

HB

356

COMMITTEE REPORT

3-16-77

FINANCE

HOUSE

_____ Date

Mr. Speaker:

The Committee on COMMERCE has had HB 356

under consideration. A majority of the members of the Committee

- recommends it do pass
- recommends it do not pass
- recommends it do pass with attached amendment(s)
- recommends it be replaced with CS for _____ and that
CS for _____ do pass
- (and) recommends it be referred to the _____
committee
- reports it back without recommendation
- AND attaches a report of its intent
- (other) _____

MEMBERS SIGNING THE MAJORITY REPORT:

_____ *George H. ... - Do PASS*

_____ *Joe L. Hayes - Do PASS*

MEMBERS NOT CONCURRING IN THE MAJORITY REPORT:

_____ recommends: _____

_____ recommends: _____

_____ recommends: _____

_____ Chairman

A M E N D M E N T

OFFERED IN THE HOUSE:

By: Commerce Committee

To: _____ HOUSE BILL No. 158

SENATE BILL No. _____

PAGE: 1

LINE: 12

After "Alaska", insert a period (".");

Delete rest of sentence on lines 13 and 14.



HB 356

THE SOUTHEASTERN CONFERENCE

P. O. BOX 531
WRANGELL, ALASKA 99929

March 11, 1977

Representative Terry Gardiner
Chairman, House Judiciary Committee
Pouch V Mail Stop No. 3100
Juneau, Alaska 99811

Dear Sir:

The Southeastern Conference wishes to express their appreciation to you for your interest and efforts in sponsoring legislation of economic importance to Southeast Alaska and those other communities needing support in the development of hydro and other water resource development.

As requested in our meeting held March 1, 1977, we are submitting back up material for the proposed changes in the Water Resources Revolving Loan Fund Act. Enclosed are the suggested changes in the Statutes and proposed appropriations for the next fiscal year, including a revised summary of funding requirements for FY 1978.

Very truly yours,

James R. Eide
President

JRE/jr

enclosures

President	James R. Eide
First Vice President	William Macomber
Second Vice President	John Halliwell

PROPOSED AMENDMENTS

WATER RESOURCES REVOLVING LOAN FUND ACT

Sec. 45.86.010. There is established a separate fund, The Water Resources Revolving Loan Fund. Loans from this fund are to be used to develop and conserve in the public interest the water resources of Alaska, using State revenues from the Alaska Permanent Fund (mineral development).

Sec. 45.86.040 (b) is repealed and re-enacted to read:

Sec. 45.86.040 (b) The department shall forward all loan applications it recommends for approval to the Water Resources Revolving Loan Fund Committee established with the department and made up of the commissioner or his deputy, the director of division of energy and power development, and the director of division of business loans.

Sec. 45.86.060 shall be added as follows:

Sec. 45.86.060. CONDITIONS APPLICABLE TO PROJECT LOANS. (a) The term of the loan shall not exceed 50 years and the interest rate shall be not less than three, or more than five, percent a year on the unpaid balance. The repayment schedule shall be computed in a manner so that annual payments of principal and interest, termed debt service, are approximately equal over a period not to exceed 40 years. Repayment of the loan, principal and interest, will commence at the date of commercial operation of the project or ten years from the date the loan is made, whichever is sooner.

(b) Loans shall be utilized for feasibility studies, pre-construction engineering including the securing of permits and licenses necessary for construction and operation, design and construction of capital improvement projects.

(c) If, in the opinion of the Water Resources Revolving Loan Fund Committee, feasibility studies or preconstruction engineering establish that the project is not feasible from either a technical, economic or financial viewpoint, the department may not require repayment of loans made for this purpose, provided that repayment of all loans shall be required if design or construction of the project proceeds.

This Act takes effect immediately in accordance with _____.

JUSTIFICATION FOR AMENDMENTS

WATER RESOURCES REVOLVING LOAN FUND ACT

I. The change in Sec. 45.86.010 is to correctly indicate the proper fund from which the revolving fund would secure revenue for making the loans. When the Water Resources Revolving Loan Fund was first drafted, one of the sources of loan funds was tied to Alaska mineral lease bonus funds. This was passed by the Legislature, but vetoed by the Governor as being unconstitutional. Since then, voter approval of the permanent fund has made possible this vehicle for funding these projects.

