ALASKA LEGISLATURE COMMITTEE FILES 1983-1984

2941 HSA HB 101 - HB 120

Offered: 5/15/82
Referred: Rules

IN THE SENATE BY THE FINANCE COMMITTEE

HOUSE CS FOR CS FOR SENATE BILL NO. 252 (Finance) am H

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWELFTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act relating to grants for water supply, sewerage and solid waste facilities; and providing for an effective date."

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

* Section 1. AS 46.03.030(b) is amended to read:

(b) The department may grant to a municipality, as funds are available, up to 70 [50] percent of eligible costs not financed by the federal government, for public water supply, treatment and distribution systems and public sewage collection, treatment and discharge facilities for which construction has not commenced on or before July 1, 1982. If a project is partially financed by the federal government, a grant under this subsection may not exceed the difference between the amount of the federal financing for the project and 87.5 percent of the eligible costs of the project [JUNE 21, 1976]. The eligible cost of a project or portions of a project will be as determined by the federal agency granting the most monetary assistance. On projects or portions of projects, for which federal participation is not available, eligible costs will be determined by the department in accordance with (d) of this section. Projects will be constructed in accordance with plans and specifications approved by the department.

* Sec. 2. AS 46.03.030(d) is amended to read:

(d) The department shall, by regulation, identify those costs which are eligible costs for the purposes of this section. Eligible costs include the costs [ESTABLISHED IN A CONSTRUCTION CONTRACT] which

are necessary for construction of a project <u>including the costs of replacing obsolete facilities</u>, but do not include the cost of interest and financing and right-of-way acquisition, or costs related to operation, maintenance, <u>and normal repairs. Eligible costs include the costs of the initial purchase of water delivery and honey bucket collection vehicles if the vehicles are determined by the department to be cost effective compared with conventional water supply and sewage collection systems. Eligible costs also include the cost of facilities for the maintenance and storage of those vehicles</u> [REPAIR OR REPLACEMENT OF A PROJECT].

* Sec. 3. AS 46.03.030(e) is amended to read:

(e) The department may grant to a municipality not more than <u>70</u> [50] percent of the eligible costs, including costs of obtaining federal waivers from the requirements for secondary treatment plants, which are not paid for by the federal government for solid waste processing or disposal facilities constructed after <u>July 1, 1982</u> [JULY 1, 1980]. However, the department may grant a municipality up to <u>85</u> [60] percent of the eligible costs not paid for by the federal government for a solid waste processing or disposal facility constructed after <u>July 1, 1982</u> [JULY 1, 1980], if the facility is used for resource recovery. The eligible costs of a solid waste processing or disposal facility are determined by the federal agency granting the most monetary assistance for construction of the facility. For a solid waste processing or disposal facility for which federal money is not available, the department shall determine the eligible costs in accordance with (d) of this section. A municipality shall construct solid waste processing or disposal facilities financed by grants under this section according to plans and specifications approved by the department.

* Sec. 4. AS 46.03.030 is amended by adding a new subsection to read:

(f) The department shall make a grant to a municipality or unincorporated community to supplement revenues to assist in the payment of operation and maintenance costs for a village safe water and sewer facility.

* Sec. 5. AS 46.03.900(19) is amended to read:

(19) "sewer system" or "sewerage system" means pipelines or conduits, pumping stations, and force mains, and all other appurtenant constructions, devices, and appliances used for conducting sewage, industrial waste, or other wastes to a point of ultimate disposal and includes the original purchase of ~~water delivery and~~ honey bucket collection vehicles if the vehicles are determined by the department to be cost effective compared with conventional water supply and sewage collection systems and facilities for the maintenance and storage of those venicles;

* Sec. 6. This Act takes effect immediately in accordance with AS 01.10-070(c).

Alaska MUNICIPAL League

TELEPHONES
(907) 586-1325
586-6526

204 N. FRANKLIN ST.
JUNEAU, ALASKA 99801

January 25, 1983

To: Senate Community and Regional Affairs Committee

From: Ginny Chitwood, AML Executive Director

Re: SB 21 - Grants for Water Supply, Sewerage, and Solid Waste Facilities

The Alaska Municipal League urges your favorable consideration of SB 21, increasing the state share of construction grants for community water supply, sewerage, and solid waste facilities from 50% to 75% of the non-federal share.

Public Health Needs: Adequate and clean water, sanitary sewer, and solid water disposal are basic public health issues that, for the most part, cannot be addressed on an individual basis. Because total costs of these projects are very large, it is hard for many areas to raise the 50% local match required by the current programs.

Relief for Property Owners: The local share of water and sewer projects traditionally is paid by assessments on local property, not by general municipal taxation. Increasing the state share will provide direct relief to property owners and taxpayers by reducing local improvement district (LID) payments. Additionally, none of the state assistance dollars under this program will result in increased federal tax payments, as is the case with many of the other state revenue distribution plans. LID payments, as opposed to property and sales tax payments, are not eligible as federal income tax deductions, nor are monthly charges for water, sewer, and solid waste services.

Mandated Costs: Many of the municipal water, sewer, and solid waste projects have costly additional features, not because communities want them, but because they are mandated by federal and/or state laws and regulations. It seems only fair that a large portion of the mandated cost be borne by other than local residents.

Most areas of the state are way behind the rest of the country in having basic water supply, sewerage disposal, and solid waste facilities. Expanding the state's construction grants program is a means to accelerate the process of "catch-up". Because this is a matching grants program, an expenditure by the state will generate an increased amount of capital projects throughout the state. The new facilities will be maintained by the local governments and utility districts and will not require state operating assistance.

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FACILITY CONSTRUCTION AND OPERATION DIVISION
STATUS REPORT
OF
MUNICIPAL GRANTS PROGRM

April 1982

MUNICIPAL GRANTS

The municipal Grants Program is authorized by AS 46.03.030. This program provides grants up to 50 percent of the nonfederally financed costs for water, sewerage, and solid waste improvements. These grants may be used to pay for engineering, construction, legal, administrative and equipment costs. Grants are available only to incorporated municipalities. The State does not provide any operation and maintenance support beyond technical asistance.

Project scope, scheduling, and funding are left to local determination. The Department does not attempt to second-guess the validity or local priority of requested grants. The Department is concerned with approval of construction plans and specifications, contract documents for engineering design and for construction. Progress payments and interim contruction inspections are made duirng the course of the project. Grantees' final project costs are audited by the Department. The emphasis of the program is to minimize grant requirements with the grantees responsible for the majority of project administration.

Funding for this program has been provided by general obligation bonds approved by the voters. Bonds totaling $112.5 million have been authorized in 1970, 72, 76, 78, and 80. Grants are awarded on a first-come, first-servie basis, subject to the availability of funds. No priority system is presently utilized in awarding these grants.

The program has currently obligated all but approximately $1.0 million of the bonds approved by the voters. This $1.0 million is being held in reserve to fund grant increases due to change orders for existing projects under construction. We are in receipt of approved grant applications totaling nearly $18.7 million, which we are unable to fund at this time. The projects will be funded in the order that applications were approved, subject to the availability of funds. A list of these projects is attached.

The Governor's capital budget request obtains $10.0 million in general funds that will be available this summer, subject to approval by the Legislature. An additional $40.0 million is proposed for voter approval in this fall's general election. As can be noted, general fund approval of $10.0 million by the Legislture will result in over $8.0 million of projects that cannot be constructed this summer. Delaying these projects by a year will result in approximately a 15 percent increase due to inflation.

It is our estimate that to fully meet the needs of grantees for the 1982 construction season, $25.0 million will be required and should be available no later than June 1. The balance of program funding requirements could then be met by voter approval of bonds in the 1982 general election. It is estimated that an additional $50.0 million will need to be approved for FY-83 & 84 if the grants program is to fully responds to the public's demand for sanitation improvements.

If funding is unavailable at the estimated levels of need, we propose to develop a priority system considering public health, benefiting population, and level of existing services. If this occurs, all grantees will be asked to submit their project applications by a specified date for the full calendar year. The projects would then be ranked in accordance with the priority system.

PENDING GRANTS

Project		Date Received	Grant Amount	Date Funded
Anchorage	- SD 81-1 Fire Hydrants	12-16-81	$ 425,520	
	W81-13 Dowling Rd Water	12-16-81	100,950	
	S81-20 Brown's LID	12-16-81	103,000	
	S81-21 AERO LID 112	12-16-81	272,550	
	S81-22 Stella LID 112	12-16-81	107,850	
Kotzebue	- Water Transmission	12-21-81	232,380	
	Water System Exp.	12-21-81	248,320	
	Sewer System Exp.	12-21-81	1,153,800	
Ketchikan	- Karlanna/Hawkins S/D	12-24-81	90,800	
Anchorage	- S81-26 Abbot Loop Manor LID 132	12-31-81	292,650	
	S81-18 Original LID 117	12-31-81	45,050	
Ketchikan	- Penstock Ktn Lakes	1-11-81	19,320	
Seward	- Terminal Water & Sewer SW82-1	1-22-82	1,562,657	
Anchorage	- W82-3 Univ. Drive 16" Water	1-26-82	50,950	
	W82-4 Ship Avenue Water	1-26-82	20,900	
	S82-1 Shackleton LID Sewer	1-26-82	70,500	
	S82-2 Alpine Village LID Sewer	1-26-82	238,200	
	S82-3 Zodiac LID Sewer	1-26-82	60,250	
	S82-4 Fire Lk Int. Phase III	1-26-82	120,694	
	W82-2 Northern Lights Water	1-26-82	103,100	
Houston	- Sanitary Landfill	2-11-82	30,000	
Anchorage	- W82-6 Ship Creek Water Plant Exp.	2-19-82	4,580,850	
	W82-5 Ingra St 16" Water 11th-15th	2-19-82	109,619	
Skagway	- Solid Waste	2-21-82	211,610	
	Water Storage Tank	2-21-82	269,000	
Sitka	- Water Storage Tank	2-22-82	1,192,500	
	Water Storage Tank	2-22-82	1,186,050	
Valdez	- Solid Waste Landfill	2-22-82 (permit)	210,876	
Juneau	- Vanderbilt Hill Water	2-23-82	616,431	
	- Lemon Road Water	2-23-82	524,173	
Skagway	- Water System	2-24-82	628,000	
Juneau	- Bayview S/D	2-26-82	684,600	

PENDING GRANTS
Page 2

Project		Date Received	Grant Amount	Date Funded
Valdez	- Pioneer/Chitina Dr W & S	3-09-82	$ 233,973	
Sitka	- Car Smasher	3-12-82	11,160	
Sand Point	- Meadows S/D Phase I	3-24-82	1,867,800	
Soldotna	- Kobuk	3-25-82	383,906	
Kake	- Water Dist. Loop	3-30-82	122,305	
Nome	- Increase 82 Water & Sewer	4-01-82	504,236	
			$18,686,530	

Alaska MUNICIPAL League

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204 N. FRANKLIN ST.
JUNEAU, ALASKA 99801

March 26, 1981

to: Senate Community & Regional Affairs Committee

from: Ginny Chitwood

re: SB 252 - Grants for Water Supply, Sewerage, and Solid Waste Facilities (AB 101)

Alaska Municipal League urges your favorable consideration of SB 252, increasing the state share of construction grants for community water, sewer, and solid waste projects from 50% to 75% of the non-federal share. In looking at various ways to distribute the state's revenues, this proposal should rank high on the list for many reasons:

1.-Public Health Needs. Adequate and clean water, sanitary sewer, and solid waste disposal are basic public health issues that, for the most part, cannot be addressed on an individual basis. Because total costs of these projects are very large, it is hard for most areas to raise the current 50% local match.

2.-Relief for Property Owners. The local share of water and sewer projects traditionally is paid by assessments on local property, not by general municipal taxation. Increasing the state share will provide direct relief to property owners and tax payers by reducing local improvement district (LID) payments.

3.-Federal Income Tax. None of the state assistance dollars under this program will result in increased federal income tax payments, as is the case with many of the other distribution proposals. LID payments, as opposed to property and sales tax payments, are not deductible, nor are monthly charges for water, sewer, and solid waste services.

4.-Price of Land. A big issue for the last couple of years has been the high cost of land. One reason for these high prices in developable suburban areas is the high cost of installing necessary water and sewer systems. Increasing state participation in providing these systems will help to lower the cost of making land available for use. For example, it costs an average of $13,000 per lot in Ketchikan to provide sewerage under the current state construction grants program. In Juneau, the per lot assessment for a proposed water system would drop from $1,217.19 to $608.65 for the smallest lot in the project and from $8,318.70 to $4,159.35 for the largest lot if the state share is increased to 75%.

5.-Mandated Costs. Many of the municipal water, sewer, and solid waste projects are constructed not because communities

want them but because they are mandated by federal and state laws. It seems only fair that a large portion of the mandated costs be borne by other than the local units.

At one time it was feared that an increase in the state share would be a disincentive for municipalities to seek federal funds, thus increasing even more the cost to the State. It has since been determined that in many cases, "jumping through the hoops" for federal funds increases project costs so high as to negate the benefits of those funds. In addition to the extras required by the feds, the inflationary increases in the two extra years required for federal processing add tremendously to the cost of a project. In contrast, the Alaska Department of Environmental Conservation has an excellent record of timely processing applications.

HB

102

Alaska State Legislature

Speaker of the House of Representatives

Pouch V
State Capitol
Juneau, Alaska 99811
(907) 465-3720

Official Business

February 12,1983

To: Rep. Mitch Abood
Chairman-State Affairs Committee

From: Rep. Joe Hayes
Speaker

Re: HB 102/ Supplemental appropriation to Department of Environmental Conservation

HB 102 by Lacher which appropriates $28 million as a supplemental appropriation to DEC for statewide water and sewer projects is currently in your committee.

I would appreciate your scheduling this bill as soon as possible for a hearing so that it may move through the committee process and be brought to the floor of the House.

There are many projects statewide which could begin this spring, including $10-12 million in Anchorage projects if the bill is approved. Since one of the Coalition's stated priorities is to address basic statewide needs, we need to move this bill through the process as rapidly as possible.

Thanks.

