ALASKA LEGISLATURE COMMITTEE FILES 1987-1988 8672
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SB

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STATE OF ALASKA
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May, 1988

Copies of minutes listed below were originally included in this file. The minutes are available on the STAIRS database CMPR. In order to save space copies of minutes have not been left in the files.

Mary Van Nimwegen

H. JUD.	5-14-87	1:30p.m.
H. JUD.	5-13-87	1:30p.m.
H. JUD.	5-11-87	1:30p.m.
H JUD	5-8-87	1:30p.m.

Original sponsor: Coghill

IN THE SENATE BY THE JUDICIARY COMMITTEE

HOUSE CS FOR CS FOR SPONSOR SUBSTITUTE FOR SENATE BILL NO. 22 (Judiciary)

IN THE LEGISLATURE OF THE STATE OF ALASKA

FIFTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act exempting certain telephone and electric utilities and certain transactions from regulation by the Alaska Public Utilities Commission; restricting the authority of the Alaska Public Utilities Commission in considering certain costs in connection with rates charged by a utility and with calculating power cost equalization; and providing for an effective date."

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

* Section 1. AS 42.05.431(b) is amended to read:

(b) Except as provided in (c) of this section, a [A] wholesale power agreement between public utilities is subject to advance approval of the commission. After a wholesale power agreement is in effect, the commission may not invalidate any purchase or sale obligation under the agreement. However, if the commission finds that rates set in accordance with the agreement are not just and reasonable, the commission may order the parties to negotiate an amendment to the agreement and if the parties fail to agree, to use the dispute resolution procedures contained in the contract.

* Sec. 2. AS 42.05.431 is amended by adding a new subsection to read:

(c) A wholesale agreement for the sale of power between the Alaska Power Authority and a public utility from a project licensed for construction by the Federal Energy Regulatory Commission on or before January 1, 1987, is not subject to review or approval by the

commission.

* Sec. 3. AS 42.05.511 is amended by adding a new subsection to read:

(d) Power costs incurred by a utility in connection with a contract with the Alaska Power Authority that is exempted from commission review under AS 42.05.431(c) shall be allowed in the rates charged by the utility.

* Sec. 4. AS 42.05.711(e) is amended to read:

(e) Notwithstanding any other provisions of this chapter, an [ANY] electric or telephone utility that does not gross $50,000 annually or that has fewer than 250 retail subscribers is exempt from regulation under this chapter unless 25 percent of the subscribers petition the commission for regulation. The commission may not combine the revenue or subscribers of an electric and a telephone utility owned by the same company when determining whether a utility is exempt under this subsection.

* Sec. 5. AS 44.83.090(b) is amended to read:

(b) The authority is not subject to the jurisdiction of the Alaska Public Utilities Commission. Nothing in this chapter [AS 44.83.010 - 44.83.425] grants the authority any jurisdiction over the services or rates of any public utility or diminishes or otherwise alters the jurisdiction of the Alaska Public Utilities Commission with respect to any public utility, including any right the commission may have to review and approve or disapprove contracts for the purchase of electricity by a public utility other than a wholesale power agreement for the purchase of power from the authority under AS 42.05.431(c).

* Sec. 6. AS 44.83.162 is amended by adding a new subsection to read:

(p) In calculating power cost equalization, the commission may not consider validated costs or kilowatt-hour sales associated with a United States Department of Defense facility.

* Sec. 7. Sections 1, 2, 5, and 6 of this Act are retroactive to June 7, 1986.

* Sec. 8. This Act takes effect immediately under AS 01.10.070(c).

Alaska Power Authority

TO: Representative Sam Cotten
Chairman
House Resources Committee

FROM: Robert E. LeResche
Executive Director

DATE: May 13, 1987

RE: House Research Agency "Railbelt Intertie Analysis"

The following are comments regarding the House Research Agency's "Analysis" of the proposed Kenai-Fairbanks interties.

As in all such analyses, assumptions made drive the conclusions reached. The Power Authority analysis was done by very competent economists, using the most sophisticated load-management model available in the world. But this analysis, like the more cursory and simplified review by HRA, is only as good as its assumptions.

This is why the Power Authority has a thorough feasibility and reconnaissance analysis process it applies to every project authorized by the Legislature. As I have testified several times, any intertie authorized by the Legislature will undergo this thorough analysis before construction begins.

At the direction of the Alaska Power Authority Board of Directors, we are providing amendments to SB 206 to ensure that this analysis does occur. I hope you will favorably consider these amendments.

LOAD FORECAST

The House Research Agency (HRA) estimates increases in electricity demand over the next 24 years totaling 10 percent in Anchorage and 11 percent on the Kenai Peninsula. In contrast, the increase in electric energy generation over the 20-year period from 1965 through 1985 for Southcentral Alaska was 700 percent (i.e. an 8-fold increase; see attached intertie economic study, page 19).

Similarly, HRA estimates Fairbanks demand increasing by a total of 10 percent over the next 24 years. However, Fairbanks electricity demand increased by 325 percent during the 20-year period from 1965 through 1985 (i.e. more than a 4-fold increase).

SENSITIVITY ANALYSIS

Running a new scenario requires a new base case and a new alternate case. Each case requires 6 (six) model runs, stepping sequentially through the interconnected Railbelt system. HRA underestimates the time and expense of sensitivity analysis.

BENEFIT-COST RATIO

HRA has ignored the benefits that were not quantified in the analysis in calculating a B/C ratio. These additional benefits are significant.

NATURAL GAS PRICES

Comments regarding fixed transportation costs of natural gas is given in the April 17, 1987, Alaska Power Authority letter to Alan Mitchell (attached).

