

SCOMM

#44:1

POWER ALTERNATIVES PROJECT

(HOUSE Project)

Project Directors: Rep. Hugh Malone
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DIRECTORY

OF

INTERIM, SPECIAL & PERMANENT COMMITTEES



ELEVENTH ALASKA STATE LEGISLATURE

1979

-Revised August 1979-

ACKNOWLEDGEMENTS

This work was done under subcontract to Mark Fryer and Associates, an engineering consulting firm in Anchorage, Alaska. The study is an element of a larger contract administered by the Center for Policy Studies, Anchorage, for the Alaska State Legislature's ~~Subcommittee on Alternative Energy~~.

Power Alternatives Study Committee

Note: This report was sponsored by the Power Alternatives Study Committee of the Alaska House of Representatives. The Committee is charged with assessing alternative strategies for meeting demand for power in the Alaska Railbelt.

Mark Dittow
Study Coordinator

0 LUB

SOLAR ENERGY - A COMPONENT OF THE ALASKA ALTERNATIVE

ENERGY STUDY

JANUARY - MARCH 1980

Prepared By

Richard D. Seifert
Research Associate

Institute of Water Resources
University of Alaska
Fairbanks, Alaska

House Power Alternatives Study Committee 8000380

See SCOMM44

FILE COPY

ENERGY ALTERNATIVES FOR THE RAILBELT

Study of End-Use Structure, Energy Conservation
Potential, Alternative Energy Resources,
and Related Public Policy Issues

Prepared for

Alaska State Legislature
HOUSE POWER ALTERNATIVES STUDY COMMITTEE
Reps. Hugh Malone and Brian Rogers,
Co-Chairmen

by

ALASKA CENTER FOR POLICY STUDIES
P. O. Box 2151
Anchorage, Alaska 99510

August 1980

Legislative Reference Library
Legislative Affairs Agency
State Capital
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Juneau, AK 99811



LAWS OF ALASKA

1980

Source

HCS CSSB 438 (Finance) am H

Chapter No.

83

AN ACT

Relating to energy: to the conservation of energy, the development and use of alternative energy systems, and modifying state taxes to encourage energy conservation; exempting certain energy transactions from regulation by the Alaska Public Utilities Commission; establishing a power production cost assistance program for electric utilities; providing for assistance in the acquisition of bulk fuel; amending provisions relating to projects of the Alaska Power Authority, and approving the general design and maximum amount of bonds of the Alaska Power Authority for certain power projects; and repealing the water resources revolving loan fund; and providing for an effective date.

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

THE ACT FOLLOWS ON PAGE 1, LINE 21

UNDERLINED MATERIAL INDICATES TEXT THAT IS BEING ADDED TO THE LAW AND BRACKETED MATERIAL IN CAPITAL LETTERS INDICATES DELETIONS FROM THE LAW; COMPLETELY NEW TEXT OR MATERIAL REPEALED AND RE-ENACTED IS IDENTIFIED IN THE INTRODUCTORY LINE OF EACH BILL SECTION.

Approved by the Governor: June 12, 1980

Actual Effective Date: Sections 1, 3 - 8, 11, 37 - 45, 48 and 52 - 56 effective June 13, 1980; sections 2, 12 - 36, 46, 47 and 49 effective July 1, 1980; sections 9 and 10 effective January 1, 1981; section 51 effective July 1, 1985; section 50 effective January 1, 1986.

Original sponsor: Fahrenkamp

Offered: 5/15/80
Referred: Rules

1 IN THE SENATE

BY THE FINANCE COMMITTEE

2 HOUSE CS FOR CS FOR SENATE BILL NO. 438 (Finance) am H

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 ELEVENTH LEGISLATURE - SECOND SESSION

5 A BILL

6 For an Act entitled: "An Act relating to energy: to the conservation of
7 energy, the development and use of alternative energy
8 systems, and modifying state taxes to encourage energy
9 conservation; exempting certain energy transactions
10 from regulation by the Alaska Public Utilities Commis-
11 sion; establishing a power production cost assistance
12 program for electric utilities; providing for assist-
13 ance in the acquisition of bulk fuel; amending provi-
14 sions relating to projects of the Alaska Power Author-
15 ity, and approving the general design and maximum
16 amount of bonds of the Alaska Power Authority for
17 certain power projects; and repealing the water re-
18 sources revolving loan fund; and providing for an
19 effective date."

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

21 * Section 1. DECLARATION OF POLICY. It is the policy of the state to
22 encourage and facilitate the implementation of energy conservation measures
23 relating to in-state energy use. This policy shall be implemented by

24 (1) the state setting an example of wise and efficient energy use,
25 by designing and managing public buildings and their energy systems to meet
26 appropriate standards for energy efficiency;

27 (2) providing incentives for the design and modification of resi-
28 dential, commercial, and industrial buildings to accomplish maximum energy
29 efficiency; and

HOUSE
JOURNAL SUPPLEMENT

May 15, 1980

Thursday

No. 68

FISCAL NOTE

HCS
CSSB
114
(Fin)

I. REQUEST HB 155 and CS HB 155 & HCS CSSB 114 (Finance)
Bill/Resolution No. Title An Act relating to competitive bidding under fiscal procedures act
Requested by Representative Neekins Date May 13, 1980

II. FISCAL DETAIL

Agency Affected ALL

Program Category Affected All

BRU, Program, or Subprogram(s) Affected All

(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL	0	0	0	0	0	0

FUNDING (Thousands of Dollars)

GENERAL FUND	0	0	0	0	0	0
FEDERAL FUNDS						
OTHER (Specify Fund Source)						

POSITIONS

FULL TIME	--	--	--	--	--	--
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

It is quite difficult to determine the increase in costs to state operations, as it is not possible to point to any item which will specifically increase those costs.

There are, however, additional costs associated with this legislation but these increased costs will be absorbed by each individual agency within its budget.

IV. DATE May 13, 1980

Original: Legislative Finance

PREPARED BY George Ege
AGENCY Administration
PHONE 465-2250

406

****COPY****
 ALASKA HOUSE OF REPRESENTATIVES
 HCS CSSB 438(FIN)AMH

2ND SESSION 11TH LEG

5/17/80 11:37 AM

		24 YEAS		10 NAYS		6 N/V			
Y	ANDERSON	<u>Y</u>	ELIASON	<u>Y</u>	MARTIN	<u>Y</u>	A	PARR	
A	BARNES	Y	FREEMAN	Y	MEEKINS	<u>Y</u>	<u>Y</u>	PHILLIPS	
N	BEIRNE	Y	FULLER	N	METCALFE	N		RANDOLPH	
N	BETTISWORTH	Y	GARDINER	Y	MILES	Y		ROGERS	
<u>A</u>	BRANSON	Y	GUY	Y	MILLER	Y		SCHAEFFER	
<u>A</u>	BROWN	N	<u>HALFORD</u>	N	MONTGOMERY	Y		SMITH	
Y	BUCHHOLDT	<u>A?</u>	HAUGEN	Y	MOSS	Y		ZHAROFF	
N	CARNEY	N	HAYES	Y	MUNSON				
N	CHATTERTON	Y	HURLBERT	A	O'CONNELL				
Y	COTTEN	Y	MCKINNON	Y	OSTERBACK				
Y	DUNCAN	N	<u>MALONE</u>	Y	PARKER				

+ VOTED FOR
 * CHANGED VOTE

Alaska House of Representatives



Mark

COMMITTEE ON NATURAL RESOURCES
POUCH V • JUNEAU, ALASKA 99811

February 11, 1980

Terry Gardiner, Speaker
Alaska House of Representatives
Pouch V
Juneau, AK 99811

Dear Mr. Speaker:

Between legislative sessions, I, along with other legislators and staff, worked on numerous energy matters in an effort to develop a comprehensive energy policy for Alaska. These components are being introduced as the House Energy Package and will be reviewed by the standing committees. For your information, the energy package will include, but certainly is not limited to, the following subjects:

1) Geothermal - a bill is now drafted which will establish a comprehensive geothermal energy development policy, for replacing piecemeal legislation established in previous years. The bill, which is hoped to encourage development of the energy locked in the heat of the earth, clarifies major policy areas, such as relationship between geothermal resources and mineral and water rights, and environmental protection. It also provides economic incentives and streamlined licensing procedures, both for high grade geothermal resources which might be used to generate electricity, and low grade resources which could be used for space heating.