RECEIVED
FEB 14 1983

102

Alaska State Legislature

House of Representatives

Committee on

Community & Regional Affairs

Official Business

Pouch V
State Capitol
Juneau, Alaska 99811

M E M O R A N D U M

TO: House State Affairs Committee
Attention: Carol

FROM: Representative Barbara Lacher
House C & R A Committee

SUBJECT: House Bill 102, supplemental appropriation to the Department of Envieronmental Conservation.

HB 102 is a companion bill to SB 15. The attached materials were prepared by various agencies with regard to SB 15. Rather than ask each agency to reproduce their documents and reflect HB 102 as the subject, I am simply sending you copies of their comments on SB 15.

STATE OF ALASKA
DEPT. OF ENVIRONMENTAL CONSERVATION

BILL SHEFFIELD, GOVERNOR

POUCH O – JUNEAU 99811

FEB 2 1983

January 31, 1983

The Honorable Barbara Lacher
House of Representatives
Alaska State Legislature
Pouch V
Juneau, AK 99811

Dear Representative Lacher:

As a co-sponsor of HB 102 which would appropriate $28 million supplemental to the Department of Environmental Conservation, I thought you might be interested in recent events concerning your bill.

I have enclosed a copy of the Department's testimony before the Senate Community and Regional Affairs Committee on SB 15, along with a list of potential projects that could be funded from the supplemental appropriation. The list was prepared after a careful review of the projects contained in our FY 84 capital budget submittal. The capital budget contained over $230 million in eligible grants; therefore, it is obvious that many worthwhile projects cannot appear on the abbreviated list. In developing the new list, our main concern was to include priority projects that would be ready to proceed with construction this summer. These are projects where design has generally been completed and where the project could be bid and constructed in 1983, if funding were available by approximately March 1.

We anticipate that this list will be dynamic with new projects replacing those of a lower priority as the appropriation request is reviewed by the various committees. We will be happy to work with you or your staff to review projects for potential inclusion on the list.

We have discussed the $28 million supplemental with the Administration and have received an initial favorable reaction. However, passage of the supplemental would most likely result in a request to reduce the Department's capital budget. If additional funding were to remain in the capital budget, we would most likely fund the projects remaining in our capital budget request in their order of priority.

We are appreciative of your confidence in our criteria system and our ability to select priority projects for construction. I assure you that while we will be unable to completely satisfy all competing demands, we will strive to achieve a fair balance between need and equity of project distribution.

Please feel free to call me at 465-2610 if I may provide any information on the status of the supplemental.

Sincerely,

Keith Kelton

Keith Kelton, Director
Facility Construction
and Operation

P.S. SB 15 was passed from C&RA Committee to Senate Finance with a do-pass recommendation on January 25.

Enclosure

cc: Emil Notti
Lennie Boston

POSITION PAPER ON SENATE BILL 15
by the
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Before the
SENATE COMMUNITY REGIONAL AFFAIRS COMMITTEE
January 25, 1983

Senate Bill 15 provides for a $28.0 million supplemental appropriation to the Department of Environmental Conservation for municipal grants to construct water, sewage, and solid waste facilities. As you are aware, the Department, as authorized by AS 46.03.030, awards these grants at a current 50 percent match to incorporated municipalities.

This program did not receive funding last year due to the veto of the proposed bond proposition by Governor Hammond. In fact, the program has been essentially out of funds since January 1982. At the present time there are a significant number of projects ready for construction this summer for which no funding is available. A list of the projects we are familiar with that are of high priority and are ready to proceed is attached for your information.

We respectfully request they not be named in the appropriation bill. Variability in local government funding priorities will certainly result in some of these projects being delayed. If the appropriation does not list the specific projects, the Department will have the flexibility to move unused funds to other projects.

Thank you for the opportunity to comment. I will be happy to respond to any questions you may have.

January 21, 1983

	Project	Grant Request
	ANCHORAGE	
1.	Brown LID 121 S81(20)	$ 103,000
2.	Stella LID 133 S81(22)	107,900
3.	Library LID 131 S81(23)	301,200
4.	Abbott Loop Manor LID 132 S81(26)	292,700
5.	Shackleton LID 79 S82(1)	70,500
6.	Alpine Village LID 135 S82(2)	238,200
7.	Zodiak LID 85 S82(3)	60,300
8.	Windemere Upgrade S82(8)	28,700
9.	W. 44th Sewer Extension S82(9)	34,600
10.	C-3 Trunk - North of Sand Lake S82(10)	150,900
11.	Knik Interceptor CMP Upgrade S82(11)	589,600
12.	Zurick LID 137 S82(12)	117,900
13.	Rosewood LID 138 S82(13)	140,200
14.	Juanita Loop/Santa Maria Drive S82(14)	369,500
15.	A/B Street E. 56th Extension S82(16)	8,200
16.	Dowling Road/New Seward to Petersburg W81(13)	101,000
17.	Broadmoor Estates Upgrade W82(9)	14,000
18.	Barbara Street Extension W82(10)	55,200
19.	10-11 Alley "N" to "P" Street Upgrade W82(11)	22,000
20.	Manor Street Upgrade W82(13)	28,400
21.	W. 44th Place Extension W81(15)	25,700
22.	Abbott Loop 30" Tudor to 68th W82(16)	537,300
23.	Juanita Loop/Santa Maria Drive W82(17)	300,800
24.	Atkins WID 316 W82(18)	19,400
25.	10 MG Reservoir Grant Increase W80(6)	360,000
26.	Eagle River System Inter-ties	220,000
27.	C-5-2 Trunk	264,000
28.	S.E. Interceptor/Roy to Huffman	1,250,000
29.	West Interceptor, Phase II	2,125,000
30.	Distribution Reservoir Eagle River	180,000
31.	Production Well #14	180,000
32.	Chugach W /Arctic to Spenard Road	136,000
33.	Woodstave ne Replacement	153,000
34.	8th Avenue Diversion Upgrade	37,500
35.	Spruce Street/Lore Road to 68th Avenue	128,000
36.	80th Avenue Ease of Lake Otis	40,000
37.	Lake Otis/Abbott Road to O'Malley	375,000
38.	E-4A Trunk	240,000
39.	E-4C Trunk	216,000
40.	S.E. Interceptor, Huffman to DeArmoun	600,000
	ANIAK	
41.	Community Sewer System	500,000

	Project	Grant Request
	BRISTOL BAY BOROUGH	
42.	Naknek Sewage Facility	$ 574,800
	CORDOVA	
43.	Morpac Parallel Water Line	60,000
44.	Power Creek Booster Station	400,000
45.	Small Boat Harbor Water Line	221,300
	FAIRBANKS	
46.	Sludge Disposal Facility, Phase II	187,500
47.	NE Water Transmission	1,980,000
	HAINES	
48.	Mud Bay Road Water Line	35,000
49.	4th Avenue & Mathias Water Line Improvements	40,000
	HOMER	
50.	Cooper S/D	285,000
51.	Mattox Water and Sewer	62,500
	HOUSTON	
52.	Houston Sanitary Landfill	70,000
	HYDABURG	
53.	Water and Sewer Upgrade	2,250,000
	JUNEAU	
54.	Salmon Creek Connection	1,050,000
	KAKE	
55.	Water Supply Tank	125,000
	KENAI	
56.	Candlelight/Lindwood/Aurora	535,000
57.	Evergreen/Haller Water and Sewer	700,000
	KENAI PENINSULA BOROUGH	
58.	Ninilchik Landfill	70,000

	Project	Grant Request
	KETCHIKAN	
59.	Mental Health Water and Sewer	$ 34,600
60.	Hawkins - Carlanna	90,700
61.	Heath Addition	196,700
62.	Washington Park Addition	303,500
	KETCHIKAN PUBLIC UTILITIES	
63.	Fairview-Jackson Water	161,600
	NOME	
64.	Phase II Water and Sewer (Belmont Pt.)	307,500
65.	Phase II Water and Sewer (Water Reservoir)	500,000
	NORTH POLE	
66.	Water Treatment	720,200
	PETERSBURG	
67.	Water Storage Facility	294,000
	SAND POINT	
68.	Meadows S/D, Phase I	1,867,800
	SCAMMON BAY	
69.	Water and Sewer	111,000
	SEWARD	
70.	Terminal Addition Water and Sewer	1,562,700
	SITKA	
71.	Solid Waste Disposal System	1,750,000
	SOLDOTNA	
72.	Redoubt Avenue Water and Sewer	187,600
73.	Water Reservoir and Transmission	750,000
74.	Wilson Lane Water and Sewer	11,000
75.	Binkley Street Water and Sewer	74,500
	UPPER KALSKAG	
76.	Water and Sewer System	250,000

	Project	Grant Request
	VALDEZ	
77.	North Harbor/Kennicot/South Harbor Dr. W & S	$ 650,000
78.	Landfill Improvemments	100,000
79.	Old Landfill Reclamation	51,000
	WASILLA	
80.	Water Utility Extension	60,600
81.	Sewer Utility Extension	60,600
	WRANGELL	
82.	Evergreen Water and Sewer Extension	1,046,000
	TOTAL ALL PROJECTS	$30,599,400

STATE OF ALASKA

Bill Sheffield, Governor

DEPT. OF COMMUNITY & REGIONAL AFFAIRS

OFFICE OF THE COMMISSIONER

POUCH B
JUNEAU, ALASKA 99811
PHONE: (907) 465-4700

Position Paper

Re: SB 15

Sponsor: Senator Gilman

Program Effects of Bill

Makes a $28,000,000 appropriation to fund water, sewer and solid waste facility construction under a Department of Environmental Conservation program (AS 46.03.030).

Comments

This supplemental appropriation will fund the State's matching requirement for the construction of local water, sewer and solid waste disposal facilities. The Public Facilities Construction Program has been one of the most effective capital support programs for local communities. Project funds are not set aside until engineering and costing studies are complete and local financing for construction, maintenance and operation. Thus completed projects are well planned and are financed for their full life cycle.

1-P1LH

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

JAY S. HAMMOND, GOVERNOR

POUCH O — JUNEAU 99811

November 23, 1982

The Honorable Donald Gilman
Alaska State Senate
Pouch V
Juneau, AK 99811

Dear Senator Gilman:

During the Alaska Municipal League meeting in Fairbanks, my staff and I were approached by several municipal officials concerned about the shortage of State funding for water and sewerage projects. These officials requested we investigate the possibility of a supplemental appropriation to insure construction of vital sanitation improvements this coming summer.

As you are aware, we are currently out of funding but we have submitted a $231 million capital budget request. It is extremely unlikely that more than $30-$40 million will be recommended by Budget and Management. In addition, these funds, if approved by the Legislature, will probably be too late to allow much construction to proceed during 1983. A supplemental appropriation, if expedited, could provide funding for priority projects ready to proceed during the 1983 construction season as well as supplement the total supply of funding available.

To prevent a supplemental from becoming a "Christmas tree" bill, it appears desirable to introduce legislation, which does not designate funds to specific projects. Rather, a lump sum appropriation to DEC would allow the Department to obligate funds to priority projects that are ready to proceed with construction during the summer of 1983. The capital budget submittal requests funds earmarked for specific projects and should provide the vehicle for individual legislative support. If we are to avoid missing two construction seasons in a row, it is imperative that an appropriation be introduced and passed early in the session.

The enclosed letter and attachments were sent to all the communities who responded to our questionnaire. These projects were prioritized by the Department for both FY 84 and 85. A list of projects as prioritized by each community is also enclosed. The total request for FY 84 is $109 million. The majority of these projects will not be ready to proceed with construction in 1983 but will require grant funds to begin design. Only those projects which can can actually go to construction in 1983 need to be considered in supplemental appropriation. We estimate that 46 projects requiring approximately $28 million will be ready for construction this next summer.

I would appreciate your thoughts on this suggested approach to funding and would be happy to meet with you to discuss its viability. If you agree that the supplemental appropriation is desirable, your willingness to act as a sponsor to the legislation would be appreciated.

Sincerely,

Ernst W. Mueller
Commissioner

Enclosures

Alaska MUNICIPAL League

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204 N. FRANKLIN ST.
JUNEAU, ALASKA 99801

AML 1983 POLICY PRIORITIES

SB 17

Municipal Supplemental. The League supports the supplemental appropriation of (a) $25.1 million FY 83 Municipal Assistance revenues to fully fund the entitlement at the amount had not the method of taxation of the petroleum industry been changed during the 1981 state legislative session; and (b) $3.5 million FY 83 Section 89 State Revenue Sharing for roads, health facilities and hospitals, and volunteer fire departments to fully fund the entitlement at the level authorized by state statutes. The League further encourages the Legislature to appropriate and the Governor to approve the aforementioned supplemental appropriation by April 15, 1983 so that local governments can use the additional funding in setting their 1983 mill levies.

Educational Supplemental. The League urges the approval of a $33.7 million education supplemental for FY 83 because of costs connected with the state take-over of BIA schools, unprecedented increases in school population throughout the state, and unanticipated reductions in the public school foundation program funding last year, and urges the approval of a $12 million supplemental to fund the shortfall in the school construction reimbursement fund

Consolidation of Municipal Assistance and Revenue Sharing. The League endorses the consolidation of the current Municipal Assistance and State Revenue Sharing programs with adequate and predictable funding so that municipalities can continue to provide important needed services while holding down local taxes.

SB 21
&
SB 15
HB 102

Water/Sewer/Solid Waste Construction Grants Program. The League strongly endorses the concept of the state paying at least 75% for sewerage, solid waste facilities, and water systems constructed by municipalities under the State of Alaska Construction Grants Program and that the replacement of out-moded systems be grant eligible in the same manner as the installation of the new systems. The League strongly supports appropriation levels to meet statewide needs, including a supplemental appropriation of $28 million.

Fiscal Notes/State Mandates. The League supports enactment of legislation requiring preparation of notes assessing the fiscal impact on local governments of any proposed bill or regulation, including pass-through grants. The League urges passage of legislation which would require the state to reimburse municipalities for costs they incur in programs or activities mandated by the State of Alaska.

Official Business

Alaska State Legislature

House of Representatives

Committee on

Community & Regional Affairs

Pouch V
State Capitol
Juneau, Alaska 99811

M E M O R A N D U M

TO: House State Affairs Committee
Attention: Carol

FROM: Representative Barbara Lacher
House C & R A Committee

SUBJECT: House Bill 101, an act relating to grants for water supply, sewerage, and solid waste facilities.