Regarding the placement of additional generating capacity at Beluga rather than the Kenai Peninsula, Anchorage Municipal Light & Power (AML&P) has expressed a willingness to buy economy energy from Beluga to displace its own downtown generation, but has also expressed reservations about locating its own base load generation at Beluga with primary reliance on the existing Chugach transmission system. Consequently, in the study's base case (i.e. no transmission improvements), a substantial increase in gas turbine capacity was assumed at Beluga which displaced a considerable amount of AML&P generation through economy sales. However, it was also assumed that AML&P base load, combined cycle capacity would not be relocated to the Beluga area due to the reservations expressed regarding the prudence of concentrating virtually all of the area's productive capacity at one location.

RESERVE SHARING

The reserve sharing benefits can be seen in Tables 36 and 37 of the intertie economic report. These consist of avoiding the installation of two 50 MW combustion turbines in the Anchorage/Beluga area, one in 1993 and the other in 2006.

FAIRBANKS-ANCHORAGE FUEL PRICE DIFFERENTIAL

There is no basis for a belief that coal-fired generation can compete with natural gas priced at $1.60 per MMBTU, even assuming that coal prices remain constant at $1.30 per MMBTU. The capital and O&M costs of coal-fired generation are vastly higher than they

are for natural gas. The economic study said absolutely nothing about air quality considerations. (See pages 25-26 of the intertie economic report).

A $ .33 per gallon price of Number 4 fuel oil ($2.36 per MMBTU) given by HRA would have been valid a couple months ago. The price paid for April was $ .39 per gallon ($2.78 per MMBTU). The current estimate from Golden Valley Electric Association (GVEA) is that the price for May will be between $ .40 and $ .45 per gallon (i.e. between $2.86 and $3.21 per MMBTU). These prices are obviously being reached prior to crude oil prices reaching $20 per barrel. The correspondence of $ .48 per gallon ($3.40 per MMBTU) with $20 per barrel was a factor obtained from the staff of GVEA, based on information they had obtained from their suppliers.

A separate HRA report entitled "Energy Project Financing" maintains, on page 7, that the price differential between Cook Inlet natural gas and Number 4 fuel oil in Fairbanks is reflected in recent prices which HRA gives as: $2.25 per MMBTU for natural gas and $2.34 per MMBTU for Number 4 fuel oil. The issue of Number 4 fuel oil price is discussed above. Regarding the natural gas price, a recent letter from Dale Teel of Enstar Natural Gas Company states that the 1987 delivered price to AML&P will be $1.81 per MMBTU. He has agreed in testimony that a long-run wellhead value of $1.60 per MMBTU is a reasonable estimate to use for planning purposes.

MILITARY DEMAND

Sales to the military would allow the fixed costs of the generation and transmission system to be spread over a broader base, thus reducing costs to all consumers. GVEA has analyzed this factor, if more information is required.

KENAI PENINSULA DEMAND - TESORO COGENERATION

HRA report states that Tesoro refinery "intends" to cogenerate its own electrical power, and to "stair-step off their demand to reduce the shock to the already financially troubled HEA". Kent Wick (the manager of Homer Electric Association) states that no decisions have yet been made. Tesoro has a need for additional steam in its refining process, and is now considering producing up to half of its own electrical requirements through cogeneration. They have a contract for purchase of electricity from HEA through 1991. HEA and Tesoro are continuing to discuss the elements of a mutually beneficial compromise.

09/725(3)

Further, Mr. Wick states that HEA is not in financial difficulties. They have the third lowest rates in the state (behind Chugach and AML&P), and their rates today are no higher than they were a year ago. It is not rate increase that leads Tesoro now to consider cogeneration, but rather their need for additional steam.

Attachments

cc: The Honorable Steve Cowper
All Members of the House of Representatives
Alaska Power Authority Board of Directors

09/725(4)

Alaska Power Authority

FROM: Robert E. LeResche
Executive Director

DATE: May 13, 1987

The following two sections are possible substitutes for Sec. 9 of CSSB 206(Rls):

* Sec. 9. In accordance with AS 44.83.185(c), the upgrade of the Anchorage-Fairbanks intertie is authorized for construction at a construction cost not to exceed $125 million in January 1987 dollars.

* Sec. 10. In accordance with AS 44.83.185(c), the Anchorage-Kenai intertie is authorized for construction at a construction cost not to exceed $105 million in January 1987 dollars.

Steve Cowper, Governor

Alaska Power Authority
State of Alaska

April 17, 1987

Mr. Alan Mitchell
Analysis North
3511 Tanglewood, # A
Anchorage, Alaska 99517

Dear Mr. Mitchell:

We have reviewed your critique of our preliminary economic analysis of the Railbelt Intertie proposal, and would like to convey to you our thoughts regarding the various issues you have raised. Our remarks are organized by subject in the same order as they are presented in your paper dated March 30, 1987.

ANCHORAGE/KENAI PENINSULA INTERTIE

Gas Transportation Cost

The Power Authority assessment of benefits is concerned solely with benefits that would accrue to Railbelt consumers. It is assumed in the study that the cost of transporting gas to generating plants in Anchorage is a cost that can be avoided by Railbelt consumers over the long run if gas-fired generation in Anchorage were displaced by electric generation sited elsewhere. It is our view that the study methodology is sound in this respect to the extent that the specified cost of gas transportation is in fact avoidable by Railbelt consumers.

There are basically two ways in which this assumption could be borne out:

1) Costs are generally fixed to a much greater extent in the short run than they are in the long run. Significant differences in long run demand expectations for natural gas delivered to Anchorage can produce significant differences in long run capital expenditures on the delivery system as well as differences in conventional variable costs. The assumption of transportation cost saving is supported to the extent that the aggregate costs of building, maintaining, and operating the gas delivery system are in fact responsive to alternative demand levels over the long run (i.e. in the case of our analysis, over the next 33 years).