2) Small Hydro - a bill draft is now being prepared by the National Conference of State Legislatures (NCSL) for the Joint Special Committee on Small Hydro and Geothermal Power. Its purpose is to streamline State licensing and regulatory policy.

3) Hydro Financing - based on research reported to the same committee, financing policies will be recommended regarding development of hydro electric projects around the State; NCSL has reported that the most important mechanisms already exist under State law and that only fine tuning is necessary. Revenue bonds and general obligation bonds are among the alternatives.

CO-CHAIRMEN

REP. ALVIN OSTERBACK (465-3715) • REP. BILL MILES (465-3779)

VICE-CHAIRMAN

REP. FRED ZHAROFF

REP. PAT CARNEY • REP. C.V. "CHAT" CHATTERTON • REP. SAM COTTEN
REP. DICK ELIASON • REP. JACK FULLER • REP. RICK HALFORD

Call Joe Wilb

4) Solar and Alternative Energy - a comprehensive development bill designed to encourage residential and commercial use of solar, wind and other renewable energy forms available in Alaska is being prepared. Economic incentives to encourage people to install such systems may include tax credits and low interest loans. It would establish policies regarding solar energy performance standards for buildings and other land use and construction policies. The bill also would cover wood and other "biomass" energy resources, including alcohol generated from vegetation; geothermal and other "alternative" energy resources, including in some instances, coal.

5) Energy Conservation - a bill establishing a comprehensive State energy conservation policy uses a variety of mechanisms to accomplish the goal of more efficient energy use. State facilities are required to set an example, both by design and operation. Life-cycle costing for all State facilities will be done with audits and recommendations for retrofitting. All State financed facilities should meet minimum performance standards. In addition, current statutory guidelines for the development of a State energy "plan" will be modified to include an analysis of energy efficiency measures, and a requirement to develop the detailed data base necessary for informed decisions.

A variety of incentives for adoption of more efficient energy use in the private sector are in the draft legislation. The existing residential tax credit for conservation measures will be expanded. Businesses which adopt conservation measures, including coal generation and waste heat use, will receive large tax credits. A statewide audit program, designed by the State and administered through municipalities and/or public or private businesses, will help provide guidance to homeowners and businesses. A low interest loan program to aid in the financing of residential energy conservation measures is also established in the bill.

6) Coal - another bill will comprehensively revise the State's coal leasing statutes. Competitive bidding standards will be clarified, lease terms revised, and the current royalty (less than 1%) increased. Existing laws and regulations are vague and in some cases inadequate, resulting in a longstanding moratorium on the State's coal leasing program. This bill is designed to resolve the issues and break the log jam so that the State may resume reasonable coal leasing activities.

7) Energy Center - as conceived by legislators who drafted the Energy Center House Bill 687, there would be both a state and national purpose to be achieved by its formation. The Alaska goals would relate to creation of jobs and new industry within the State, using energy as a catalyst to accomplish both economic development and solution of the State's energy problems.

Nationally, the goal would be to help resolve energy problems that would benefit the rest of the nation; or, in other words, to search for solutions that would provide more energy and of a general nature that could be applied in the world at large. One example might be enhanced

Terry Gardiner, Speaker

Page 3

recovery of petroleum; another might be environmentally acceptable mining, processing and combustion of coal. Renewable energy technology also would be emphasized in matters appropriate to Alaska.

The Energy Institute concept is one designed to let the country and the world know that Alaska cares about the future...that Alaska recognizes its good fortune of being blessed with abundant natural resources and that Alaska wishes to take a portion of its resource wealth and invest it in much needed energy research and development.

8) Power Production Assistance - the State's energy policy and program for the 1980's must strongly encourage and aid electrical utility companies toward those technologies that supplant or conserve petroleum fuels. It is recognized that the smaller utilities throughout the State are particularly restricted in their financial ability to determine and install appropriate technologies that will provide a stable supply and cost of electrical energy. It is also recognized that these utilities are experiencing exhorbitant rate requirements to match the spiralling cost of diesel fuel. It is proposed that financial assistance be provided for extraordinary power production costs to provide some rate relief and time for alternate technology choices be prudently demonstrated, proven and installed.

If you, or other members of the legislature, have additional suggestions regarding an energy package, I would be happy to have them at the earliest date possible.

Sincerely yours,


Bill Miles

May 15, 1980

BILL SUMMARY -- HCS for SB 438 (Fin) -- An Act relating to energy

HCSSB 438 (Fin) contains five major elements:

1. Incentives for residential and commercial energy conservation and use of alternative energy systems.
2. Amendments to the Alaska Power Authority Act, and power project authorizations.
3. Bulk fuel facility grants and bulk fuel loans.
4. Power production cost assistance for electric utilities.
5. Exemption from regulation by the APUC of incidental energy sales or exchanges.

I. Conservation And Alternative Energy Incentives

(sections 1-7, 9-15, 25, 28-36, 45-46)

A) Provides for state-assisted energy audits, conservation refunds or grants of up to \$300, and conservation loans of up to \$5000, based on an energy audit. Modifies the existing alternative technology loan fund to allow loans of up to \$10,000 for alternative energy systems. The interest rate for loans is 5% until 1984, with a floating rate thereafter. Defines energy conservation improvements and alternative energy systems.

B) Provides for business tax credits of up to \$5000 or 35% for energy conservation improvements or alternative energy systems.

C) Provides for recognition of energy conservation and alternative energy in building codes, zoning, platting and municipal planning.

D) Requires the Dept. of Transportation and Public Facilities to consider energy conservation and alternative energy systems in the design, construction, operation and maintenance of public buildings. Requires an energy audit of all public buildings every seven years. Requires all public buildings to meet minimum energy standards by 1988.

E) Exempts gasohol from the state motor fuels tax.

F) Amends the long-term energy plan to require more detailed information collection, identification of conservation measures and suitable alternative energy projects and emergency conservation measures.

G) Requires all state-financed new construction after 12/31/80 to meet minimum energy standards, with certain exemptions. Requires financial institutions making state-finance mortgage loans to consider energy costs in debt to income ratio calculations.

H) Requires the division of energy and power development, which will administer the conservation audit, refund and grant programs, to conduct an informational effort to inform the public of the contents of this act and other public energy programs.

II. Power Project Financing by the Alaska Power Authority

(Sections 16-24, 47-48)

A) Revises the Alaska Power Authority statutes to establish clear procedures for project identification, analysis and approval. Defines reconnaissance and feasibility study; requires legislative approval by law for all projects above 25 megawatts, requiring more than three million dollars of state assistance or general obligation debt. Also provides for a limited review of reconnaissance and feasibility studies by the division of budget and management before submission to the legislature.

B) Establishes a rate of not less than 5% and not more than a floating rate (currently 9%) for loans from the power project fund, for a term not to exceed fifty years. The authority will set the rate based on the ability of the consumers to repay the loan. Requires all principal and interest payments from loans of the power project fund to return to the general fund.

C) Authorizes by law power projects approved by joint resolution of the legislature.

D) Repeals the Water Resources Revolving Loan Fund.

III. Bulk Fuel Loans and Facilities Grants (Section 41)

A) Establishes a fuel emergency fund in the Office of the Governor.

B) Establishes a bulk fuel facilities grant program, administered by the Dept. of Community and Regional Affairs. A village of less than 2000 people is eligible for a grant of up to \$60,000.