HB 101 is a companion bill, identical to SB 21. The attached materials were prepared by various agencies in support of SB 21. Rather than ask each agency to reproduce their documents and reflect HB 101 as the subject, I believe it more rational to provide to you copies of their products.

The Department of Environmental Conservation position paper makes reference to SB 252 which was vetoed by Governor Hammond. A copy of the veto letter is included; you will find none of the cited objections in HB 101.

The following persons may be contacted for further information or to appear as witnesses:

Keith Kellton, DEC, Juneau
Ginny Chitwood, Alaska Municipal League, Juneau
City Manager of Juneau

HB

106

PLEASE NOTE: Rep Betterworth wants to submit a Spon Sub—

HB 93. "An Act limiting the number of state employees" will not be heard today in order to ~~gixxex~~ allow the sponsor time to prepare a sponsor substitute.

In its place, we will hear HB 106, "an Act relating to Alaska bidder preference." Rep. Ward is the prime sponsor.

Mitch; Charlie Bussell will testify first for HB 209. ~~Hexx~~ Jerry Ward's office called to say that a Finance meeting is scheduled for 1:30 today; so, could you take his testimony before 1:30?

STATE OF ALASKA
PRELIMINARY STATEMENT OF FISCAL IMPACT

RECEIVED
MAR 21983

Bill No: HB 106 Date on Bill: January 21, 1983
Title: An Act Relating to Alaska Bidder preference
Sponsor: Ward, etc.
Requestor:

1. Estimated fiscal impacts on:

a. Expenditures:

(Thousands of Dollars)

			FY 83	FY 84	FY 85	FY 86	
Capital			0	0	0	0	
Operating			0	50.0*	50.0*	50.0*	
Total			0	50.0*	50.0*	50.0*	

b. Revenues:

Revenue			0	0	0	0	0

2. Source of funds to offset fiscal impact of bill:

3. *Assumptions: The only quantifiable costs associated with this bill are the impact on Agency operating budgets for commodities and non-professional services, which would have occurred if the bill passed last year. The larger and more unquantifiable costs would be due to reduced competition as out-of-State firms are driven out of the Alaskan market.

This cost estimate does not include effects on construction contracts, travel, and professional services which are not effected by this Act.

The State already spends a majority of its commodity and non-professional dollars with Alaska vendors.

4. Disclaimer: This statement has not been reviewed by the OMB in the Office of the Governor.

Prepared By: Bob Link Phone: 465-2250
Division: General Services & Supply Date: March 1, 1983

Approved by Commissioner: FOR Date: MARCH 2, 1983
Department: COMMISSIONER LISA RODD
DEPT OF ADMINISTRATION

5. Distribution:
Original to Legislative Finance
Copy to Department
Copy to Sponsor
Copy to Requestor

2.8/83

7/0228-84/BDGSF1

HB 106

This bill doesn't have an effective date, so it will become law 90 days after it is signed by the governor. Ask the representative from the Dept. of Administration, if they would like to see this bill with a specific effective date.

1,000,000.00
1,500
850,000.

~~Commerce Date~~:

1. ~~Would~~ Had the low bid from Seattle Inc, is 1, mill and the next ~~low~~ bid was alaska Inc 1,500,000 would alaska Inc ~~get~~ have to except the bid for 850,000?

2. Could not the outside bidders submit real low bids in order to force the State to award the bids to alaskans Companies and by doing so, cause a contractor to go broke because he had to except a bid for less money than it would cost?

3. Is this in conflict with the fair trade laws?


HB


110

STATE OF ALASKA
FISCAL NOTE

Revision Date , 1983

I. REQUEST

Bill/Resolution No.: HB 110
Title: "Act relating to avalanche and fire.."
Sponsor: Rep. M.M. Miller
Requestor: House State Affairs

II. FISCAL DETAIL

Agency Affected: Public Safety
Program Category Affected: Crime ID
BRU, Program of Subprogram(s) Affected: Alaska State Troopers

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 83	FY 84	FY 85	FY 86	FY 87	FY 88
OPERATING						
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL		(275.0)				
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC						
TOTAL OPERATING		(275.0)				
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND		(275.0)				
FEDERAL FUNDS						
OTHER (Specify Source)						

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

III. SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

IV. ANALYSIS: Attach a separate page for any Analysis (See attached)

Prepared By: Michael Orelove Phone: 465-4349
Division: Administrative Services Date: 5-13-83

Approved by Commissioner: [signature] Date: 5/12/83
Department: Public Safety

Distribution:
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3/8/83

HB 110

ANALYSIS

The Department of Public Safety FY 84 Operating Budget contains 275.0 for the Avalanche Warning System which should be transferred to the Department of Natural Resources if the function is transferred to the Department of Natural Resources.

FISCAL NOTE Revision Date , 1983

I. REQUEST

Bill/Resolution No.: HB110
Title: Avalanche and Fire Weather
Sponsor: M.M. Miller
Requestor: House State Affairs Ct.

II. FISCAL DETAIL

Agency Affected:
Program Category Affected:
BRU, Program of Subprogram(s) Affected:

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 83	FY 84	FY 85	FY 86	FY 87	FY 88
OPERATING						
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL		275.0	286.0	297.0	309.0	321.0
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC						
TOTAL OPERATING	0	275.0	286.0	297.0	309.0	321.0
CAPITAL	0	0	0	0	0	0
REVENUE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUND	0	275.0	286.0	297.0	309.0	321.0
FEDERAL FUNDS						
OTHER (Specify Source)						

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

III. SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

Would transfer existing program from Department of Public Safety to Department of Natural Resources.

IV. ANALYSIS: Attach a separate page for any Analysis

Prepared By: Ned Farquhar NF Phone: 465-2400
Division: Commissioner's Office Date: 17 May 1983
Approved by Commissioner: Date: 17 May 1983
Department: Natural Resources

Distribution:
Original to Legislative Finance
Copy to Office of Management and Budget (for Legislature introduced bills)
Copy to Department (for Governor introduced bills)
Copy to Sponsor
Copy to Requestor (if different from Sponsor)

3/8/8

NATIONAL SKI PATROL SYSTEM, INC.
Alaska Division

P.O. Box 432
Douglas, Alaska 99824

May 17, 1983

Mr. Chairman and Members of the
House State Affairs Committee:

My name is Bob Janes and I am testifying for the National Ski Patrol System in Alaska, in support of HB 110 which would amend certain portions of the Alaska Avalanche Warning System.

NSPS in Alaska is comprised of more than 350 registered patrollers who provide voluntary highly skilled services for the general safety and well being of the skiing public. This organization gave strong support toward establishing the existing system, which from the state participation standpoint, became a state law effective July 1, 1980.

We believe the proposed operational change for transferring responsibility for representing the state from the Department of Public Safety to another state agency with closer on-the-ground applications of the system would result in a more efficient operation.

We have just learned today that the Arctic Environmental Information and Data Center (AEIDC), University of Alaska, is interested in and willing to take on the lead responsibility role for the state. We also understand this is agreeable with the Department of Natural Resources.

The National Ski Patrol System in Alaska therefore urges passage of HB 110 as written, except for Sec 18.76.010 substitute the Arctic Environmental Information and Data Center, University of Alaska, for the Department of Natural Resources. This direction would be logical, since AEIDC currently supervises and directs the work of professional meteorologists operating from the Avalanche Forecast Center in Anchorage.

Thank you for your time. I would be pleased to answer any questions.

Bob Janes

Bob Janes
Legislative Advisor, NSPS Alaska Division

P.O. Box 432
Douglas, Alaska 99824

May 6, 1983

Representative Mitch Abood, Chairman
House State Affairs Committee
Alaska State Legislature
Pouch V (MS 3100)
Juneau, Alaska 99811

Representative Albert P. Adams, Chairman
House Finance Committee
Alaska State Legislature

Dear Representative _____

This letter is in support of the enclosed House Bill No. 110, sponsored and introduced in the present session on 1/24/83 by Representative Mike Miller. It has been referred to State Affairs and Finance, where it now sits.

This bill is an amendment to legislation passed in 1979 pertaining to an avalanche warning system for Alaska. It is primarily a housekeeping measure, with word changes that recognize the scientific forecasting value of the system rather than implying scare tactics through emphasizing warnings. However, should extreme avalanche danger develop, then of course appropriate warnings would be disseminated to the public. It also recognizes the associated value of the fire weather forecasting part of the overall system, and the nomenclature of the project therefore becomes the Alaska Avalanche and Fire Weather Forecasting System (AA/FWFS).

Probably the most significant change in the statute is a proposed shifting of responsibility from the Department of Public Safety to the Department of Natural Resources, in representing the state for operation of the system. Experience to date has shown this to be a more practical approach, since DNR now plays the major role in conducting the public education and prevention aspects of the program. Technical avalanche awareness workshops are offered throughout the state by DNR. In other words, DNR is closer to an on-the-ground application in a working mode than is DPS. By prior agreement between the two Departments, this change appeared to be needed. The change should therefore not meet with any opposition, from the standpoint of the Departments involved.

While employed by the U.S. Forest Service, I was personally helping to formulate the original legislation which was sponsored by Representative Mike Miller to get the system going on a statewide basis. Although I have recently retired from that agency, I still maintain a personal interest in the AA/FWFS for its most effective operation.

I urge you to schedule this bill on the calendar at the earliest possible time, to enable possible passage during the current session. In this way, DNR would be in a position to followup with regular program planning and a budgetary request for Fiscal Year 1985. DPS has already submitted a budget request for Fiscal Year 1984 which is presently under routine review. This bill therefore does not

involve any new fiscal impacts from the standpoint of any needed special supplemental appropriations.

Sincerely,

Robert C. Janes

Enclosure

cc: Reprentative Mike Miller
House State Affairs Committee

Representative Jim Duncan
House Finance Committee

Wallace Watts, USFS Anchorage
Program Director AA/FWFS

Gary Morrison, USFS Juneau
Division of Recreation

HB

120

To: Tony

From: Jim

Subject: Susitna Bills in Resources 4/6/83, HB 99 & 121

HB 99 appropriates 47 million for Susitna - it's Lacher's bill. The Gov has include $17.5 mil in his capital budget. This is the amount considered necessary for continuation of seeking FERC licensing. There is no real need for the full 47 million at this time.

HB 121 is for an advisory vote on whether to spend 2.3 billion for Susitna. We may question whether this would result in any meaningful response with out the full information of full costs of the project and extent of the benefits to be realized.

Attached are: 1) AEL position papers on Susitna and 2) Fisher's committee report on State Affairs hearings on Susitna.

Alaska Environmental Lobby, Inc.

419 6th Street, Suite 328 Juneau, Alaska 99801 907-586-2345

3 March 1983

TO: Resources Committee members
FROM: Jay Nelson, Executive Director, AEL
SUBJECT: Susitna

Enclosed is a critical analysis of three Susitna bills presently before the House Resources Committee. This paper was prepared by Mr. Eric Myers, Energy Specialist for the Northern Alaska Environmental Center, at my request.

I believe that the time for boosterism and wishful thinking are past. The legislature needs to critically examine the issue of how to best provide for the long term energy needs of the Railbelt. Steeply declining state revenues make it essential that we not risk our capital on projects with, at best, questionable economics.

I hope you and your staff will take the time to review this paper. Please contact our office if you have any further questions.

Thank you.

PROPOSED LEGISLATION: SUSITNA
HB 120, 121, 122
A REVIEW OF KEY ISSUES

ALASKA ENVIRONMENTAL LOBBY
419 6th Street, Suite 328
Juneau, Alaska 99801
586-2345

HB 120/ AUTHORIZATION AND APPROVAL OF THE SUSITNA FEASIBILITY STUDY AND APPROVAL OF THE PROPOSED "PLAN" OF FINANCE

Issue — Acceptability of the APA/Acres Feasibility Study

The Susitna Feasibility Study prepared for the APA by Acres American (March 1982), concluded that Susitna could offer the most attractive long term electrical energy source for the Railbelt but only on the basis of several very critical assumptions. Most importantly, these assumptions included: 1) high electrical demand growth (forecasts), 2) rapidly increasing oil prices, 3) outdated revenue projections/multi-billion dollar cash construction subsidies, and 4) tax exempt bond financing.

The Acres report included a "sensitivity analysis" which tested how critical certain assumptions were to the conclusion that Susitna was economically viable (Attachment A).

Since the time that the Acres study was prepared, fundamental changes in world economic circumstances has invalidated the conclusion that Susitna is the most attractive Railbelt alternative, at least until well into the next century.

Electrical Demand: The "need" for Susitna was predicated on a host of assumptions about future economic activity-population growth-employment-household formation, etc. which results in electrical demand. Assumptions included the ANGTS line, an ALPETCO-like refinery in Valdez, PacAlaska, and State spending trends as before the world oil market collapsed. In light of the changed circumstances, the most recent revised projections of Railbelt electrical demand for the year 2010 (Battelle, 1982) are close to half those used by Acres a couple of years back in its design development selection work which led to the choice of the Watana/Devil Canyon proposal currently under consideration (Attachments B and C).

The ISER (1980) projections used by Acres called for a Moderate (or "most likely") demand case of 8,940 Gwh per year in 2010 which compares to the more recent Battelle (1982) Moderate demand estimate of 4,986 Gwh/year in 2010. That is, the most recent demand projections for 2010 are only about 56% of those used by Acres to arrive at the conclusion that we "need" Susitna.

Another way of considering this question is in terms of capacity requirements: how many megawatts of additional capacity are needed to replace retired capacity over time and meet expected peak (highest) demand? Acres, in its design development and selection analysis, used the ISER (1980) projections calling for a Moderate case peak demand of 1,635 megawatts (MW); this contrasts with the more recent Battelle (1982) projection of peak demand projection of 1,003 MW. Approximately 577 MW of capacity would still be in place in the year 2010. The essential issue is how large a "capacity deficit" can

be expected and how much additional capacity is needed to meet the shortfall. Using the capacity retirement schedule developed by Acres and the most recent capacity requirement projections by Battelle (including a 30% reserve capacity margin) it is evident that the Railbelt will experience a capacity shortfall of about 200 MW in the year 2000 and about 727 MW by the year 2010. This contrasts with the Susitna project at a total of 1,620 MW (Watana at 1,020 and Devil Canyon at 600). A premature commitment to Susitna would result in massive amounts of excess, idle capacity as is the case with the Lake Tyee project (Attachment D).