8785/698/1

P.O. Box AM Juneau, Alaska 99811 (907) 465-3575
P.O. Box 190869 701 East Tudor Road Anchorage, Alaska 99519-0869 (907) 561-7877

2) To the extent that long run aggregate costs are not responsive to alternative demand levels, it is plausible that economic returns to the owners of the natural gas transportation system would be reduced. This too would serve to satisfy the assumption that gas transportation costs now paid by electric utilities can be avoided by Railbelt consumers if the delivery requirements of the electric utilities are reduced at some time in the future.

A cursory analysis of the Cook Inlet natural gas production and transportation industries is not sufficient to identify precisely where these gas supplies are going to come from over the next 33 years. Without that information, the full extent of avoidable cost in the gas delivery system cannot be known. For purposes of a preliminary analysis, we are left with the assumption that the current charge paid for gas delivery bears some relationship to the long run discretionary cost of providing that service.

Avoided Generation Capacity

It was concluded by Lotus Consulting Group that about 110 MW of installed capacity could be avoided in the Anchorage area as a result of the proposed Anchorage/Kenai Peninsula intertie. In the final expansion plan developed for the analysis, exactly 100 MW of installed capacity in Anchorage was actually removed from the projected supply system for the calculation of reserve sharing benefits.

The methodology used by Lotus Consulting Group to estimate these capacity benefits has been reviewed by Railbelt utility planning engineers, who have judged it to be reasonable and proper. A reply by Lotus to your particular concerns is attached. It is entirely possible to replace 100 MW of reserve capacity in Anchorage with a firm connection to the entire Kenai Peninsula system, even though the excess of capacity over peak demand on the Kenai Peninsula is less than 100 MW. This is because the new connection provides access to all of the installed capacity on the Kenai Peninsula throughout the year rather than access to the peak hour reserves alone. The key issue is the availability of adequate generating capacity throughout the year (calculated as loss of load probability) in the intertied vs. non-intertied cases, not simply the comparison of peak demand and peak hour capability in the two areas. Combining Anchorage and the Kenai Peninsula with the proposed intertie would have two major impacts on the availability of adequate generating capacity throughout the year:

1) Outage diversity among generators throughout the region would be increased.

2) The reliability of the hydroelectric capacity on the Kenai Peninsula is substantially better than the reliability of thermal generating capacity in the Anchorage/Beluga area. The proposed intertie would allow Anchorage to have access to this more reliable generating capacity throughout the year.

Timing of Benefits

It is agreed that the benefits quantified in the analysis are low until 1999, the year in which it is assumed in the study scenario that substantial gas-fired capacity presently sited in Anchorage will be replaced by gas-fired capacity sited on the Kenai Peninsula. There are other benefits, however, that were not quantified in the analysis that would be realized as soon as the intertie project is completed. These benefits include:

1) Improved system reliability.

2) Increased utility coordination.

3) Distribution of Bradley Lake benefits.

4) Enhanced competition among fuel suppliers.

ANCHORAGE/FAIRBANKS INTERTIE UPGRADE

Treatment of Military Demand/Supply

The coal-fired units currently in regular service were installed in 1953, and will be 38 years old in 1991. The average heat rate reported for the 22 MW coal facility at Ft. Wainwright is 19,000 BTU/kWh, in contrast to the assumed rate of 11,000 BTU/kWh used in your example. Further, your example is based on a minemouth coal price, not the price of coal delivered to the plant. The current delivered price to the plant at Ft. Wainwright is $2.64/MMBTU, in contrast to the $2.05/MMBTU price used in your example.

The existing generating capacity owned by the military in the Fairbanks area is old and inefficient. There is no reason to believe that its inclusion in the long run power supply plan would alter the outcome of the analysis.

8785/698/3

Base Case Capacity Additions in the Fairbanks Area

Combined cycle units are practical to install for base load applications but not for load following or peaking applications. The operating characteristics of these units are such that it is impractical to substantially vary their output on a daily or hourly basis. Capacity factors in the range of 50% are typically too low for effective operation of a combined cycle unit.

The relative fuel prices assumed in the analysis produce an incentive for Fairbanks to import as much energy as possible from the southcentral area. This means that Fairbanks would be purchasing as many kilowatt-hours over the intertie as Fairbanks demand can absorb. Therefore, the Anchorage/Fairbanks intertie is the primary resource for supplying base load requirements to the Fairbanks area. In addition, a minimum of 25 MW of coal-fired capacity is maintained in the Fairbanks area throughout the analysis period. As a result, a minimum of 95 MW of base load capacity (including 70 MW from the intertie) is maintained in the "base case." This 95 MW is sufficient to satisfy all or most of the base load requirements estimated for the Fairbanks area throughout the study period. There is no room in that plan for sizeable increments of additional base load capacity such as an oil-fired combined cycle unit.

Electrical Demand in the Fairbanks Area

The analysis incorporates the load forecasts produced by the two Fairbanks utilities, which anticipate growth in electric energy requirements between 1986 and 1991 averaging 3.1% per year, and growth in peak demand over this same period averaging 4.9% per year. Factors contributing to anticipated growth in the Fairbanks area include planned expansion of the military in addition to continued growth in tourism and support sector employment. Although State government employment is expected to decline, the Fairbanks economy is believed to be less sensitive than the Anchorage economy to the State government sector. Finally, it is anticipated that direct employment in the petroleum industry will pick up again over the next few years as oil prices recover and stabilize.

Timing of Benefits

It is agreed that the benefits of the proposed upgrade grow in proportion to Fairbanks electrical demand, and that its construction over the next few years would be in anticipation of

future growth. It should be noted that project deferral generally carries with it increased construction costs, and that investing the funds that would be committed to this project in financial securities for an extended period of time does not appear to be a realistic alternative.

