishes the Department of Energy and, within that department, creates the home energy conservation and weatherization program.

Section 20 of the bill tasks the Department of Transportation and Public Facilities with retrofitting 25 percent of all public facilities by 2020, making sure that deferred maintenance and new construction meet national standards for energy efficiency, and reporting to the legislature on the department's progress.

Section 21 states that the Alaska Energy Authority is a public corporation of the state within the Department of Energy, transferring it from the Department of Commerce, Community, and Economic Development.

Section 22 of the bill reconstitutes the membership of the board of directors of the Alaska Energy Authority and removes the members of the Alaska Industrial Development and Export Authority as board members.

Section 23 of the bill amends AS 44.83.040(a) to conform to the changes of the Alaska Energy Authority board of directors.

Section 24 of the bill amends the definition of "power project" or "project" in AS 44.83.990(6) as it applies to power projects subject to the Alaska Energy Authority to delete the phrase "other than nuclear energy production."

Sections 25 - 32 of the bill amend the alternative energy revolving loan fund by amending the funding sources and having the fund used only for commercial buildings.

Section 33 of the bill amends the definition of "alternative energy system" in AS 46.11.900(1) by removing reference to "nuclear fuel," thereby including that as an alternative energy system electrical energy source.

Section 34 of the bill repeals AS 18.45.027, AS 18.56.850, AS 45.88.010(c), AS 45.88.030(c), AS 45.88.030(d), and AS 45.88.040(a).

Section 35 of the bill repeals the renewable energy production tax credit (AS 43.20.046) on January 1, 2025.

Section 36 of the bill specifies the manner of initial appointment of directors for the board of directors of the reconstituted Alaska Energy Authority.

Section 37 of the bill requires the Department of Transportation and Public Facilities, in consultation with the Alaska Energy Authority, to adopt and implement a systematic process for prioritizing the retrofitting of state facilities for a long-term increase in energy efficiency and reduction of energy costs.

Section 38 of the bill directs the revisor of statutes to change the heading of article 1 of AS 45.88 to "Alternative Energy Revolving Loan Fund."

BJK:ljw
10-160.ljw

26-LS1223\E.1
Kane
3/11/10

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE [redacted]

TO: CSHB 305(ENE), Draft Version "E"

Page 1, line 5, following "**credit,**":

Insert "**to the Alaska heating assistance program,**"

Page 19, following line 16:

Insert new bill sections to read:

"* **Sec. 34.** AS 47.25.621 is amended to read:

Sec. 47.25.621. Alaska affordable heating [ASSISTANCE] program. (a) The Alaska **affordable** heating [ASSISTANCE] program is established in the Department of Health and Social Services to provide expanded eligibility for Alaska residents for home heating assistance, to the extent funds are **available in the Alaska affordable heating fund** [APPROPRIATED BY THE LEGISLATURE FOR THAT PURPOSE].

(b) The **Alaska affordable** heating [ASSISTANCE] program established under this section is in addition to the federal low-income heating and energy assistance provided under 42 U.S.C. 8621 - 8629 (Low-Income Home Energy Assistance Act of 1981), as amended, and implementing regulations.

* **Sec. 35.** AS 47.25.621 is amended by adding a new subsection to read:

(c) The Alaska affordable heating fund is established as a separate fund to be managed by the Department of Revenue. The fund consists of appropriations made to it. Interest earned by the fund may be appropriated to it. The Department of Health and Social Services shall use money in the fund for Alaska affordable heating payments.

* **Sec. 36.** AS 47.25.622 is amended to read:

Sec. 47.25.622. Duties. The **Department of Health and Social Services**

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[DEPARTMENT] shall

(1) administer the Alaska **affordable** heating [ASSISTANCE] program provided under AS 47.25.621;

(2) adopt regulations under AS 44.62 (Administrative Procedure Act) to carry out the purpose of the program;

(3) coordinate payments among other heating assistance programs to avoid duplication of payments.

* **Sec. 37.** AS 47.25.623 is amended to read:

Sec. 47.25.623. Eligibility; payment amount. An individual is eligible for home heating assistance payments under the Alaska **affordable** heating [ASSISTANCE] program if the individual

(1) is a resident of the state;

(2) is physically present and resides in a home in the state when the home heating costs are incurred;

(3) **for assistance calculated under (b) and (c) of this section, has gross household income not to exceed, as a percentage of the federal poverty guideline for Alaska set by the United States Department of Health and Human Services and revised under 42 U.S.C. 9902(2),**

(A) 225 percent for a determination to be made under (c)(1) - (3) of this section; and

(B) 250 percent for a determination to be made under (c)(4) of this section; and [HAS GROSS HOUSEHOLD INCOME ABOVE 150 PERCENT BUT THAT DOES NOT EXCEED 225 PERCENT OF THE FEDERAL POVERTY GUIDELINE FOR ALASKA SET BY THE UNITED STATES DEPARTMENT OF HEALTH AND HUMAN SERVICES AND REVISED UNDER 42 U.S.C. 9902(2);]

(4) meets other eligibility requirements specified in regulations adopted under AS 47.25.622.

* **Sec. 38.** AS 47.25.623 is amended by adding new subsections to read:

(b) The Department of Health and Social Services shall determine the number of points for each eligible individual based on the point formula used under 42 U.S.C.

8621 - 8629 (Low-Income Home Energy Assistance Act of 1981), as amended, and implementing regulations. Except as provided in (d) of this section, the amount of the Alaska affordable heating payment for an individual equals the base amount calculated under (c) of this section minus the amount the individual is eligible to receive under the federal low-income home energy assistance program under 42 U.S.C. 8621 - 8629, as amended, and implementing regulations.

(c) The Department of Health and Social Services shall calculate the base amount of the Alaska affordable heating payment for the individual based on points determined under (b) of this section and on the average price a barrel of Alaska North Slope crude oil for sale on the United States West Coast during September through February of the preceding fiscal year as follows:

(1) $130 a point when the average price is not more than $75 a barrel;

(2) $140 a point when the average price is more than $75 and not more than $100 a barrel;

(3) $150 a point when the average price is more than $100 and not more than $150 a barrel;

(4) $165 a point when the average price is more than $150 a barrel.

(d) Under the program authorized by AS 47.25.621 - 47.25.626, taking into consideration the gross household income rates established in (a) of this section and the base amounts to be calculated under (b) and (c) of this section,

(1) if insufficient money is appropriated to fully fund the Alaska affordable heating payments during the fiscal year, the department

(A) shall, for the duration of that fiscal year, suspend calculation and payment under (a)(3)(B) of this section and calculate and pay all eligible individuals under (a)(3)(A) of this section; and

(B) may, to the extent there is or may be an appropriation balance surplus to the amount required to make all payments under (A) of this paragraph, by regulation, establish at any time during the fiscal year a prospective pro rata reduction of the payment rates that the department will pay to eligible individuals under the program during that fiscal year qualifying under (a)(3)(B) of this section and, thereafter, may provide for prorated

payments; and

(2) if the commissioner reasonably determines that the total of appropriations from all sources during the fiscal year may exceed the amount required to fully fund all applications for assistance for Alaska affordable heating payments, the commissioner may expend the amount of excess money, not to exceed the total amount of the appropriations, to carry out the purpose of AS 47.25.621 - 47.25.626; under the authority of this paragraph, the commissioner shall distribute the estimated excess money pro rata among individuals receiving assistance under this section without regard to the limitations set out in the dollar value of the point formula expressed in (c)(1) - (4) of this section.

*** Sec. 39.** AS 47.25.626(a) is amended to read:

(a) The **Department of Health and Social Services** [DEPARTMENT] may develop a regional Alaska heating [ASSISTANCE] program for the administration of AS 47.25.621 - 47.25.626 to provide home heating assistance in a uniform and cost-effective manner in a region of this state if an Alaska Native organization is authorized to implement a federally approved tribal family assistance plan that includes that region and has been awarded a tribal energy assistance grant for a program that includes that region under 42 U.S.C. 8623(d).

*** Sec. 40.** AS 47.25.626(b) is amended to read:

(b) The department may award contracts to implement a program developed under (a) of this section. A contract authorized for delivery of home heating assistance under a regional Alaska heating [ASSISTANCE] program under this section is exempt from the competitive bid requirements of AS 36.30 (State Procurement Code). Subject to appropriation, a contract under this section must be in an amount that represents a fair and equitable share of the money appropriated for the Alaska **affordable** heating [ASSISTANCE] program under AS 47.25.621 - 47.25.626 to serve the state residents specified in (a) of this section. The authority provided under this section to contract is in addition to the authority to contract in AS 47.05.015 or other law.

*** Sec. 41.** AS 47.25.626(f) is amended to read:

(f) If the department establishes a regional Alaska heating [ASSISTANCE] program and awards a contract to provide home heating assistance under this section,

a person applying for home heating assistance under AS 47.25.621 - 47.25.626 in the region of the state covered by the regional Alaska heating [ASSISTANCE] program may obtain home heating assistance from the department only through the organization designated by the department to serve the region."

Renumber the following bill sections accordingly.

Page 20, line 5:

Delete "INSTRUCTION."

Insert "INSTRUCTIONS. (a) The revisor of statutes shall change the heading of art. 6 of AS 18.56 from "Article 6. Energy Conservation" to "Article 6. Energy Efficiency and Conservation Programs."

(b)"

26-LS1223\E.2
Kane
3/11/10

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE [redacted]

TO: CSHB 305(ENE), Draft Version "E"

Page 7, following line 7:

Insert a new bill section to read:

"* **Sec. 10.** AS 37.07.040 is amended to read:

Sec. 37.07.040. Office of management and budget. The Alaska office of management and budget shall

(1) assist the governor in meeting the requirements of AS 37.07.020, including the coordination and analysis of state agency goals and objectives, plans, and budget requests;

(2) prepare for submission to the governor an annually updated six-year capital improvements program and the proposed capital improvements budget for the coming fiscal year, the latter to include individual project justification with documentation of estimated project cost;

(3) develop procedures to produce the information needed for effective policy decision making, including procedures to provide for the dissemination of information about plans, programs, and budget requests to be included in the annual budget and opportunity for public review and comment during the period of budget preparation;

(4) assist state agencies in their statement of goals and objectives to achieve, among other things, the legislature's mission and desired results, preparation of plans, assessments of the extent to which missions and desired results have been achieved, budget requests, and reporting of program performance; all documents forwarded by the office to a state agency containing instructions for the preparation of program plans and budget requests and the reporting of program performance are

2904

public information after the date they are forwarded;

(5) administer its responsibilities under the program execution provisions of this chapter so that the policy decisions and budget determinations of the governor and the legislature are implemented;

(6) provide the legislative finance division with the budget information it may request;

(7) provide the legislative finance division with an advance copy of the governor's budget workbooks at least seven days before the legislature convenes in a regular session;

(8) prepare the proposed capital improvements budget for the coming fiscal year evaluating both state and local requests from the standpoint of need, equity, and priorities of the jurisdiction; other factors such as project amounts, population, local financial match, federal funds being used for local match, municipality or unincorporated community acceptance of the facility, and all associated costs of the facility may be considered;

(9) for each department in the executive branch, report to the legislature by the 45th day of each regular session the amount of money appropriated to the department that is expected to lapse into the general fund at the end of the current fiscal year;

(10) establish and administer a state agency program performance management system involving planning, performance budgeting, performance measurement, and program evaluation; the office shall ensure that information generated under this system is useful for managing and improving the efficiency and effectiveness of agency operations;

(11) by January 15, list each lease-purchase agreement entered into by an agency during the immediately preceding fiscal year for the acquisition of equipment or other personal property, together with a description of the property acquired and financial details, including the purchase price, the term for payments, the amount of each payment, and the amount of interest or financing charges paid;

(12) work with state agencies to develop a standardized methodology to collect and store energy consumption and expense data."

Renumber the following bill sections accordingly.

Page 13, line 28, through page 14, line 16:

Delete all material and insert:

"* **Sec. 21.** AS 44.42 is amended by adding a new section to read:

Sec. 44.42.067. Retrofits and new construction for energy efficiency; energy efficiency report. (a) Not later than January 1, 2020, the department shall work with other state agencies to retrofit at least 25 percent of all public facilities, starting with those it determines are the least energy efficient, if the department determines that retrofitting the public facilities will result in a net savings in energy costs to the state within 15 years after completion of the retrofits for a public facility and if funding for the retrofits is available.