Note that the Acres' "sensitivity analysis" (Attachment A) tested a "Low" demand case for 2010 as 6,300 Gwh. This supposed "Low" scenario — which renders the project marginal at best — is 26% higher than the more recent "Moderate" case and 64% higher than the revised Battelle "Low" for 2010 (3,844 Gwh).

Using Acres own analysis, the new demand projections would indicate that the project had negative net benefits (ie, was more costly than the alternatives).

Fuel Price Escalation Rate: Acres assumed that there would be constantly rising fuel prices through 2010 reflecting the constantly increasing cost of the world price of oil. The Acres projection called for real (adjusted for inflation) price increases of 2.6%/year to 2000 and 1.2%/year to 2010 (Attachment A). The "sensitivity analysis" shows that a 0% real rate of fuel price increase yields a negative net benefit in excess of $1 billion. The Alaska Department of Revenue projects a negative (declining) real price of oil throughout most of this decade and does not anticipate positive real price increases anywhere near as great as the Acres base case assumed.

Again, using Acres own analysis, it is apparent that the project would cost more than the alternatives.

Outdated Revenue Projections/ Multi-Billion Dollar Subsidies: The Energy Program for Alaska was conceived of in a time of upwardly spiraling revenues; before the collapse of the world oil market. Superabundent revenues are clearly no longer available (Attachment E) yet the financing scheme proposed by HB 121 presumes the availability of $2.3 billion in grants for the project in order to make the project's cost of power artificially competitive with the less expensive alternatives. Acres/APA acknowledges that Susitna power (at 30¢/kwh) will cost more than twice the alternatives (at 14.5¢/kwh) when/if it is brought on line as scheduled in 1993 (Attachment F). The alternatives will continue to be lower in cost until well into the next century.

Tax Exempt Financing: Acres assumed that the project could be built with tax exempt bonds. This assumption has been questioned by, among others, the APA's own bond counsel (Acres: Task 11/January 1983, pp. 11-13).

General Comment: It is especially noteworthy that the Alaska Power Authority Board of Directors never endorsed the conclusion that the Susitna project was the most attractive electrical alternative for

the Railbelt. At least until the APA Board formally adopts that position, it would be premature for the Legislature (with vastly less information and understanding) to do so.

The Feasibility Study should not be endorsed in the absence of such action on the part of the APA Board or without a formal reconsideration and economic reevaluation of the project in light of present economic realities.

Issue — Approval of the "Plan" of Finance

There is, in fact, no "plan" per se, but rather a vague set of options that have been proposed (Acres: Task 11/January 1983). These proposals call for multi-billion dollar grant subsidies with some sort of complimentary bonding — revenue bonds? G.O. bonds? "double barrel" bonds? There is no plan, just several nebulous scenarios.

What is being sought (in the form of approval of the so-called plan) is an open-ended commitment to multi-billion dollar subsidies. That's the plan.

The most basic issue raised by this aspect of the proposed legislation is: how does this finance "plan" approval relate to the other companion proposals: $2.3 billion subsidy grants (HB 121) and $5.4 billion "double barrel" bonding (HB 122)? What specifically is being contemplated?

General Comment: A proposed plan of finance should be very specific as to the marketing of power and power sales agreements. The object is, of course, to avoid a situation like Lake Tyee where we have a $120 million project and no takers ($82 million in State appropriations, $50 million in short term debt). The APA charged ahead with the 20 MW Tyee project without power sales agreements with Wrangell and Petersburg. Now nearly completed (with $10 million cost overrun), the two communities don't want the power because it would cost significantly more than oil-fired electricity (even with about 70% grant financing).

The "Plan" of Finance (Task 11) is very vague on the relationship of power sales agreements and State expenditures and bond financing. It is absolutely critical that this relationship be clear and explicit. Power sales contracts (take-or-pay) should be an absolute prerequisite to any State expenditures on the project.

HB 121/ CONSTITUTIONAL AMENDMENT AND $2.3 BILLION SUBSIDY FUND: ADVISORY VOTE

Issue — Constitutional Amendment

One can wonder whether the framers of the Constitution would approve of an amendment to the Constitution to secure a single capital project.

Issue — Advisory Vote/Costs and Public Education

It is estimated that a special statewide election would cost about $1 million.

It has been well documented that people generally don't have even a remote idea of what the project would actually cost. The recently released Dittman poll showed that while people were mostly supportive of the project, 53% didn't have any idea as to what the project would cost while 71% either didn't know or thought that it would cost less than $500 million. The acknowledged nominal (as spent) cost of the project is $10-15 billion excluding finance charges or the possibility of cost overruns. (A cost overrun the same size as experienced on the Tyee project — 9% — would amount to about $460 million).

Certainly any popular vote or advisory vote should be preceeded by an objective and impartial educational effort designed to inform people about the true costs of the project (Attachment E). If billions are to be allocated to Susitna, as proposed by HB 121, the decision should be carefully considered in light of the opportunity costs. Susitna subsidies threaten the loan programs, municipal revenue sharing, Permanent Fund dividends, education funding, property tax relief, and would likely force the return of the personal income tax. These are the true costs of Susitna that nobody is talking about.

HB 122/DOUBLE BARREL BONDING

Issue — Change in APA Statutes/Public Vote on Susitna Bonds

Current APA statutes (AS 44.83.130(b)) expressly disallows the APA from engaging the State's credit in its bonding efforts. HB 122 would empower the APA to put the "full faith, credit and resources" of the State behind $5.4 billion of revenue bonds making them virtually indistinguishable from general obligation (G.O.) bonds. (Revenue bonds backed up by the State's general obligation are "double barrel" bonds). The basic issue to be addressed is whether the Susitna project justifies exemption from the explicit blanket prohibition to engage the State's credit.

The fiscal implications of this matter are profound. If the APA were to be empowered, by a public vote, to issue "double barrel" bonds in the amount of $5.4 billion the entire credit of the State would be at risk. It is a near certainty that that the public has little understanding of the issue and could well, in complete innocence, give over this power to the APA on the basis of a shallow understanding based on the pro-Suitna propaganda campaign.

Giving the APA autonomy to put the State into significantly greater debt is inadvisable in light of the State's presently precarious

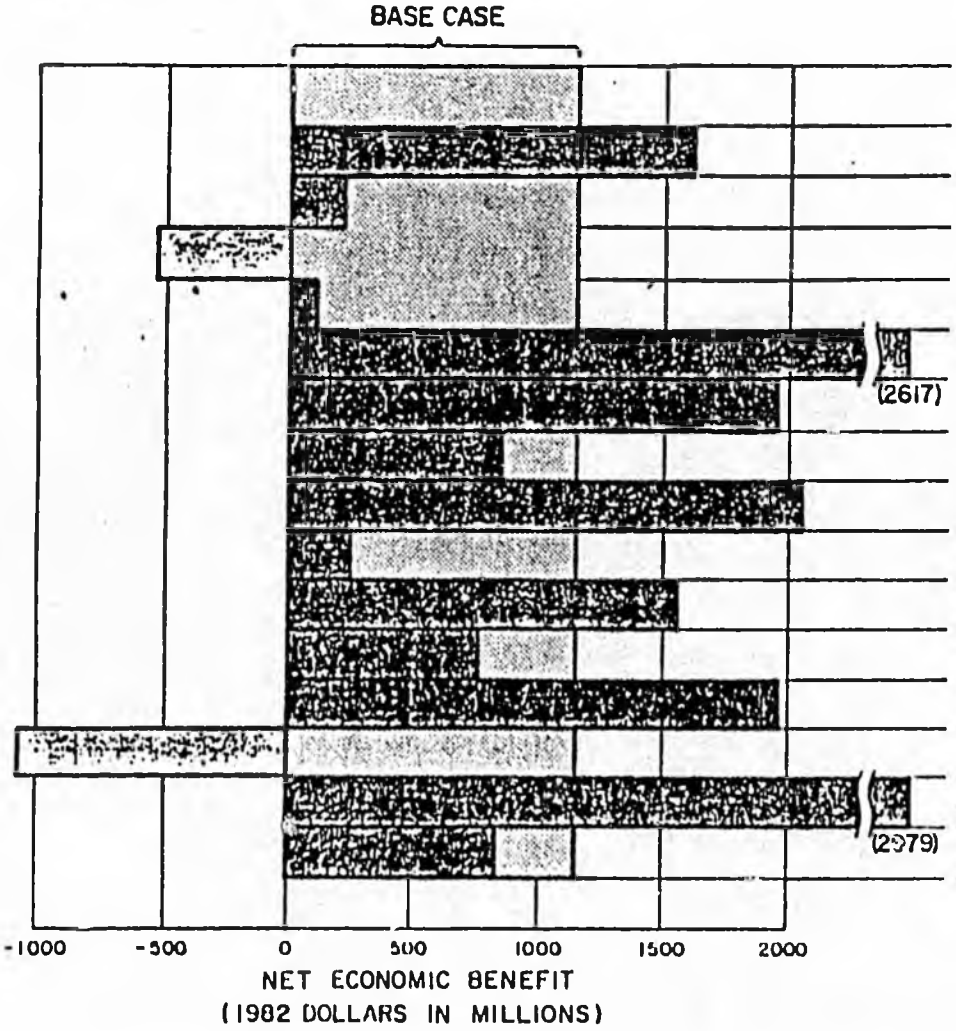
debt situation with what is perhaps the highest per capita debt for any state in the nation (Attachment G).

Again, if this measure is adopted there had better be some provision for a dispassioned educational effort in order to inform the public what the credit risks and opportunity costs are all about.

Moreover, the APA's own bond counsel has advised that if "a major portion of (Susitna's costs) were met from State G.O. Bonds, Alaska's present double A ratings would be endangered" (Acres: Task 11/January 1983, p.12). The bond counsel has also stated that the State can "only 'safely' issue about $565 million (nominal dollars, using 8% inflation) G.O. Bonds during the period fiscal 1983-1990."* Finally, the bond counsel recommends that "to the fullest extent possible" The APA should use revenue bonds secured by income derived from participating Railbelt Utilities pursuant to long term power sales contracts" (emphasis added).

---

* Using the December 1982/30th Percentile Department of Revenue forecasts.



ELEMENT TESTED	BASE CASE VALUE
HIGH LOAD FORECAST (11,400 GWH IN 2010)	7,800 GWH IN 2010
LOW LOAD FORECAST (6,300 GWH IN 2010)	7,800 GWH IN 2010
5 % REAL DISCOUNT RATE	3 %
4 % REAL DISCOUNT RATE	3 %
2 % REAL DISCOUNT RATE	3 %
HIGH CAPITAL COST FOR ALTERNATIVE (20 % ABOVE ESTIMATE)	BATTELLE ESTIMATE
LOW CAPITAL COST FOR ALTERNATIVE (10 % BELOW ESTIMATE)	BATTELLE ESTIMATE
LOW SUSITNA CAPITAL COSTS (83 % OF ESTIMATE)	PROJECT ESTIMATE
HIGH SUSITNA CAPITAL COSTS (117 % OF ESTIMATE)	PROJECT ESTIMATE
ZERO CAPITAL COST ESCALATION	1.8 % /ANNUM
HIGH CAPITAL COST ESCALATION (3.6 % /ANNUM)	1.8 % /ANNUM
HIGH BASE COAL PRICE ($ 2.08/MM BTU)	$ 1.43 / MM BTU
ZERO FUEL PRICE ESCALATION	2.6 % TO 2000 1.2 % TO 2010
HIGH FUEL PRICE ESCALATION (5 % TO 2000, 2.2 % TO 2010	2.6 % TO 2000 1.2 % TO 2010
CHAKACHAMNA ALTERNATIVE	ALL THERMAL PLAN

ATTACHMENT A

PLATE 24 | **SENSITIVITY ANALYSIS**

ATTACHMENT B

TABLE 5.6: ISER 1980 RAILBELT REGION LOAD AND ENERGY FORECASTS USED FOR GENERATION PLANNING STUDIES FOR DEVELOPMENT SELECTION[5]

	LOAD CASE											
	Low Plus Load Management and Conservation (LES-GL Adjusted)[1]			Low (LES-GL)[2]			Medium (MES-GM)[3]			High (MES-GH)[4]		
Year	MW	GWh	Load Factor	MW	GWh	Load Factor	MW	GWh	Load Factor	MW	GWh	Load Factor
1980	510	2790	62.5	510	2790	62.4	510	2790	62.4	510	2790	62.4
1985	560	3090	62.8	580	3160	62.4	650	3570	62.6	695	3860	63.4
1990	620	3430	63.2	640	3505	62.4	735	4030	62.6	920	5090	63.1
1995	685	3810	63.5	795	4350	62.3	945	5170	62.5	1295	7120	62.8
2000	755	4240	63.8	950	5210	62.3	1175	6430	62.4	1670	9170	62.6
2005	835	4690	64.1	1045	5700	62.2	1380	7530	62.3	2285	12540	62.6
2010	920	5200	64.4	1140	6220	62.2	1635	8940	62.4	2901	15930	62.7

Notes:

(1) LES-GL: Low economic growth/low government expenditure with load management and conservation.
(2) LES-GL: Low economic growth/low government expenditure.
(3) MES-GM: Medium economic growth/moderate government expenditure.
(4) MES-GH: High economic growth/high government expenditure.
(5) Excludes reserve requirements. Energy figures are for net generation.

Source: Acres (1982) Vol. 1 Section 5.

