

Original sponsors: Rogers and Buchholdt

Offered: 5/18/81
Referred: Rules

1 IN THE HOUSE

BY THE FINANCE COMMITTEE

2 CS FOR SPONSOR SUBSTITUTE FOR HOUSE BILL NO. 9 (Finance)

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 TWELFTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act relating to energy; and providing for an
7 effective date."

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

9 * Section 1. AS 37.12.125(6) is amended to read:

10 (6) "renewable resource" means

11 (A) non-human living organisms;

12 (B) natural components of the environment, including
13 the air, land, and water; [AND]

14 (C) energy systems which are naturally recurring or
15 replenished; and

16 (D) energy conservation technologies and recyclable
17 wastes.

18 * Sec. 2. AS 43.20.037(d)(1)(B)(ii) is amended to read:

19 (ii) a method of architectural design and construc-
20 tion which provides for the collection, storage and use of
21 direct radiation from the sun or which provides for the re-
22 tention of heat by the use of an amount or quality of insula-
23 tion which exceeds the amount or quality of insulation re-
24 quired by building performance standards adopted by the
25 Alaska Energy Center under AS 46.12.120; and

26 * Sec. 3. AS 44.21.020 is amended by adding a new paragraph to read:

27 (13) adopt regulations to implement the energy conservation
28 procurement policy set out in AS 46.11.070.

29 * Sec. 4. AS 44.33.040(17)(B) is amended to read:

(B) make grants for recipients eligible for [TO MATCH] grants from [MADE BY] the United States Department of Energy under the appropriate technology small grants program for Alaska authorized by Title I of the Department of Energy Appropriation Authorization Act of 1977, P.L. 95-39 (42 U.S.C. 5907a) and 10 C.F.R. 470;

* Sec. 5. AS 44.47.140 is amended to read:

Sec. 44.47.140. LIMITATIONS. A program of the department under AS 44.47.130 in a rural area may not exceed \$40,000 in [A] cost a year, except that a grant of not more than \$100,000 [\$60,000] may be made under AS 44.47.145 for a bulk fuel storage facility.

* Sec. 6. AS 44.47.145(b) is amended to read:

(b) Grants made under this section for the acquisition and installation of a bulk fuel storage facility may not exceed \$100,000 [\$60,000] per community.

* Sec. 7. AS 44.83.070 is amended to read:

Sec. 44.83.070. PURPOSE OF THE AUTHORITY. The purpose of the authority is to promote, develop and advance the general prosperity and economic welfare of the people of Alaska by providing a means of constructing, acquiring, financing and operating

(1) power projects [PRODUCTION FACILITIES] limited to fossil fuel, wind power, tidal, geothermal, hydroelectric, or solar energy production; and

(2) facilities which recover and use waste energy [CONSERVATION FACILITIES].

* Sec. 8. AS 44.83.177(a) is amended to read:

(a) To identify power project alternatives and energy consumption patterns and needs for a community or region, the authority shall, after consultation with other state agencies and after review of information on alternative sources of energy [POWER], complete a recon-

1 reconnaissance study for each proposed new power project.

2 * Sec. 9. AS 44.83.177(b) is repealed and reenacted to read:

3 (b) A reconnaissance study shall

4 (1) identify the present and anticipated electrical and
5 thermal energy requirements of a community or region;

6 (2) survey all electrical and thermal energy sources avail-
7 able to the community or region and evaluate the relative economic
8 merits of alternative sources of power and heat, including energy
9 conservation;

10 (3) assess the effect of development of alternative sources
11 of power and heat on the environment so as to assure that there is no
12 adverse effect to the environment which would make the project inadvis-
13 able; and

14 (4) include public comment from residents of the community
15 and adjacent area.

16 * Sec. 10. AS 44.83.177(c)(2) is amended to read:

17 (2) standard criteria and measures for comparative analysis
18 of alternative energy [POWER] sources.