C) Establishes a bulk fuel revolving loan fund, administered by the Dept. of Commerce. Administration may be contracted out. Loans can be made for up to \$50,000 for up to one year for up to 90% of the wholesale price of the purchased fuel. Interest rates are variable, depending on the borrower's ability to pay.

IV. Power Production Cost Assistance (Section 42)

A) Establishes a fund for financial assistance to eligible electric utilities, administered by the Alaska Power Authority.

B) Defines allowable power production costs, verified by the Alaska Public Utilities Commission.

C) Provides for payments to electric utilities for 85% of power production costs above 9 cents per kilowatt-hour sold, adjusted annually for inflation. Only service to residences, community facilities and charitable organizations is eligible.

D) Requires a notice to customers stating the amount of state assistance provided to the utility and per kwh, to be included in the utility billing.

V. Exemption from Alaska Public Utilities Commission Regulation
(Section 8)

Exempts sales, exchanges or gifts of energy from APUC regulation if the energy provided is a byproduct of an industrial process.

HCSSB 438 (Fin) includes portions of House Bills 364, 476, 515, 653, 754, 758, 851, 875, 953, 954 and 967, and SB 438.

FISCAL NOTE SUMMARY

	(in thousands of dollars)
Division of Energy and Power Development	
Energy Plan	200.9
Energy Standards	84.0
Energy Refunds and Grants	3258.7
Energy Audits	1484.4
Public Education	56.8
	5084.8
Division of Business Loans (Energy Conservation Loans)	1795.0
Alaska Power Authority (Power Production Cost Assistance)	2887.6
Alaska Public Utilities Commission (Power Production Cost Assistance)	148.5
Office of the Governor (Fuel Emergency Fund)	250.0
Division of Local Gov't Assistance (Fuel Facility Grants)	1173.0
Division of Business Loans (Bulk Fuel Loans)	1604.5
	\$ 12,943.4

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HCSSB 438 (Fin) contains five major elements:

1. Amendments to the Alaska Power Authority Act, and power project authorization.
2. Bulk fuel facility grants and bulk fuel loans.
3. Power production cost assistance for electric utilities.
4. Exemption from regulation by the APUC of incidental energy sales or exchanges.
5. Incentives for residential and commercial energy conservation and use of alternative energy systems.

I. Power Project Financing by the Alaska Power Authority

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A) Establishes a fuel emergency fund in the Office of the Governor.

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C) Establishes a bulk fuel revolving loan fund, administered by the Dept. of Commerce. Administration may be contracted out. Loans can be made for up to \$50,000 for up to one year for up to 90% of the wholesale price of the purchased fuel. Interest rates are variable, depending on the borrower's ability to pay.

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IV. Exemption from Alaska Public Utilities Commission Regulation (Section 8)

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V. Conservation and Alternative Energy Incentives

(Sections 1-7, 9-15, 25, 28-36, 45-46)

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B) Provides for business tax credits of up to \$5000 of 35% ^{of expenditures} for energy conservation improvements or alternative energy systems.

C) Provides for recognition of energy conservation and alternative energy building codes, zoning, platting and municipal planning.

D) Requires the Dept. of Transportation and Public Facilities to consider energy conservation and alternative energy systems in the design, construction, operation and maintenance of public buildings. Requires an energy audit of all public buildings every seven years. Requires all public buildings to meet minimum energy standards by 1988.

E) Exempts gasohol from the state motor fuel tax.

F) Amends the long-term energy plan to requires more detailed information collection, identification of conservation measures and suitable alternative energy projects and emergency conservation measures.

G) Requires all state-financed new construction after 12/31/80 to meet minimum energy standards, with certain exemptions. Requires financial institutions making state-finance mortgage loans to consider energy costs in debt to income ratio calculations.

H) Requires the division of energy and power development, which will administer the conservation audit, refund and grant programs to conduct an informational effort to inform the public of the contents of this act and other public energy programs.

FISCAL NOTE SUMMARY

Alaska Power Authority (Power Production Cost Assistance)	2887.6
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Division of Local Government Assistance (Fuel Facility Grant)	1173.0
Division of Business Loans	1604.5
Division of Energy and Power Development	
Energy Plan	200.9
Energy Standards	84.0
Energy Refunds and Grants	3258.7
Energy Audits	1484.4
Public Education	56.8
	5084.8
University of Alaska (Professional Education)	130.0
	\$13,073.4

HB 851: OVERVIEW AND SUMMARY

Intent

HB 851 attempts to create a climate to encourage more efficient use of energy in both the public and private sectors. In the private sector, the bill provides incentives for investments in energy conservation measures. Normally, one would expect the market to provide the necessary incentives for investing in conservation. But the years of cheap energy prior to 1973 have left barriers to these decisions, making additional work necessary. These barriers to conservation include:

1. Its fragmented nature -- conservations requires individual decisions by each energy user, as opposed to the centralized decision-making for the construction of new power plants. The steps necessary to have a large power plant built may be easier to conceptualize although a variety of energy efficiency measures is sometimes a more economical solution.
2. The market prices energy at its current cost of production, not its replacement value. In Anchorage, for example, cheap natural gas has meant relatively low costs for home heating. But those prices may rise suddenly, and new sources of power, will most likely be much more expensive. But until those prices actually affect the consumer, he or she has no incentive to use their energy more efficiently.
3. Economic growth has sometimes been related growth in the production of energy. However, this relationship is erratic. In the U.S., growth in energy has not coincided with the increases in the growth of GNP -- see attached chart -- . Other industrialized countries, with more expensive energy costs, have achieved high rates of GNP at much lower rates of energy use (see attached chart).

4. Investments in energy efficiency can provide a kind of economic growth particularly suited to Alaska, with our high unemployment in the construction trades. Recognizing this, the Fairbanks Chamber has included energy conservation businesses as a major item on the agenda of their May economic development conference. An independent study for the Long Island area concluded that conservation is 40% more effective at creating jobs than the same amount spent on constructing a nuclear power facility. In Alaska, these would be jobs going to local sheet metal workers, plumbers, carpenters, electricians, laborers and insulators, as opposed to the jobs for Outsiders that come to the state for any large construction project. (The Long Island employment article is in the Committee bill files for HB 851).

HB 851 tries to foster a climate for encouraging private investment in energy conservation in several ways. Tax credits will help homeowners by bearing part of the costs of the home improvements required for better energy use. Loans help provide the front-end money needed for the work. Private audit programs, with auditors certified by the state, help provide homeowners with the information they need to improve their homes. Minimum building standards, for state-financed construction, will insure that most new construction does not result in gross energy waste in these buildings. Mechanisms for insuring that waste heat can be used, where economic, are also important.

In the public sector, market incentives for efficient energy use are absent. Wise policy must be written into law. In response, this bill requires minimum building standards for state facilities, as well as audits and life-cycle cost analysis. All of these measures are currently being performed by the Dept. of Transportation and Public Facilities; the bill simply sets out their existing policy in law.

A brief review of the sections of the bill:

Section 1: Findings

Section 2 allows second class boroughs, which have limited powers, to participate in existing housing rehabilitation programs.

Section 3 relates to the building standards outlined on p.10 of the bill. It provides that municipal building codes must meet the minimum standards established by this bill. There will be several witnesses who will discuss the standards at length.

Sections 4-6 relate to waste heat, and belong with Section 15 on pages 4 and 5, and section 20 on page 9. All of these provisions provide that waste heat sales will not be regulated by the APUC if the buyer and seller can agree on a price. If they disagree on price, the APUC may set the rate. If a possessor of waste heat refuses to sell to a potential buyer, he will have to pay tax on waste heat above a certain limit. We hope this will provide an incentive for cooperation between sellers and buyers of waste heat. There will be witnesses who will discuss the technical details at greater length.