Sincerely,

Brent N Petrie for

Robert E. LeResche
Executive Director

RE:REL:nc

8785/698/5

To: Dick Emerman
Alaska Power Authority

From: Rich Albert
Lotus Consulting Group

Date: April 6, 1987

Subject: Reply to reviewer's comments on reserve sharing

We appreciate the time and thought that are represented by the reviewer's comments. Regarding the first question raised concerning the comparison of the independent vs. joint system reliability, it is important to keep in mind that the reliability index is a measure of outage events. The key point is that an outage in the Kenai Peninsula is a separate occurence from an outage in Anchorage, even when the systems are linked by the upgraded transmission system. An outage in one area does not necessarily imply an outage in the other. Therefore, when we calculate the joint reliability of the system, we must consider the combined probabilities of outages in both areas.

Let's first consider the Anchorage and Kenai systems as two independent, non-tied systems. The Anchorage reliability index or loss of load probability of .056 days per year corresponds to a probability of .00015332 that an observer watching the system would in one year see an event in which one or more customers would experience an outage. Similarly, the Kenai loss of load probability of .088 days per year yields a probability of .0002409 that one would see such an event on the Kenai Peninsula.

What is the probability that the observer would see a loss of load event watching both areas? By the Addition Rule of probability theory, this probability is the probability of an Anchorage outage plus the probability of a Kenai peninsula outage minus the probability of a joint or simultaneous Anchorage/Kenai outage, which would be seen as a single outage by the observer. Numerically, this probability is then [.00015332 + .0002409 - (.00015332x.0002409)] = .0003939. Converted to the days/year form most often used when citing LOLP statistics, the loss of load probability is .1439 days per year, as stated in the report.

The reviewer is correct to point out that the LOLP index measures only the probability of occurrence of an outage event, and says nothing about the magnitude of such an event. It is for this reason that in addition to LOLP, the value of expected unserved energy was estimated in each scenario. An unserved energy penalty of $100 was assigned to each megawatt-hour of expected unserved energy, and added to total production costs.

Concerning the reviewer's second question about the 110 megawatt difference in system nameplate capacity between the intertied and non-intertied cases, note that the relevant comparison is not between Anchorage and Kenai peak hour capability and demand, but rather between considering the two systems as independently dispatched and considering the two systems as jointly dispatched. In general, when two systems are combined, the combined system requires a lower reserve margin than the individual systems to meet a target level of reliability, due to outage diversity among generators. Furthermore, when transmission intertie restrictions are relaxed, the joint dispatch in effect permits more reliable Kenai Peninsula hydro capacity to displace less reliable Anchorage CT capacity for reserve purposes.

M E M O R A N D U M

TO: Ken Johnson (ARECA)

FROM: Tom Martin

DATE: May 13, 1987

RE: HRA Report on Railbelt Interties (May 9, 1987)

Page 2: Adding a transformer at Pt. MacKenzie or Teeland will not improve transfer capability to Anchorage or Fairbanks -- contrary to HRA report.

As discussed in the rebuttal paper to HRA's Economic Analysis of the Railbelt Interties, the load forecast prepared by HRA for the utilities is artificially low. No rigorous analysis was performed to arrive at HRA's forecast of demand.

The statement that Tesoro "intends" to self-generate is without any basis as yet. The assumption that this load will be lost is far-fetched.

Page 3: Kelly should comment on the load that was previously assumed to be picked up by GVEA.

Page 5: The HRA assumption that its study is better than those prepared on behalf of the APA is ridiculous given the time and expertise they have had at their disposal. ("Cast not the first stone")

Page 6: Railbelt Energy demand -- HRA's analysis has no basis in either expertise nor modeling capabilities.

Page 7: The statement regarding contact with Steve Severy of Marathon was at the least disingenuous. Of course, they (oil and gas producers) are going to downplay the differential to get a better price. Severy's statement is self-serving and should be ignored.

The "undecut" could be 70¢/MMBTU as easily as 60¢ or 50¢. Again, HRA is in no position to estimate these costs and should admit to it.

Using the Enstar argument that the delivery cost is not avoided and therefore that this is not a savings to ratepayers ignores the fact that it is really an Enstar stockholder problem. Since

most of the distribution costs are picked up by retail customers of Enstar and since the power generator users of Enstar gas do not pay for much of Enstar's distribution system, the reallocation issue is not so significant as Enstar makes out.

The argument also ignores the fact that over the same time that an electricity generator using non-Enstar gas is going up, so also is Enstar's own retail gas requirement.

The argument that new generators could be placed at Beluga to avoid building the Intertie from Anchorage to Kenai ignores the fact that:

1) The capacity of this line is limited and that CEA will not turn over capacity to others without compensation (which is not accounted for).

2) Only one or two units can be added at Beluga before another line must be built anyway.

3) Having all generators essentially at Beluga violates every principle of prudent planning by not spreading risks.

Page 8: The HRA argument about the reserve sharing value of the interties again is an indication that they do not understand that peak demand is highly sensitive to temperature lows in winter and that loss of load probability is the principle barometer for determining timing of capacity addition in the industry.

Using the HRA's own Figure 3 indicates that the capacity shortfall occurs in 2006 rather than 2011 as indicated for the Kenai Pennisula in the body of the report.

(Question: when did reserve sharing benefits first show up in the Lotus report?)

The argument that GVEA's coal price of $1.31/mmBTV will remain constant is absurd. GVEA will not likely be able to increase the capacity at Healy when this price occurs. As a result, it will be necessary to ship the coal either north or south at a substantial cost.

Page 9: It is true that MAPCO pays a fee for inserting #4 fuel oil back into the pipeline. However, the implication is that it effectively costs MAPCO money to get rid of this oil. Actually, MAPCO still earns money, but less, due to the penalty and transportation. HRA states that the price for oil at $20/BBL should be 39¢/gal since the price of this oil is currently 33¢/gal in Fairbanks while the world oil price

if $17/BBL. Actually, GVEA pays now a price of [illegible] while the world oil price is about $18/BBL.