ATTACHMENT C

Revised Moderate and Low Case Electricity Forecasts, Railbelt

	Revised Annual Energy[a] (GWh)		Old Annual Energy (GWh)	
	Moderate	Low	Moderate	Low
1980	2551	2551	2551	2551
1985	3000	2560	3136	3028
1990	3391	3001	4256	3853
1995	3884	3164	4875	4063
2000	4010	3106	5033	3988
2005	4319	3332	5421	4278
2010	4986	3844	6258	4936

	Revised Peak Demand[b] (MW)		Old Peak Demand (MW)	
	Moderate	Low	Moderate	Low
1980	531	521	521	521
1985	615	525	643	621
1990	701	621	880	797
1995	791	652	993	837
2000	810	673	1017	815
2005	870	678	1092	870
2010	1003	780	1259	1001

(a) Revised downward based on low case annual consumption of 9.84 MWh per capita and moderate case annual consumption of 10.40 HWh per capita in the year 2000. See Appendix B, Tables B.3, B.4, B.12, and B.18. Other years consumption reduced proportionately. 1985 figures was adjusted upward judgmentally for moderate case; 1985-1995 adjusted upward for low case.
(b) Based on the ratio of peak demand to annual energy from Appendix B, Tables B.12 and B.18.

Source: Battelle NW (1982)

ATTACHMENT D

MODERATE DEMAND

PROJECTED ADDITIONAL CAPACITY NEEDS

FOR THE RAILBELT

(megawatts)

Year	Existing Installed Capacity [1]	Projected Peak Demand (w/ 30% RSRV) [2]	Required Additional Capacity
1985	1154 MW	690 MW	0 MW
1990	1242	911	0
1995	1095	1028	0
2000	853	1053	200
2005	610	1131	521
2010	577	1304	727

[1] Ebasco (1982): Assumes already planned additions of 158.4 MW of gas turbines in 1982 and Bradley Lake at 97 MW in 1988 with a capacity retirement schedule for existing plants from Acres (1981).

[2] Battelle (1982/revised): Moderate Growth Case with 30% reserve margin.

ATTACHMENT E

TABLE I
FUNDS AVAILABLE FOR CAPITAL PROJECTS UNDER CURRENT LAW
($ Millions)

FISCAL YEAR	(1) FUNDS AVAILABLE FOR CAPITAL PROJECTS: GENERAL FUND	(2) FUNDS AVAILABLE FOR CAPITAL PROJECTS: GO BONDS	(3) FUNDS AVAILABLE FOR CAPITAL PROJECTS: TOTAL	(4) SB 68* STATE FUNDING FOR SUSITNA	(5) OTHER APA CAPITAL PROJECTS	(6) TOTAL HYDRO PROJECTS	(7) LOAN PROGRAM APPROPRIATIONS	(8) GOVERNOR'S SIX YEAR CAPITAL BUDGET	(9) TOTAL CAPITAL PROJECTS
ACTUAL DOLLARS									
85	593.0	--	593.0	403.7	244.5	648.2	300.0	2035.0	2983.2
86	611.0	300.0	911.0	472.7	282.3	755.0	300.0	742.9	1797.9
87	447.0	90.0	537.0	479.7	125.8	605.5	300.0	961.2	1866.7
88	503.0	125.0	628.0	499.5	--	499.5	300.0	1066.2	1865.7
89	280.0	--	280.0	938.3	--	938.3	300.0	?	1238.3+
90	--	50.0	50.0	738.4	--	738.4	300.0	?	1038.4+
91	--	140.0	140.0	--	--	--	300.0	?	300.0+
92	--	--	--	--	--	--	300.0	?	300.0+
93	--	--	--	--	--	--	300.0	?	300.0+
Total	2434.0	705.0	3139.0	3532.3	652.6	4184.9	2700.0	4805.3	11690.2+
FY 84 DOLLARS									
85	554.0	--	554.0	364.5	228.5	593.0	280.0	1901.9	2774.9
86	534.0	262.0	796.0	398.9	246.6	645.5	262.0	648.9	1556.4
87	365.0	73.0	438.0	378.3	102.7	481.0	245.0	784.7	1510.7
88	384.0	95.0	479.0	368.2	--	368.2	229.0	813.4	1410.6
89	200.0	--	200.0	646.4	--	646.4	214.0	?	860.4+
90	--	33.0	33.0	475.4	--	475.4	200.0	?	675.4+
91	--	87.0	87.0	--	--	--	187.0	?	187.0+
92	--	--	--	--	--	--	175.0	?	175.0+
93	--	--	--	--	--	--	163.0	?	163.0+
Total	2037.0	550.0	2587.0	2631.7	577.8	3209.5	1955.0	4148.9	9313.4+

(Notes to Table I on next page.)

* SB 68 is identicle to HB 121

Source: Legislative Finance, "Funds Available for Capital Projects", prepared by Milt Barker for the Senate State Affairs Committee (21 February 1983).

ATTACHMENT F

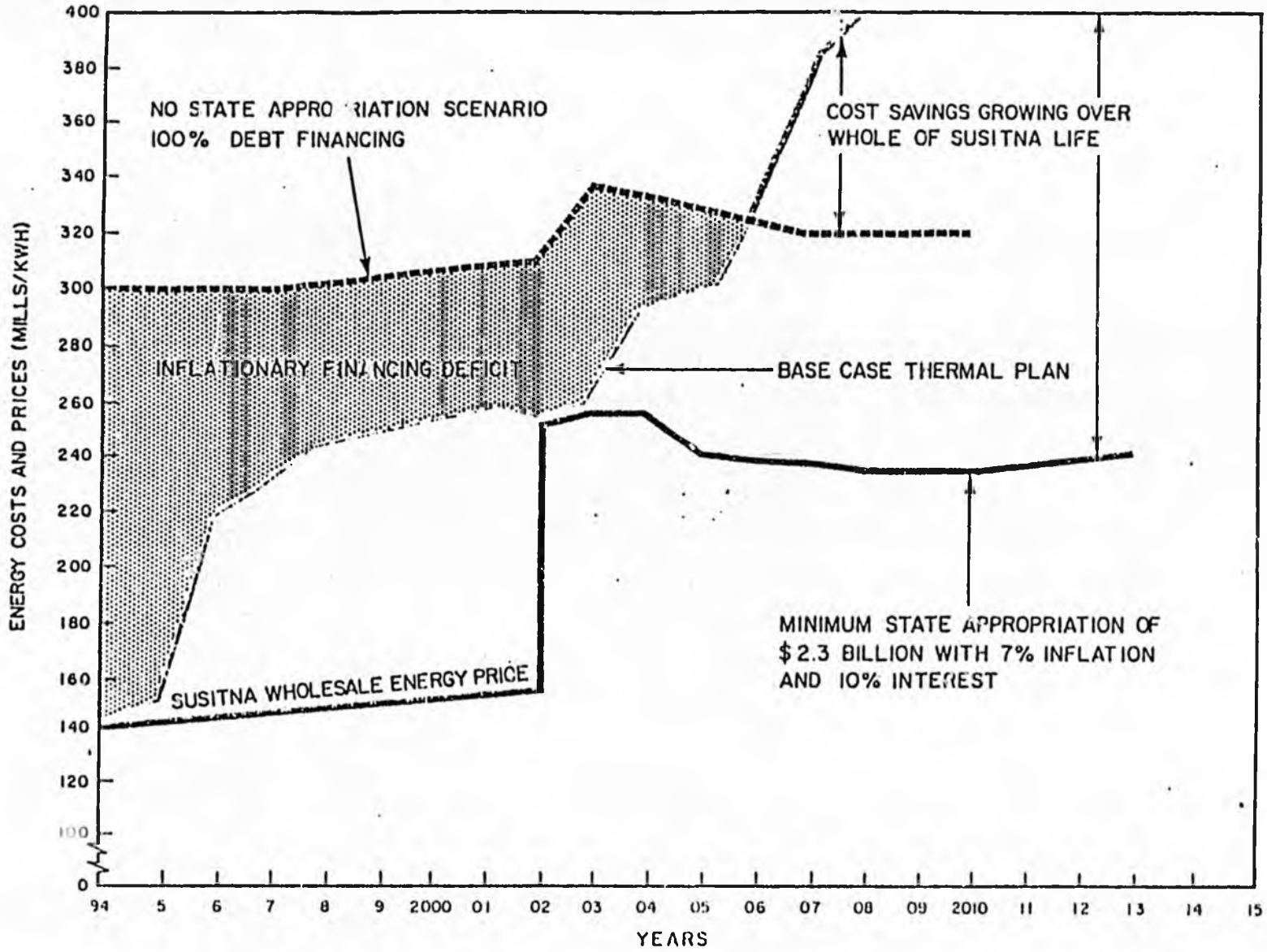


PLATE 26 | ANNUAL COST COMPARISION

ATTACHMENT G

SEATTLE BUSINESS JOURNAL February 7, 1983

STATE DEBT

State	Net Tax-Supported Debt (millions)	Per Capita	Western States	Per-Capita Debt
1. Alaska	$1,045	$2,610	Alaska	$2,610.43
2. Hawaii	1,424	1,476	Hawaii	1,476.49
3. Delaware	581	977	Washington	398.36
4. Connecticut	2,132	686	New Mexico	202.67
5. Maryland	2,851	676	Oregon	131.18
6. Massachusetts	3,355	567	California	108.79
7. New York	9,300	557	Utah	106.85
8. West Virginia	991	508	Montana	99.04
9. Louisiana	2,116	503	Idaho	21.90
10. Vermont	241	472	Arizona	19.60
11. Washington	1,645	398	Wyoming	7.07
(National median)		203	Colorado	0.28

(Information provided by Moody's Investors Service municipal department as of Feb. 28, 1982)

ALASKA STATE LEGISLATURE
SENATE STATE AFFAIRS COMMITTEE
SENATOR VIC FISCHER, CHAIRMAN
POUCH V, JUNEAU 99811
(907) 465-4954

March 25, 1983

TO: Senate State Affairs Committee Members
Senate President Jay Kerttula
Senator Bettye Fahrenkamp, Resources Chair
Senator Don Bennett, Finance Co-chair
Senator John Sackett, Finance Co-chair

FROM: Senator Vic Fischer, State Affairs Chair

RE: Committee Report on the Susitna Project

Attached is the committee report on the proposed Susitna project, based on the hearings held by the committee in late February and early March. A great deal of information was presented, and we have attempted to summarize and synthesize it into a readable document. The report also includes a list of the witnesses who testified, a copy of the letter I sent to the Governor on March 10 requesting the Administration's position on Susitna and answers to related questions, and the Governor's response of March 16.

Also provided here are minutes of the February 24, February 26, March 1, and March 3 committee meetings and transcripts of the testimony by witnesses Eileen Titmuss, Gregg Erickson, and Lee Gorsuch.

cc: All Senators
All Representatives

Note to recipients of the report only: Copies of the minutes and transcripts, as well as all documents referenced in the committee report and minutes, are available in my office.

ALASKA STATE LEGISLATURE
SENATE STATE AFFAIRS COMMITTEE
SENATOR VIC FISCHER, CHAIRMAN
POUCH V, JUNEAU 99811
(907) 465-4954

SENATE STATE AFFAIRS COMMITTEE

COMMITTEE REPORT

ON

THE SUSITNA PROJECT

SENATE BILLS 68, 69, 70, AND 71

MARCH 24, 1983

Senate State Affairs Committee
Committee Report -- the Susitna Project
Senate Bills 68, 69, 70, and 71

The Senate State Affairs Committee held four days of hearings on hydroelectric development and the proposed Susitna project. Testimony on three days was primarily from witnesses invited to address specific issues. In an all-day public hearing in Anchorage, the views of more than thirty members of the public were heard. The focus of the hearings was on economic and fiscal concerns within the province of the committee.

Summary of Principal Findings

1. Alaska's oil revenues have fallen below anticipated levels, making uncertain the state's ability to fund the Susitna project.

2. Falling oil prices have also affected the net benefits of the Susitna project, and the Acres determination that the project is economically feasible may no longer be supportable.

3. Other questions, including whether Susitna would be eligible for tax-exempt bonds, remain to be answered.

4. As the federal construction license is not expected before 1986, three years remain in which to reevaluate the project's economics and financing and to gather additional data before making a decision to construct.

5. Other APA hydro projects have experienced significant cost increases. Power projects in Washington State are facing default because of poor planning and management; this is expected to result in a tighter bond market for new projects like Susitna.

6. Power sales contracts are a prerequisite for the construction of Susitna. Utilities are reluctant to sign take-or-pay contracts until they have assurance that the price of this power will be competitive with alternatives.

7. The APA is continuing to assess Susitna and the alternatives, with a report expected in May.

8. The public, while supporting hydropower generally, is concerned about the the costs of Susitna power, both in power rates and in opportunity costs.

Bills Before the Committee

Of the bills currently before the committee, SB 68, SB 69, and SB 71 would authorize construction of Susitna and would approve a finance plan for the project consisting of a state appropriation of $2.3 billion in 1983 dollars to be dedicated through a constitutional amendment and revenue bonds of the APA backed by the general obligation of the state. SB 70, an alternative financing bill, would provide for power project funding through per capita "energy dividends."

Background of The Proposed Susitna Project

The Susitna project is a two-dam (Watana and Devil Canyon) hydroelectric project proposed by the Alaska Power Authority (APA) to provide power to the railbelt area. As planned, the Watana phase (1020 MW) would come on-line in 1993 and the Devil Canyon phase (600 MW) in 2002.

A 2½-year feasibility study was conducted by Acres American at a cost to the state of $41 million. A $1 million study of railbelt power alternatives was conducted concurrently for the Governor's office by Battelle.

The Acres study concluded that the project was technically viable, environmentally acceptable, and economically feasible. The determination of economic viability was based on a number of assumptions, many of which have changed since the completion of the study last year.

The APA Board of Directors, in making its recommendations to the State of Alaska last April, noted that while the project offers a potential for long-term benefits, realizing those benefits will depend on skillful management, proper timing, and assumptions about an uncertain future holding true. They concluded, "The Authority believes it is premature to make any commitment, at this time, to actual project construction."[1]

The capital costs of the project are estimated at $5.1 billion 1982 dollars or $12.5 billion nominal dollars at 7% inflation. Acres concluded that in order for power in the early years of the project to be priced competitively against thermal alternatives, a state appropriation of $2.3 billion (later revised to $1.8 billion) in 1982 dollars would be required.[2]

This appropriation, variously referred to as an equity investment, state financing, grant, or subsidy would not be repaid to the state's treasury; instead, benefits in terms of jobs, economic development, and state electric rates would be expected to accrue to Alaskans.