Section 7 repeals the match for the federal conservation credit, in favor of expanding the amount of the existing state credit, as set out in sections 9 through 12.

Section 8 provides for a credit for businesses that invest in energy efficient improvements, up to 35% and 25,000 dollars.

Sections 9-12 expand the existing state conservation credit from 10% to 35%, and raises the maximum amount to \$2,000. The statutory language for the types of improvements that qualify is also clarified. (Note: needs to be payable if the state income tax is suspended.)

Section 14 exempts gasohol from the fuel tax.

Section 15 is part of the waste heat provisions described above.

Section 16 assigns the power of inspection for building standards to the Dept. of Labor. The Dept. plans to offer technical assistance to municipal inspectors in response to this provision.

Section 17 expands the statutory powers of the Division of Energy and Power Development in regard to energy conservation.

Section 18 expands the language of the long term plan to include considerations of energy efficiency, and clarifies the need to collect certain kinds of information vital to analyzing energy use.

Section 19 establishes a loan program for home improvements for conservation. The interest rate is set at 3%, with the maximum amount \$10,000.

Section 20 is part of the waste heat provisions, described above.

On P.10, Minimum building standards for state-financed for construction are established.

p.11 provides for audits and life-cycle costing of public buildings.

p.12 contains audit provisions. At the top, it requires an analysis of energy use new state-financed construction.

On p.12, a subsidized audit program is established. The Division of Energy and Power Development is to certify auditors and coordinate the program, with private businesses providing the actual service.

Audits are defined on line 9, p. 13

p.13 Recycling -- this section carries a zero fiscal note, and is meant to apply as policy whenever possible without extra costs.

p.14, Section 21: requires DEPD to provide information about state energy conservation programs to the public.

Section 22 sunsets the business credit in five years to provide greater incentive for upgrading in the near future.

by

Rep. Brian Rogers
March 17, 1980

mists, as well as a number of decision-makers in business, labor, and government, believe that there is a direct, even inevitable, one-to-one correlation between economic growth and consumption of energy, and accordingly, that encouraging conservation could easily plunge the nation into serious economic straits. The *Energy Report* from the Chase Manhattan Bank went so far as to say that "there is no documented evidence that indicates the long-lasting, consistent relationship between energy use and GNP will change in the future. There is no sound, proven basis for believing a billion dollars of GNP can be generated with less energy in the future." And an internal communication of one of the seven major oil companies said, "There is no empirical evidence to indicate that the coupling of energy to economic growth can be uncoupled." The basic idea behind the iron link was pungently expressed by the head of the Texas Railroad Commission: "This country did not conserve its way to greatness. It produced itself to greatness."⁹

But the iron link has, in fact, yet to be convincingly demonstrated. It remains unproved, as can be seen by looking at the historical record and by comparing the United States with other advanced industrial countries.

There has been wide and erratic variation in the relationship between energy and GNP in the United States. Table 6-1 expresses the ratio of energy to gross national product—that is, the amount of energy growth for every unit of GNP growth. As can be seen in the table, the ratio varies from .63 to 1.45.

Table 6-1

RATIO OF ENERGY GROWTH TO ECONOMIC GROWTH
IN THE UNITED STATES

	Unit of Energy for Every Unit of GNP	Economic Growth Rates (percent)
1950-55	0.63	4.3
1955-60	1.10	2.2
1960-65	0.81	4.8
1965-70	1.45	3.2
1970-75	0.65	2.1

Source: Herman Franssen, *Energy—An Uncertain Future: An Analysis of U.S. and World Energy Projections Through 1990* (Washington, D.C.: Government Printing Office, 1978), p. 17.

Going back to the late nineteenth century, the variations in the relationship between energy and GNP are even greater. As a study by the Conference Board has summarized, "Energy use and economic growth are certainly not independent of one another, but the link between them is more elastic than is commonly assumed."¹⁰

A similar insight is obtained by comparing the American experience with that of other advanced industrial countries (Table 6-2), which suggests that the realm of possibility for energy savings in the United States is rather broad.¹¹ Thus, West Germany consumed less than three quarters as much energy for each dollar of gross product as the United States, and France only half. Of course, such comparisons cannot be taken as perfectly equivalent, because of obvious differences involving such factors as exchange rates, political culture, government policies, geography, import dependence, and industrial structure. The broad comparisons do indeed mask a great deal of variation among sectors within countries.¹² Even so, the comparative data seem to make clear that substantial but non-disruptive energy savings are possible in the United States; for while

Table 6-2

COMPARATIVE ENERGY/OUTPUT RELATIONSHIPS, 1976

Country	Gross Domestic Product per Capita (dollars)	Energy Consumption per Capita (tons of oil equivalent)	Energy/GDP Ratio	
			Tons Oil Equivalent per \$ Million GDP	Index (U.S. = 100)
United States	5,960	8.3	1,390	100
France	4,740	3.5	750	54
West Germany	4,350	4.5	1,020	73
Sweden	5,460	6.1	1,190	82

Sources: Data derived by Joy Dunkerley, *Resources for the Future*, from OECD, *Energy Balances*, various issues, and OECD, *National Accounts*. Foreign currencies are converted into dollars at purchasing power parity rates of exchange. One million tons of oil roughly equals 20,000 barrels of oil a day. Data from 1976 are distorted by the varying effects of recession on different countries. Data from 1972 have greater comparability in that all four countries were sharing in an economic boom. In that year, the indexes measured against 100, for the United States, were France, 53; West Germany, 71; Sweden, 77.

406

****COPY****
 ALASKA HOUSE OF REPRESENTATIVES
 HCS CSSB 438(FIN)AMH

2ND SESSION 11TH LEG

5/17/80 11:37 AM

		24 YEAS 10 NAYS 6 N/V			
Y	ANDERSON	Y	ELIASON	Y	MARTIN
A	BARNES	Y	FREEMAN	Y	MEEKINS
N	BEIRNE	Y	FULLER	N	METCALFE
N	BETTISWORTH	Y	GARDINER	Y	MILES
A	BRANSON	Y	GUY	Y	MILLER
A	BROWN	N	HALFORD	N	MONTGOMERY
Y	BUCHHOLDT	A	HAUGEN	Y	MOSS
N	CARNEY	N	HAYES	Y	MUNSON
N	CHATTERTON	Y	HURLBERT	A	O'CONNELL
Y	COTTEN	Y	MCKINNON	Y	OSTERBACK
Y	DUNCAN	N	MALONE	Y	PARKER
					PARR
					PHILLIPS
					RANDOLPH
					ROGERS
					SCHAEFFER
					SMITH
					ZHAROFF

+ VOTED FOR
 * CHANGED VOTE

House Floor 5/17

HB 800
SB 424
SB 438

HB 800 : 29.5

SB 424 - Duncan - explanation

Hugh - Some project aren't RR projects
#1, Rogers, Duncan & Malone
change amount

Eliam - enough \$ for ernie?

JD - yes

Cotton - Sec. 1 - loans for some, depends
on feasibility

Hager - what are appropriations for?

29.4

Burns, Becht, H. Mont.

★ SB 438 - FICS adopted

Amendment #1 - Rogers - explanation

Malone - disagrees w/ last amendment
object to exclusion

Rogers - unaware of conflict

Malone - removed objection

#2 by Malone - adopted (paper purchase by Rev.)