19 * Sec. 11. AS 44.83.230(4) is amended to read:

20 (4) "power project" or "project" means a plant, works,
21 system, facility, water rights, fuel deposits or sources, and real
22 estate and personal property [OF ANY NATURE WHATSOEVER], together with
23 all facilities and appurtenances related to them or necessary for the
24 purposes of them, used or useful in electrical or thermal [POWER]
25 production limited to fossil fuel, wind power, tidal, geothermal,
26 hydroelectric, or solar energy production and waste energy utilization
27 and energy conservation and the transmission, purchase, sale, exchange
28 and interchange of electrical or thermal energy [POWER], and shall
29 include any interest in them, whether divided or undivided, or any

1 right to the capacity of them;

2 * Sec. 12. AS 44.83.230(7) is amended to read:

3 (7) "reconnaissance study" means a study conducted for the
4 purpose of assessing the present and future electrical and thermal
5 energy [POWER] needs of an area under AS 44.83.177;

6 * Sec. 13. AS 46.11.030(a)(1) is amended to read:

7 (1) establish criteria for the performance of energy audits
8 of commercial and industrial buildings, cultural facilities, and
9 public buildings located in the state;

10 * Sec. 14. AS 46.11.030(c) is amended to read:

11 (c) The department may contract

12 (1) with a municipality for the performance of energy audits
13 in the municipality;

14 (2) with a nonprofit corporation for the performance of
15 energy audits in any community which the nonprofit corporation serves;

16 (3) with a public or private electric utility for the per-
17 formance of energy audits.

18 * Sec. 15. AS 46.11 is amended by adding new sections to read:

19 Sec. 46.11.032. CLASSIFICATION OF AUDITS. In establishing stan-
20 dards for energy audits of residences under AS 46.11.030(a), the depart-
21 ment shall provide criteria for performance of

22 (1) abbreviated audits that

23 (A) identify the energy conservation improvements
24 defined in AS 46.13.190(4) which are appropriate to the residence;

25 (B) identify other low-cost improvements which a resi-
26 dent may make to conserve energy;

27 (C) advise the resident of possible conservation prac-
28 tices; and

29 (D) recommend areas to be analyzed in a detailed energy

1 audit;

2 (2) detailed audits that

3 (A) analyze building characteristics;

4 (B) evaluate the applicability of structural retrofit,
5 upgrading, and the replacement of energy systems with alternative
6 energy systems;

7 (C) recommend appropriate alternative energy systems
8 for the residence; and

9 (D) provide to the resident an estimate of the costs to
10 implement the recommended measures, and an estimate of the time in
11 which the estimated cost of the energy saved by implementation of
12 the recommended measures exceeds the cost of implementing the
13 recommended measures.

14 Sec. 46.11.034. FEES AND PAYMENTS FOR ENERGY AUDIT. (a) The fee
15 for an energy audit may not be set by the state.

16 (b) The department shall reimburse a person who performs an
17 abbreviated energy audit of a residence in the state. The reimburse-
18 ment for the energy audit may not exceed the lesser of the cost of the
19 audit or \$50 adjusted by a regional cost-of-living and inflation index
20 determined by the department.

21 (c) For purposes of this section, a regional cost-of-living index
22 is determined by calculating the cost of living in each region of the
23 state by using the annually adjusted cost of living in Anchorage as a
24 base of 1.00.

25 * Sec. 10. AS 46.11 is amended by adding a new section to read:

26 Sec. 46.11.070. ENERGY CONSERVATION PROCUREMENT POLICY REGULA-
27 TIONS. (a) By July 1, 1982, the commissioner of administration shall
28 adopt regulations to implement a procurement policy applicable to state
29 agencies. The regulations adopted shall be reasonably necessary to

1 promote energy conservation in the acquisition and use of equipment,
2 materials, and supplies, and shall include, but are not limited to,

3 (1) procedures to determine life cycle costs of equipment,
4 based on acquisition costs, the cost of operating the equipment during
5 its anticipated useful life, maintenance costs of equipment during its
6 anticipated useful life, and the anticipated resale or salvage value of
7 the equipment; and

8 (2) minimum standards of energy efficiency of equipment,
9 based on applicable federal energy efficiency standards and average
10 fleet fuel economy for automobiles.