(b) A retrofit or deferred maintenance of a public facility performed under this section, to the extent feasible, shall meet or exceed the most recently published edition of the ASHRAE/IESNA Standard 90.1, Energy Standard for Buildings Except for Low-Rise Residential Buildings, as published by the American Society of Heating, Refrigerating and Air-Conditioning Engineers.

(c) New construction of a public facility under this section shall meet or exceed the most recently published edition of the ASHRAE/IESNA Standard 90.1, Energy Standard for Buildings Except for Low-Rise Residential Buildings, as published by the American Society of Heating, Refrigerating and Air-Conditioning Engineers.

(d) Not later than January 1 of each year, the department, in consultation with the Department of Administration, shall submit a report to the legislature detailing the department's progress in meeting the requirements of this section to reduce state energy consumption and costs and carrying out the duties listed in AS 44.42.020 related to energy use. The department shall include in the report an analysis of the consumption and expense data recorded by the office of management and budget under AS 37.07.040, comparing energy consumption levels in each year with past years to determine if reductions are being achieved.

(e) In this section, "public facility" means a facility owned and controlled by the state for government or public use that is 10,000 square feet or more and is not a legislative building or court building."

Page 19, line 19:

Delete "sec. 16"

Insert "sec. 17"

Page 19, lines 19 - 20:

Delete "sec. 17"

Insert "sec. 18"

Page 19, following line 20:

Insert a new bill section to read:

"* **Sec. 37.** AS 44.42.067(d), enacted by sec. 21 of this Act, is repealed January 1, 2021."

Renumber the following bill sections accordingly.

Page 19, line 24:

Delete "sec. 22"

Insert "sec. 23"

Page 20, following line 2:

Insert a new bill section to read:

"* **Sec. 40.** The uncodified law of the State of Alaska is amended by adding a new section to read:

OFFICE OF MANAGEMENT AND BUDGET. Not later than November 1, 2010, the Office of Management and Budget shall develop a standardized methodology to collect and store energy consumption and expense data as described in AS 37.07.040(12), as enacted by sec. 10 of this Act."

Renumber the following bill section accordingly.

26-LS1223\E.4
Kane
3/11/10

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE [redacted]

TO: CSHB 305(ENE), Draft Version "E"

Page 20, following line 2:

Insert a new bill section to read:

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

EXHAUSTION OF UNUSED RENEWABLE ENERGY REFUNDABLE TAX CREDITS. Notwithstanding the repeal of AS 43.98.040 by sec. 35 of this Act, an unused portion of a tax credit acquired under AS 43.98.040, enacted by sec. 17 of this Act, may be carried forward until exhausted, except that the unused portion of the tax credit may not be carried forward to tax years beginning after December 31, 2023."

Renumber the following bill section accordingly.

2909

26-LS1223\E.5
Kane
3/11/10

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE [redacted]

TO: CSHB 305(ENE), Draft Version "E"

Page 4, line 29:

Delete "**or**"

Insert "**facility,**"

Page 8, lines 2 - 3:

Delete all material and insert:

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

2910

26-LS1223\E.6
Kane
3/11/10

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE [redacted]

TO: CSHB 305(ENE), Draft Version "E"

Page 8, line 9, through page 10, line 9:

Delete all material and insert:

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

Article 7A. Emerging Energy Technology Fund.

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

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

(2) amounts deposited under (f) of this section; and

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

(b) The fund is not a dedicated fund.

(c) The fund shall be administered by the authority, but the authority may contract for the investment of money appropriated to the fund but not disbursed for a grant. The authority, in consultation with the advisory committee established under (g) of this section, may make grants from the fund to eligible applicants for

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

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

(B) improve an existing energy technology; and

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

2911

(d) In making grants under this section, the authority, in consultation with the advisory committee established under (g) of this section, shall give priority to

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

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

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

(e) In administering the fund, the authority may enter into a contract or agreement with the University of Alaska to provide technical and economic analysis for the advisory committee established under (g) of this section and a review of the projects awarded grants.

(f) As a condition of all grants awarded under this section, the authority shall require that the grantee pay to the authority a fair and reasonable return to the fund, as determined by the authority, from the revenue, economic value, or profits derived by the grantee from the grant project. The authority shall deposit the amounts received under this subsection into the fund. To secure payment of sums owed to the authority under a grant agreement, the authority may own and take a security interest in patents, copyrights, and other intellectual property.

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

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

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

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

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

(5) the National Renewable Energy Laboratory;

(6) the Arctic Energy Office of the National Energy Technology Laboratory;

(7) the Alaska Industrial Development and Export Authority.

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

(i) If a member of the advisory committee appointed under (g)(4), (g)(5), or (g)(6) is not available to serve as a member of the committee, the governor shall appoint a representative from a federal agency or department with a comparable mission or purpose to the agency listed in (g)(4), (g)(5), or (g)(6) to fill the position on the committee. If a representative from a federal agency or department is not available to fill the position, the governor may appoint a member from a state agency or department.

(j) In this section,

(1) "eligible applicant" means

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

(B) an independent power producer;

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

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

(E) a nonprofit organization.

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

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

26-LS1223\E.7
Kane
3/11/10

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE [redacted]

TO: CSHB 305(ENE), Draft Version "E"

Page 11, line 21, following "energy":

Insert "or $30,000,000 for each project, whichever is less"

Page 12, following line 6:

Insert a new paragraph to read:

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

Renumber the following paragraph accordingly.

2914

26-LS1223\E.9
Kane
3/11/10

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE [redacted]

TO: CSHB 305(ENE), Draft Version "E"

Page 19, line 20:

Delete "2025"

Insert "2018"

2915

26-LS1223\E.8
Kane
3/11/10

AMENDMENT

OFFERED IN THE HOUSE REPRESENTATIVE [redacted]

TO: CSHB 305(ENE), Draft Version "E"

[redacted]

Page 16, line 28:

Delete "prior to"

Insert "before"

2916

26-LS1223\E.10
Kane
3/12/10

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE [redacted]

TO: CSHB 305(ENE), Draft Version "E"

Page 1, line 12:

Delete "**and nuclear waste material**"

Page 19, line 17:

Delete "AS 18.45.027;"

2917

26-LS1223\E.3
Kane
3/11/10

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE [redacted]

TO: CSHB 305(ENE), Draft Version "E"

Page 1, line 12, following "**material**":

Insert "**; directing the Department of Transportation and Public Facilities to prepare a report on the feasibility of using compressed natural gas to power vehicles in the state, including vehicles owned or operated by the state, and including in that study, if warranted, a pilot program proposal for powering some vehicles owned or operated by the state with compressed natural gas**"

Page 20, following line 2:

Insert a new bill section to read:

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

USE OF COMPRESSED NATURAL GAS TO POWER VEHICLES; PILOT PROGRAM; STUDY; PROPOSAL; REPORT. (a) The Department of Transportation and Public Facilities shall, under the authority of AS 44.42.020(a)(3), study the feasibility of using compressed natural gas to power vehicles in the state. The study must

(1) review existing government programs and incentives offered in Utah and other North American jurisdictions that promote the use of compressed natural gas to power vehicles;

(2) review and summarize relevant studies and investigations on existing public policy incentives that encourage the use of compressed natural gas to power vehicles;

(3) evaluate the environmental benefits and technical merits of using compressed natural gas to power vehicles;

(4) consider the economic, environmental, and technological advantages and

disadvantages of using and promoting the use of compressed natural gas to power vehicles in the state; and

(5) if warranted by the findings of the study, set out a proposal for a pilot program in the state to test the use of compressed natural gas to power vehicles owned or operated by the state; the proposal must

(A) recommend the most cost-effective and appropriate departments and geographic locations for a pilot program;

(B) detail how the pilot program, if successful, could be expanded to provide for increased use of compressed natural gas to power vehicles owned or operated by the state, as well as privately owned or operated vehicles;

(C) estimate the costs to the state of a pilot program in which the state would purchase vehicles powered by compressed natural gas or convert existing vehicles to be powered by compressed natural gas, including

(i) the costs of maintaining vehicles powered by compressed natural gas and training maintenance personnel;

(ii) the costs of adapting, or encouraging the adapting of, state vehicle fueling locations to provide compressed natural gas;

(iii) the costs of using compressed natural gas instead of diesel fuel or gasoline;

(iv) the costs of expanding the pilot program or developing additional pilot programs under (B) of this paragraph;

(v) other costs or savings that can be reasonably expected to accompany the pilot program.

(b) The Department of Transportation and Public Facilities shall prepare a report containing the results of the study under (a) of this section not later than June 30, 2011. The department shall notify the legislature when the report is available."

Renumber the following bill section accordingly.

26-LS1223\E.11
Kane
3/12/10

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE PETERSEN

TO: CSHB 305(ENE), Draft Version "E"

Page 2, following line 1:

Insert a new bill section to read:

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

LEGISLATIVE FINDINGS. For the purpose of sec. 5 of this Act, the legislature finds that a provision requiring a binding contract for the disposal or storage of nuclear waste before a permit may be issued is necessary for regulating the economics of nuclear power and that having a contract in place is a needed sign of the economic viability of a project."

Page 2, line 2:

Delete "**Section 1**"

Insert "**Sec. 2**"

Renumber the following bill sections accordingly.

Page 5, line 15:

Delete "[(1)"

Insert "(1) ["

Page 5, line 17:

Delete "[; AND"

Insert "; and

(2) a person has provided evidence satisfactory to the department

2920

that a binding contract is in place for the disposal and storage of any nuclear waste"

Page 5, line 18:

Delete "(3)"

Insert "[(3)"

Page 19, line 19:

Delete "sec. 16"

Insert "sec. 17"

Page 19, lines 19 - 20:

Delete "sec. 17"

Insert "sec. 18"

Page 19, line 24:

Delete "sec. 22"

Insert "sec. 23"

26-LS1223\E.12
Kane
3/12/10

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE PETERSEN

TO: CSHB 305(ENE), Draft Version "E"

Page 5, lines 12 - 19:

Delete all material and insert:

"(c) The Department of Environmental Conservation shall adopt regulations governing the issuance of permits required by (a) of this section. However, a permit may not be issued until

(1) [REPEALED

(2)] the municipality with jurisdiction over the proposed facility site has approved the permit; **or**

(2) for a facility that is not within a municipality, [AND

(3) REPEALED

(4)] the governor has approved the permit."

26-LS1223\E.13
Kane
3/12/10

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE PETERSEN

TO: CSHB 305(ENE), Draft Version "E"

Page 7, following line 13:

Insert a new section to read:

"* **Sec. 12.** AS 42.45.010 is amended by adding a new subsection to read:

(k) A loan may not be made under this section for a project involving the production of power from nuclear energy unless the authority determines that no other available power source is as cost-effective as the proposed project involving power production from nuclear energy."

Renumber the following bill sections accordingly.

Page 19, line 19:

Delete "sec. 16"

Insert "sec. 17"

Page 19, lines 19 - 20:

Delete "sec. 17"

Insert "sec. 18"

Page 19, line 24:

Delete "sec. 22"

Insert "sec. 23"

2923

26-LS1223\E.14
Kane
3/12/10

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE PETERSEN

TO: CSHB 305(ENE), Draft Version "E"

Page 2, following line 1:

Insert a new bill section to read:

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

LEGISLATIVE INTENT. For sec. 21 of this Act, it is the intent of the legislature that the Department of Transportation and Public Facilities engage in a partnership with the University of Alaska, nonprofit organizations, and other organizations to assist in maintaining the energy audit database in order to lower the cost to the state."

Page 2, line 2:

Delete "**Section 1**"

Insert "**Sec. 2**"

Renumber the following bill sections accordingly.

Page 13, following line 27:

Insert a new bill section to read:

"* **Sec. 21.** AS 44.42.065 is amended by adding a new subsection to read:

(d) The department shall

(1) create and maintain a database of the results of the energy audits of public buildings performed under (a) of this section; and

(2) make the information in the database available to the legislature and the public."

2924

Renumber the following bill sections accordingly.