Last year, the legislature authorized work to be done on project design and a license application to be submitted to the Federal Energy Regulatory Commission (FERC), and appropriated $25.6 million. The engineering firm of Harza-Ebasco has been selected for the design work; the FERC application was filed on February 28.

Financing of Hydro Projects in Alaska

The Energy Program for Alaska (AS 44.83.400), adopted in 1981, provides that power projects developed by the Alaska Power Authority are to be funded largely through cash grants from the general fund, with supplemental funds coming from the sale of revenue bonds by APA. The stated purpose of this state participation in the funding of power projects was to convert a portion of Alaska's one-time oil wealth into a renewable resource with long-term benefits to Alaskans. In addition, state funding of such capital-intensive projects would help ensure that consumer costs in the projects' early years would be competitive with the costs from alternative (oil or gas) power sources.

The Energy Program for Alaska currently includes four major hydro projects that are either in operation or under construction. These are Solomon Gulch, Swan Lake, Tyee Lake, and Terror Lake. So far, $270 million has been appropriated by the Legislature for direct funding of these projects. In addition, the APA has borrowed in the form of short-term notes $200 million in interim financing to supplement the financing of these projects.[3] The next major projects anticipated to be added to the Energy Program for Alaska are Bradley Lake and Susitna.

A characteristic of the Energy Program for Alaska is that each project must pay a proportionate share of the combined outstanding debt. This means additional debt cannot be added to the system in a proportion higher than the existing ratio of debt to state funding without raising all rates throughout the system.

Under this system there must be sufficient state revenues available if hydroelectric projects are to be successfully financed in Alaska. As 88% of the state's income comes from oil revenues, the future of the state, and its hydro development plans, is inextricably tied to the price of oil on the world market.

Future State Oil Income

There is now great uncertainty concerning the direction in which oil prices, which have fallen significantly in the last year, are heading. While some analysts believe that prices will stabilize in the long-run and continue to escalate in real terms, others anticipate a serious drop in the short-term that will only very gradually return to price levels experienced during the last decade.[4]

To demonstrate the expected severe decline in state revenues, the Institute of Social and Economic Research compared their 1983 preliminary projections of petroleum revenues with projections they made just two years ago.[5]

For FY 84, their former projection of $5.6 billion (nominal dollars) compares to the new projection of $3.2 billion. For FY 93 (the year in which the Watana phase of Susitna could be expected to come on-line) the 1981 projection of $13.8 billion compares with a new projection of just $4.0 billion.

The Department of Revenue and the Legislative Finance Division have projected similar revenue declines.[6] Alaska's peak oil revenue year appears to have already passed.

Effect of Oil Prices on Susitna

Lower oil prices will affect the Susitna project in at least four major ways:

1) Lower state revenues may be insufficient to pay for Susitna.

Reduced state income may mean that there are insufficient state funds to pay for the state's portion of Susitna.

The Legislative Finance Division has compared projected revenues to funds available for capital projects and to funds needed for Susitna.[7] They identify just $2.4 billion in nominal dollars available for all capital projects between 1985 and 1993, under current law, after subtracting funds needed for the operating budget. This compares to the $3.5 billion alone that would be required for Susitna under SB 68 and to the $11.7 billion that has been identified for other planned capital projects. Even if the law were changed so that both permanent fund inflation-proofing and dividends were repealed, the analysis shows that there would still be a total of only $6.6 billion available for capital projects in the same time

period.

2) Less state spending and reduced economic activity decreases the demand for power.

Battelle, in revising its electricity forecasts for the railbelt last year, adjusted its forecasts downward to reflect this effect.[8] The previous peak demand projected for 1995, for example, was 993 MW in the moderate case; the revised peak demand is 791 MW for the same year.

3) Lower inflation rates may result in higher financing costs.

If interest rates remain high, the discount rate--the difference between inflation and interest rates-- will increase. Higher discount rates will result in higher real costs for bonds.

4) Thermal alternatives to Susitna will be cheaper than anticipated.

Less expensive thermal alternatives (oil, gas or coal) reduce the net economic benefits of Susitna. The financial feasibility of Susitna would also be affected, as more state funding would be required to assure the marketability of Susitna power. The House Research Agency has studied the effect of lower natural gas prices on Susitna feasibility.[9] The recent gas contracts signed by Enstar Natural Gas Company and the Department of Revenue's most-recent oil price escalation forecast were used as the basis for comparison with the Acres feasibility analysis. The conclusion was that if oil prices correspond closely to the Department of Revenue's forecast, the price of power from gas generation would be 38% less in 1994 than projected by Acres, and 50% less in 1996. This means that, in order for the price of power from Susitna to be at a marketable rate, an additional $600-700 million in state grant funds, above the $1.8 billion projected by Acres, would have to be appropriated to the project.

Key Feasibility Factors

The real discount rate and fuel price escalation are the key feasibility factors that must fall within defined limits for Susitna to be an economically feasible long-term source of railbelt power. Acres, in performing the feasibility analysis, made assumptions on future values of these factors based on the information available at the time of the study.[10] Acres performed a sensitivity analysis, that

showed the net economic effect of changes in these assumptions.

Acres assumed a base case discount rate of 3%, and the APA continues to assume that Susitna financing can be obtained at that rate. Acres concluded that Susitna was viable only with a discount rate of less than 4.2%. A discount rate of 5%, the sensitivity analysis showed, would result in a negative net benefit of over $500 million. The current discount rate, according to Data Resources Inc., is more than 6%.[11] Even that favorable rate assumes tax-exempt financing.

It is not clear whether Susitna bonds will be eligible for tax-exempt status. According to the APA, the IRS has indicated that the "two-county rule" would prohibit tax-exemption, unless power sale contracts were something other than take-or-pay. The APA has identified alternative methods of obtaining tax-exempt status, including granting the APA authority to retail power (by-passing the utilities) or restructuring the existing utilities.[12]

The fuel escalation rate assumed by Acres in its base case was 2.6% above inflation to 2000 and 1.2% to 2010. An escalation rate less than 1%, according to the APA, would result in negative net benefits. A zero percent escalation rate would result in a negative net benefit of over $1 billion.

Other critical factors in the feasibility analysis include load forecasts, capital costs and capital cost escalation, and base fuel costs.

There is now considerable uncertainty regarding oil and gas price trends. Other elements of the feasibility analysis are also in flux. The APA is currently reevaluating the assumptions for its Susitna update, which will be reviewed by the Office of Management and Budget. Much of this information can be fed into computer models, so that project feasibility may be continually monitored.

Susitna Financing Plan

The APA is required by statute to submit a finance plan for each proposed project. Acres has prepared a report for the APA, "Task 11: Financing Options," which is the first step towards a finance plan for Susitna.

The financing options suggested by Acres, and reviewed by the APA's financial advisors, involve state appropriations of between $1.4 and $1.8 billion (1982 dollars) between 1984 and 1989, with the balance of funding coming from revenue bonds. Two of the four options involve state appropriations guaranteed through a constitutional

amendment.

Among the recommendations of APA's financial advisors are that prior to major state expenditures or the sale of any bonds, participating utilities sign definitive contractual commitments, an updated economic and financial analysis of the project be completed, and the question of whether or not tax-exempt bonds can be sold be answered

The advisors stressed that bonding, to the greatest degree possible, should be with revenue bonds, backed by the moral obligation of the state, rather than relying upon general obligation (G.O.) bonds . They said that G.O. bonds would, in any case, be of limited usefulness, as they will be marketable only if their maturity dates fall within the state's short oil revenue curve, and the state can only incur an additional $565-$900 million in G.O. debt without negatively affecting its bond rating. The advisors also recommended that the state appropriation be made first, before any bonds are sold.

Cost History of Other Power Projects

The four hydro projects of the APA that are either in operation or under construction have experienced significant increases in construction cost estimates between the feasibility and actual construction stages. These have varied from 54% for Swan Lake to 218% for Tyee.[13]

The committee specifically reviewed the Tyee Project. Its wholesale power price, even with the state paying 70% of the capital costs, will be much higher than the cost of diesel power for Petersburg and Wrangell. Problems identified were major changes in project design, poor initial cost estimates, poor review of cost estimates, poor pricing analyses, hasty decisions made without the benefit of accurate data and analysis, overcapacity resulting in underutilization, and mid-project statutory changes.

In response to committee concerns, APA staff testified that they expect to gain better control of project costs in the future through more professional and complete engineering work, closer supervision by the APA, and a requirement for independent cost estimates.

Other lessons may be learned from the experiences of the Washington Public Power Supply System (WPPSS), as explained by Eileen Titmuss, a bond analyst for Drexel, Burnham, and Lambert in New York City.

In WPPSS, Washington created an agency to enter into long-term power sales contracts with utilities to build nuclear plants. The bond market believed that the projects were backed by the full faith and credit of the U.S.

Government, and the bonds found a generous market acceptance. In truth, the real security behind the bonds was the ability of the Bonneville Power Administration to raise rates. When costs of the nuclear plants rose and power demand proved to be less than had been projected, two of the five plants had to be mothballed and a substantial rate increase was proposed. Participating utilities balked at the increase, claiming they simply could not raise the required revenues, despite take-or-pay contracts.[14] This has resulted in a revenue shortfall that may soon force WPPSS into defaulting on these bonds.

The lessons of WPPSS that could be applied to Susitna include knowing true and full project costs, having realistic demand forecasts, requiring the utilities to participate in project investment, providing for rate-payer education and involvement, and close state monitoring of agency management and contracting.

The bond market, after WPPSS, is expected to be tighter because of competition for funds among other large-scale projects. In addition, bond purchasers can be expected to take a harder look at both the sanctity of power sales contracts and the economic assumptions underlying project feasibility analyses.

Power Sales Contracts

Power sales contracts help assure the marketability of a project's power. It is standard industry practice to obtain power sales contracts prior to beginning project construction.[15]

Until now, the APA has not followed this practice, and utilities have been under no obligation to purchase power from its completed projects. In the Ketchikan case, the power sale contract that was eventually signed allows the utility to cease purchasing Swan Lake power if it becomes higher priced than the diesel alternative.

The APA is currently in the process of developing a standard take-or-pay contract, requiring utilities to purchase the power regardless of its cost.

Utilities are understandably reluctant to sign such contracts if the price of project power may cost more than the alternatives. This problem has been most apparent in the case of Petersburg and Wrangell, where it appears that the power from Tyee Lake will cost significantly more than continuing to generate with diesel.

Utilities are also reluctant to sign take-or-pay contracts for power under the Energy Program for Alaska because of flaws in the legislation.[16] One concern is the

provision that if $5 billion is not appropriated for energy projects by 1986, all projects must pay a 10% return on state investment each year. Further, because of the "pooling" nature of the Energy Program for Alaska, utilities are responsible for paying a proportionate share of any new debt that enters the system and have no control over rate increases to meet that debt. This makes it impossible to predict rates or ensure price stability.

The APA has recommended, the Federal Energy Regulatory Commission will require, and the Governor has insisted that construction not begin on Susitna without first having rigorous power sales contracts in place. The utilities are reluctant to make commitments and have indicated that they will not do so until they have a better assurance that Susitna costs will be competitive with alternatives.

All major railbelt utilities were represented at the Anchorage hearing, and all testified that they must have more information about the level of state funding and the possible price of power before they will be willing to negotiate take-or-pay contracts.

Although the Alaska Public Utilities Commission has no jurisdiction over the APA, it does have authority to review the power supply contracts of regulated utilities to ensure reasonable consumer rates. It would likely become involved if the reasonableness of Susitna prices came into question.

Information and Work Schedule

APA's Susitna feasibility update will not be completed until mid-May, and will include, besides economic feasibility factors, information on alternatives including Cook Inlet gas, North Slope gas, coal, and Chakachamna hydro.

The Administration indicated that it will be prepared, also in May, when oil market fluctuations may have steadied, to discuss the state's ability to finance Susitna.

A license application was filed with FERC on February 28, 1983. FERC approval for construction is not expected until December 1986, although FERC hopes to expedite the approval process.

The APA Board of Directors, meeting March 14, altered their request for funding for the Susitna project from the $37 million recommended in the Governor's preliminary FY 84 capital budget to $22 million. This smaller amount of money will enable them to continue with the work required for FERC licensing, but will not provide for detailed design engineering. The reason given for the decision was to request funds only as needed; as FERC licensing is expected to take three years, it is not necessary to proceed with

detailed design work during FY 84.

The APA is also studying the possibility of lowering the height of the Watana Dam. Preliminary indications are that dropping the dam height by 85 feet could save 10% of the Watana construction costs for 12% less annual energy, while a drop of 185 feet could save 20% of the costs for 26% less energy. The intent of such a design change would be to enhance the financial viability of the project by requiring less appropriation of state funds. Although the project cost would decrease, the per unit cost of energy would increase.

Conclusions

The two major outstanding questions regarding the viability of the Susitna project concern its economic and financial feasibilities.

Economic feasibility relates to the project's net benefits, compared to the alternatives for providing electricity to the railbelt. The study completed by Acres in 1982 concluded that at that time the project appeared feasible. Since that time, a number of fundamental assumptions have changed and remain unsettled. An updated feasibility analysis is required to determine if Susitna remains the most economic choice.

This feasibility analysis must realistically consider the alternatives to Susitna. These include Cook Inlet gas, North Slope gas, coal, other hydro including Chakachamna, and conservation. Each of these alternatives has so far received far less consideration than the Susitna option.

Financial feasibility relates to whether, regardless of the project's economic feasibility, the project can be financed so that the price of power will be at a marketable rate. The Acres analysis showed that a state appropriation of at least $1.8 billion (in 1982 dollars) would be required to keep the price of power competitive. Unless Alaska is both willing and able to pay this price, the project will not be financially feasible, utilities will not contract to purchase Susitna power, and project bonds will not be marketable.

A workable finance plan for Susitna needs to answer at least three questions:

(1) How much does the state need to appropriate to Susitna to assure that its power will be initially priced no higher than the alternatives?

(2) Will state revenues be sufficient to make such an appropriation without negatively impacting other state needs?