#3 by Miles - (d) interstate authorization

Malone - anti PPA situation
Keguro 7 support "
Anderson
Buckholdt - for sec.
Keguro - concur
Schaeffer - for PPA

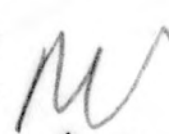
fiscal
note

Start Assistance @ 9¢ - Multiply by $\frac{1.15}{.15}$ add 7.65¢

Utility	approximate 1979 Power Production Cost (¢/KWH)	adjusted Power Production Cost (¢/KWH)	Power Production Assistance (¢/KWH)	1978 KWH sold Increased by 20%	Projected sales for Residential and Community Facilities (42% of total)	Total Power Production Assistance
Barrow	9.10	9.015	.085	9,032,204	3,793,526	3,224
Haines	10.06	9.159	.901	7,536,250	3,165,225	28,519
Tok	9.84	9.126	.714	6,430,630	2,700,865	19,284
Cold Bay	10.22	9.183	1.037	3,131,422	1,315,197	13,639
Nashua	11.26	9.339	1.921	6,634,774	2,786,605	53,531
Northway	14.73	9.8595	4.8705	1,291,543	542,448	26,420
Unalakleet	13.62	9.693	3.927	2,295,600	964,152	37,862
Kotzebue	12.76	9.564 ~~9.564~~	3.196	10,275,553	4,315,732	137,931
Zanana	13.44	9.666	3.774	2,402,783	1,011,267	38,165
Naknek	19.41	10.5615	8.8485	6,350,703	2,667,295	236,016
Aniak	21.00	10.8	10.2	804,571	337,920	34,468
Fort Yukon	17.34	10.251	7.089	1,625,683	682,852	48,407
T-HREA	18.45	10.4175	8.0325	5,926,273	2,489,035	199,932
Bettles	23.44	11.166	12.274	991,096	416,260	51,092
AVEC	27.44	11.766	15.674	19,182,579	8,056,263	1,262,739
Wrangell	10.40	9.21	1.19	—	4,200,000	49,980
Nome	13.00	9.6	3.4	—	7,000,000	238,000
						2,479,209
						2,851,090

Brian - I'm in
Galley A if
you need anything
more on 438

or 68.

Looks like Niles
wants to hold 68 
over to tomorrow to go w/ package.
438 is on clerk's desk

STATE OF ALASKA THE LEGISLATURE

POUCH Y - STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

LEGISLATIVE AFFAIRS AGENCY

MEMORANDUM

May 15, 1980

SUBJECT: HCS CSSB 438 (Finance) - Consolidated
Energy Bill

TO: Representative Russ Meekins
Chairman, House Finance Committee

✓ ATTN: Representative Brian Rogers
Mark Wittow

FROM: John B. Chenoweth
Legislative Counsel

Amendment No. 2 came to me as

"provide funds to match federal contributions to the
U.S. Department of Energy, appropriate technology small
grants program for Alaska"

I did not take this to mean that the Alaska Department of
Commerce and Economic Development must match, dollar for
dollar, allocations by the federal bureau for small grants
programs: the determination of how much to expend is the
prerogative of the legislature. Rather, I thought that what
was intended was that the Department would be appropriated
money to meet any required federal match. I have so drafted
the provision, but you may want to double check the language
used.

Amendment No. 17 came to me as

"The applicant [for a loan] shall provide the financial
institution with an energy audit as defined under
AS 45.89.100(3), and shall be responsible for the cost
of the audit. The applicant shall be eligible for an
audit under section 46.11.030."

You will note that the first sentence has been redrafted.
"Energy audit" is already generally defined for purposes of
AS 46.11 (deleting any necessity to reference to AS 45.89.100),

Representative Russ Meekins
Page 2
May 15, 1980

and it is understood that, under AS 46.11.030(d), the person requesting the audit is responsible for the payment of the fee. After some effort to try to incorporate the second sentence of the amendment into the text of the bill in a meaningful manner, I have abandoned the effort entirely. AS 46.11.030 specifies no eligibility criteria, and does not authorize the department to impose them, directly or by implication. Indeed, the bill seems fairly clear that anyone tendering payment of the proper fee is entitled to have an audit performed. Inclusion of the sentence adds nothing and raises the possibility that someone -- a lending institution or a state agency -- might somehow construe the provision to hold that only a person "eligible" for an energy audit (whatever that means) is also eligible for a loan.

In other respects, I have tried to follow the letter or the intent of each amendment, growled at Mark Wittow when I could not square it on my own, and otherwise tried to give the committee a bill in the form it requested. I think there is good reason to argue that, with the inclusion of the material on grants and technical assistance to regional educational attendance areas and rural school districts (at AS 44.33.040(17)(A)(i) and AS 44.42.020(15)(B)), you have introduced material unrelated to energy, compounding the "single subject" problems contained in the bill first described in the objection I raised to the inclusion of the repeal of the water resources revolving loan fund in the bill.

JBC:1jb

Enclosure

Energy package hurried through Finance panel

By SUSAN FISHER
News-Miner Bureau

JUNEAU—A package of energy bills zipped through House Finance Committee consideration in a brief half-hour Monday.

The quick action left Reps. Sally Smith, D-Fairbanks, and Pappy Moss, D-Delta Junction, saying they would sign no recommendation on some of the bills because they had not had enough time to review them.

Pressure has been mounting for the energy bills to move from Finance. Republicans cited hydroelectric projects as a priority and a reason for their balking at floor action Friday. Democratic House leaders have named the energy package as a priority this session.

The energy bills are innovative but complex, pulling together everything from hydroelectric projects to solar, geothermal, wind, bulk fuel storage, energy conservation grants and an energy plan for the state.

The "package" consists of four bills, with appropriations amounting to nearly \$80 million.

The bills are:

- One creating an Alaska Energy Center, a bill that has passed the House and is now awaiting Senate action. A fiscal note of \$10 million in state funds for the first year is being drastically pared back.

- A huge omnibus bill, combining waste-heat exemptions, energy conservation, hydro authorization, power project authorization, bulk fuel loans and storage grants, and power production cost assistance.

- A companion resolution and a bill to spend the money for the above, together totaling some \$55 million in specific hydro and alternate energy projects, and \$13 million for public education, conservation loans, bulk fuel loans and grants, fuel emergency fund and more.

Vice chairman Oral Freeman, D-Ketchikan, chaired the quick meeting in the absence of chairman Russ Meekins Jr.

The bills emerged from the House Resources Committee, which devoted weeks to deciding their content.

Rep. Brian Rogers, D-Fairbanks, who worked on the bills before they got to Finance even though he is not a Resources Committee member, carried them in committee.

Among some of the changes in the bill are revisions to the proposed home energy conservation loan program and more money for the Susitna hydropower study.

Initially, Rogers and others had hoped to offer loans of up to \$5,000 to homeowners for energy conservation measures, at zero interest and up to 10 years payback.

But Rogers said Monday that no-interest loans would not survive. The rate has been changed to five per cent.

Another change is \$1,365,000 added to \$7 million in the capital supplemental budget for the Susitna hydro study.

The additional money is the result of a consultant's report that the Acres American Inc. firm should focus more detail on alternatives, power costs and

demand in the early phase of the Susitna study.

Susitna is a proposed large hydroelectric project now undergoing feasibility studies. It might provide electricity for the entire Railbelt area.

An overlooked feature of the massive energy package is \$200,000 for the state Department of Commerce and Economic Development and the Alaska Power Authority to do a long-range energy plan for the state.

Here are some other aspects of the bills:

- Allowing businesses to take 35 per cent state tax credit up to \$5,000 for energy conservation.

- Mandating the Department of Transportation and Public Facilities to work toward energy conservation in public buildings.

- Offering help to municipal planning and zoning authorities for model acts that encourage development of energy systems not dependent on gas or oil.

- Creating a loan fund for energy production other than fossil and nuclear fuel, including but not limited to windmills, water and solar energy, up to \$10,000 each.

- Offering homeowners up to a \$300 refund on a single-family dwelling and up to \$200 per unit of multi-unit residences for buying energy-saving materials. This is part of the \$5,000 energy conservation loan program.

- Appropriating \$56,800 for public education.

- Appropriating nearly \$1.5 million for energy audits to determine necessary conservation measures.

- Giving the Commerce Department's loans division \$1,795,000 for energy conservation loans; \$1.6 million for a revolving bulk fuel loan fund to rural communities, and \$1.17 million for grants to rural communities buying bulk storage tanks.