Page 19, line 19:

Delete "sec. 16"

Insert "sec. 17"

Page 19, lines 19 - 20:

Delete "sec. 17"

Insert "sec. 18"

Page 19, line 24:

Delete "sec. 22"

Insert "sec. 24"

26-LS1223\E.15
Kane
3/12/10

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE PETERSEN

TO: CSHB 305(ENE), Draft Version "E"

Page 18, line 8, following "**pellet**":

Insert "**or grain**"

2926

26-LS1223\E.16
Kane
3/12/10

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE RAMRAS

TO: CSHB 305(ENE), Draft Version "E"

Page 13, line 19:

Delete "and"

Page 13, line 20, following "program":

Insert "; and

(4) a residential solid fuel burning device change out program"

2927

26-LS1223\E.17
Kane
3/15/10

AMENDMENT

MILLER 3

OFFERED IN THE HOUSE BY REPRESENTATIVE EDGMON

TO: CSHB 305(ENE), Draft Version "E"

Page 1, line 1:

Delete ", **operating costs,**"

Page 4, lines 12 - 17:

Delete all material.

Renumber the following bill sections accordingly.

Page 19, line 19:

Delete "sec. 16"

Insert "sec. 14"

Page 19, lines 19 - 20:

Delete "sec. 17"

Insert "sec. 15"

Page 19, line 24:

Delete "sec. 22"

Insert "sec. 20"

2928

26-LS1223\E.18
Kane
3/15/10

AMENDMENT

MILLETT 1

OFFERED IN THE HOUSE BY REPRESENTATIVE EDGMON

TO: CSHB 305(ENE), Draft Version "E"

Page 14, line 16:

Delete "or court building"

2929

26-LS1223\E.19
Kane
3/15/10

AMENDMENT

MCCARTT 1

OFFERED IN THE HOUSE BY REPRESENTATIVE EDGMON

TO: CSHB 305(ENE), Draft Version "E"

Page 1, line 1:

Delete "**construction plans**"

Insert "**energy consumption and costs**"

Page 3, lines 13 - 14:

Delete "**an operations and maintenance cost report**"

Insert "**projected energy consumption and costs**"

2930

26-LS1223\E.20
Kane
3/16/10

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE EDGMON

TO: CSHB 305(ENE), Draft Version "E"

Page 1, line 11, following "**fund;**":

Insert "**relating to the bulk fuel bridge loan fund; relating to the bulk fuel revolving loan fund and moving administration of the fund from the Alaska Energy Authority to the Department of Commerce, Community, and Economic Development;**"

Page 6, following line 22:

Insert new bill sections to read:

"* **Sec. 9.** AS 29.60 is amended by adding a new section to article 5 to read:

Sec. 29.60.655. Bulk fuel revolving loan fund. (a) The bulk fuel revolving loan fund is established in the department to assist communities, utilities providing power to communities, and fuel retailers in communities in purchasing bulk fuel to generate power or to supply the public with fuel for use in communities. A community, or a person generating power or selling fuel in a community that has a written endorsement from the governing body of a community for which a loan from the fund is sought, is eligible for a loan from the bulk fuel revolving loan fund for a purchase of an emergency supply or a semiannual or annual supply of bulk fuel to be used in the community.

(b) The legislature may use money in the fund to make appropriations for costs of administering this section.

(c) The foreclosure expense account is established as a special account within the bulk fuel revolving loan fund. This account is established as a reserve from fund equity.

(d) The department may spend money credited to the foreclosure expense

account when necessary to protect the state's security interest in collateral on loans made under this section or to defray expenses incurred during foreclosure proceedings after a default by an obligor.

(e) Loans made from the bulk fuel revolving loan fund to one borrower in any fiscal year

(1) may not exceed $750,000, or, if the borrower is a cooperative corporation organized under AS 10.15 or an electric cooperative organized under AS 10.25 and uses the loan to purchase bulk fuel on behalf of more than one community, may not exceed the lesser of $750,000 multiplied by the number of communities on whose behalf the bulk fuel is to be purchased, or $1,800,000;

(2) shall be repaid in one year or less; and

(3) may not exceed 90 percent of the wholesale price of the fuel purchased.

(f) The department may charge interest on a loan made from the bulk fuel revolving loan fund. The department shall charge interest on a loan at a rate equal to the percentage of the average weekly yield of municipal bonds for the 12 months preceding the date of the loan, as determined by the department from municipal bond yield rates reported in the 30-year revenue index of The Bond Buyer. However, if the department finds that a community cannot afford to repay a portion of interest on a loan, and makes a determination in writing, the department may reduce or eliminate the interest rate applicable to the loan.

(g) Repayments of the principal, the interest, and the money chargeable to principal or interest that is collected through liquidation by foreclosure or other process on a loan made under this section shall be paid into the bulk fuel revolving loan fund. The fund is not a dedicated fund.

(h) The department may contract for the administration of the bulk fuel loan program established in this section.

(i) The department shall dispose of property acquired through default or foreclosure of a loan made under this section. Disposal shall be made in a manner that serves the best interests of the state, and may include the amortization of payments over a period of years.

(j) The department

(1) may adopt regulations necessary to carry out the provisions of this section, including regulations to establish reasonable fees for services provided and charges for collecting the fees; and

(2) shall prescribe a loan application form, which may be used for applications for loans from the fund under this section and for the bulk fuel bridge loan fund and program under AS 29.60.660.

(k) The department may collect the fees and collection charges established in regulation under (j) of this section and shall deposit the money in the general fund.

(*l*) In this section,

(1) "community" means an organized municipality or an unincorporated village that is a social unit with a population of less than 2,000;

(2) "person" has the meaning given in AS 01.10.060 and includes a corporation, a cooperative, a joint venture, and a governmental entity.

*** Sec. 10.** AS 29.60.660(b) is amended to read:

(b) A community, utility, fuel retailer, or other person generating power or supplying fuel in a community as described in (a) of this section is eligible to receive a loan from the bulk fuel bridge loan fund for a purchase of bulk fuel to be used in the community if the community, utility, fuel retailer, or other person

(1) has a written endorsement from the governing body of the community for which a loan from the fund under this section is sought; and

(2) first applied for and has been denied a loan from

(A) the bulk fuel revolving loan fund **(AS 29.60.655)** [(AS 42.45.250) ADMINISTERED BY THE ALASKA ENERGY AUTHORITY];

(B) any other funding source used by the community, utility, fuel retailer, or other person in the past three years to finance purchases of bulk fuel for the community; and

(C) any other funding source that the department determines is available to the community, utility, fuel retailer, or other person to purchase bulk fuel.

* **Sec. 11.** AS 29.60.660(d) is amended to read:

(d) Interest may not be charged on a loan made from the bulk fuel bridge loan fund**, except that a person receiving a loan from the fund**

(1) in two consecutive years shall pay an interest rate of two percent for the second year; and

(2) in three consecutive years shall pay an interest rate of four percent for the third year."

Renumber the following bill sections accordingly.

Page 19, line 17, following "AS 18.56.850;":

Insert "AS 42.45.010(b)(3), 42.45.250;"

Page 19, line 19:

Delete "sec. 16"

Insert "sec. 19"

Page 19, lines 19 - 20:

Delete "sec. 17"

Insert "sec. 20"

Page 19, line 24:

Delete "sec. 22"

Insert "sec. 25"

Page 20, following line 2:

Insert a new bill section to read:

"* **Sec. 41.** BULK FUEL REVOLVING LOAN FUND TRANSFER: TRANSITION. On the effective date of secs. 9 - 11 of this Act, the Alaska Energy Authority shall transfer the personnel responsible for fund management, and the assets, liabilities, and balance of the bulk fuel revolving loan fund to the Department of Commerce, Community, and Economic

Development."

Renumber the following bill section accordingly.

Page 20, line 5, following "INSTRUCTION.":

Insert "(a)"

Page 20, following line 7:

Insert a new subsection to read:

"(b) The revisor of statutes shall change the heading of art. 5 of AS 29.60 from "Bulk Fuel Bridge Loan Fund and Program" to "Bulk Fuel Loan Funds and Programs."

Written testimony of Kawerak Incorporated for the
House Special Committee on Energy Hearing
Thursday, February 11, 2010

Ladies and Gentlemen:

Thank you for this opportunity to present comments and recommendations on various energy bills now up for consideration within the Alaska State Legislature.

HB305 Omnibus Energy Bill

It is difficult to plan for the future when you're scrambling to meet your short term needs. Long term planning and economic development are best conducted in an environment of stability. The recent past is a good predictor of what might happen again, we need to consider what we have learned and move forward better prepared.

Failure to prepare in advance of energy crises puts all of Alaska at risk. Measures that automatically activate and counter the impact of rising energy costs need to be put in place and funded now, while we have some breathing room. HB305, the Omnibus Energy Bill, gives us the perfect opportunity to do this. Rural Alaska is going to have a difficult time making the long term transition to conservation, efficiency and renewable energy without short term energy security. We ask the State Legislature to provide this today.

The House Special Committee on Energy has traveled extensively to hear input from Alaskans from throughout the State. Rep. Edgmon, Rep. Millett, and four other members of the Energy Committee visited Nome in February 2009. Later, in October, they heard testimony at the AFN Convention. Many voices called for measures to provide immediate relief when fuel prices rise; no such measures are currently included in the Omnibus bill, they need to be added.

Measures such as SB162 "Heating Fuel Energy Relief," which, when world oil prices rise beyond a certain point automatically kick in at the retail level, to put a ceiling on the price of heating fuel at $2.50/gallon is an example of the type of measure we need. It is efficient. It operates at the retail level thus avoiding the cost of administering a program to individuals. SB162 is good but it is not perfect. We recommend SB162 be added to the Omnibus Bill with the following note:

- The quantity of low priced fuel made available under this program needs to be limited to a reasonable amount, and this amount should probably decline over time. This encourages conservation and efficiency.

In some ways the PCE program, currently in place, resembles SB162. In October, 2009, Robert Keith, President of the Native Village of Elim and Chairman of Kawerak Inc., recommended the State of Alaska fully fund and continue the PCE program; we agree. Further we recommend that municipalities, businesses, and schools be brought under the umbrella of PCE.

In February, the Bering Straits Native Corporation cited the high cost of fuel due to shipping costs and the high cost of electrical power as some of the primary energy problems we face in our communities. In October of 2009, Tim Towarak, President/CEO of the Bering Straits Native Corporation opined the state has enough money to be able to keep the PCE program going while simultaneously investing in alternative energy. We agree with those comments and add that, because it is activated by rising fuel prices, at a time when the State's revenue is up, the state can afford HB305 as well.

Both HB148 and SB121 mandate "Energy Efficiency Standards for Public Buildings." SB71 focuses on "Alternative Energy Systems for Public Works." While HB148 and SB121 share the same title they are quite different. We support HB148 with enthusiasm. It establishes an energy efficiency grant fund in the Alaska Housing Finance Corporation which gives preference to projects with the highest energy savings for each dollar spent, favors projects leveraged with outside funds, and focuses on communities with populations of less than 15,000. This will be good for both our region and the State of Alaska. It will create jobs, new energy related skills will develop in our Villages, our buildings will become more efficient and we will save money.

SB121 does not create a grant fund. It sets the goal of a 20% reduction in energy consumption by public buildings by 2020 then lays down the strategy, using energy performance contracts, to achieve that goal. It mandates an energy use index for public buildings aimed at establishing baselines so that improvements can be demonstrated down the road. It directs the AEA to produce an Energy Performance Report for the three years following the date of the act that deals with the effectiveness of energy efficiency measures provided by the act. While SB121 would be good for the State we question the effect it will have in our region. HB148 promises to be more beneficial.

We support HB196, the "Alternative Energy Revolving Loan Fund." Evacuated tube solar hot water and space heating, after assistance from the Emerging Technology Grant program, will be ready to take off in our villages. High efficiency stoves and other types of wood heating have similar potential. Residential wind and perhaps even photovoltaic solar are likely to follow with net metering.

While supporting HB196, we regret that it will not be able to help everybody. Only homeowners and landlords with sufficient collateral qualify. Landlords who do not provide electricity or heating will be uninterested. Renters who pay for their own electricity or fuel oil might save money through alternative energy but cannot take advantage of this program.

We feel HB219, which modifies the Renewable Energy Grant Requirements, does not go far enough. A periodic reporting requirement makes sense. Verifying matching funds are actually available should be part of the process.

We feel priority should be given to projects where energy costs are high and viable renewable resources are known to exist. Investments in areas where energy is already affordable come at the expense of locations where affordable reliable energy is badly needed. Giving priority to locations where energy costs three to five times more than the State average promises the most

effective use of Renewable Energy Grant funds. We recommend these projects be given additional weight in the rating process.