(3) Can a mechanism be developed that

would either guarantee the availability of the necessary funds or provide for the accumulation of all necessary funds prior to bonding and construction?

The finance plan proposed in the legislation before the committee does not answer these questions. The state revenues available for Susitna have not been determined, the tax-exempt status of Susitna revenue bonds is uncertain, the degree to which the state can safely obligate to back the revenue bonds is unknown, and other elements of a successful finance plan are absent. Accordingly, the basis for acting on the bills is not currently available.

A public vote would be desirable to assure public acceptance of both project subsidies and future power rates. Such a vote requires a realistic and workable finance plan, and a question for the voters with specific information as to total project costs and levels of state funding.

The FERC license for Susitna is not expected before late 1986, so a construction decision is not required at this time.

NOTES

1. Letter from Charles Conway to Governor Hammond, April 26, 1982.

2. A distinction is made between economic feasibility and financial feasibility. Economic feasibility relates to whether a project is the lowest-cost option in the long-run. Financial feasibility relates to the ability to finance a project in such a manner that the price of power is competitive with alternatives. A project might thus be economically feasible without being financially feasible.

3. The interim financing is divided between Tyee Lake ($50 million), Swan Lake ($35 million), and Terror Lake ($115 million).

4. Recent forecasts are noted in "Alaska Energy Planning Studies," by Arlon Tussing and Gregg Erickson, Nov. 1982. The authors note that, while the government agency forecasters referenced by Acres project increases in real oil prices, recent internal forecasts by petroleum producers assume real declines through 1985 and a long-term trend between a level nominal-dollar and a level constant-dollar trajectory. The significance of varying forecasts is not whether one may be more reliable than another but that there is neither consensus nor certainty.

5. "Comparison of ISER MAP Model Projections Prepared in 1981 for Battelle Railbelt Study and Preliminary Projections Prepared in 1983," prepared for the Alaska Senate State Affairs Committee by Scott Goldsmith and Gunnar Knapp, Feb. 1983

6. All revenue projections are simply projections, and actual revenues could vary widely. The Department of Revenue currently bases its projections on the 30th percentile of probability, which means that there is a 70% chance that revenues might be higher than projected. With the recent drop in OPEC prices, however, the 30th percentile projections are considered most likely.

7. "Funds available for Capital Projects," memo to Senator Vic Fischer from Milt Barker, Fiscal Analyst, Feb. 21, 1983

8. "Railbelt Electric Power Alternatives Study," Battelle, Volume 1, Dec. 1982, p. xv

9. "Comparison of Susitna and Natural Gas Power Costs," memo to Rep. Hugh Malone from Jack Kreinheder, Research Staff, March 3, 1983

10. Plate 24, "Sensitivity Analysis," Acres summary report, 1982

11. Data Resources U.S. Review, Feb. 1983

12. APA Susitna "Checklist," Table 1, transmitted to Governor Sheffield Jan, 17, 1983

13. "Cost History of APA Hydro Projects", Chart 5 accompanying transcript of testimony by Gregg Erickson before the Senate State Affairs Committee, March 1, 1983

14. In Oregon, the courts have ruled that contracts binding municipal utilities to WPPSS debts are illegal. At question is whether the utilities had the right to make such commitments without a vote of the ratepayers.

15. Letter to Charles Conway from Eric Yould, October 11, 1982

16. "Marketing of Project Power Under the Energy Program for Alaska," memo from Myles Yerkes to Eric Yould, Dec. 28, 1982

WITNESSES WHO TESTIFIED BEFORE THE COMMITTEE

WITNESS	AFFILIATION
Governor Sheffield	Administration
Eric Yould	APA
Ray Benish	APA
William Wakefield	FERC
Tom Singer	Erickson & Associates
Ernie Haugen	Thomas Bay Power Commission
Richard Underkoffler	City of Petersberg
Kenneth Mason	City of Wrangell
George Matz	OMB
Ernie Mueller	Environmental Services, Limited
Kent Wick	Homer Electric Association
Bob Mellin	Self
Mike Kelly	Golden Valley Electric Association
Jeff Bohman	Self
Harold Pomeroy	Self
Jeff Eustis	Self
Bob Penney	State Chamber of Commerce
Mano Frey	Laborers' Union Local 341
Joseph Henri	Resource Development Council
Jim Ayres	Self
Paul Lowe	Self
Larry Underwood	Self
Wayne Beckwith	Anchorage Chamber of Commerce
Budd Goodyear	Matanuska Electric Association
Tom Stahr	Municipal Light and Power
Lee Woreham	Susitna Power Now
Liz Gilbert	Chugach Electric Association
Sharon O'Dell	Self
Nancy Lee	Self
Mary Pat Haberle	Self
Keith Treseder	Self
Victor Mittasch	Self
Judy Zimicki	Northern Alaska Environmental Center
Jim Sykes	Self
George Skladal	Self
Doug Stark	Self
Ron Kuzek	Self
Mark Beltz	Self
Bill Holton	Self
Brian Boyd	Self
Earl Finkler	CSM

Chuck Konigsburg	Self
Lisa Moorehead	Self
George Rogers	Self
Don Grimes	First Southwest
Steve McAleer	First Boston
Sterling Gallagher	John Nuveen
Tony Merritt	Acres American
Gervin Wernock	Acres American
Eileen Titmuss	Drexel Burnham Lambert
Greg[illegible] Erickson	Erickson and Associates
Lee Gorsuch	ISER
Milt Barker	Legislative Finance Division
Robert Heath	Department of Revenue
Harrison Call	RMI Pacific Northwest
Carolyn Guess	APUC
Dick Emmerman	OMB
David Rogers	Senate Advisory Council
Al Carson	DNR
Dennis Kelso	ADFG

ALASKA STATE LEGISLATURE
SENATE STATE AFFAIRS COMMITTEE
SENATOR VIC FISCHER, CHAIRMAN
POUCH V, JUNEAU 99811
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March 10, 1983

Honorable Bill Sheffield
Office of the Governor
Pouch A
Juneau, Alaska 99811

Dear Governor Sheffield:

The Senate State Affairs Committee has completed extensive hearings on the proposed Susitna hydroelectric project. We appreciated your taking the time to share your thoughts on this project with us.

The inescapable conclusion of the hearings is that the precipitous drop in oil prices has substantially altered the economic foundations of the Susitna project. Unless an immediate and thorough re-evaluation is made, and new answers provided, Susitna may well change from its desired goal of being the high benefit keystone to future state development into an uneconomic white elephant with an appetite for state funds capable of destroying Alaska's economy for years to come.

It has become clear that action by you and your administration is critical before the project can move ahead, and before we will be in position to act knowledgeably on legislation pending before the Senate State Affairs Committee (SB 68, 69, 70, and 71). We trust that you will cooperate in providing the necessary information and answers.

A summary of the extensive information and analytical work presented at the hearings will be completed next week and will be presented with the meeting minutes and edited transcripts. The purpose of this letter is to share with you, immediately, some of the questions that have been raised so that they may begin to get the attention that they require.

Though most people favor hydroelectric power and Susitna, the crucial question now facing Alaska is, simply, how and whether the state can pay for the project. The economic and financial picture was

quite different a few years ago, when oil revenues were piling up and it appeared that we would have billions of dollars in "surplus" revenues to spend on Susitna. If we are to proceed, we must find new ways of financing the project that will not undermine the fiscal structure of the state.

The committee was told that falling oil prices will affect the Susitna project in four ways:

*First, state revenues will be lower, and the funds simply will not be available to appropriate the state's "equity" portion without sacrificing other needs. As Lee Gorsuch, of the Institute of Social and Economic Research, testified, it now looks as though our peak revenue year may well be past.

*Second, lower state revenues will result in less economic activity within the state, which will reduce the future demand for the project's power.

*Third, lower oil prices and reduced economic activity should result in a lower inflation rate, which may raise the real cost of project financing.

*Fourth, lower prices mean that the cost of the thermal alternatives to Susitna will be less.

To elaborate on the last point, a recent memo by the House Research Agency indicates that with lower than expected gas prices (as evidenced by the recent Enstar contracts) the Susitna project would need subsidies of an additional $600-700 million in state appropriations, above the minimum$1.8 billion projected by Acres, as necessary to simply make Susitna power marketable relative to the alternatives.

Given the projected revenue situation, an awareness seems to be emerging that the factors that made Susitna an economically positive project just a short time ago may no longer be present. These factors must be continually monitored from this time forward so that when the time is right, we will be in a position to go forward with Susitna. Some of these factors, as identified by OMB, are:

--load forecasts
--fuel prices
--capital costs
--the discount rate

All of these factors are now different from the assumptions made by Acres in evaluating Susitna eighteen months ago, and are still changing.

At this stage, we have identified some of the key issues and questions that now need to be addressed in order to proceed with decisions on Susitna. We need your help to deal with them.

1. FINANCING

The basic question is: is there, can there be, a workable

finance plan for Susitna? So far, the Alaska Power Authority has not presented a finance plan, only a list of possible options. APA has suggested that only a dedicated revenue stream of $1.8 billion ($1982) would satisfy the need for a cash contribution by the state, with revenue bonds to supplement the financing. Analysis by the Legislative Finance Division, however, has found that such a dedicated stream would leave no money for any other capital projects in the whole state. Commissioner Heath has indicated that the administration is "very nervous" about Susitna financing, but is not prepared to comment more specifically on a finance plan until some of the uncertainties in the oil market are resolved. I believe we will have no progress on Susitna until a realistic financing plan is in place, one that can be approved by all parties.

What are Administration plans with respect to Susitna financing?

Is a financing plan being prepared?

When can the legislature expect a bona fide proposal from the administration for financing Susitna?

What is the Administration position on the financing bills pending before the Senate State Affairs Committee?

SB 68 -- advisory vote on financing Susitna
SB 70 -- Alaska Energy Dividend Fund
SB 71 -- bonding for Susitna

2. UPDATING ASSUMPTIONS

Which of the Susitna study and feasibility assumptions need to be updated, and how shall the updates be incorporated into the project's evaluation?

Who will be responsible for what data, and how will it all be tracked?

When will an authoritative re-assessment be available?

Many of the factors in question were identified during our hearings. They include the forecasted demand, fuel prices and price escalation, capital costs, and the bond discount rate. The APA is responsible for the update, but they have indicated that it will not be completed until May. Even then, these factors will still be subject to considerable uncertainty.

3. DECISION TIMING

You and others testified to the necessity to meet various criteria before a decision can be made to go ahead with Susitna.

The FERC representative, William Wakefield, testified that FERC approval is not likely before December, 1986, maybe not until 1987.

How far shall we go and what shall we do with Susitna before we are sure that it is both feasible and financable?

What is the Administration position on SB 69, which would authorize first phase construction of Susitna?

What schedules do you anticipate for provision of neces-

sary answers?

APA staff testified that a smaller Watana Dam is under consideration. They also indicated the possibility of a different, single dam on the Susitna River in lieu of the two-dam configuration; it would be designed for smaller load demands and would cost less. At the same time, site specific design and engineering are being considered and appropriations have been requested to pursue plans previously prepared.

What timing and effort is considered appropriate for further preparatory work pending FERC approval? What further action will be required in pursuit of FERC application action? What costs are entailed in what activities in FY 84, 85, and 86? In other words, how much money is required, and when, to keep the Susitna project viable during the FERC application and re-evaluation periods?

4. RELATIONSHIP TO BRADLEY LAKE

APA staff testified that Bradley, in order to compete with gas, would require a cash contribution of 50-75% of the project cost which is estimated at a total of about $400 million.

How does Susitna fit with the need for and financing of other planned hydro projects, specifically Bradley Lake?

How and when shall we proceed with Bradley? Shall it be the 135 MW size or the 60-90 MW size? Such decisions are clearly intertwined with a decision on the timing of Susitna, and they need to be addressed in that context.

In addition, is it wise to begin funding this smaller but still expensive dam incrementally, without considering where the full funding will come from and whether we can afford it either with or without Susitna?

5. ALTERNATIVES

Serious questions have been raised about the extent to which alternatives to Susitna hydro have been adequately examined. This matter becomes particularly important if Susitna decisions are deferred due to financing, marketability, or other problems.

It has been very difficult in the past to evaluate alternatives--gas, coal, other hydro--because they have not enjoyed the same degree of financial support as Susitna. Although many studies have been completed, the focus has not always been clear. For example, of the two recent studies concerned with using North Slope gas for electrical generation, one (Ebasco) is principally a hardware study, and the other (Booz-Allen) basically avoided the option because Ebasco had already looked at it. The representative from Booz-Allen, when asked to compare the gas option to Susitna, commented that the way to decide on how to meet railbelt electrical needs was to identify the need and then look at all the options, not to identify a source and then show how it could serve the need.

It was also suggested that we let the marketplace [illegible] the

choosing, and then decide whether to subsidize the capital costs of that choice.

In any case, in order to be prepared, additional consideration of the short-term and long range alternatives to Susitna appear to be called for.

How can we best continue to evaluate alternatives? Who should do that?

Are there technologically "clean" ways of using coal for power generation? Could such use facilitate development of coal resources for export and other economic development? Would state subsidies be required to make that feasible? How much money would be required to adequately study coal potentials?

How can we best determine what the realistic prospects are for use of gas to meet future power demand? What effect would state equity or subsidies akin to Susitna have on future gas and power cost?

Chakachamna and other hydro?

The Department of Commerce and Economic Development (DCED) has documented significant savings, even in Anchorage, through residential energy conservation. In other parts of the country, utilities have found that it's usually more cost effective to invest in conservation than in new generating facilities. Even though conservation will not by itself solve future power requirements problems, its potential for energy and cost savings is enormous.

What role can and should conservation play in decreasing the need for additional power for the railbelt?

How do the benefits of other alternatives, including subsidized power costs, compare with the benefits of energy conservation?

There are many other questions that need to be answered in the near future, including: tax-exempt bonding, land ownership, fisheries mitigation, and power sales contracts. The ones I noted above seem, based on the committee hearings, to be those that are the most basic and urgent at this time.