- Appropriating \$250,000 to the governor's office for fuel emergencies.

- Limiting bulk fuel assistance to rural communities of less than 2,000 population.

- Helping eligible utility companies if actual power production costs exceed adjusted costs. The adjusted power costs take into account 15 per cent of the actual production costs not exceeding 40 cents per kilowatt hour, plus the base power cost escalator of 7.65 cents per kilowatt hour adjusted by the percentage of change in the Anchorage consumer price index.

- Revising statutes relating to the Alaska Power Authority, including its reconnaissance studies for potential projects, procedures in feasibility studies, requiring a finance plan, and requiring legislative approval of projects costing more than \$3 million.

- Granting money to rural school districts to plan and implement energy conservation.

- Providing matching funds to the federal Department of Energy's small-grants programs for Alaska.

- Exempting waste heat from public utility regulation.

Final bills are still being printed, but will be introduced as committee substitutes for Senate Bill 424, SB 438, and House Joint Resolution 68.

Pilots warned o

VANCOUVER, Wash. (AP)—Mount St. Helens erupted a mammoth cloud of volcanic ash today, prompting federal authorities to issue a pilots' warning of "extreme hazard" in a 30-mile-wide area.

The plume from the eruption spread 20 nautical miles north-northeast of the peak and was 30 nautical miles wide, said Ken Shake, a spokesman for the Federal Aviation Administration in Seattle.

The ash cloud extended up to 18,000 feet above sea level, Shake said. Earlier eruptions from the volcano have reached that height.

The FAA's Seattle Air Route Traffic Control Center issued a notice to airmen advising that the entire grid was "an area of extreme hazard to aircraft" and should be avoided, he said.

The traffic control center, which is in charge of temporary air space restrictions around the peak, issues ash warnings periodically, Shake said.

Meanwhile, U.S. Geological hazards specialists were jolted by earthquakes of magnitude of 3.0.

Mullineaux said at Timberline felt estimated at 5.0 Richter scale of, although clouds avalanche from v

The avalanche quake was large spotted by a reported to the Administration i

But it was p with the cata which scientists from a mile by h mountain's north bulging at a rate day.

The worst po

24-HOUR WEATHER FORECAST

Prepared by the
NATIONAL WEATHER SERVICE
Fairbanks, Alaska



FORECAST TO NOON TUESDAY: A low west of the Seward Peninsula will continue to weaken and low clouds and fog will persist over the eastern arctic coast. A dissipating occluded front in the western Gulf of Alaska will move eastward. High cloudiness builds in the eastern Interior as a ridge of high pressure in western Canada moves east.

Additional information is broadcast continuously by the National Weather Service on a frequency of 162.55 MHz.

STATE

	H	Hi	Lo	Prc
Anchorage	56	41	edv	
Annette	52	45	edv	
Barrow	24	15	edv	
Bethel	54	30	edv	
Cold Bay	48	38	edv	
	52	41	edv	

Bismarck	
Boise	
Boston	
Brownsville	
Buffalo	
Charlottesville	
Charlottesville	
Chicago	
Cincinnati	
Cleveland	
Columbus	
Dallas-Ft. Worth	
Denver	
Des Moines	
Detroit	
Duluth	
Hartford	
Helena	
Honolulu	
Houston	
Indianapolis	
Jacksonville	
Kansas City	
Las Vegas	
Little Rock	
Los Angeles	
Louisville	
Memphis	

MEMORANDUM

May 15, 1980

To: Representative Joe Hayes, Minority Leader

From: Mark Wittow, Rep. Roger's Office

Mark Wittow

Re: Suggested to amendments to HCSSB 438, an act relating to energy

I talked with Jack O'Quinn of Anchorage, who had several suggested amendments to the House energy bill. Mr. O'Quinn wanted to make sure that renewable fuel heating systems (for example, a furnace burning wood or peat) would qualify for the trade or business energy conservation credit (section 9 of the bill attached) and for an alternative energy system loan (section 28 of the bill).

An alternative energy system is defined in the bill as:

"a source of thermal, mechanical or electrical energy which is not dependent on oil or gas for the supply of energy for space heating and cooling, refrigeration and cold storage, electrical power, mechanical power or the heating of water."

The definition includes the type of systems that Mr. O'Quinn described to me, and the Resources and Finance Committees intended for such systems to be covered by the legislation.

I checked with Clarissa Quinlan, director of the division of energy and power development, who will help make the determinations of eligibility for the loans and tax credits, to verify my interpretation of the bill's language. She agreed that the systems Mr. O'Quinn had described were clearly covered by the definition. Ms. Quinlan told me that she would call Mr. O'Quinn to talk with him about his concerns.

Mr. O'Quinn seemed to be satisfied by my explanation. I will continue to check with executive branch officials to confirm my understanding, after I have reviewed material that Mr. O'Quinn is sending to me on the alternative energy systems he described.

Please let me know if you have further questions.

cc: Rep. Rogers
Jack O'Quinn

THE LEGISLATURE OF THE STATE OF ALASKA
ELEVENTH LEGISLATURE

FISCAL NOTE

I. REQUEST

Bill/Resolution No. HCS SB 438

Title An Act relating to energy conservation

Requested by House Resources Committee Date 4/22/80

II. FISCAL DETAIL

Agency Affected Department of Commerce & Economic Development

Program Category Affected DEVELOPMENT

BRU, Program, or Subprogram(s) Affected Div. of Energy and Power Development

(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
100 PERSONAL SERVICES		344.5				
200 TRAVEL		38.2				
300 CONTRACTUAL		1,561.3				
400 COMMODITIES		6.3				
500 EQUIPMENT		18.7				
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.		2,650.0				
LOANS		2,000.0				
TOTAL		6619.0				

FUNDING (Thousands of Dollars)

GENERAL FUND		6,619.0				
FEDERAL FUNDS						
OTHER (Specify Fund Source)						

POSITIONS

FULL TIME		10.5				
PART TIME		1.0				
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

	Thermal Standards	Conserv. Loans	Energy Plan	Public Educa.	Audit Admin.	Audit Contr.	Conservation Grants
PERSONAL SVCS.	52.5	80.5	4.2	35.8	76.3	0	95.2
TRAVEL	4.0	11.0	3.3	3.5	5.4	0	11.0
CONTRACTUAL	25.5	12.4	102.5	13.5	109.6	1285.4	12.4
COMMODITIES	.6	.5	.5	1.8	2.4	0	.5
EQUIPMENT	1.4	5.8	.6	2.2	2.9	0	5.8

IV. DATE 4/23/80

PREPARED BY Milt Barker

AGENCY Legislative Finance Div.

PHONE 465-3795

Original: Legislative Finance

cc: Budget and Management

Prime Sponsor (First Legislator Named)

HCS SB 438

THERMAL AND LIGHTING ENERGY STANDARDS

100 Personal Services

\$52,462

- 1 - Construction Engineer I (20A)
2845/mo x 12 mon plus 25.5% payroll burden = 42,846
- 1/2 - Clerk Typist III (08A)
1/2(1277/mo x 12 mo plus 25.5% payroll burden) = 9616

200 Travel

4,050

- 10 trips @ 300 = 3000
- 15 days per diem @ 70 = 1050

300 Contractual

25,500

Professional services

Training and education package development = 10000

Other

Telephone, postage, printing, copying, equipment rental,
advertising, space rental = 15,500

400 Commodities

600

500 Equipment

1,408

- 1 - Desk 2 388 = 388
- 1 - Chair @ 155 = 155
- 1 - Table @ 145 = 145
- 1 - File cabinet @ 200 = 200
- 1 - Calculator @ 250 = 250
- 1 - Bookcase @ 90 = 90
- 1 - Lanier hand dictating machine @ 180 = 180