Sec. 45.86.040 - the Loan Committee composition as now specified in the Statutes, was a high level group deemed necessary to consider loans for large projects such as the Susitna and Yukon Taiya projects. Projects of this nature would now come under the State Power Authority which, together with Federal support, would finance the large installations.

The formation of a committee within the Department of Commerce would be more appropriate to consider the financing of small hydro and water projects. These would be administered similar to the other business loans the Department handles.

Sec. 45.86.060 - The first draft of HB171 (copy attached) spelled out the conditions of loans consistent with long term low interest. However, it was determined that this type of condition could best be handled by regulatory provisions. As a result, the conditions now being applied to the loans are not in accord with the intent of the Legislation. Loans are for a term of seven years rather than long term of forty to fifty years and interest rates of 6% are hardly low. Interest is due and payable yearly and prior to the project generating revenues or the ability to meet debt service. This burden on small utilities preclude their involvement in the revolving fund.

Subsection (b) spells out the type of activities in the development of the property which would be eligible for loans under the revolving fund. Subsection (c) is an "advance planning fund" provision similar to H.U.D. 701. If the studies indicate the project is not feasible, the repayment of the loans for the studies may not be required. Here again is the intent to alleviate the financial burden for the small communities for those projects which turn out to be a "dry hole" and for which revenues cannot be realized.

II. Basis for the proposed appropriation bill FY 1978 for the Resources Revolving Loan. The proposed appropriations for FY 1978 are based on estimated community requirements for the specified projects over and above the funds made available in the 1977 appropriations. The attached list of funding requirements total \$3,750,000, however, it appears that the applications for FY 1977 will leave a balance of \$230,000 which can reduce the proposed appropriations to \$3,500,000.

DRAFT

A BILL

For an Act entitled: "An Act making a special appropriation to the water resources revolving loan fund; and providing for an effective date."

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

Section 1. The sum of \$ 3,500,000 is appropriated from the general fund to the water resources revolving loan fund.

Section 2. This Act takes effect July 1, 1977.

APPROPRIATION TO WATER RESOURCES REVOLVING LOAN FUND
FISCAL YEAR 1978

SUMMARY OF ESTIMATED PRIORITY FUNDING REQUIREMENTS

<u>COMMUNITY - OWNER</u>	<u>PROJECT NAME</u>	<u>SCHEDULED IN-SERVICE DATE</u>	<u>FUNDING REQUIREMENTS (\$)</u>
PETERSBURG - WRANGELL THOMAS BAY POWER COMMISSION	VIRGINIA LAKE HYDRO	NOVEMBER 1983	300,000
SITKA - CITY AND BOROUGH	GREEN LAKE HYDRO	OCTOBER 1981	1,600,000
KETCHIKAN - CITY	SWAN LAKE HYDRO OR LAKE GRACE HYDRO	JULY 1983	400,000
KODIAK - KODIAK ELECTRIC ASSOCIATION	TERROR LAKE HYDRO	JULY 1983	190,000
ANCHORAGE - MUNICIPALITY	MUNICIPAL WATER SUPPLY		200,000
CORDOVA - CITY	POWER CREEK HYDRO	JULY 1983	380,000
KENAI - BOROUGH	MUNICIPAL WATER SUPPLY		150,000
JUNEAU ALASKA ELECTRIC LIGHT AND POWER COMPANY	AUTOMATING ANNEX CREEK HYDRO		480,000
CRAIG - KLA'OCK - HYDABURG MUNICIPALITIES	BLACK BEAR LAKE HYDRO		30,000
		SUBTOTAL	<u>3,730,000</u>
		LESS SURPLUS FUNDS FY 1977	<u>230,000</u>
		TOTAL	<u><u>3,500,000</u></u>



KETCHIKAN PUBLIC UTILITIES

334 FRONT STREET

P. O. BOX 1019 KETCHIKAN, ALASKA 99901

TELEPHONE 907-225-3111

February 11, 1977

MUNICIPALLY OWNED
ELECTRIC WATER PHONE

Representative Oral Freeman
State Capitol
Pouch V
Juneau, Alaska 99811

Subject: Development of Hydroelectric Generating
Plants in Southeast Alaska

Dear Oral:

Mr. N. L. Teague, City-Utilities Manager has requested that I submit to you some pertinent information regarding the advantages to Ketchikan, and Southeast Alaska as a whole, which would be gained by the installation of hydroelectric generating plants. I will use Ketchikan as an example.