GOLDEN VALLEY ELECTRIC ASSOCIATION INC. Box 1249, Fairbanks, Alaska 99707-1249; Phone 907-452-1151

May 13, 1987

RE: Response of Golden Valley Electric Association to House Research Agency "Railbelt Intertie Analysis - Research Request 87.253"

Dear Legislator:

May 12, 1987 I received a copy of the referenced analysis. Our reply to this analysis has been prepared very quickly because the Legislature adjourns in five days. I certainly understand that Ms. Fay was also required to respond to APA's analysis very quickly and that her experience associated with electric utilities, and particularly generation and transmission systems, is limited. This is meant as a compliment to the hard work she expended in preparing the analysis.

The Research Agency analysis is so seriously flawed in the following critical areas that its conclusions must be dismissed:

1. Load growth projections
2. Fuel price predictions

A third area of my concern involves the tone of the analysis perhaps more than any technical considerations. For example, when Ms. Fay assesses the benefits of the present interim intertie between Fairbanks and Anchorage, she states that the State is receiving no return on its equity investment. The return on this equity investment is being received by the consumers of the Railbelt every day. I submit that there are rather few State investments which can demonstrate such benefits and yet impose no ongoing operational costs upon the State because the users are paying 100% of the costs associated with the investment. The interties, like roads, bridges, community centers, etc. are long-life facilities (35-50 years) and therefore must be sized initially to accommodate usage levels over their entire use-lives. Although the cost-benefit ratio of the interties relative to direct benefits is near one, the combination of direct and indirect benefits to the consumers of the State of Alaska over the life of the project makes the investment prudent. All seven railbelt utilities and the Railbelt Energy Council disagree with Ms. Fay's final conclusion on page 10 that states "...the economic benefits of upgrading the Anchorage-Kenai and Anchorage-Fairbanks interties do not justify the projects at this time." I submit that even if the Research Agency load growth and fuel price assumptions were correct, that the interties are a wise investment which will serve over three-quarters of the State's residents now and for several generations. I guess I'm more than a little bit concerned that the Research Agency would submit this flawed analysis to legislators and pretend that it should replace the recommendations of the seven Railbelt electric utilities and the Railbelt Energy Council concerning expenditures from the Railbelt Energy Fund. Due to the limited time before the legislature adjourns, I will respond to only a few areas of concern with the Research Agency analysis. My comments will relate to the Fairbanks area. My fellow utility managers are responding as quickly as possible to the flaws in the Research Agency's analysis concerning the South-Central and Kenai systems.

Capacity

The Research Agency has made several wrong assumptions relative to Fairbanks capacity, including but not limited to counting Chena 1, 2, 3 and 4 as operable units. These units are ancient and either severely restricted by DEC or, as in the case of #4, are actually totally inoperable. They have also counted the proposed AEM 25-megawatt PURPA generation in their capacity calculation. This is absurd. This California-Idaho based outfit does not have a site, permit, fuel supply or contract with GVEA. We have been battling them before the Alaska Public Utilities Commission (APUC) since 1984 principally because the contract they demanded that GVEA sign would have resulted in a $10 million per year rate increase for our consumers. The proposed AEM machine should not be counted. The 70-megawatt Fairbanks intertie should also not be counted as capacity since, unless GVEA builds a 70-MW generator in South Central, or participates in a new unit with one of the South-Central utilities, or purchases firm capacity from South Central utilities, the intertie is not able to be counted as GVEA capacity.

The Research Agency makes some very serious errors in assuming that the capital costs of gas-turbines and coal-fired plants is identical. The cost of a coal-fired plant is typically 5 to 8 times higher than a similarly-sized gas turbine. It is also interesting that House Research seems persuaded that coal costs will not increase. The FMUS coal price recently increased roughly 40% overnight and GVEA's coal price has tripled in 15 years.

Load Projections

House Research predicts a growth between 1986 and 2010 of 1/2% per year. This is ridiculous. During 1986 when our economy was in the pits, GVEA grew at a weather-adjusted 6% in kilowatt hour sales. The first-quarter 1987 weather-adjusted growth rate is 2%. Since 1980, GVEA peak demand has grown from 70-MW to 85-MW, an annual growth rate of 4 1/2%. Projecting this post-pipeline growth to 2010 would result in GVEA's peak hitting 240 MW. Adding MUS would take the need to over 275 MW. GVEA's power requirements study, which was completed by CH2M Hill, was used in the APA load projections. It is a conservative report when compared with past load growth and should not be replaced by the horseback judgment of the Research Agency. GVEA connected 900 new services during 1986. Our applications for new services to date in 1987 are running only five behind last year. The Fairbanks economy is not sparkling, but our utility expects to continue to experience steady growth.

Intertie Usage

The Research Agency states that "the primary reason for the very low usage of the intertie in 1986 was the substantial decline in the price of diesel in Fairbanks and the consequent reduction of economic incentive to purchase over the intertie." Wrong! The primary reason for GVEA operating oil-fired generators in winter 1986 related to: (1) GVEA could not maintain adequate voltage levels with only its 25-MW Healy coal-fired unit running and no GVEA oil-fired generation running in Fairbanks. During February 1987 we completed installation of 32 megavars of capacitors at a cost of $750,000. This project enables us to now maintain voltage under peak load conditions with all GVEA

units north of Healy shut down. (2) The FMUS Chena 5, 20-MW coal-fired unit was shut down for much of the past two winters. Attached is a memo from our Dispatch Superintendent which demonstrates one of many occasions when the present intertie had insufficient transfer capability to supply all of GVEA and FMUS with only the Healy coal-fired unit on-line. This caused us to continue to run our oil-fired units. At no time, regardless of price, has the cost of oil in Fairbanks for any 30-day period been low enough to cause GVEA to start an oil-fired generator in Fairbanks rather than purchase over the intertie. However, once a unit was started for other reasons, eg: voltage support or because the intertie capacity is insufficent, then the incremental cost from our North Pole unit was, during certain periods last winter, competitive with delivered Anchorage gas-fired kilowatt hours.