The Renewable Energy Grant Requirements should include competitive bidding, provide for a preference to local and/or Native contractors, and stimulate local employment and skills. A Native owned company employing local labor has demonstrated their capacity to install, operate, and maintain wind turbines for a very competitive price in Nome. The AEA recently funded wind turbines in Unalakleet, Savoonga, and Gambell. Wind studies in Teller and Stebbins have been recommended. Despite their competitiveness they have not been invited to bid on or participate in any of these projects. We look forward to improvements in this area.

We support SB150 "Emerging Energy Technology Fund" and applaud the fact that tribal councils, housing authorities, and nonprofit organizations are included in the list of eligible applicants. We recommend that the act be amended to prioritize projects in locations where energy costs are high and abundant resources are known to exist. Many such locations exist in our region. Numerous technologies are likely to become commercially viable with just a little push.

We support SB31 "Renewable Energy Tax Credits" that incorporate a tiered or sliding system favoring investment in regions with high energy costs. Mechanisms allowing for credits to be sold and traded, and allowing credits to be carried forward to future years are innovative and should enhance this programs effectiveness considerably.

We note that production tax credits alone may not be sufficient to spur private investment in our region. Independent power producers, while they may be attracted by the incentive, will not go forward with projects without a power purchase agreement in place. The primary power provider in our region appears reluctant to negotiate such agreements. We hope this entity will accept the inevitable and come to the table. Investments from the private sector, encouraged by renewable energy tax credits, can be expected to start bringing down energy costs across the region as soon as this hurtle is overcome.

In conclusion, we need an Energy Bill that benefits our region. Energy is very expensive here and, due to our climate, we consume more energy per capita than anywhere else in the Nation. At the same time our per capita income is well below the rest of the Nation. Efficiency, conservation, and renewable energy all promise to be part of a solution. An energy bill is needed that furthers these objectives in Rural Alaska as well as throughout the state.

Regarding HB191 "Nuclear Power Production:" Given the magnitude of the risks as we understand them, we encourage the State of Alaska to expend their resources in developing safe, renewable, alternative energy resources rather than setting in place Nuclear Power options.

Quianna for your Time. We look forward to a future whereby the State of Alaska, its people and communities, are world leaders in the development and implementation of technologies which minimize our dependence on fossil fuels.

MEA

MEMORANDUM

DATE: November 23, 2009

TO: Joe Griffith
Interim General Manager

FROM: James L. Walker
Senior Counsel

SUBJECT: Alaska Railbelt RIRP preliminary results presentation November 19, 2009

Summary Conclusion:
For the reasons discussed below, the Alaska Railbelt Regional Integrated Resource Plan (RIRP) cannot serve the purposes for which it was undertaken.

Background:
On March 8, 2009, the Alaska Energy Authority (AEA) entered into a professional services contract with Black & Veatch Corporation (B&V) with a not-to-exceed expenditure limit of $599,369. As stated in Appendix C, Section C.1: "The purpose of this contract is to develop a single comprehensive Regional Integrated Resource Plan (RIRP) for the Railbelt. The plan will identify and schedule a combination of generation and transmission (G&T) capital projects over a 50-year time horizon." According to Section C.2: "The plan is intended to provide:

- An assessment of loads and demands for the Railbelt Electrical Grid for a time horizon of 50 years including new potential industrial demands.
- Projections for Railbelt electrical capacity and energy growth, fuel prices, and resource options.
- An analysis of the range of potential generation resources available, including costs, time for construction, and long-term operating costs.
- A schedule for existing generation project retirement, new generation construction, and construction of backbone redundant transmission lines that, by year 10, will allow the future Railbelt Electrical Grid to operate reliably under open access tariffs, and with a postage stamp rate for electricity and demand for the entire Railbelt as a whole.
- A long-term schedule for developing new fuel supplies that will provide for reliable stable priced electrical energy for a 50-year planning horizon.
- A short-term schedule that coordinates immediate network needs, i.e. increasing penetration level of non-dispatchable generation such as wind within the first ten years of the planning horizon with the long term goals.
- A short-term plan addressing a 10-year transition from the present decentralized ownership and control to a unified G&T entity that identifies unified actions between utilities that must occur during this transition period.

- A diverse portfolio of power supply, that includes in appropriate portions, renewable and alternative energy projects, and fossil fuel projects, some which could be provided by independent power producers.
- A comprehensive list of current and future generation, transmission and electric power infrastructure projects. Each project will include a project description, narrative, location, fuel source, estimated annual fuel consumption, power output capacity, and energy output, both annual and monthly.
- A dataset that the utilities/AEA/REGA can use for future planning studies and analysis.
- A target set by the State that the Alaska Railbelt would secure 33% of its electric energy from renewable resources.

Since March, MEA and the other Railbelt electric utilities have provided B&V with all available information responsive to B&V's requests. The utilities have also participated in many technical meetings with B&V and AEA. On November 19, 2009, AEA and B&V presented the preliminary results of their RIRP to the Governor's office and then later to representatives of the Railbelt electric utilities. A copy of the power point slides used at this presentation is attached hereto.[1]

As stated above, the seventh contractual purpose of this RIRP was to develop a 10-year plan for transitioning from the current decentralized generation and transmission (G&T) system ownership pattern to unified ownership. However, the RIRP analysis is based on the assumption that unified ownership exists for the entire study period.[2]

An assumption not shown in the slides, but clearly stated during the November 19, 2009 presentation, was that *all modeling runs were required to meet former Governor Palin's announced goal of having 50% of generation in Alaska come from renewable energy resources by 2025.*[3] This assumption does not coincide with the eleventh contractual purpose of this RIRP as stated above.

According to the slide presentation, the capital costs for new Railbelt generation facilities are included in the analysis, and the capital costs of existing generation facilities are not included in the analysis.[4] During the November 19 presentation, the utilities questioned AEA and B&V extensively about this. The utilities were specifically concerned about their existing debt obligations, and about generation plant that the utilities are currently in the process of acquiring.

According to AEA and B&V, the RIRP's preliminary results are fundamentally driven by their decision to not include the natural gas-fueled generation plant additions currently planned for construction by HEA, MEA, Chugach, and ML&P in the analysis. Nor was

[1] AEA stated that it are not specifically asking that these slides, and the information therein, be kept confidential, but it is asking that this information not be presented to the public prior to AEA's public presentation currently scheduled for December 10, 2009.
[2] See the slide numbered 19, and the definition of GRETC on the slide number 2.
[3] B&V stated at the presentation that the modeling runs for the "A" scenarios shown on the slide numbered 13 would be identical to the modeling runs for the "B" scenarios due to this assumption. See the slide numbered 79.
[4] See the slides numbered 20 and 21.

the Healy Clean Coal Plant (HCCP) being acquired by GVEA included. However, the planned retirement of existing natural gas generation units was included in the analysis.

When asked about this seeming anomaly, B&V stated that the analytical model was run with the planned new units[5] and planned retirements[6] included. With the planned new units available, the model showed insufficient requirements for additional new generation resources to justify construction of the large hydroelectric generation plants needed to meet the goal of having 50% of generation in Alaska come from renewable energy resources by 2025.[7]

The presentation slide numbered 22 states the renewable resources considered in the RIRP includes Tidal resources. However, B&V stated that they did not include Tidal resources in their analysis due the lack of technological maturity in that field.[8]

With regards to B&V's preferred Scenario 1A, shown on the slide numbered 80, a number of questions were asked. With regards to the Anchorage Municipal Solid Waste (MSW) project in 2011, and the GVEA MSW project in 2012, B&V is projecting 26 MW of renewable energy capacity. None of the utilities have heard anything about either of these projects.[9] It was suggested that a 3.5 – 5 MW landfill gas project could come on line at the Anchorage Landfill during that time period, but unlikely that projects totaling 22 MW would be constructed that soon.

B&V stated that the Anchorage 1X1 6FA project they show on the slide numbered 80 as coming on line in 2013 would be replaced by the Chugach/ML&P South Anchorage Power Project. B&V offered no justification for modeling a plant different from the one that the utilities are actually planning.

B&V was asked about scheduling the Glacier Fork Hydro project coming on line in 2017. They admitted that was extremely unlikely to occur, given the fact that virtually no evaluation of the project has occurred to date.

With regards to the GVEA 1X1 6FA project scheduled for 2020, GVEA's representative stated that they planned on closing the purchase of Healy Clean Coal Project within one

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[5] The planned new resources considered in this run are shown on the slide numbered 38.

[6] The planned resource retirements used are shown on the slides numbered 39, 40, and 41.

[7] The results of this run are shown on the slide numbered 84. B&V was specifically asked why the modeling results on the slide numbered 84 shows that the cumulative present value of costs for Scenario 1A with the "committed units" is nearly a billion dollars higher than Scenario 1A without these units, if the capital costs for these units are excluded. B&V was unable to answer that question, but speculated that this was the extra cost incurred by the utilities going their individual way instead of combining under GRETC.

[8] Also excluded from consideration were Nuclear and Combined Heat & Power alternatives. See the slide numbered 55.

[9] Anchorage Solid Waste Services has indicated that it is interested in developing an MSW project for disposal of woody and paper debris, so as to extend the life of their landfill in Eagle River. However, they have stated that due to pressure from the U.S. Environmental Protection Agency, they have to concentrate resources on making beneficial use of the landfill gas they are currently flaring off before they can spend limited available management resources on development of an MSW project. According to its website, the Fairbanks-North Star Borough Landfill has an existing waste-to-energy project, but only for space heating purposes.

week, and having that project on line within 18 months. With that project on line, GVEA would need no new generation to meet its loads for at least twenty years. B&V had no response.

B&V admitted that the 100 MW of power from the Mount Spurr Geothermal Project they project to come on line in 2020 and 2021 is highly speculative, given that the project developer has not yet started investigation of the geothermal resource there. B&V also admitted that it was highly speculative to project having the Chakachamna Hydro Project on line by 2025 given the lack of geotechnical investigation conducted for that project to date and the licensing risk for that project. B&V indicated their belief that some version of the Susitna Hydro Project was more likely to come on line by 2025 than the Chakachamna Project.[10]

AEA and B&V specifically cited to the proposed Susitna, Chakachamna, and Glacier Fork hydro projects as the only projects capable of meeting the 50% renewable generation goal. However, they then discounted the possibility of constructing the Chakachamna and Glacier Fork projects due to the lack of actual engineering data existing for these projects. They implied that addition of some version of the Susitna Hydro project was predetermined to be the only acceptable outcome for the RIRP.[11]

Utility representatives asked about State grant funding for hydro projects. AEA's representative stated clearly that grant funding was not an option, although long-term loans on favorable terms might be made available by the State. Utility representatives indicated that they did not have the uncommitted borrowing capacity to pay for $2-7 billion hydro project.[12] AEA's representative stated that they estimated the Railbelt utilities to have between $500 and 1,000 million of uncommitted borrowing capacity.

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[10] The Susitna Hydro Project alternatives considered by B&V are shown on the slide numbered 44.

[11] B&V stated that they believed that timely licensing of the Susitna Hydro Project was more likely achievable than timely licensing of the Chakachamna Project, because Chakachamna was taking water from one drainage and disposing it in another. It is unlikely that licensing of either project can be accomplished in less than ten years, including administrative appeals. Review of the records shows that FERC has not issued an original license for a major hydro project (250 MW or larger capacity) since 1982. That project was the New Melones Dam project on the North Fork Stanislaus River. Construction of the project was authorized by Congress in 1944, the first litigation was initiated by water rights activists, including people wanting to preserve water in the stream for fish, began in 1947. Construction of the project was begun in 1970, prior to issuance of the FERC license but with FERC approval. In January 1972, the U.S. Second Circuit Court of Appeals held that the National Environmental Policy Act of 1969 (NEPA) required FERC to do an EIS on hydro project license actions. The EIS for the New Melones Project was initially approved by FERC later in 1972. Litigation over that EIS was finally resolved in 1982 and the reservoir was filled in 1983. Since 1972, when FERC was required to prepare an EIS for hydro licenses, FERC has only issued five other original licenses for major hydro projects. Four of those, one in 1976 and three in 1977, were for pumped-storage projects substantially different from either the Susitna or Chakachamna Projects. The other was issued in 1978 for the California Aqueduct Project, a mixture of typical hydro projects and pumped-storage projects. Construction of the California Aqueduct Project was completed in 1971, but license issuance was held up until 1978 due to NEPA litigation. Since 1982, the laws governing preparation of an EIS for hydro projects have changed substantially, giving the U.S. Secretaries of the Army, Commerce, Interior, and Agriculture the right to impose mandatory conditions on hydro licenses. It is entirely unclear at this point in time how long, and at what cost, it would take to license a new major hydro project in wilderness areas.