CONSERVATION LOAN ADMINISTRATION

FISCAL NOTE DETAIL

HCS SB 438 - Energy Conservation

			<u>12 months</u>
100.	1 Loan Examiner I/II @2,289/mo.		\$ 27.5
	1 Clerk Typist III @1,277/mo.		15.3
	1 Loan Closer II @1,628/mo.		19.5
	TOTAL WAGES		<u>\$ 62.3</u>
	Standard Benefits (Wages x .1529)		9.5
	Supplemental Benefits (Wages x .0665)		4.1
	Health Insurance (man months x \$127)		4.6
			<u>80.5</u>
200.	Travel to close loans:		
	20 trips @430	\$ 8.6	
	40 days per diem @ 60	2.4	11.0
300.	Telephone, postage, printing	<u>\$10.0</u>	
	Additional office space @200/mo.	2.4	12.4
400.	Office supplies		<u>.5</u>
	12-month Operating Cost		\$104.4
500.	3 Desks @333	\$ 1.0	
	1 Credenza	.4	
	2 Typist extensions	.8	
	1 Executive chair	.2	
	2 Secretarial chairs	.3	
	2 Side chairs @125	.3	
	3 File cabinets @247	.7	
	2 Typewriters @810	1.6	
	2 Calculators @225	.5	
	TOTAL		<u>5.8</u>
			\$110.2

*10% Inflation for succeeding years.

ENERGY DEVELOPMENT PLAN

100 Personal Services

\$4,179

Accounting Technician II (14A) - 15%
15%(1850/mo x 12 mo plus 25.5% payroll burden) = 4179

200 Travel

3,310

Juneau - 6 trips @ 225 = 1350
Hearings - 4 trips @ 300 = 1200
18 days per diem @ 70 = 1260

300 Contractual

102,500

Professional service contracts = 90,000
More in-depth energy supply and demand analysis
including impacts of conservation and alternative
energy
Transportation systems evaluation
Computer and programming time = 4000
Telephone, postage, printing, advertising, copying, space rental,
and equipment rental = 8,500

400 Commodities

500

500 Equipment

585

1 - File @ 210 = 210
1 - Bookcase @ 90 = 90
1 - Calculator @ 240 = 240
1 - Table @ 145 = 145

EDUCATION PROGRAM

HCS SB 438 Section 21 Fiscal Analysis

This section specifies that DEPD will conduct an education program on HCS SB 438 and other energy conservation programs. This will require an additional position to gather, compile and make information from various sources available to the public. This position will enable the energy conservation section to conduct an information clearinghouse service to the general public and specific audiences. This position will assist in providing general use materials from technical documents and insure that the material is appropriate for urban and rural audiences.

	FY 81	FY 82*	FY 83*
100 <u>Personal Services</u>			
Energy Assistant R16A	35.8	38.3	41.0
200 <u>Travel</u>			
In State travel	3.2	3.4	3.6
7 trips @ \$300/trip= 2.1			
14 days @ \$75 /day = 1.1			
300 <u>Contractual</u>	13.5	14.4	15.5
Office			
phone 12 mos @ \$200/mo= \$2.4			
supplies 12 mos @ \$150/mo= \$1.8			
space rent 12 mos @ \$150/mo= \$1.8			
Printing			
production 60 hrs \$ \$50/hr = \$3.0			
purchase advertising \$4.5			
400 <u>Commodities</u>	1.8	1.9	2.0
Office misc. 12 mos @ \$150/mo= \$1.8			
500 <u>Supplies</u>	2.2	0	0
1 desk \$400			
1 bookshelf 100			
1 chair 150			
1 table 145			
1 file cabinet 175			
1 12 digit calculator \$250			
1 Lanier portable dictaphone : 00			
3 office partitions @ \$300= \$900			

* computed with 7% inflation

Fiscal Note for HCS CSSB 483, Sec. 44.33.040 (16), 46.11.030

The following material supports the proposed legislation to provide the foundation for a comprehensive commercial, industrial and residential energy audit program. The commercial and industrial training aspects will be accomplished by providing do-it-yourself energy audit manuals and workshops for local organizations and local businesses.

This Division will develop a program to provide training for residential and commercial/institutional energy auditors. As proposed here, DEPD would train auditors, purchase a basic energy audit program model, revise for Alaskan conditions, prepare standards, printed materials and documentation, and provide funds for contracts with local organizations to conduct residential audit programs.

The hiring of an energy management professional will provide this division with needed ongoing technical expertise for this and other divisional programs.

Estimates as to cost considerations relating to the State-assisted energy audit performance are explained under Contractual on a separate fiscal note.

PROGRAM DEVELOPMENT, TRAINING AND ADMINISTRATION

	FY 81	FY 82	FY 83
100 - Personnel	76.3	81.6	87.4
1 Architect/Planner (R20A)	47.6		
1 Clerk Typist III (R8A)	21.8		
1/4 Accounting Technician (R12A)	6.9		
200 - Travel	5.4	5.8	6.2
To set up and monitor programs			
7 localities x 4days each x \$75/day=			
\$2,100			
7 localities x 2 trips each=\$3,260			
300 - Contractual	109.6	91.2	39.3
Office			
Telephone 150/month x 12=	1.8		
Photocopies 100/month x 12=	1.2		
Space rent 300/month x 12=	3.6		
Equipment lease			
MagA 270/month x 12=	3.24		
Develop, Print and Distribute Audit Materials			
5,000 Do-It-Yourself (2,500 for each of two years) @4.00=	22.5		
Audit Analysis Materials@2.50 (FY 81-14,000=35,000,			
FY 82-16,000=40,000,			
FY 83-9,000=22,500)			
3,000 Do-It-Yourself Commercial/Industrial Manuals (1,000 per year)@			
\$5.50 =5,500 per year.			
Workshops			
To conduct 7 workshops for residential and commercial energy auditors in each of first two years of program. (FY 81-23,000, FY 82-12,000)			
Energy Audit Model Program			
To purchase residential energy audit program and adapt for Alaskan conditions for use by auditors. 20,000			
Upgrade program. 2,000 in FY 82			
Audit Program Evaluation			
To provide funds for an outside evaluation of effectiveness of overall energy audit program. FY 81 - 5,000, FY 82- 10,000.			

PROGRAM DEVELOPMENT, TRAINING AND ADMINISTRATION

	FY 81	FY 82	FY 83
400-Commodities	2.4	2.6	2.8
Office misc.			
500 -Equipment	2.9	0	0

1 Desk-388.00
 1 Chair-155.00
 1 Bookcase-90.00
 1 Programmable Calculator
 w/print head-650.00
 5 Dividers @300-1500.00
 1 Lanier Dictaphone-80.00

State-assisted Energy Audit Performance

These program estimated costs have been prepared in support of a State-assisted energy audit program, with local governments, local agencies, utilities, and other contractors providing energy audits for the residential sector with the State sharing the cost burden.

These calculations assume that in-house management of program contracts will be covered as outlined on the Fiscal Note for Energy Audit Administration for HCS SB 438.

Assumptions:

1. Total 1980 Statewide occupied households (from HUD estimates):112,750. Owned households (only) are 60%, or 67,650. For three years of program, assume Statewide household levels to be constant.
2. In 1979 the participation rate for the Fuel Conservation Tax Credit was 8%. Estimate the FY 81 Energy Audit Program response rate to be 150 % of that, or 12%. FY 82 participation rate will increase to 14%. FY 83 response rate will decrease to 8% (increased owner share of costs.)
3. Cost of audit= \$120. Three hour residential audit at \$40/hour. State share for first two years is \$95, with owners paying \$25; while costs for third year are \$60 for owner and State per audit.
4. Option 1, below is for total households participating; with option 2 showing costs for "owned" only costs which are 40% reduction in program.