11 (b) The regulations adopted by the commissioner of administration
12 shall include bid procedures applicable to the acquisition of equip-
13 ment, materials, and supplies by state agencies by which the state
14 agency may evaluate compliance of a bid with the provisions of (a) of
15 this section before making a bid award.

16 (c) The commissioner of administration may not adopt regulations
17 under this section until the director of the Alaska Energy Center
18 (AS 46.12) and the director of the division of energy and power develop-
19 ment in the Department of Commerce and Economic Development are allowed
20 to review and comment on the regulations.

21 (d) The commissioner of administration may assist state agencies
22 in complying with regulations adopted under this section.

23 (e) By the 10th day of each regular session of the legislature,
24 the commissioner of administration shall submit a report to the legis-
25 lature on the regulations adopted under this section, and on compliance
26 with the regulations by state agencies. The report shall contain

27 (1) the actual energy costs and the energy conserved as a
28 result of compliance by state agencies with the regulations adopted
29 under this section; and

1 (2) the estimated energy costs and estimated energy which
2 may be conserved as a result of compliance by state agencies with the
3 regulations adopted under this section.

4 * Sec. 17. AS 37.25.030 is amended by adding a new subsection to read:

5 (b) The commissioner of administration shall

6 (1) require bids submitted under this section to contain
7 information about the life cycle costs and energy efficiency standards
8 of equipment, if the bid involves energy-consuming equipment;

9 (2) condition acceptance of a bid submitted under this
10 section on compliance by the bidder with bid regulations adopted under
11 AS 46.11.070,

12 * Sec. 18. AS 46.11.900(1)(B)(ii) is amended to read:

13 (ii) a method of architectural design and construc-
14 tion which provides for the collection, storage and use of
15 direct radiation from the sun or which provides for the re-
16 tention of heat by the use of an amount or quality of insula-
17 tion which exceeds the amount or quality of insulation re-
18 quired by building performance standards adopted by the
19 Alaska Energy Center under AS 46.12; and

20 * Sec. 19. AS 46.11.900(3) is amended to read:

21 (3) "energy audit" means a determination and written summary
22 prepared under AS 46.11.030 or sec. 215(b)(1)(A) of the National Energy
23 Conservation Policy Act (42 U.S.C. 8216(b)(1)(A)) of

24 [(A) THE ENERGY CONSUMPTION CHARACTERISTICS OF A BUILD-
25 ING, INCLUDING THE SIZE, TYPE, AND RATE OF ENERGY CONSUMPTION OF
26 MAJOR ENERGY CONSUMING SYSTEMS OF THE BUILDING AND THE CLIMATE
27 CHARACTERIZING THE REGION WHERE THE BUILDING IS LOCATED; AND

28 (B) the energy [CONSERVATION AND COST] savings likely
29 to result from appropriate energy-conserving maintenance and

operating procedures and modifications, including the purchase and installation of energy-related fixtures; [FOR PURPOSES OF THIS SUBPARAGRAPH WHEN A FOSSIL FUEL IS THE ENERGY SOURCE, THE ENERGY COST SAVINGS SHALL BE DETERMINED WITH REFERENCE TO THE PROJECTED PRICE OF THAT FOSSIL FUEL OVER A 10-YEAR PERIOD;]

* Sec. 20. AS 46.11.900 is amended by adding a new paragraph to read:

(10) "cultural facility" means a structure or complex the principal purpose of which is to serve the visual and performing arts, including but not limited to a theatre, concert hall or gallery, or to serve as the repository of the historical or contemporary heritage of the community and its people, and which also may be used for compatible activities, including but not limited to, activities relating to education, community meetings, tourism, and visitor information.

* Sec. 21. AS 46.12.120 is amended by adding a new paragraph to read:

(6) adopt building energy performance standards for

(A) public facilities of the state; and

(B) residences, commercial and industrial buildings,

and other privately owned buildings in the state for which alternative energy system and energy conservation improvement loans may be made under AS 46.13 or for which an energy conservation credit is sought under AS 43.20.037.