The above questions are, of course, difficult to answer. But they must be confronted in light of the fiscal realities now faced by the Susitna Project. As the issues before us are of such importance that they must be addressed at the highest level, I look forward to your Administration taking the lead in seeking answers to all the many questions and establishing a policy course for Alaska's energy future.

It is clear from the information we obtained in the hearings that legislative actions on Susitna will be stymied unless we receive

critical financial and other information from your administration. Your cooperation in this will be greatly appreciated.

Sincerely,

Senator Vic Fischer

cc: Commissioner Dick Lyon
Commissioner Esther Wunnike
Commissioner Dan Casey
Peter McDowell, OMB
Charles Conway
John Schaeffer
Robert Huffman

BILL SHEFFIELD
GOVERNOR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

March 16, 1983

The Honorable Vic Fischer
Senator
Alaska State Legislature
Pouch V
Juneau, AK 99811

Dear Senator Fischer:

This will acknowledge receipt of your letter of March 10, sharing with me the questions raised during the extensive hearing held by the Senate State Affairs Committee on the proposed Susitna hydroelectric project.

A copy of your list of questions has been sent to the Commissioner of the Department of Commerce and Economic Development, Dick Lyon. I have asked him to personally coordinate the Administration's response to these questions and to assist you further, if necessary.

I look forward to receiving a summary of the hearings when it is completed.

Sincerely,

Bill Sheffield
Governor

JAY S. HAMMOND, GOVERNOR

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF GEOLOGICAL & GEOPHYSICAL SURVEYS

Pouch 7-028
Anchorage, Alaska 99510
274-9681

February 1, 1983

Mr. Eric P. Yould
Executive Director
Alaska Power Authority
334 West 5th Avenue
Anchorage, Alaska 99501

Dear ~~Mr. Yould~~ Eric:

The Division of Geological and Geophysical Surveys, Department of Natural Resources has just completed a preliminary appraisal of the undiscovered oil and gas resource potential of the Cook Inlet Basin. The area assessed is outlined in Attachment "A". Attachment "B" presents the resource distributions for oil, gas and their sum, barrels of oil equivalent (BOE), in place. That is, these "in place" distributions reflect total quantities of fluids trapped in reservoir rock; no adjustment is made to account for any economic considerations such as what proportion of in place resources in a reservoir are actually recoverable.

However, in response to your request, in the November 5, 1982 letter to Commissioner Katz, for estimates of "economically recoverable" resources we have developed a method for adjusting the in place resource distributions to approximate what proportion might be economically recoverable. This approximation method applys two assumptions regarding what proportion of the resources in a reservoir would actually be recovered and what size a reservoir would have to be to be commercial. By assumption we have used recovery factors of 0.5 for oil and 0.9 for gas and minimum commercial deposit sizes of 50 million bbl. for oil and 200 billion cubic feet for gas. Based on these assumptions Attachment "C" presents our preliminary estimate of the undiscovered but economically recoverable oil and gas resources in the Cook Inlet Basin. Summarizing Attachment "C", the expected (average) amount of undiscovered but economically recoverable natural gas remaining in the Cook Inlet Basin is two trillion cubic feet, with a 5 percent chance that it could be as much as five trillion cubic feet.

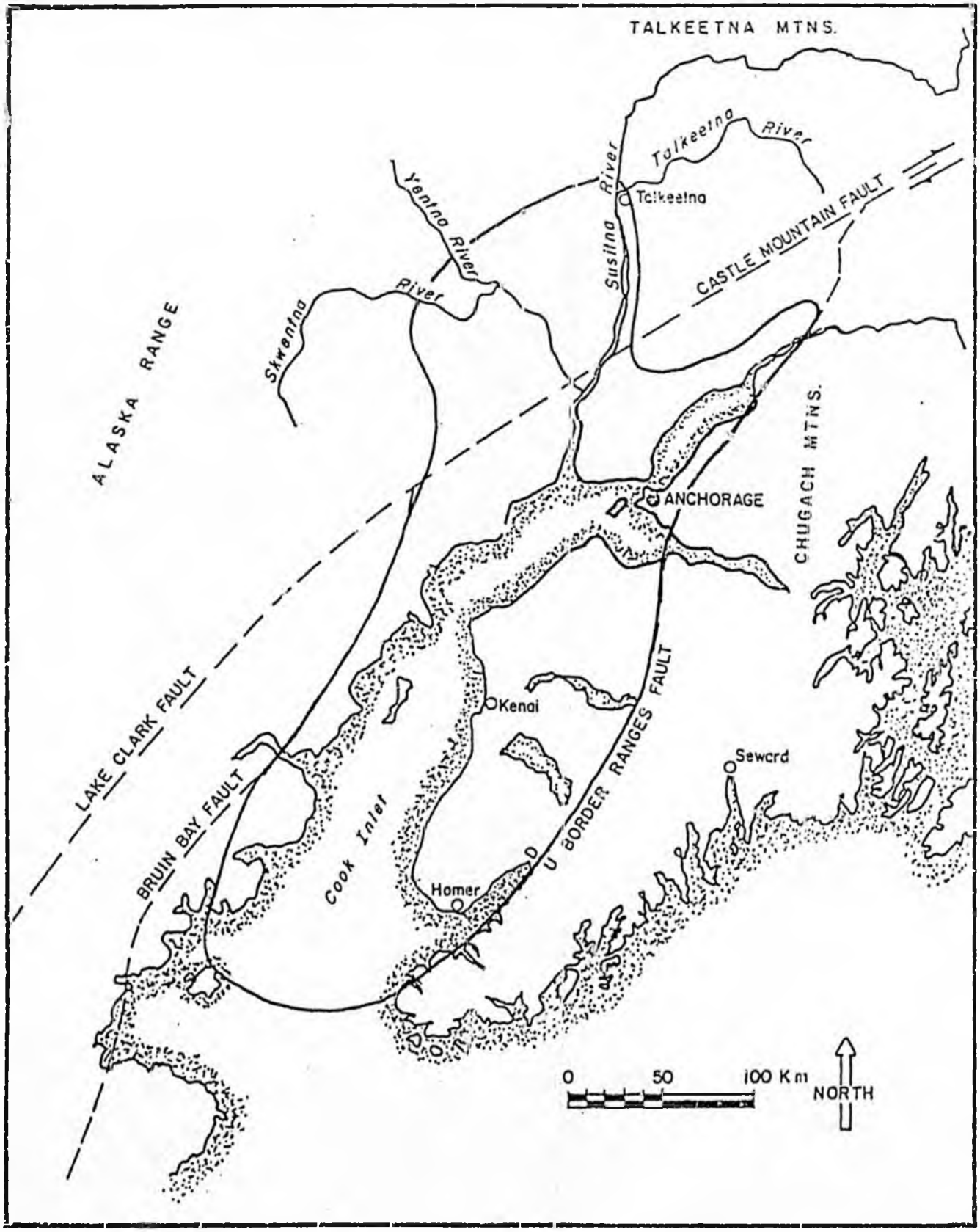
A full report on these assessments is in preparation and will be published as a DGGS Oper File Report in the near future. Should you have any questions regarding these preliminary assessments please contact Rex White of my staff.

Cordially yours,

Ross G. Schaff
State Geologist

cc: Commissioner Wunnicke, DNR

RGS/plc


TALKEETNA MTNS.
Talkeetna River
Susitna River
Talkeetna
CASTLE MOUNTAIN FAULT
Yentna River
Skwentna River
ALASKA RANGE
CHUGACH MTNS.
ANCHORAGE
LAKE CLARK FAULT
BRUIN BAY FAULT
Kenai
Cook Inlet
BORDER RANGES FAULT
Seward
Homer
0
50
100 Km
NORTH

PRELIMINARY ESTIMATES OF UNDISCOVERED OIL AND GAS RESOURCES IN PLACE FOR THE COOK INLET BASIN

Division of Geological and Geophysical Surveys
Department of Natural Resources
State of Alaska
January 28, 1982

RESOURCES IN PLACE[a] (barrels of oil equivalent)		DEPOSIT SIZE[b]		OIL IN PLACE		GAS IN PLACE[a]	
Probability that quantity is at least the given value (%)	Billions of barrels of oil equivalent	Conditional probability that size is at least the given value (%)	Billions of Cubic Feet	Probability that quanity is at least the given value (%)	Billions of barrels	Probability that quanity is at least the given value (%)	Trillions of cubic feet
99	.13	99	1.5	99	.00	99	.47
95	.28	95	5.2	95	.00	95	.93
90	.38	90	9.6	90	.03	90	1.24
75	.61	75	26.8	75	.13	75	1.98
50	.96	50	76.0	50	.36	50	3.07
25	1.43	25	203.3	25	.73	25	4.38
10	2.02	10	475.2	10	1.20	10	5.84
5	2.49	5	761.7	5	1.62	5	6.93
1	3.76	1	1688.2	1	2.72	1	9.06
Average BOE	1.12	Average Deposit Size	191.6	Average Oil	0.53	Average Gas	3.36

[a]Because the distribution of each resource is estimated indepenaently, "Gas in Place" after conversion to barrels of oil equivalent, cannot be added to "Oil in Place" to get "Resources in Place (barrels of oil equivalent)" at any probability level except at the expected value (average).

[b]Conditional upon the existence of oil and gas deposits in the Cook Inlet Basin, this column presents the estimated distribution of deposit size measured in cubic feet of gas.

ATTACHMENT C

PRELIMINARY ESTIMATES OF UNDISCOVERED OIL AND GAS ECONOMICALLY RECOVERABLE RESOURCES

FOR THE COOK INLET BASIN

Division of Geological and Geophysical Surveys
Department of Natural Resources
State of Alaska
January 28, 1983

ECONOMICALLY RECOVERABLE RESOURCES[a] (barrels of oil equivalent)		DEPOSIT SIZE[b]		ECONOMICALY RECOVERABLE OIL		ECONOMICALLY RECOVERABLE GAS[a]	
Probability that quantity is at least the given value (%)	Billions of barrels of oil equivalent	Conditional probability that size is at least the given value (%)	Billions of Cubic Feet	Probability that quanity is at least the given value (%)	Billions of barrels	Probability that quanity is at least the given value (%)	Trillions of cubic feet
99	.00	99	202	99	.00	99	.00
95	.09	95	211	95	.00	95	.22
90	.15	90	223	90	.00	90	.43
75	.28	75	266	75	.00	75	.93
50	.50	50	373	50	.14	50	1.76
25	.78	25	597	25	.32	25	2.78
10	1.12	10	993	10	.55	10	4.04
5	1.39	5	1358	5	.78	5	4.90
1	2.01	1	2353	1	1.31	1	6.83
Average BOE	0.58	Average Deposit Size	525	Average Oil	0.22	Average Gas	2.04

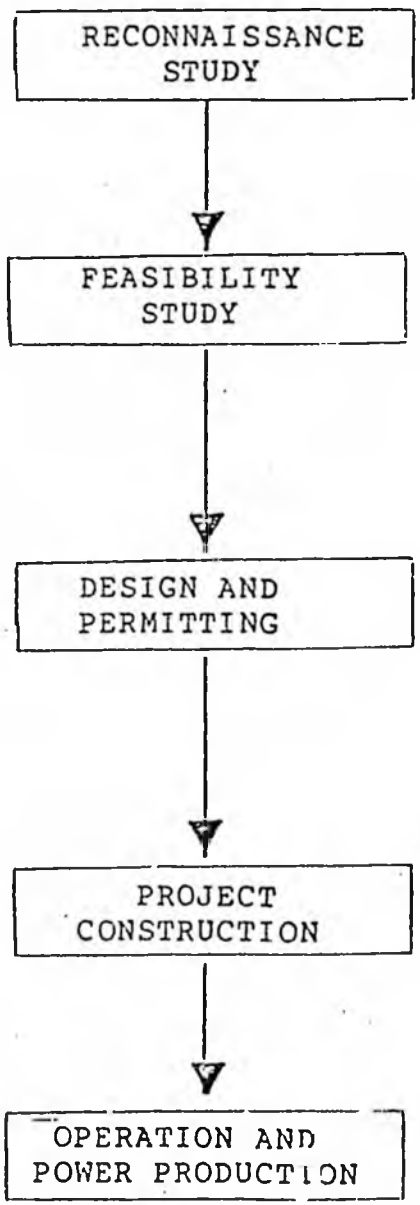
[a]Because the distribution of each resource is estimated independently, "Economically Recoverable Gas" after conversion to barrel of oil equivalent, cannot be added to "Economically Recoverable Oil" to get "Economically Recoverable Resources" (barrels of oil equivalent)" at any probability level except at the expected value (average).

[b]Conditional upon the existence of oil and gas deposits in the Cook Inlet Basin region, this column presents the estimated distribution of deposit size measured in cubic feet of economically recoverable gas.

S U S I T N A P R O J E C T S T A T U S R E P O R T

F E B R U A R Y 1 9 8 3

FIVE STAGES OF PROJECT DEVELOPMENT



PRELIMINARY ANALYSIS.
NARROW RANGE OF OPTIONS

DETAILED ALTERNATIVES COMPARISON.
FEASIBILITY LEVEL COST ESTIMATE.
INDEPENDENT COST ESTIMATE.
FINANCE OPTIONS.

FINAL COST ESTIMATE.
CONSTRUCTION DECISION.
FINAL FINANCE PLAN.
POWER SALES AGREEMENTS.

OPERATION AND MAINTENANCE AGREEMENTS.

THE SUSITNA PROJECT

	WATANA	DEVIL CANYON
DAM TYPE	ZONED EARTHFILL	CONCRETE ARCH
DAM HEIGHT	885 FEET	645 FEET
RESERVOIR LENGTH	48 MILES	26 MILES
INSTALLED CAPACITY	1,020 MW	600 MW
AVERAGE ANNUAL ENERGY	3,460 GWH	3,340 GWH
TRANSMISSION SYSTEM	345 KV	345 KV
COST ($ 1982)	3.58 BILLION	1.57 BILLION
COST (@ 6% INFLATION)	5.94 BILLION	---
COMMISSIONING DATE	1993	2002

PROJECT PURPOSE

- MEET RESERVE MARGINAL AND ENERGY REQUIREMENTS
- REDUCE OVERALL COST OF THE GENERATING SYSTEM