	FY 81	FY 82	FY83
Option 1			
Households	112,750	112,750	112,750
Participation	.12	.14	.08
Participants	13,530	15,785	9,020
Audit Costs	1,623,600	1,894,200	1,082,400
Owner Costs	338,250	394,625	541,200
State Share	<u>1,285,350</u>	<u>1,499,575</u>	<u>541,200</u>
Option 2			
State Share	<u>771,210</u>	<u>899,745</u>	<u>324,720</u>

GRANTS ADMINISTRATION - HCS SB 438

100	1 Grants Coordinator	2652/mo.	31.8
	1 Grants Administrator	2289/mo.	27.5
	1 Clerk Typist III	1277/mo.	15.3
			<u>74.6</u>
	Standard Benefits		11.4
	Supplemental Benefits		4.6
	Health Insurance		4.6
			<u>95.2</u>
200	Travel for Grants Administration:		
	20 trips	\$430	8.6
	40 days per diem		2.4
			11.0
300	Telephone, postage, printing	10.0	
	Office space	2.4	12.4
400	Office supplies		.5
			<u>119.1</u>
500	Equipment		
	3 desks	333.00	
	1 credenza		
	2 typist extensions		
	1 executive chair		
	2 secretarial chairs		
	2 side chairs		
	3 file cabinets		
	2 typewriters		
	2 calculators		
			5.8
			<u>124.9</u>

HCS SB 438 - Grants & Loans detail

GRANTS

7,500 single-family homes	at \$300	2,250,000
2,000 housing units	at \$200	400,000
		<u>2,650,000</u>

LOANS

400 loans	at \$5,000	2,000,000
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THE LEGISLATURE OF THE STATE OF ALASKA
ELEVENTH LEGISLATURE

FISCAL NOTE

I. REQUEST House Resources CS HB 851 -- Section 2
Bill/Resolution No. _____
Title An act relating to energy conservation
Requested by House Resources Date 4/22/80

II. FISCAL DETAIL
Agency Affected University of Alaska
Program Category Affected _____
BRU, Program, or Subprogram(s) Affected _____
(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)
EXPENDITURES (Thousands of Dollars)

	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84
100 PERSONAL SERVICES			30.			
200 TRAVEL			130.			
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL			130.			

FUNDING (Thousands of Dollars)

GENERAL FUND			130.			
FEDERAL FUNDS						
OTHER (Specify Fund Source)						

POSITIONS

FULL TIME			0			
PART TIME			0			
TEMPORARY			0			

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

The university would contract with local architects and engineers for seminars at various campuses. Travel money would enable existing university faculty to participate in the program.

IV. DATE 4/22/80 PREPARED BY Rep. Brian Rogers
AGENCY _____
PHONE _____
Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

THE LEGISLATURE OF THE STATE OF ALASKA
ELEVENTH LEGISLATURE

FISCAL NOTE

I. REQUEST

Bill/Resolution No. HCS SB 438

Title An Act Relating to Energy Conservation

Requested by House Resources

Date 4/22/80

II. FISCAL DETAIL

Agency Affected University of Alaska

Program Category Affected _____

BRU, Program, or Subprogram(s) Affected _____

(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84
100 PERSONAL SERVICES						
200 TRAVEL			30.0			
300 CONTRACTUAL			100.0			
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL			130.0			

FUNDING (Thousands of Dollars)

GENERAL FUND			130.0			
FEDERAL FUNDS						
OTHER (Specify Fund Source)						

POSITIONS

FULL TIME			0			
PART TIME			0			
TEMPORARY			0			

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

The university would contract with local architects and engineers for seminars at various campuses. Travel money would enable existing university faculty to participate in the program.

IV. DATE 4/22/80 PREPARED BY Representative Brian Rogers

AGENCY _____

Original: Legislative Finance

PHONE _____

cc: Budget and Management

Prime Sponsor (First Legislator Named)

day, May 5, 1980

state

Energy bill faces reconsideration

By JEAN KIZER

The Associated Press

JUNEAU — Reconsideration of legislation to establish a nationally recognized energy development and research center in Alaska is expected by the House today.

Termed a "top priority" of the House Democratic leadership, the center won approval on a 24-10 vote Friday.

Creation of the Alaska Energy Center is projected to cost the state \$10 million in fiscal year 1981 and \$70 million over the next five years, part of which would be used to fund 50 jobs.

Backers of the private, non-profit center say it eventually will become self-supporting — through private and federal grants plus money from patents on new technologies developed. But opponents say there is no guarantee the center will ever reach the point where it does not draw from the state treasury.

Rep. Brian Rogers, D-Fairbanks and a

co-sponsor of the legislation, said the intent is to use some of Alaska's resource wealth to help solve the nation's energy crisis.

Rep. Bill Miles, D-Anchorage, called the center a "major step forward in resolving some of the state's economic problems." He said the center's primary purpose is to "use Alaska's energy resources and technology to create jobs in Alaska."

Promoters of the center say they envision it turning alternative energy research and technology into workable forms for business, industry and residences.

Debate on the bill was brief. Rep. Terry Martin, R-Anchorage and one of the bill's original sponsors, said he no longer could support the concept. "It was a nice idea. But the thing has gotten way out of hand," Martin said. He referred to the center's estimated cost.

A board of directors would oversee the center's operation. It would include seven members appointed by the governor and

confirmed by the legislature, plus two non-voting legislative members. The bill calls for three of the members to be "nationally recognized" energy experts and four to be Alaskans.

During the first year \$1.4 million of the center's funding would be contracted to the University of Alaska for research. The bill calls for such contracting with the UA to be done when feasible.

The 10 votes against the bill were cast by Republicans and one Libertarian.

Besides the \$70 million in state money estimated for the center during the next five years, lawmakers project the center to receive a matching amount in federal grants.

The legislation does not outline a corporate structure, leaving that decision to the board of directors.

Similar legislation was introduced in the Senate early this session, but has not been passed.

feasibility studies for Susitna, Acres will be evaluating various alternative sites.

One major question is how the projected energy needs of the railbelt will be calculated. On a per-capita basis use of electricity is still increasing but at a decreasing rate. Certainly estimates of population growth will be open to question. We are hoping that the conclusion from the study of alternative sites will be based on projections of moderate increases in electrical use, certainly not tripling of our needs, and will address the ability of several such sites to serve that need.

The state legislature has already appropriated over \$8 million for Acres to conduct the engineering, environmental, and economic feasibility studies. There is no guarantee that the findings will be favorable for continuation of the project. Susitna will be an expensive project and wouldn't be finished for more than a decade. It is premature to lock the state into a multi-billion dollar project without carefully weighing the alternatives. Several bills introduced in the state Legislature this session (SB 294, 295; HB 738, 739) would appropriate over \$4 billion to build the dam. The Society opposes these bills as they circumvent a rational, planned approach to first evaluate the needs and the feasibility of the project.

We certainly favor the process now under way to address the suite of environmental and economic questions that must be answered before making a final decision on construction of the project. Even in the era of windfall oil profits for the state, \$4 billion (not considering inflation and cost overruns) is a staggering amount to pay for more electricity.

Sincerely,
Edward C. Murphy
President, Alaska
Conservation Society

Susitna position

April 14, 1980
P.O. Box 80192
College Branch
Fairbanks

Dear Editor:

I would like to clarify the position of the Alaska Conservation Society on the Susitna hydroelectric project. In the third part of the series on Susitna (Wednesday, April 9, 1980), I was quoted as saying "We don't think Susitna should be built." The Society is awaiting the results of the engineering, environmental, and economic findings of the feasibility study now being conducted by Acres American before making a final position statement on the project.

Susitna would provide over three times the electricity now consumed by all railbelt communities. There are several other alternative sites that possibly would generate sufficient hydroelectric power to serve the railbelt, such as Chakichathna, Totatlanika, and Bradley Lake. Such regional projects would be less costly and could be built more quickly.

Several regional projects would also lessen the impact of operational failures at any one site. In the

News-Miner
5.3.80