During April 1987, 24 million kwhs were purchased from the Anchorage area for a savings to Fairbanks consumers of over $300,000. Anchorage area consumers made a profit on these same sales of over $150,000. All of these cost and profit dollars were returned to the Railbelt consumers through automatic electric rate flow-through mechanisms.

Fuel Price

The Research Agency talks about inability to predict the Fairbanks liquid fuel price because of "imperfections in the Fairbanks fuel market." GVEA's oil price follows the world-market price of ANS crude because of the cost-plus-margin contract GVEA has with MAPCO. Our cost runs about $9 a barrel over wellhead. A $10 wellhead creates a GVEA price of about 45 cents per gallon; a $15 wellhead creates a price of about 57 cents per gallon. A world price of $20 per barrel would mean a GVEA cost of about 52 cents per gallon, not 39 cents per gallon as projected by the Research Agency. The Agency also cites 33 cents per gallon price for liquid fuel in Fairbanks based on $17 per barrel world oil price. The actual number is 45 cents per our contract. Mr. Wright, manager of MAPCO, will confirm that MAPCO has absolutely no intention of selling its liquid fuel below wellhead cost plus transportation. He has also indicated to us that he is developing markets for turbine fuel and, although he has offered some spot price deals during the past year, they must not be relied upon. The House Research Agency probably made their errors based on three factors: (1) spot prices. (2) Inaccurate information caused by the fact that GVEA's invoiced fuel price is an estimate based on previous months' prices. The rapid price increase in March 1987 through May 1987 has not shown up on GVEA's invoices because of the two-month delay in MAPCO determining the actual cost of crude for each month. (3) GVEA realizes a 6 cent per gallon discount on about 10 million gallons per year of its purchases because of its assignment of royalty oil to MAPCO. The Research Agency's Table 4 is full of errors. For example, the July 1986 price was 28 cents per gallon, not 12 cents per gallon. The result of these errors is the Research Agency's erroneous conclusion that no intertie is needed and that Fairbanks should go merrily forth burning oil. The 50,000 residents this Cooperative serves strongly disagree!

Military Installation Demand

The Research Agency casually dismisses our projection that 30-MW of military electrical demand will be served by Fairbanks utilities. They ignore the fact that within the past year we have picked up the Murphy Dome AFS and over the past several years have picked up several other off-base sites. We are currently in negotiations to pick up the entire load at Fort Greely and expect success during 1987. We are now serving two megawatts of military housing at Fort Wainwright which was built during the past year.

The military average cost per kilowatt hour is over 7 cents. We can provide power to the military for slightly more than half their cost. GVEA can also help Fort Wainwright eliminate a serious environmental problem caused by ice fog which shuts the Richardson Highway down during very cold weather when their condensing pond generates fog. The fact of the matter is that GVEA will be serving additional military loads in the future.

Conclusion

The House Research Agency concludes that because of insufficient fuel price differentials and insufficient demands for power, the interties are not feasible. Both of their reasons leading to the conclusions are full of errors; therefore, their conclusion is erroneous. The interties should be built from the Railbelt Energy Fund as recommended by the Railbelt Energy Council and all seven Railbelt electric utilities as soon as possible.

Mike Kelly
General Manager

INTER-OFFICE MEMO

GOLDEN VALLEY ELECTRIC ASSOCIATION

March 10, 1987

To: Bob Orr/Mike Kelly

From: Marvin Riddle

Subject: Alaska Intertie Usage

On Tuesday, March 3, 1987 we were preparing to shut down the North Pole generator and purchase power. FMUS's Chena 5 Plant was shut down for maintenance.

In scheduling power, we discovered that the economy energy was available in Anchorage and it would have been the cheapest source, but the combined system loads of GVEA and FMUS were 105 MW. The Healy Plant should have been the only unit being run based on economics, but the Intertie is only capable of transmitting 70 MW.

Therefore, we were transmission line capacity deficient by 10 MW. Since we could not decommit the North Pole unit, the economics changed and the line could not be loaded fully.

This has reoccurred six other days since March 3 and I suspect it will be a limiting factor through the entire month of March.

Marvin Riddle
System Dispatch Supt.

TOTAL P.02

Introduced by Hanoski and Kosch

RESOLUTION 87-39

CITY OF HOMER
HOMER, ALASKA

A RESOLUTION OF THE HOMER CITY COUNCIL SUPPORTING ADOPTION OF CSSB-22 (FIN) WHICH WOULD DELETE ALASKA PUBLIC UTILITIES COMMISSION'S REVIEW OF BRADLEY WHOLESALE POWER AGREEMENTS WITH THE RAILBELT UTILITIES.

WHEREAS, the Homer City Council has consistently supported construction of the Bradley Hydroelectric Project; and

WHEREAS, the Alaska Public Utilities Commission's (APUC's) review of Bradley wholesale power agreements with the Railbelt Utilities may jeopardize funding of the project; and

WHEREAS, CSSB-22 (FIN) would delete Alaska Public Utilities Commission's (APUC's) review of Bradley wholesale power agreements with the Railbelt Utilities.

NOW, THEREFORE, BE IT RESOLVED that the Common Council of the City of Homer respectfully urges passage of CSSB-22 (FIN) which would delete Alaska Public Utilities Commission's (APUC's) review of Bradley wholesale power agreements with the Railbelt Utilities.