[12] The slides numbered as 44 and 45 show B&V's cost projects for the Chakachamna and Susitna projects.

One of Chugach's representatives pointed out that the Railbelt electric utilities will be spending $600 – 700 million of their borrowing capacity on the "committed units" during the next six years. One of GVEA's representatives pointed out quite clearly that the utility's borrowing capacity was directly tied to rates, and that even borrowing from the State to pay for the proposed hydro projects would result in a significant rate increase for consumers.[13] AEA had no response to this concern other than to repeat that State grant funding would not be an available option.[14]

Fatal Flaws in the RIRP:

Several fundamental flaws exist in the RIRP including ignoring the utilities investments needed before 2015 of $912M in 662 MW of new generation, which the State is proposing to replace with $398M in 195 MW of new generation plus $353M in substation and transmission support facilities. A careful analysis will reveal that the utilities are not overstating the generation need in the Railbelt, regardless of whether or not a unified system operator is created.

As shown on the slides numbered 39, 40, and 41, ML&P, Chugach, and GVEA plan on retiring approximately 600 MW of generation capacity between 2011 and 2020. As shown on the slides numbered 23 and 24, base case Railbelt peak loads are expected to grow by approximately 25 MW during this time period.[15]

The Railbelt utilities are currently planning on offsetting planned retirements and meeting load growth by constructing, or acquiring, approximately 660 MW's of new generation capacity during the next ten years to meet load and reserve requirements.[16] If you take out the unplanned MSW units and the Glacier Fork Hydro Project that B&V admits cannot be brought online during this time, B&V is effectively recommending that only 320

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[13] One of Chugach's representatives did a 'back-of-the-envelope' type of calculation, and commented that using B&V's economic parameters shown on the slides numbered 31 and 32, construction of the smallest Susitna Hydro alternative would result in a 37% rate increase to consumers. One of GVEA's representatives stated his opinion that voluntarily undertaking a rate increase of that magnitude might not be acceptable to GVEA's Board.

[14] AEA did note that it would not be economically possible to capitalize the cost of financing during construction of a Susitna Hydro project, and that advance funding of such costs by consumers would have to be approved by the Regulatory Commission of Alaska (RCA) for any such project to proceed. The RCA, and its predecessors, have long held that advance funding of construction projects by consumers is a violation of the cost-causer/cost-payer principle of regulatory rate making, and have consistently rejected applications for approval of advance funding.

[15] The RIRP preliminary results are also based upon achievement of DSM/EE savings of 84 MW, as shown on the slide numbered 54. The utilities have an obligation to serve the load in their respective service territories, and although they can educate their members about the benefits of energy conservation and energy efficiency, they have no authority to enforce conservation or efficiency targets. Thus, in the absence of legislation granting the utilities or GRETC authority to impose energy conservation or efficiency standards, it s speculative to include DSM/EE benefits in a long-range generation plan. It should be noted that the reported experience elsewhere is that DSM/EE only results in slowed load growth and not in load decline.

[16] See the slide numbered 38.

MW of new generation be brought on line in the next ten years, all of which is in Anchorage.[17] This is not enough to meet load requirements.

If you consider B&V's preferred Scenario 1A (slide numbered 80), the model predicts 472 MW of new generation is available for dispatch to meet load by 2020. This 472 MW includes the unplanned 26 MW MSW project and the admittedly unavailable 75 MW Glacier Fork project, resulting in a net of 371 MW of new capacity. This compares to the 660 MW of new capacity mentioned above that Railbelt utilities plan on using to offset planned retirements and load growth. The B&V Model does not analyze the benefits of distributed generation achieved through the utility's planning efforts, and yet 154 MW (of the RIRP's 472 MW of new generation by 2020) is placed in the GVEA service area, seemingly in contrast to GVEA's statements that with the 50 MW HCCP their system generation requirements are met for the next 20 to 30 years.

Utility representatives pointed out that construction of the planned new natural gas generation units, and bringing the 50 MW HCCP into production, could not be avoided if reliable electric utility service was going to be available in the Railbelt during the long lead period before any large hydroelectric projects could be permitted and constructed. AEA and B&V acknowledged the truth of this assertion. However, they were generally unwilling to include the new units required to provide near term electric service in their analysis because doing so meant that achieving the State's renewable energy goal would appear uneconomical.[18]

Based upon these statements, it appears that the RIRP is fatally flawed in that it is designed to make one specific scenario appear economical and the only way to achieve that design is to ignore current realities. Additionally, the CO2 allowance costs escalate at an unrealistic rate, which favors renewable projects and could be considered biased.[19] Due to the biases apparently built into it, the RIRP as presented November 19, 2009 cannot be considered a reliable planning tool.

Proposed Cures:
First, the RIRP should conform to the contract requirements. By failing to address the range of natural gas options actually being considered for construction by the utilities in the next ten years, the preliminary results do not provide the information requested in the third contract bullet listed above.

The RIRP should be re-configured to include the "committed units" as if they are actually built, with runs exploring options should various proposals not be built. By leaving out the "committed units" the RIRP fails to realistically provide the information requested in

[17] See the slides numbered 51 and 80. B&V is recommending that 1X1 6FA be brought online in Fairbanks in 2020, of approximately 160 MW capacity. However, GVEA has clearly stated that once Healy Clean Coal Project is on line in 2011, it has no need for additional new generation in Fairbanks until at least 2030. Given the 75 MW capacity limit on the Alaska Intertie shown on the slide numbered 37, less than half of the capacity of this 6FA could be utilized, and thus it is highly unlikely that it will be built.
[18] They did state that they would reconsider including the Healy Clean Coal Project in their preferred analysis.
[19] See the slide numbered 42.

the fourth bullet. Also, the transmission portion of the RIRP, at the slides numbered 57 through 64 would basically require upgrading the existing 115-138 kV utility backbone systems, including distribution substations, to 230 kV. This is a very expensive capital investment undertaking with significant operational ramifications, which is supported with no analysis in the preliminary RIRP. Therefore, the RIRP fails to comply with the transmission requirements of the fourth contract bullet listed above.

The fifth and sixth contract bullets listed above appear to have been completely ignored, as no schedules have been provided. The seventh and possibly most important for short term Railbelt grid operations, contract bullet listed above was addressed only by assuming that GRETC is already in place. This is completely unresponsive to the needs of the Railbelt.

Although some renewable energy portfolio options are discussed in response to the eighth contract bullet, there is no discussion of how such options can be reliably integrated into the Railbelt Grid, and no discussion about how the grid is to interact with Independent Power Producers who might develop such options.

The RIRP does provide a listing of currently planned generation projects in the Railbelt as required by the ninth contract bullet. However, there is a significant lack of information responsive to the second sentence of that bullet. The dataset called for in the tenth contract bullet listed above may be present in the preliminary RIRP, but is not clearly set out in the results. Establishing a format for consistent application in future regional studies would be an appropriate product for this RIRP.

The eleventh contract bullet listed above was superseded with the 50% by 2025 goal announced by former Governor Palin. There is no justification provided for this change. The RIRP should clearly acknowledge, if such is the result, that meeting the 50% renewable energy portfolio goal announced by former Governor Palin is uneconomic. The RIRP should then investigate options that the State or GRETC can pursue under which the renewable energy portfolio goal can be reached if that goal is indeed a public policy of the State.

Financing of projects is clearly an issue. If the utilities will exhaust their borrowing capacity under current rates with construction or acquisition of the "committed units" shown on the slide numbered 38, and if achieving a 50% renewable energy portfolio by 2025 is a public policy goal of the State, then the State needs to determine how it will achieve this goal. One way would be for the legislature to adopt as law a renewable energy tax on electric utility consumers to advance fund renewable energy projects. Another way would be to fund such projects through State grants, or even State ownership. Many other options exist, none of them painless.

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January 7, 2010

Mr. James S. Strandberg, P.E., Project Manager
Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK 99503-2495

RE: ML&P's Comments on the Alaska Railbelt Regional Integrated Resource Plan (RIRP) Study Draft Report

Dear Mr. Strandberg,

Attached are ML&P's comments on the Alaska Railbelt RIRP Study Draft Report. While ML&P tried to be thorough in its review, the short period of review allowed between the draft release date of December 4, 2009 and the required comment due date of January 6, 2010, coupled with the press of other business, has made it difficult to provide as thorough a review as we believe a study of an issue of this magnitude deserves. In any case, ML&P hopes that you and Black & Veatch will find these comments useful. If you have any questions regarding them, you may reach me at 263-5826 or at helmickdb@muni.org.

Sincerely,

Daniel B. Helmick
Manager, Regulatory Affairs

cc: James M. Posey, GM

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Following are ML&P's comments regarding the Alaska Railbelt Regional Integrated Resource Plan (RIRP) Study Draft Report. Where the comments relate to specific sections of the report, they will be referenced to page numbers. Some comments may be more general, and therefore have no page reference.

General Comment:
We may have missed it, but we did not find any tables of the resource actions taken in the sensitivity scenarios. ML&P believes that this would be one of the most important results. In particular, we would like to see what resources are chosen if gas prices are very high. One possible justification for the Susitna projects is if gas becomes so expensive it becomes economic to substitute electric energy for gas used in low grade (heat) applications. However, we do not have modeling results to show this.

P 1-3 (Table 1-1 Political Issues)
The report lists "Historical dependence on State funding" as an issue facing the Railbelt Region. ML&P believes that this is a mischaracterization of the State's historical role in the Railbelt utility industry. It is a common practice not only in Alaska, but also in the United States in general for the government (state or federal) to undertake very large development projects. Most of the large hydroelectric projects in the country were developed by some combination of state and federal government involvement, as were many of the largest transmission projects. It is true that government developed projects in Alaska have not been of the same scale, but that is because Alaska is a frontier state with a small population and economy. This comment is not intended to suggest that the role of the State in utility projects is not an important issue, only that the State's past involvement is not indicative of any unusual dependence on State funding.

(1.2 Project Overview)
Re: Objective Function. ML&P recognizes that the objective function explicitly ignores questions relating to who pays what costs, and that this abstraction is useful for planning purposes. However, it should not be forgotten that GRETC may fail to create conditions in which the system can be developed as if there were only a single interest to satisfy. GRETC will necessarily change the conditions facing individual utilities, and the changes may not all be positive.

P 1-4
The bullet continuing from the previous page connotes a conclusion that GRETC should operate under open access tariffs and postage stamp rates. ML&P does not see why an open access tariff would be required under an organization in which there is only one owner of generation resources. Since GRETC (as envisioned in this RIRP) would have only one purpose, the provision of power to its member-directors at minimum cost, it is not clear how open access tariffs would be necessary. We do not see any reason why GRETC should need to be forced to allow access to its transmission facilities where that refusal is in the interests of the members, and we do not believe that GRETC should be required by its tariff to do things that are not in the interests of its members. With regard to postage stamp rates, ML&P does not see the need for them as self evident; indeed, we could envision situations where they would not be useful or appropriate.

P 1-12 (1.7.1.1 DSM/EE Resources)
ML&P is generally skeptical of modeling results that show energy efficiency and DSM investments by utilities for the direct benefit of individual customers as being cost effective. M&LP proceeds from the general proposition that we expect people to make investments for their own benefit that they believe are advantageous, without special incentives. ML&P also believes that the rates charged per kW and kWh by utilities are generally higher than the marginal cost of the underlying energy and capacity. Therefore, ML&P believes that it is reasonable to expect that retail customers are already investing more than is socially optimal in energy efficiency and DSM. ML&P is certainly open to persuasion on these points, but believes that any assertion that it is cost effective to subsidize customer investments should be supported by convincing analysis. We are aware that Black & Veatch has stated that the model selects all of the EE/DSM that is allowed to it by an arbitrary user imposed restriction of approximately 8% of load, but as far as we could tell, there was no real explanation of the economic characteristics of the measures on which those selections are based. ML&P believes that model results that purport to show that EE/DSM incentives funded by utilities are cost effective should be explained in depth.