* Sec. 22. AS 46 is amended by adding a new chapter to read:

CHAPTER 13. ENERGY CONSERVATION AND DEVELOPMENT.

ARTICLE 1. ALTERNATIVE TECHNOLOGY AND

ENERGY CONSERVATION LOANS.

Sec. 46.13.010. LOAN FUND ESTABLISHED. There is established in the Department of Commerce and Economic Development the alternative technology and energy conservation loan fund to carry out the purposes of AS 46.13.010 - 46.13.099. A loan made under AS 46.13.010 - 46.13.099

1 may be used

2 (1) to develop energy production and conservation systems
3 using energy sources other than fossil or nuclear fuel, including but
4 not limited to, windmills, water, and solar energy devices;

5 (2) to develop and implement methods of energy production,
6 waste disposal, recycling, food production, transportation, building
7 design, and industrial enterprise which may be more efficient, less
8 costly, and less energy intensive than those methods presently used and
9 which are appropriate to the Alaska environment;

10 (3) to purchase, construct, or install an energy conserva-
11 tion improvement or an alternative energy system which is likely to
12 result in energy conservation or energy cost savings

13 (A) in a residential or commercial building;

14 (B) in a building owned by a corporation organized
15 under AS 10.20; or

16 (C) as part of an agricultural or industrial process.

17 Sec. 46.13.020. POWERS AND DUTIES OF THE DEPARTMENT. The depart-
18 ment may make loans

19 (1) for the purchase, construction, installation, and pro-
20 duction of

21 (A) alternative energy systems;

22 (B) energy conservation improvements; and

23 (2) for the development, implementation, and production of
24 more efficient, less costly, less energy intensive, and more appropri-
25 ate technologies.

26 Sec. 46.13.030. AUDITS. A loan may not be made under AS 46.-
27 13.010 - 46.13.099 for an alternative energy system or energy conserva-
28 tion improvement unless a detailed energy audit of the building has
29 been completed as provided in AS 46.11.032.

1 Sec. 46.13.040. LOAN TERMS. (a) A loan for the purchase, con-
2 struction, or installation of an alternative energy system or an energy
3 conservation improvement under AS 46.13.010 - 46.13.099 may be made
4 only for an alternative energy system or energy conservation improve-
5 ment which has been recommended in a detailed energy audit as a measure
6 which is likely to result in energy conservation or energy cost savings.

7 (b) A loan for the development of an alternative energy system or
8 for an energy conservation improvement

9 (1) may include the cost of the detailed audit of the build-
10 ing; and

11 (2) may not exceed the lesser of

12 (A) the cost of the alternative energy system or the
13 energy conservation improvement and the amount included under (1)
14 of this subsection; or

15 (B) \$100,000.

16 (c) The duration for repayment of a loan may not exceed 75 percent
17 of the estimated useful life of the alternative energy system or energy
18 conservation improvement, as determined by the department.

19 (d) All payments of principal and interest on a loan made under
20 AS 46.13.010 - 46.13.099 shall be paid by the department to the Depart-
21 ment of Revenue for deposit into the general fund.

22 (e) The rate of interest on a loan made under AS 46.13.010 -
23 46.13.099

24 (1) is five percent, if the loan is made before January 1,
25 1984;

26 (2) equals the percentage of the average weekly yield of
27 municipal bonds for the 12 months preceding the loan, as determined by
28 the commissioner of commerce and economic development from municipal
29 bond yield rates reported in the 30-year revenue index of the Weekly

1 Bond Buyer, for a loan made after December 31, 1983.

2 (f) The department may require security for a loan under this
3 section. If the amount of a loan is less than \$10,000, the department
4 may not require security in the form of a deed of trust. When a loan
5 is made under this section, the department may require the loan appli-
6 cant to present copies of invoices or billings for expenses which the
7 proceeds of the loan will be used to pay.

8 Sec. 46.13.050. LIMITATIONS ON LOANS. A loan for an alternative
9 energy system or energy conservation improvement which uses wood as its
10 principal fuel may not be used by the borrower for structural changes
11 in a building. Not more than one-third of the amount loaned for an
12 alternative energy system or energy conservation improvement which uses
13 wood as its principal fuel may be used for costs of installation of the
14 system or improvement.