BE IT FURTHER RESOLVED that the City Manager is requested to distribute copies of this resolution to Governor Steve Cowper, all members of the legislature, the Alaska Municipal League and the Alaska Power Authority.

DATED at Homer, Alaska this 11th day of May, 1987.

CITY OF HOMER

John P. Calhoun, Mayor

ATTEST:

Patti J. Whalin, City Clerk

ALASKA STATE LEGISLATURE
HOUSE OF REPRESENTATIVES
RESEARCH AGENCY

P.O. Box Y, State Capitol
Juneau, Alaska 99811-3100
Mail Stop 3100
(907) 465-3991

May 8, 1987

MEMORANDUM

TO: Representative John Sund

ATTN: John Hartle

FROM: Ginny Fay
Legislative Analyst

RE: Alaska Public Utilities Jurisdiction and Senate Bill 22
Research Request 87.291

You requested that we analyze the effect of Senate Bill 22 (SB 22), attached on the Alaska Public Utilities Commission's (APUC) statutory authority to regulate utilities in the public interest. You were specifically interested in: the regulatory process for setting wholesale power rates; the role of other states' public utility commissions in regulating wholesale electric power sales agreements; and whether state public utility commissions can annul or retroactively change wholesale power rates. You also asked that we provide information regarding the Alaska Power Authority's (APA) statement that failure to pass SB 22 would "kill" the Bradley Lake project because the APA's bonds would be considered "junk bonds" by financial institutions.

Senate Bill 22 would affect the regulation of utilities in Alaska in the following ways:

1. exempting wholesale power sales agreements between the APA and public utilities from the APUC's jurisdiction (Bill Section 1; Alaska Statute 42.05.431);

2. statutorily providing that all costs incurred by a utility in connection with a contract with the APA are prudent and allowable when the APUC sets that utility's rates (Bill Section 3; Alaska Statute 42.05.511);

3. exempting small electric and telephone utilities from APUC regulation unless 25 percent of the utility's subscribers petition the commission for regulation [Bill Section 4; AS 42.05.711(e)];

4. exempting the APA from APUC regulation by specifying that the APA is not a utility (Bill Section 5; AS 42.05.711); and

5. specifying that military costs or kilowatt-hour sales are excluded from power cost equalization sales calculations (Bill Section 7; Alaska Statute 44.83.162).

Jurisdiction Over Wholesale Electrical Power Sales

Wholesale Power Rate Setting. In the contiguous states, all wholesale electrical power sales transactions are regulated by the Federal Energy Regulatory Commission (FERC). The FERC was given jurisdiction over wholesale power rates as a result of a 1964 U.S. Supreme Court decision. The Court's decision was based on the physical property of electricity--that one electron is indistinguishable from another. When electricity is sold at wholesale across state boundaries on large, integrated power grids, the state of origin--and thus, the state with regulatory jurisdiction--is indeterminable. As a result of this decision, the "bright line rule" was established; the role of the FERC is wholesale jurisdiction while retail jurisdiction is left to the states.

The FERC sets wholesale power rates in much the same manner as retail rate setting is conducted by state public utility commissions (PUCs). Rate filings, terms and agreements are entered before the FERC, which then files a docket with its rate determination. It is not unusual for state public utility commissions to appear before the FERC to present state regulatory policy and practices to assure coordination of wholesale and retail rates. Part II of 16 USC exempts government facilities from FERC regulation of rates. Part I, however, provides for FERC regulation of all FERC licensees which are not otherwise regulated under state jurisdiction. **Wholesale power sales agreements between the APA and regulated public utilities would fall under the jurisdiction of FERC if APUC regulatory jurisdiction is removed.**[1]

Role of PUCs in Other States. In all states, public utility commissions have full jurisdiction over retail rate setting of regulated utilities. The majority of regulated utilities in this country fall into the group of investor-owned utilities (IOUs). The IOUs often have their own retail customers in addition to selling wholesale power to other IOUs, public utilities, municipal utilities, and electrical cooperatives. **Most wholesale power sales agreements are indirectly regulated by public utilities commissions through the planning and retail rate setting process. Because they have control at the planning and retail stages of power production, PUCs are generally not concerned about jurisdiction over wholesale rates.**

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[1]Robert Fitzgibbons, Associate General Counsel, Federal Energy Regulatory Commission, personal communication, May 7, 1987.

In contrast to Section 3 of SB 22, utilities in other states are held accountable for any "mistakes" made in wholesale agreements; the retail rate setting process includes a review of wholesale agreements for prudence. Because PUCs do not directly regulate wholesale agreements, they cannot annul or retroactively change these agreements.

Most public utilities commissions coordinate or conduct statewide planning and demand forecasting and have the authority to certify the construction of electrical generation facilities and transmission lines. Certification by the PUC is based on additional supply facilities being consistent with the statewide plan and the demand forecast. In a growing number of states, certification also requires demonstration that all demand-side management and reduction options have been utilized and the supply option is the least-cost option. In California, Wisconsin, and the Pacific Northwest, compliance with the statewide energy plan assures that additional supply capacity will be considered "prudent"--and therefore eligible for inclusion in the utility's rate base. The policy of these states implies that if only required supply facilities are constructed and these are consistent with the long-term objective of preventing expensive over-capacity, then wholesale and retail electrical rates will be as low as possible.

Officials at the National Association of Regulatory Utility Commissions (NARUC), National Conference of State Legislatures (NCSL), and in Wisconsin, New York, California, and the Pacific Northwest states indicated that portions of SB 22 reflect Alaska's lack of energy planning and poor organizational structure of energy agencies.[2] They believe that the bill attempts to pass the cost of poor planning on to consumers by removing the APUC's authority to regulate. Section three of SB 22 results in the effective removal of APUC retail regulatory authority. They believe it is unlikely that federal laws and regulations will allow such a drastic measure or that this is ultimately in the public interest.