P 1-14 (1.7.2 Sensitivity Cases Evaluated)
ML&P believes that either Black & Veatch has failed to explain the significance of its "With Committed Units Included" sensitivity case, or it has seriously mis-specified it. Without explanation, it would be natural to assume that the purpose of the sensitivity case is to determine whether it is reasonable to proceed with the units that utilities have represented that they are committed to. However, if that is the purpose, there are two obvious flaws in the model specification.

First, it treats sunk costs as if they were avoidable. It is obviously necessary to consider only those costs that are not currently sunk, and that the utilities will not have been required by prudent utility practice to sink prior to the time at which investment decisions can be made in reliance on GRETC. Utilities with reliability issues, or with aging, high cost generating units cannot necessarily afford to wait to see whether there will be a GRETC, and whether, if it is created, it will be able to meet their immediate needs, before they commit to the development of critical new resources, which will take years to build. The RIRP must recognize this reality, and not treat as optional resources that utilities either are already committed to or will have to commit to before GRETC can be relied upon.

Second, it lumps all of the committed resources together, as if they all had the same cost characteristics. Since the committed resources include projects in two different fuel markets, using different fuels and different technologies, in three different transmission areas, with different load-resource balances, and different opportunities for import and export, this is a major distortion.

On the other hand, if the purpose is to give an indication of the sub-optimality of individual utility decision making, it is necessary to account for new information between

the time when the units became committed and the time of RIRP modeling. Note that Healy II has been more or less committed for a long time.

P 1-15 (Table 1-4)
Sensitivity 1A Without DSM/EE Measures. How are the EE/DSM measures costed?

Sensitivity 1A with Committed Units Included. How are the committed units costed?

Sensitivity 1A with Susitna (all). With all of the large hydro projects, what is the capital recovery period, and how are end effects modeled?

Sensitivity 1A with Modular Nuclear (and Tidal). Unless we have missed something, the results seem to show that the PV of cost is reduced by including each of these projects, and yet the model does not select them. Why?

P 1-16 (Table 1-5)
This table is filled with errors. Also, in Sensitivity Case 1A with nuclear, why is SO_2 higher than in Case 1A without nuclear?

P 1-19
Mobile Substation: Could also provide redundancy in the event of a substation failure.

Re: BESS. If BESS is required in order to provide regulating margin for a particular project, it is, at least partially, a cost of that project. Is it modeled that way?

Re: transmission projects not justified by economics, but required for reliability: Why is reliability not economics?

P 1-20 Figure 8)
One of the Scenario 1A's should be 1B.

Re: "Develop a spreadsheet model that utilizes inputs from this RIRP analysis and overlays realistic debt ..." It is wrong to assume that debt is the only financing vehicle.

Re: last line. Equity could be supplied by investors or governments under some circumstances.

P 1-21

Re: first bullet. Why would this be, other than as a vehicle for state assistance?

Ratepayer Benefits charge, "PAY_GO", and CWIP in Rates: These appear to be variations on strategy of including investments not yet in service in rates. These devices do not really lower the cost of capital (paying a cost earlier reduces its nominal value, but also reduces the discounting), but there are good economic reasons for doing it. Harold Hotelling presented the basic argument with his example of first building, then expanding a bridge across a river separating two towns (Hotelling posed the question: what is the economically correct toll just after the first bridge is built, just before the bridge is

expanded, and just after the bridge is expanded, as traffic steadily increases). Opportunity cost of the service is at a maximum just prior to new investment going into service, then declines. It is desirable for opportunity cost to be reflected in rates as much as possible, so including investment costs before the in-service date is desirable, although generally frowned on by regulators.

State assistance: State assistance will not, in general lower the cost of capital, it will shift some of it from the utilities/GRETC to the state. It always reduces your costs when someone else pays them.

P 1-22
There is no magic in reducing GRETC's costs through state subsidies. Each dollar of subsidy will reduce GRETC's costs by (hopefully) about a dollar.

Re: Fixed charge rate per kWh results. If we have understood this correctly, it is saying that the average fixed charge cost in the alternative case is about 1¢/kWh lower than in the base case, but adding in the 1¢/kWh "Capital Benefits Surcharge and the state subsidy would bring it back to parity. What is the point?

The last bullet in Subsection 1.7 does not appear to be a sentence.

P 1-22 (1.8.1 General Risks and Issues) The second hollow bullet states that the Railbelt utilities have not been able to take full advantage on economies of scale. This is probably true. However, it is worth remembering that, by lower 48 standards, Railbelt generating units are already huge in relation to the system to which they are connected. A 1,000 MW unit in the lower 48 is likely to be about 1% of the capacity on its interconnected system. Compare that to a 100 MW unit in the Railbelt, which is close to 10% of the capacity on its interconnected system. While economies of scale certainly involve more than just unit size, it is possible that the Railbelt has achieved a surprising portion of the physically available economies of scale.

P 1-23 (1.8.1 General Risks and Issues)
Re: "Market development risks and issues, including the need to implement a competitive power procurement process ..." Why is this a need? Is there any reason to suppose that IPP's would be an optimal source of new generation but would not be selected by the management of GRETC absent special rules?

Re: The text box, third bullet in **"Transmission"**: the statement: "Desired grid cannot be justified solely on economics" implies an inappropriately narrow understanding of the term "economics" Reliability is obviously an economic good.

P 1-26 (1.9.1 Conclusions 6.)
The analysis of the committed units sensitivity case is incorrect if the objective is to determine whether they should be built. The error is that it makes no distinction between sunk (not avoidable) and not sunk (avoidable) costs. If the objective was to compare the cost of individual utility responsibility and decision making to collective responsibility

and decision making, it is incorrect in that it does not control for the many differences in decision making environment other than whether the decision is regional or local.

P 1-27 (1.9.1 Conclusions 9.)
If additional regulating margin is necessary because of the output characteristics of a particular type of resource (e.g. wind), the increase is a cost of the resource, not of the transmission system.

P 1-28 (1.9.2.1)
Re: DSM/EE targets. Why should there be targets? Why should we not figure out why we want DSM/EE, and then determine the optimal amount?

Re: renewable targets. Same question.

Re: System benefit charge to fund DSM/EE subsidies. Why do we assume that this is necessary? Do we actually believe that power consumers are incapable of making reasonable economic choices? If not, do we believe that the opportunity cost of power is higher than our retail rates? If we think that, why would we go to such effort (and cost shifting) to try to force the rates lower than they will naturally be?

P 1-29 (1.9.2.1. 4.)
No basis has been presented to select Scenario 1B over Scenario 1A. Before we adopt a target for some particular category of resource, we should determine our reasons for doing so. Having done that, we should be able to assign values to those reasons, and determine the optimal level of the resource, given those values.

P 1-34 (1.9.2.3. Recommendations - Other)
11. There is no need for a study report to recommend the essentially political action of spending state funds to promote actions not justified by the study. The study basically assumes that we should subsidize EE/DSM. It does not justify the assumption.

14. The same comment applies to renewable resources. The study contributes nothing to our understanding of why we should meet any particular renewables target, so the study provides no basis for a recommendation that any particular level of renewables should be attained, or how.

15. The same comment applies.

21. ML&P is aware of no reason why there should be a standardized competitive procurement process, or a standard power purchase agreement, or why IPP's need any special opportunity to submit proposals.

P 1-36 (Table 1-11)
ML&P does not believe that the study provides any basis for the recommendation that a system benefits charge be imposed to subsidize either EE/DSM programs or renewable energy projects.

ML&P does not believe that the study provides any basis for the recommendation to establish the Scenario 1B plan as opposed to the Scenario 1A plan. If a reason to encourage renewables beyond what is selected by the model can be articulated, it should be assigned a value that the model can respond to, and the resulting plan should be adopted.

P 1-38(Table 1-12)
Re: comprehensive region-wide portfolio of DSM/EE programs within 6 years. ML&P believes that the reason for sponsoring programs at all should be established before efforts are made to do it.

P 1-39 (Table 1-13)
Re: first bullet. ML&P does not object to research, but part of the research should be a clear understanding of what we are trying to accomplish with the program, and why.

Re: second to last bullet. ML&P does not understand the need for this. There is no basis in the study.

Re: last bullet. ML&P does not understand the need for this. There is no basis in the study.

P 1-40 (Table 1-14)
Re: bullet 1. This should not be done without a reason. There is none in the study.

Re: third bullet: This could make sense for large scale or high risk projects, but surely not all renewable projects are large scale or high risk.

Re: fourth bullet: Why would we rely on IPP's to identify renewable projects?

P 2-1 (Project Overview)
Re: fifth bullet: ML&P does not understand the importance, or really even the concept, of "open access" tariffs in a single G&T world. If GRETC is the all-requirements power provider, what market for transmission will exist? Also, ML&P does not believe that it is self-evident that postage stamp rates are appropriate. Given the very significant differences in the supply-demand relationships in what are now the separate transmission areas, should we assume that it is cost effective to build enough transmission to eliminate these differences?

Re: next to last bullet: ML&P does not see the need to single out IPP's as a potential form of supply organization. To ML&P, it seems self evident that if an IPP is the best source of some resource, GRETC will choose it, and if some other type of organization (or self supply) is the best source, GRETC will choose that.

P 2-5 (2.3.2 PROMOD)
For clarification, is "Debt service" in the last sentence intended as a proxy for cost of capital (as in required return and depreciation) or is it an estimate of literal debt service that would be likely to be associated with capital investments?

P2-6 (2.3.3 Benchmarking)
Re: Next to last paragraph, on Hydroelectric generation. The restriction on generation available in each month appears to be an ad hoc response to an inability to model forward looking hydro-thermal co-ordination. This may be a reasonable simplification, but ML&P would point out that it could be optimal to exhaust most of the water storage at times of high value, holding back only enough water to preserve the capacity value of the project.

P 3-12 (3.6 Future Resource Options)
Re: "Limited Development - Renewables, DSM/EE". This discussion implies that Alaska has failed to develop Renewable resources and DSM/EE resources that it should have developed. Lacking any analysis that shows this, we could also assume that Alaska's development of these resources (or "resources", in the case of DSM/EE) has been appropriate, and no special action is necessary to increase it. In an IRP, we should identify the values that we are trying to maximize, and let the results determine the plan. If the model does not select as much renewable resource as we think it should, we should identify (and quantify) the values that we think the model is ignoring or under-selecting. The obvious way to do that is to assign monetary values to the desired attributes, and re-run the model in light of the new monetary values. Then we would have some basis for the selection of whatever renewables we decide to develop.

Re: the supposed need for DSM/EE programs. Do we have actual evidence that market forces do not produce the appropriate levels of DSM/EE investment by consumers? If so, have we identified the market failures that cause that result? In general, in this economy, we assume that users of resources invest appropriately in the efficient use of those resources. Why do we assume that users of energy do not do likewise? If the answer is that we suppose that the price charged for energy is inadequate, ML&P would point out that most electric energy consumers in the Railbelt pay more than 10¢/kWh (up to 20¢/kWh, in some cases). The results of the modeling do not show the average cost of power being that high, even including an assumed cost for CO_2. The IRP should be rigorous on the analytical basis of its recommendations, or it should at least state clearly why it has departed from that standard.

P 4-1 (4.1.1 Anchorage Municipal Light & Power)
The statement "Units 1, 2, and 4 are unavailable for commercial operation ... ." is incorrect. Units 1 and 2 are not available for normal dispatch, but are available if needed in an emergency, and Unit 4 is dispatched on a normal, although infrequent, basis.

P 4-3 (4.1.7 Hydroelectric Resources)
Black & Veatch has persistently misrepresented the capabilities of the Bradley Lake project. Clearly, the project could not be counted as spinning reserve for the last 27 MW

of its capability if that capacity were not available for operation. The facts are that Bradley Lake is dispatchable up to 120 MW (at full pool), but because of transmission losses and other transmission related issues, is rarely dispatched above 90 MW. The 27 MW spinning reserve is an upper limit adopted by the Bradley Lake O & D subcommittee, whose significance is that no more than 27 MW of Bradley Lake may be treated as spinning reserve even if the actual reserve capacity is more than that. The reason for this limitation is that for responses larger than that, Bradley Lake responds rather slowly, and the system can have inadequate frequency response if too much of the spinning reserve is Bradley Lake. This problem has been at least partially mitigated by recent governor upgrades. This error in treatment of Bradley Lake should be corrected in each place where it appears in the report, and in the modeling.