We have three (3) small hydroelectric plants. To 1969 we were hydro oriented. Our first base load type diesel was placed in operation in 1970. We now have three (3) such units. I believe that a comparison of cost, hydro versus diesel generation in our system, is pertinent.

In 1976, the average operation and maintenance cost of producing one (1) kilowatt hour at the bus bar by hydroelectric generation was \$.0055 or 5.5 mils.

The average cost of operation and maintenance per kilowatt hour of generation by diesel was \$.0638.

A recap in the same vein, from 1970 to date, clearly points up that hydroelectric power is the greatest hedge against inflation since the Republicans.

TIME PERIOD - January 1, thru December 31, 1970:

Diesel = \$.01249/KWHR

Hydro = \$.00272/KWHR

Differential in cost/KWHR - Diesel greater by \$.00977

Differential in dollars - 2,718,600 KWHR x \$.00977 = \$26,560.72

Representative Oral Freeman
re: Development of Hydroelectric Generating Plants
February 11, 1977 - Page Two

TIME PERIOD - January 1, thru December 31, 1971:

Diesel = \$.01689/KWHR

Hydro = \$.00336/KWHR

Differential in cost/KWHR - Diesel greater by \$.01353

Differential cost in dollars = \$174,228.52

TIME PERIOD - January 1, thru December 31, 1972:

Diesel = \$.01476/KWHR

Hydro = \$.00365/KWHR

Differential in cost/KWHR - Diesel greater by \$.01111

Differential cost in dollars = \$143,065.69

TIME PERIOD - January 1, thru December 31, 1973:

Diesel = \$.02144/KWHR

Hydro = \$.00388/KWHR

Differential in cost/KWHR - Diesel greater by \$.01756

Differential cost in dollars = \$226,123.63

TIME PERIOD - January 1, thru December 31, 1974:

Diesel = \$.04125/KWHR

Hydro = \$.00534/KWHR

Differential in cost/KWHR - Diesel greater by \$.03591

Differential cost in dollars = \$462,420.25

TIME PERIOD - January 1, thru December 31, 1975:

Diesel = \$.0430/KWHR

Hydro = \$.0051/KWHR

Differential in cost/KWHR - Diesel greater by \$.0379/KWHR

Differential cost in dollars = \$491,763.87

Representative Oral Freeman
re: Development of Hydroelectric Generating Plants
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TIME PERIOD - January 1, thru December 31, 1976:

Diesel = \$.0638/KWHR

Hydro = \$.0055/KWHR

Differential in cost/KWHR - Diesel greater by \$.0583/KWHR

Differential cost in dollars = \$470,883.27

Note that 1976 differential cost in dollars is slightly less than 1975. This is due to a small hydro-electric plant (Silvis) being returned to service in 1976. The Silvis Plant had been destroyed by a landslide in 1969.

The Silvis hydro plant generated approximately 13% of our electrical system output in 1976. Without the Silvis Plant in operation, our differential cost in dollars would have been approximately \$532,098.00 for 1976.

Look at what is happening in the major item needed for diesel generation. That "NON-RENEWABLE RESOURCE", diesel fuel cost.

Costs for fuel delivered by barge to our S. W. Bailey diesel plant located ashore on Tongass Narrows, for example, are as follows:

<u>Date</u>	<u>Cost per gallon</u>	<u>Cost of fuel oil/KWHR generated</u>
1972	\$.1375	\$.0095
1973	\$.1930	\$.0133
1974	\$.3260	\$.0225
1975	\$.3610	\$.0249
1976	\$.3930	\$.0271
1977 (Feb.)	\$.4190	\$.0289

In a time span of just over four years and two months, our diesel fuel costs have increased 205 percent.