15 Sec. 46.13.060. LOAN ADVANCES. The department shall establish
16 procedures for the payment of an advance of a portion of the proceeds
17 of a loan by an applicant before the purchase and construction or
18 installation of an energy conservation improvement or an alternative
19 energy system.

20 Sec. 46.13.070. REGULATIONS. The department shall adopt regula-
21 tions necessary to carry out the provisions of AS 46.13.010 - 46.13.099.

22 Sec. 46.13.099. DEFINITIONS. In AS 46.13.010 - 46.13.099,
23 "alternative energy system"

24 (1) means a source of thermal, mechanical, or electrical
25 energy which is not dependent on oil or gas or a nuclear fuel for the
26 supply of energy for space heating and cooling, refrigeration and cold
27 storage, electrical power, mechanical power, or the heating of water;

28 (2) includes

29 (A) an alternative energy property as defined by

1 sec. 48(1)(3)(A) of the Internal Revenue Code (26 U.S.C. sec. 48-
2 (1)(3)(A));

3 (B) a method of architectural design and construction
4 which

5 (i) provides for the collection, storage and use
6 of direct radiation from the sun; or

7 (ii) provides for the retention of heat by the use
8 of an amount or quality of insulation which exceeds the
9 amount or quality of insulation required by building perfor-
10 mance standards adopted by the Alaska Energy Center; and

11 (C) any other device approved by the commissioner of
12 commerce and economic development under AS 44.33.040(12).

13 ARTICLE 2. ENERGY CONSERVATION REFUNDS AND GRANTS.

14 Sec. 46.13.100. FUND ESTABLISHED. There is established in the
15 Department of Commerce and Economic Development the residential energy
16 conservation grant fund to carry out the purposes of AS 46.13.100 -
17 46.13.199. Refunds and grants made under AS 46.13.100 - 46.13.199 may
18 be used to purchase, construct, and install an energy conservation
19 improvement in residential buildings. The fund may be used for no
20 other purpose.

21 Sec. 46.13.110. REFUNDS AND GRANTS. (a) The department may
22 make refunds or grants for the purchase, construction, and installation
23 of an energy conservation improvement in a residential building if the
24 energy conservation improvement is recommended in an abbreviated energy
25 audit under AS 46.11.032.

26 (b) A refund or grant made under this section may not exceed an
27 amount determined by the department by application of each of the
28 factors set out in (e) of this section to the base rate applicable to
29 the dwelling or residential building. The base rate is

1 (1) \$300 for a single-family dwelling; or

2 (2) \$200 for each unit in a multi-unit residential building.

3 (c) In making a refund or grant under this section, the depart-
4 ment shall determine the amount of a refund or grant payable under (a)
5 of this section by adjusting the base rate set out in (b) of this
6 section by

7 (1) a regional cost-of-living index determined by the
8 department;

9 (2) a degree day factor.

10 Sec. 46.13.199. DEFINITIONS. In AS 46.13.100 - 46.13.199,

11 (1) "degree day" means a unit that represents one degree of
12 declination from 65 degrees Fahrenheit in the mean outdoor temperature
13 of a day;

14 (2) "degree day factor" means the factor determined by
15 dividing the average number of degree days for the community in which a
16 dwelling or residential building is located by the average number of
17 degree days for the state;

18 (3) "energy audit" means a determination and written summary
19 prepared under AS 46.11.030 - 46.11.032 or sec. 215(b)(1)(A) of the
20 National Energy Conservation Policy Act (42 U.S.C. 8216(b)(1)(A)) of
21 the energy savings likely to result from appropriate energy-conserving
22 maintenance and operating procedures and modifications, including the
23 purchase and installation of energy-related fixtures;

24 (4) "energy conservation improvement" means

25 (A) structural insulation;

26 (B) storm and thermal windows and doors;