P 4.2.1 (Southcentral Power Project)
ML&P proposes several detail corrections: The project was previously known as the South Central Alaska Power Project. Its expected capacity is 180 MW. Its expected capital cost is $370 million in current dollars, which would be far more than $281 million in 2009 dollars. ML&P would note that much of this cost has already been sunk, and is not avoidable. An IRP should not, therefore, model this project on the same basis as a project all of whose cost is avoidable.

4.2.2 (ML&P Units)
ML&P expects the output of its proposed LM2500 SCCT to be 30 MW, and the output of its proposed LM6000 CCCT to be 58 MW.

P 4-6 (Table 4-8)
ML&P does not believe that SPP, with its dry cooling system could possibly have a lower heat rate (7,091 Btu/kWh) than ML&P's proposed CCCT (7,326 Btu/kWh) with an evaporative cooling tower.

P 4-7 (4.2.3 Healy Clean Coal Project)
The second paragraph seems to imply that the sunk cost of the project is $50 million, from GVEA's point of view. In any case, if GVEA avoids paying that cost, it will become a $50 million cost to the state. Therefore, HCCP should be treated as having an avoidable cost of $40 million. Even if the purpose of assigning the $50 million is to show the relative effect of individual vs. collective decision making, it is inappropriate because the $50 million was part of a legal settlement, and does not necessarily represent an estimate of the sunk cost of the plant.

4.2.4 HEA Units
As with HCCP, as well as with ML&P's committed units, any of the costs of the HEA committed units that are already committed should not be modeled as avoidable.

P 4-8 (4.3 Existing Transmission Grid)
The third paragraph from the bottom of the page describes interconnections between the MEA and Anchorage load centers. ML&P does not believe that the paragraph adequately, or even accurately, describes the system. In addition, ML&P has no idea

what the assumed 50 MW MEA to Anchorage transfer capability is intended to refer to. From ML&P's perspective, there is 250 MW transfer capability in each direction on the 230kV circuit plus 120 MW in each direction on the Eklutna circuit.

P 5-1 (5.2 Financing Rates)
ML&P would argue that 7% nominal is a little low. ML&P's estimated cost of capital (required return on combined debt and equity) is consistently above 8%, and we do not believe that the Railbelt cooperatives actually have a lower cost of capital than ML&P does. It is not easy to observe the cost of capital for cooperatives, but we do not believe that any Railbelt cooperative could refund its entire assets with borrowed funds at an average rate of 7%, unless some agency were willing to offer some subsidy, like, for example, a debt guarantee.

5.5 Fixed Charge Rates
ML&P does not object, in principle, to this form of recognition of cost of capital. However, fixed charge rates based on nominal interest rates produce a distorted comparison of capital costs of projects whose useful lives will occur at different time periods. This is not a serious issue where the comparison is in terms of the NPV of total costs over a fixed (long) time period, but it will seriously distort comparisons of "levelized" unit costs between units.

In general, long lived assets (e.g. hydro projects) are penalized by using nominal fixed charge rates instead of real fixed charge rates. For example, the 100 year fixed charge rate for hydro actually recovers very little of the capital cost during the second 50 years because dollars spent during that period are discounted by 50-100 years.

6-10 (6.4.2 Electric Space and Water Heating Loads)
ML&P is a little bit disconcerted by this discussion. Unless so much really low cost renewable power is developed that the region stops burning gas for generation during the heating season (would a two dam development of Susitna do this?), it is difficult to see how burning gas to produce electric power to produce heat could be either economically or thermally more efficient than burning gas to produce heat. It is also not obvious (although admittedly possible) that burning gas in a turbine to produce electric power to drive an electric compressor is more efficient or reliable than burning gas in the same turbine to drive the compressor directly.

6.4.3 Economic Development Loads
ML&P would only note that not everyone would automatically assume that large scale economic development of Alaska would be an unmitigated good thing. It is reasonable to consider developments of this nature as sensitivity scenarios, but we do not think "opportunity" is necessarily the word that should be used.

7-1 (7.1.1.1 Description of Risk-Based Assessment Methodology)
ML&P would suppose that if the object were to establish a point estimate of the expected natural gas price for each year, the obvious choice would be expected value (summation of the products of possible outcomes multiplied by their probabilities of occurrence). The

whole point of a risk based estimation is risk avoidance or compensation. ML&P has no specific recommendation on that subject, but strongly feels that expected value is a better point estimator than P50.

P 7-4 (Table 7-1)
ML&P is a little confused by the large variation in estimates for the 2000 - 2009 period, most of which has already occurred. This seems like large variation even if the period is really 2000 - 2009, a good part of which would presumably have occurred by the time the report was drafted.

7-5 (7.1.1.4.2.2 Instate Gas Pipeline)
ML&P believes that it would have been useful to model a larger pipeline as a sensitivity case. It appears to ML&P that a capacity of 350 MMcf/d could be uneconomically small.

P 8-1 (8.2.1 Spinning Reserves)
This is one of several places where Black & Veatch must correct its misunderstanding of Bradley Lake spinning reserves.

P 8-2 (Table 8-2)
ML&P units 4, 5, 7, and 8 should be included in this table.

P 9-2 (Figure 9-1 - 9-6)
These figures would be more useful with grid lines.

10-3 (10.1.3.2 CT Capital Cost Assumptions)
ML&P has a compressor on its Unit 3 and SPP will have compression.
The assumption of dry cooling seems unnecessary.

10-4 (10.1.3.6)
Next to last bullet: Station net output based on fired operation. Is this a capacity number, or is it an energy number? It seems obvious to ML&P that duct firing would not be used to produce a large amount of energy because of the high heat rate.

10.1.3.7 Coal O&M
It does not seem reasonable that a coal facility would have the same number of starts as a CT. ML&P wonders why the dispatch modeling does not give some estimate of the number of starts.

P 10-17 (10.3.1 Hydroelectric Project Options)
The projects are listed with associated utilities. ML&P assumes that the intention is to indicate the service area in which the project would be located, but the report does not say that anywhere that we noticed.

P 10-21 (Table 10-15)
These "average cost of electricity per kWh" numbers illustrate the difficulty of understanding average costs over long time periods. ML&P would prefer a real levelized

cost over the first 50 years, and a real levelized cost over the full project life. The costs over the second 50 years, after the total project cost has already been recovered, is pretty much irrelevant.

P 10-22 (Table 10-16)
The Firm Capacity and Minimum Capacity numbers do not seem useful to ML&P. Definition Question: Is "minimum capacity" the capacity at minimum pool? Considering the elevations, this seems like too much of a difference from Nameplate Capacity. Also, ML&P believes that Firm Capacity should be the capacity that the utility can count on, not on a continuous basis, but on a peak basis. Energy over the winter is a different issue.

P 10-31 (Capital Costs)
Something looks wrong by an order of magnitude. If the project is 100 MW, doesn't the cost/kW have to be $25,000 if the project cost is $2.5 billion?

P 10-36
Why would we consider only projects that could be "prepared for construction by the end of 2010"? Do we apply this standard to thermal projects?

P 10-40 (10.3.5 Modular Nuclear Option)
If ML&P has correctly understood the cost data, this project is very cheap. Why is it not selected?

P 10-45 (10.3.7) Central (Combined?) Heat and Power
ML&P thinks it might have been instructive to take the most attractive known site and model a co-gen project at that site.

ML&P is perplexed by the statement that standard purchase agreements under GRETC would obviate the need to be a QF. In ML&P's experience, projects choose to be QF not because of lack of a contract alternative, but because QF rates are higher than would be obtainable in an arms length transaction.

P 11-1 (11.1 Introduction)
ML&P understands that this position is not popular, but we begin with the assumption that customers, faced with a price above marginal cost (as we believe most electric consumers normally are) would invest more than the socially optimal amount on EE/DSM. We have to ask why the study assumes that electric customers do not follow this behavior. The question is especially relevant where, as in this study, we have simultaneous recommendations to try to push the price lower than its natural level and to try to push consumption lower than its natural level given prevailing prices.

P 11-9
Re: description of Table 11-4. What is the meaning of the phrase "target kWh savings per customer"?

In general, without a detailed discussion of the cost and benefit modeling, ML&P is skeptical of the analysis. ML&P believes that without compelling evidence of specific market failures that would justify deviation from the principle, investments in efficient use of resources should be made by the users of those resources. Where the resource is delivered electric power, the user is the electric customer, not the utility.

ML&P is not saying that the justifying market failures do not exist. However, if they do, they should be discussed in the report.

P 11-16 (11.5 DSM/EE Program Delivery)
The first sentence states that the models selected all DSM/EE measures in each of the resource plans. It is critical to understand the basis on which these selections were made. ML&P suspects (but does not believe it is stated explicitly in the report) that the basis was total utility spending on measures plus power supply. If so, it ignores the associated customer spending on the measures, and it probably ignores issues such as free ridership. It may also ignore the cost of verification, and of distortions of customer behavior resulting from the distortion of incentives inherent in the programs. Finally, it may ignore the interaction between heating load and electric efficiency (consideration of the similar interaction between cooling load and electric efficiency is common, but we have not seen discussion of this more or less opposite effect).

It may be that the models would select the same amount of EE/DSM even taking all of these issues into account, but we cannot tell from the report.

P 12-20 (Table 12-1)
As far as ML&P noticed, the text of Section 12 discusses categories of project (as to function or purpose) but not priority, while the table shows priority, but not category. ML&P would like the table to show both category and priority. It would also be nice to see some discussion of priority in the text.

ML&P believes that if Project 15 (new build Lucas - Teeland) is built, Project 14 (upgrade, Lucas - Teeland) should not be necessary. The projects should be presented as alternatives, rather than as independent.

ML&P believes that Project 16 (Pt. Mackenzie - Plant 2) would make sense only if major new generation is installed north of Cook Inlet.

ML&P wonders why this RIRP ignores the possibility of a 230 kV circuit from Fairbanks to Glenallen to Palmer. This circuit would admittedly be expensive, but to ML&P, it seems to be the obvious next step in extending the Railbelt grid, and would produce large redundancy benefits.

13-1 (13.1.1 Results - DSM/EE Resources)
As explained in its comments on Section 11, ML&P is skeptical of this result and believes that it requires a much more detailed discussion than is included in the report.

13-10 (Table 13-1)
ML&P believes that the column **Average Cost (¢ per kWh)** is calculated incorrectly. We believe that Black & Veatch has said that it made the calculation by dividing the present value of total cost by the total 50 year energy production. This would be incorrect in that it discounts costs but not benefits, while the time-value principle obviously applies equally to costs and benefits (it makes no difference whether the benefits are in the form of money or in the form of goods. In economic terms, money is nothing more than an index of the value of all goods). Correcting this error would increase all of the costs/kWh, (i.e. they would be discounted cost/discounted kWh, instead of discounted cost/gross kWh), but more importantly, it would remove a bias in favor of long lived resources.

Sensitivity - no DSM/EE As mentioned above, ML&P is unsure of the meaning of this result, as well as being skeptical. Does it mean that the utilities spend less, or that the region (utilities plus their customers) spends less?

Sensitivity - forced committed units How much of the difference is HCCP? As mentioned above, the assumptions in the study relating to HCCP are clearly unreasonable for any purpose that has been explained in the study. There are probably also other sunk costs that this result ignores.

Sensitivity -Fire Island This result seems to indicate that Fire Island increases regional costs by approximately $1 million per MW! If that is true, it says a lot about wind power!

Sensitivity - no Chackachamna This result shows Chackachamna saving close to $350 million, which seems pretty good. ML&P wonders whether this result assumes that the total cost of the project is recovered in the first 50 years? If so, is there any credit for the remaining value of the project at the end of the period?

Sensitivity - Modular Nuclear and Tidal Both of these resources would apparently be selected, if available to the model. This being the case, it would seem that the RIRP should recommend a vigorous effort to develop reliable cost and feasibility for them so that they can be included in the plan, if feasible. (**note:** ML&P suspects that the result for Tidal Power is incorrect, by an order of magnitude)

P 13-11 (Table 13-2)
Sensitivity - no DSM/EE There is an obvious error in the numbers.

Sensitivity - Committed Units This result must be driven primarily by Healy II. If that is true, it might be more appropriate not to group all of the committed units in one case.

Sensitivity - Fire Island This appears to indicate that including Fire Island increases NO_X and SO_X, which makes no sense to ML&P.

Sensitivity - Chackachamna This appears to indicate that Chackachamna increases SO_X. Makes no sense to ML&P.