The industrial growth of the lower 48 States and most specifically the Pacific Northwest was made possible by the construction by the U. S. Government of large hydroelectric projects. In addition, it permitted a better living standard for the people at low energy cost.

The technology of transmission line construction permitted transmission line "grids" to be built from the large government projects to all points of the land or load centers.

Representative Oral Freeman
re: Development of Hydroelectric Generating Plants
February 11, 1977 - Page Four

Southeastern Alaska does not lend itself to the aforementioned methodology. We are situated in an archipelago that would strain the technology of transmission line construction and be vastly more expensive. It is one thing to serve load centers connected by land, another to serve load centers connected only by water.

It is therefore most logical to construct (large for us) hydroelectric projects as close to the load centers as possible, e.g. our Swan or Grace Lake projects. Short, interconnecting transmission lines could be installed between neighboring islands, e.g. Revillagigedo Island (Ketchikan) and Annette Island (Metlakatla).

Oral, it is safe to say that every power utility in Southeastern Alaska is municipally owned with the exception of Juneau, Alaska. It seems odd to us that Juneau is the only community that has a Federal hydroelectric project "on line" in our part of the State.

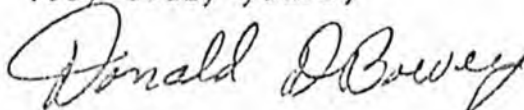
Government seems to speak with forked tongue. They advocate conservation of depletable natural resources and energy, and yet seem to balk at providing the help necessary to alleviate the situation in our portion of Alaska.

Also, Oral, any added expense to the Utilities or cities created by the construction of the hydroelectric projects should be deferred until the projects are "on line". I do not believe any of us can individually carry the burden of cost of generation by our existing means, plus pay any interest or principal payments in case of loans or bonds. Payment deferral is of utmost importance.

I have made this letter far longer than I had intended, Oral, and apologize for taking up so much of your valuable time.

I am attaching certain data that we hope you will find of interest.

Very truly yours,



Donald D. Bowey
Assistant Utilities Manager

cc: N. L. Teague, City-Utilities Manager
Senator Robert Ziegler
Representative Terry Gardiner

11. 10. 1976
 Cost differential, Hydro vs. Diesel
 Part of generation by Prime Mover type and Plant,
 maintenance & operating costs only incl. Poles, fuel, oils, P&I, repair, etc.
DIESEL
YEAR 1976

ACCT. NO'S	KETCHIKAN	TOTEM DIST	PAILEY	TOTAL
546	\$ - 0 -	\$ 2,454.98	\$ 4,259.75	\$ 6,714.73
547	2,200.00	21,404.85	181,942.23	205,547.08
548	2,089.19	11,003.24	71,995.64	85,088.07
549	87.55	517.16	3,789.01	4,393.72
551	- 0 -	- 0 -	1,445.90	1,445.90
552	- 0 -	- 0 -	15,408.49	15,408.49
553	7,429.11	7,232.17	185,038.96	199,700.24
554	- 0 -	3,378.11	5,078.78	8,456.89

\$ 11,207.83 \$ 46,020.51 \$ 468,958.76 \$ 526,187.10

HYDRO

	KETCHIKAN	BEAVER FALLS	SILVIA	TOTAL
535	\$ 11,736.34	\$ 4,550.10	\$ 3,373.16	\$ 19,659.60
536	- 0 -	- 0 -	- 0 -	- 0 -
537	11,040.88	6,295.40	4,282.81	21,619.09
538	167,897.24	64,310.82	12,878.83	245,086.89
539	10,077.42	4,168.18	9,534.15	23,779.75
541	293.29	1,961.09	528.14	2,782.52
542	7,248.64	3,137.13	725.64	11,111.41
543	4,529.61	5,936.72	2,449.79	12,916.12
544	5,328.12	8,861.16	13,831.94	28,021.22
545	94.13	- 0 -	- 0 -	94.13
	\$ 218,206.83	\$ 99,223.60	\$ 47,654.46	\$ 365,084.89