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

- 1 (D) a device for modifying flue openings designed to
2 increase the efficiency of operation of the heating system;
3 (E) an electrical or mechanical furnace ignition system
4 which replaces a gas pilot light;
5 (F) an automatic energy-saving setback thermostat;
6 (G) a meter which displays the cost of energy usage;
7 (H) caulking and weatherstripping of doors and windows;
8 (I) insulating shades and shutters;
9 (J) air and water recuperators;
10 (K) electrical outlet insulating gaskets;
11 (L) water heater insulating jacket;
12 (M) shower flow reducer;
13 (N) any other energy-saving device approved by the
14 commissioner of commerce and economic development under AS 44.33.-
15 040(12);

16 (5) "regional cost-of-living index" is an index determined
17 by calculating the costs of living in the regions of the state by using
18 the cost of living in Anchorage as a base of 1.00;

19 (6) "residential building" means a building which is used as
20 a home, dwelling or sleeping place and includes a newly constructed
21 building and a building proposed for construction as well as an existing
22 structure.

23 ARTICLE 3. ENERGY CONSERVATION ASSISTANCE.

24 Sec. 46.13.200. ENERGY CONSERVATION ASSISTANCE. The department
25 may make a grant to an individual, municipality, or nonprofit corpora-
26 tion to install an energy conservation improvement in a building or
27 dwelling

28 (1) in which an individual who receives low income resides;

29 or

1 (2) in a community

2 (A) which has a population of less than 600;

3 (B) which does not have year-round surface transporta-
4 tion; and

5 (C) which lacks the goods and services necessary for
6 installation of energy conservation improvements.

7 Sec. 46.13.210. LIMITATION ON GRANT. A grant under AS 46.13.200
8 may not exceed \$3,000.

9 Sec. 46.13.220. STANDARDS. The department shall by regulation
10 establish

11 (1) income standards for individuals who are eligible for
12 assistance under AS 46.13.200 - 46.13.240 based on poverty guidelines
13 provided by the federal Office of Management and Budget adjusted to
14 Alaska and regional conditions by United States Department of Labor
15 statistics and a cost-of-living index;

16 (2) eligibility requirements for contractors of the grantee
17 who install energy conservation improvements;

18 (3) the energy conservation improvements which may be made
19 under AS 46.13.200 - 46.13.240;

20 (4) the amount of assistance that may be provided to an
21 individual under AS 46.13.200 - 46.13.240 considering

22 (A) the estimated life of the housing unit;

23 (B) prior energy conservation improvements made to the
24 housing unit;

25 (C) the cost effectiveness of any proposed improvements
26 which are made to conserve energy;

27 (D) costs of materials and transportation of materials;
28 and

29 (E) the availability of other financial resources for

1 energy conservation in the building or dwelling.

2 Sec. 46.13.230. LIMITATION ON ASSISTANCE. If an energy conserva-
3 tion improvement in a building or dwelling is financed by a refund or
4 grant made under AS 46.13.100 - 46.13.199, a low-income individual who
5 later resides in the building or dwelling may receive assistance under
6 AS 46.13.200 - 46.13.240 for other energy conservation improvements.

7 However,

8 (1) only one grant may be made under AS 46.13.200 - 46.13.240
9 for each building or dwelling; and

10 (2) when a grant is given for a building or dwelling under
11 AS 46.13.200 - 46.13.240, the owner of the building or dwelling may not
12 obtain a refund or grant under AS 46.13.100 - 46.13.199.

13 Sec. 46.13.240. AUDIT. A grant may not be made under AS 46.13.-
14 200 - 46.13.240 unless an abbreviated energy audit is completed.

15 ARTICLE 10. GENERAL PROVISIONS.

16 Sec. 46.13.900. DEFINITION. In this chapter, "department" means
17 the Department of Commerce and Economic Development.

18 * Sec. 23. The following laws are repealed: AS 45.88; AS 45.89; and
19 AS 46.11.030(d) and (e).

20 * Sec. 24. Sections 1 - 16 and 18 - 23 of this Act take effect July 1,
21 1981.

22 * Sec. 25. Section 17 of this Act takes effect July 1, 1982.