Sensitivity - Tidal and Nuclear These results suggest that the cases include a lot more tidal power than nuclear. We don't really see a reason for that, unless it is a minimum scale issue with tidal facilities.

P 13-12 (13.4 Results of Transmission Analysis
ML&P did not see whether transmission projects required by the construction of a power project were included in the cost of the power project for economic analysis. Clearly, with some projects, this could be a major issue.

P 13-14
ML&P hopes that if a BESS was rendered necessary by the existence of a wind project, at least some of the cost of the BESS was treated as a cost of the wind project for analysis.

It is a semantic issue, but the remark in the last bullet that recommended system expansions and enhancements can not be justified based solely on economics suggests that Black & Veatch does not believe that reliability and power quality are economic variables. This restricted view of what is an economic variable makes economic analysis difficult, and, to a large extent, useless.

Second bullet ML&P believes that investments that are genuinely cost effective can be funded. Often the impression that an investment is too large to finance is driven by unrealistic expectations of what it should cost. It may be necessary to find a way to involve additional equity, or to find lenders willing to accept large risks. Both of these things involve costs that exceed the level generally considered normal by consumer owned utilities, but that doesn't mean that they are not possible.

Bullets four and five The comment above is relevant to these bullets.

P 13-16
Second bullet ML&P would ask whether it really makes sense to simultaneously invest in EE/DSM and use subsidies to lower a price of power that must already be too low if EE/DSM programs are necessary.

Hollow bullets one - three These bullets all describe some plan to advance payment for investment projects to some period prior to the projects' in-service dates. This is distasteful to regulators, but entirely appropriate economically. To the extent possible, prices should reflect marginal costs. As Harold Hotelling demonstrated with his bridge example, the marginal cost of an investment driven commodity (like electric power) will be at a maximum during the period just prior to the operation of a new investment (*ceteris paribus)*, and will fall when the investment goes into service. It is therefore counterproductive for the retail price of electric power to be falling during the entire period prior to the investment and then to suddenly rise, just when the marginal cost of

the power falls due to the new investment. To the extent that funding for the new investment can be advanced ahead of the actual investment, this problem will be reduced.

Hollow bullet four As ML&P reads this bullet, it is simply saying that if the state provides capital formation services for free, or assumes some of the risk, the costs remaining to the utilities (or GRETC) will be commensurately reduced. That is the nature of subsidies.

P 15-2 (15.1 Conclusions)
Obviously, given its many questions about, and exceptions to, the modeling assumptions and results, ML&P has many reservations about the conclusions. Because the fundamental reservations are explained elsewhere, comments on this section will be brief.

2. Last bullet In this bullet, the report lists as a factor driving the results, the question of whether the Railbelt utilities develop a number of currently proposed projects that were selected outside of the regional planning process. ML&P would point out that this study includes no credible analysis that would show that the utilities either should or should not develop those projects. The defects explained in prior comments (failure to recognize sunk costs, failure to recognize inability to rely on GRETC in the near term, and lumping of disparate units in the same group) make it impossible to draw any reasonable conclusion from the sensitivity case. ML&P would point out that the project most affected by this failure is the Healy II coal plant. The $50 million sunk cost that the report fails to recognize will very likely end up accruing to the state, if the project is not developed as a result of this RIRP.

3. fourth bullet The report asserts that a benefit of the RIRP will be a more effective spreading of risks among all areas of the region. This may be true, but that implies a transfer of risk from some parties to others. Obviously, these risk transfers have not been discussed in the RIRP, and will be major issues in the formation of GRETC.

P 15-3
4. ML&P does not believe that the study has really established that the cost of greater reliance on DSM/EE is lower than the cost of power production. It may be true, but the report does not make it clear.

6. As explained at length above, ML&P does not believe that the case has really been made with regard to the committed units. In addition, ML&P strenuously objects to the statement: "[w]while this sensitivity case does not fully capture the incremental cost of the utilities acting independently over the 50 year planning horizon, it does provide an indication of the relative cost differential." ML&P would argue that at least with regard to some of the committed resources, the sensitivity case exaggerates the incremental cost of those resources. It cannot be said whether the 50 year incremental costs are understated or overstated.

ML&P would also argue that there is no way that GRETC can get new resources built in time to meet the immediate needs of the Railbelt. If that is the case, utilities must build something, and they certainly will not build something that will not meet their own needs.

P 15-4
9. ML&P agrees that increased reliance in non-dispatchable resources will require a higher degree of frequency regulation. The report does not make clear, however, whether the incremental cost of this requirement is treated as a cost of the resources that create the requirement.

15-5 (15.2.1)
2. second bullet ML&P does not believe that a case has been made for any particular DSM/EE targets.

2. third bullet ML&P does not believe that a case has been made for any particular renewable target. If the externalities are properly priced, the model should be able to select the appropriate level of renewable resource.

2. fourth bullet If DSM/EE programs and uneconomic projects are to be funded, they will be funded, one way or another, out of rates. It might as well be called a "system benefit charge".

4. ML&P does not believe that the analysis supports the selection of Scenario 1B over Scenario 1A. There should be more work done on DSM/EE and committed units. With regard to renewables, there should be some articulation of what value is sought that is not reflected in the economic analysis that selected 1A. Because there is plenty of time before the two scenarios diverge, there is time to do this work before a decision between Scenario 1A and Scenario 1B is required.

Committed Units ML&P believes that because of modeling defects described above, the case with regard to committed units has not been made.

HCCP ML&P has commented above that as far as it can tell, the analysis fails to recognize the sunk costs of HCCP (i.e. it treats $50 million of sunk costs as avoidable). This renders any conclusions regarding HCCP suspect until the analysis is corrected.

P 15-10
DSM/EE programs As stated above, ML&P does not believe that a case has been made.

15-11 (15.2.3 Recommendations - Other)
1. ML&P does not oppose state funded studies of DSM/EE potential, but believes that it would be premature to design specific programs, or to commit to any level of investment.

2. ML&P believes that it could be useful to develop a regional DSM/EE program measurement and evaluation protocol well in advance of deployment of any programs.

3. ML&P does not believe that a case has been made for any large DSM/EE program, and therefore does not see a need at this time for a region wide organization to deliver programs.

4. The comment above is also applicable to renewable energy projects.

5. ML&P agrees that DSM/EE programs should be coordinated between electric provider and gas providers.

7. - 10. ML&P agrees with these recommendations.

11. ML&P does not see a need for any particular process or standard agreement for procurement from IPP's. GRETC can purchase from IPP's without these. We do not see an equal opportunity issue.

12. Always.

A-1
At the time when ML&P downloaded the draft report, the appendices to Appendix A did not appear to be included. ML&P has not seen these appendices, and any lack of comment indicates neither acceptance nor exception.

A-2 (Table 1)
ML&P believes that the definition of Firm Capacity (we think it is the level of output that can be maintained continuously during the Nov-April winter season with 100% certainty) is so restrictive as to be misleading. Certainly, we do not actually operated any hydro resource that way. ML&P believes that we are more interested in several values that are commonly discussed in the Pacific Northwest: (1) capacity, defined as the level of output that can be reliably produced at any time, with reasonable planning, (2) heavy load hour energy, defined as the amount of energy that can be reliably produced during the hours of the year with above average loads, (3) firm energy, defined as the amount of energy that can be reliably produced during the year, and (4) nonfirm energy, defined as the energy in excess of firm energy that is expected to be produced.

P A-9 (Table 2)
ML&P would like to know how the Minimum Pool Elevation is determined. Is it a technical limitation, a statistical limitation having to do with refill and preservation of H/K, or an economic limitation? Would further drawdown be possible?

P A-11 (Figure 2)
This chart illustrates the very high cost of the last few percentage points of reliability. It suggests that costs would be minimized by accepting a significantly less than 100% probability of meeting a given level of reliable output and dealing with any shortfall through some combination of alternative supply and demand reduction.

Appendix C Financial Analysis

The lack of page and/or section numbering on this document makes it difficult to attach specific comments. In general, the Appendix proceeds with an argument that consumer owned utilities are unable to fund investments that are large in relation to their existing assets. ML&P would argue that the question is really more one of will than of ability. Large investments result in large leverage, high risk, and, accordingly, high cost. Consumer owned utilities are not used to acquiring capital at high cost, but that doesn't necessarily mean that it should not be done. It just means that the investment must justify a higher cost than we are used to.

One of the two strategies advocated in the Appendix is to advance recovery of the investments from rate payers ahead of the actual investment. SNW has somewhat mischaracterized the economic effects of this strategy, but it is, nonetheless, economically appropriate. ML&P supports all three of the mechanisms proposed by SNW, and notes that the traditional regulatory reluctance to advance recovery of investments is one reason supporting proposals to exempt GRETC from economic regulation.

The second major strategy advocated is for the state to assume, in one way or another, part of the cost of the investments. This could be done through outright grant, subsidized loan, or loan guarantee (a form of loan subsidy). Clearly, any investment by the state reduces the remaining cost of investment to the utilities. Whether the state should provide this kind of assistance is a political question, and ML&P would only remark that there is a long tradition, not only in Alaska, but also in the other states, and in the United States, of this kind of government investment in very large utility investments that have many of the attributes of infrastructure.

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December 2, 2009

Jim Strandberg
813 W. Northern Lights Blvd.
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RE: RIRP draft presented by B&V – 11/19/09

Dear Jim:

Thank you for providing the Railbelt utilities an opportunity to review the preliminary results of the Railbelt Integrated Resource Plan (RIRP). I am pleased to see that we are having good discussions on the possibility of having a centralized authority providing for the electrical needs of the Railbelt. As with any viable analysis, it is important that costs and benefits of the various scenarios be properly modeled so that the results form a strong foundation for future decisions.

I remain concerned about some of the assumptions and methods of the present modeling. In my opinion they can lead to potentially misleading conclusions. There are a number of technical critiques that I can provide in order to enhance accuracy, but at a more fundamental level, I feel that there is a potential for a fatal flaw in the methodology of comparisons.

To illustrate the flaw I offer this example. If NASA were to fire a rocket at the moon by aiming directly at their target, it would miss because the moon would have moved by the time the rocket arrived. In order to be successful, NASA must factor in movement and aim for the anticipated location.

The present RIRP makes a similar mistake. The basis for the comparison of the scenarios (1A, 2A, 1B and 2B) takes as a starting point conditions that will not exist in the Railbelt generation when GRETC is expected to be a reality. The appropriate approach is to establish a time that we can reasonably assume GRETC will come into existence and use the circumstances expected to exist at that time as a starting point for the modeling. I believe this was the method originally expressed to the Railbelt utilities on how the IRP was going to proceed (our current power supply plans would be integrated and form the first 10 year transition period). The conditions of that future starting point should be the basis of all comparisons; which should include <u>all</u> units that are likely to be in existence at that time. To assume that none of the committed units will be in existence, as currently modeled, is incorrect at best and misleading at worst.

For HEA, the modification of the Nikiski unit and the addition of two units at Soldotna will happen, a fact that has been disclosed at numerous meetings. The pre-bidding for aforementioned projects has been held and contracts will be signed during the first quarter of 2010. Money is being committed. Likewise with the South Anchorage Power Project (SAPP),

Healy Clean Coal Project (HCCP) and others, monies are being spent and these projects will be well on their way to being a reality before a bill concerning GRETC can even be introduced to the Legislature.

As you are well aware, HEA has given Chugach Electric Association (CEA) notice of the cessation of their contract for electrical supply; which comes to an end on December 31, 2013. With only four (4) short years to develop our resources, we do not have the luxury of abdicating the responsibility of meeting the electrical energy needs of our members. As a result and as mentioned above, we are actively implementing the most economical and realistic solutions, as identified in our Power Supply Plan, in order to provide generation resources for our members.

Once again, it is my opinion that the failure to include a realistic formulation starting point and omitting committed future assets is a fatal flaw in the plan. On the other hand, the inclusion of all planned units will offer a more realistic picture of the actual costs associated with the various scenarios. Without that, I cannot in good faith support the conclusions of the study.

Based on the preliminary results presentation, I have a detailed list of comments that I am happy to share with you in an effort to improve the reliability of this planning activity. If you are interested, please let me know.

Thank you for the hard work you've put into this project. I look forward to hearing from you soon.

Sincerely,

Bradley P. Janorschke
General Manager

cc: Harvey Ambrose, HEA Director of Power Production & Transmission
Bob Day, HEA Power Production Manager