<u>HYDRO</u>	<u>GENERATION</u>	<u>M & O COST</u>	<u>COST/KWHR</u>
<u>POWER CAP.</u>	<u>KWHR</u>	<u>DOLLARS</u>	<u>CENTS</u>
KETCHIKAN PLANT	17,693,700	\$ 218,306.83	# .01234
BEAVER FALLS	40,669,000	99,220.60	.00244
SILVIS	10,172,000	47,654.46	.00468
<u>TOTAL</u>	<u>68,534,700</u>	<u>\$ 365,181.89</u>	<u># .00533</u>

AVERAGE COST PER KWHR GENERATED BY HYDRO. 5.3 MIL.

<u>DIESEL</u>			
KETCHIKAN PLANT	55,200	# 11,807.85	# .21123
TOTEM BIGHT	781,000	46,022.51	.05893
S.W. BAILEY	7,240,000	468,959.76	.06477
<u>TOTAL</u>	<u>8,076,900</u>	<u>\$ 526,787.12</u>	<u># .06522</u>

AVERAGE COST PER KWHR, GENERATED BY DIESEL 65.2 MIL

AVERAGE COST PER KILOWATT HOUR OF TOTAL GENERATION

BY DIESEL & HYDRO. (CONGLOMERATE)

TOTAL generated: 76,611,600 KWHR = \$.01164 cents/KWHR.

TOTAL M & O COSTS. \$ 891,969.01 11.6 ^{OR} MIL/KWHR.

COST PER KWHR "SOLD" (GEN. LESS STAT. USE & LOSSES) = \$.0131 cents or 13.1 MIL

Hydro generated 89.46% of total generation

Diesel generated 10.54% of total generation

WATER YEAR WAS EXCEPTED AT

which cost for the year was \$ 5.3 mil
 or .00533 cents per KWHR generated
 or 5.3 MIL
 total generation in KWHR.

Hypothesis!

Hydro $\rightarrow 68,534,700$ KWHR
 $\frac{14.5 \text{ KWHR/GAL}}{14.5 \text{ KWHR/GAL}} = 4,726,531$ gallon of fuel.

$4,726,531 \text{ gal.} \times \$0.41 = \$1,937,878$

added to labor, etc of Hydro would $= \$2,303,058$

added to actual diesel generation cost
of generating $8,076,900$ KWHR. or,
 $\$2,303,058$ plus $526,787 = \$2,829,845$

$\frac{\$2,829,845 \text{ M40 COSTS}}{76,611,600 \text{ KWHR.}} = 0.03694 \text{ CENTS / KWHR.}$
OR

36.9 mil.

The above Hypothesis of all diesel operation
in 1976 would have meant, $\frac{36.9 \text{ mil.}}{11.6 \text{ mil.}} = 3.181$

or generation costs, maintenance & operation only
would have been ~~the~~ 218% greater than it actually
was by combination, or conglomerate, of Hydro
& Diesel.

The above is very conservative as it does
not consider additional stopping which would
have been necessary, plus other factors, if all
generation had been by diesel.

Time & stopping points a more in depth analysis.
at this time.

Terry Gardiner

Box 6092, Ketchikan, Alaska 99901 Pouch V, Juneau, Alaska 99811

March 23, 1977

MEMO

TO: Joe McKinnon

FROM: Terry Gardiner *T.G.*

RE: HB 356, 357

Confirm your having them up for hearing on or about April 4 or 5.

The following Departments and people should be contacted for those hearings:

- 1.0 Department of Commerce
- 2.0 Department of Revenue
- 3.0 Energy Office - McKonkey
- 4.0 Jim Eide - City Manager of Wrangell
- 5.0 Bill Boardman
Mi. 10 North Tongass
P.O. Box 7736
Ketchikan, Ak. 99901
- 6.0 Jeff Currall
c/o Chamber of Commerce
Box 7637
Ketchikan, Alaska 99901
- 7.0 Rocky Guiterriz, City Manager of Sitka
- 8.0 Pat Teague, City Manager of Ketchikan
P.O. Box 10
Ketchikan, Alaska 99901

If you need any assistance in contacting any of these people please call me at any time.