All of these officials were most concerned about section three of the bill. That section provides that all utility costs associated with APA contracts and/or projects are prudent. Charles Gray, with the NARUC, called it a "drastic provision that takes all possible authority away from the commission [APUC] and is not very desirable." Jerry Mendel, of Wisconsin, referred to it as an automatic carry through--something that most states are actively trying to prevent. Mr. Mendel stated that "more importantly, this type of guarantee will make it hard to avoid sweetheart deals between the State and utilities." Julian Ajelo, of California, stated that section three "hamstrings the public utilities commission and essentially does away with the APUC. The basis of utility regulation is the determination of prudence and the ability to make that determination is in the public interest." Tom Foley, with the Northwest Planning Council, said

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[2]These states were contacted because their regulation of public utilities have been identified as models for the country.

that section three "provides utilities with a carte blanche." Terry Fox, of the New York Power Authority (NYPA), indicated that he had "never heard of any provision like that before." He said the New York Public Utilities Commission in no way exempts or automatically deems prudent any purchases of NYPA power by New York utilities. The NYPA electrical power contracts are treated no differently than other wholesale power contracts in the state.

In regard to state regulation of the APA, it is difficult to compare this with other states because other states do not have agencies similar to the APA. The closest approximation is the New York Power Authority. The major difference between the APA and the NYPA, however, is the fact that the NYPA does not receive state funding. The NYPA must operate in a competitive environment; if they cannot compete with IOUs and fully pay for the construction, operation, and administration of state facilities, then they cannot build them. The NYPA bonds for construction of generating and transmission facilities; its own revenues are used to secure the bonds. The state of New York incurs no expenses or liabilities from the NYPA.

Julian Ajelo, of California, suggested that rather than worry about which state agency has authority over the other, it would make more sense to give the APUC facility siting authority over all utilities including the APA. In addition, he indicated that the APUC should perform the state's energy planning and demand forecasting functions. This would balance the roles and authority of the APUC and APA, which would result in improved energy policy and management. He stated that the apparent nature of the APA results in it acting like a utility and noted that utilities throughout the country have historically over built generating capacity and overestimated energy demand. California's certification and planning process eliminates the ability of utilities to over build.

In regard to the statement that APUC jurisdiction over APA wholesale power sales agreements would result in APA having a junk bond rating, Mr. Fred Eoff stated that this "sounded a little extreme."[3] He stated that **financial institutions prefer regulatory stability but are not adverse to regulatory oversight.** Only extreme regulatory oversight that would jeopardize a financial institution's ability to receive payment would be avoided. Mr. Eoff did not believe APUC jurisdiction would considered extreme regulatory oversight. As a historical note, Mr. Eoff said that in the Washington Public Service Supply Company (WPSSC) situation, over capacity, the inability to sell electrical power and rate shock were much larger considerations to financial institutions and resulted in their withdrawal of financial backing for the Washington projects. The devastating effect on rate payers and utilities of these projects resulted in the planning effort currently under way in the Pacific Northwest.

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[3]Fred Eoff is the manager of northwest regional bond activities of Boettcher & Company, Inc. which is a stock and bond brokerage firm. Mr. Eoff is located in the firm's Seattle office.

The APA position paper on SB 22 (attached) states that the statutes as currently written present a conflict because the APUC has no jurisdiction over the APA but has jurisdiction over the wholesale power sales agreements to which the APA is a party. The APUC's jurisdiction over contracts involving the APA stems from its jurisdiction over the regulated utilities that are party to the contracts. This does not constitute a statutory conflict; the fact that the APUC does not have jurisdiction over the APA does not imply that it should not have jurisdiction over any activity to which the APA is a party.

The exemption of wholesale power sales agreements from APUC jurisdiction is not objectionable from the standpoint of the public interest--PUCs in most states do not regulate wholesale power sales. However, to extend the exemption to retail rate setting by automatically deeming prudent all APA activities and projects is a rather radical provision and, according to the utility regulators I contacted, is clearly not in the public interest.

Given the current excess generating capacity in the Railbelt, it is possible that the APUC would consider utility purchases of relatively expensive Bradley Lake power imprudent and, thus, would not allow Bradley Lake costs to be considered in the utilities' rate structure. In this sense, the statement that failure to pass SB 22 could kill Bradley Lake is accurate, but the reason is not that junk bonds will raise the price of power and prevent an agreement on power sales. In fact, passage of SB 22 does not ensure that Bradley Lake can proceed unhindered by regulatory oversight.

Removal of APUC jurisdiction over wholesale power sales agreements will not solve the Bradley Lake power sales agreement problem. One problem with sales agreements stems from planned Public Utility Regulatory Policy Act (PURPA) energy projects in the Railbelt (see attached memorandum on PURPA facilities and their regulation). Because of dockets already filed with the APUC by PURPA facilities, either the APUC or FERC will be required to intervene under federal law in the Bradley Power Sales Agreement. In effect, PURPA requires utilities to purchase power from PURPA facilities before purchasing more expensive power.

As mentioned above, Part I of 16 USC requires that FERC regulate all FERC licensees that are not regulated by states. In effect, either the State must regulate its utilities or the federal government will intervene. It is highly unlikely that Railbelt utilities will sign a power sales agreement for Bradley Lake power unless jurisdictional complexities are resolved. While passage of SB 22 would remove APUC oversight, the problem would not be resolved because the FERC would be required to step in and assert its authority under PURPA and Part I of 16 USC. Ultimately, planned PURPA facilities and excess capacity in the Railbelt may render the Railbelt utilities unable to include the purchase of Bradley Lake power in their rate structure. This conclusion implies that the APA's estimate of a 2 percent interest rate increase could be optimistic; Bradley Lake bonds may be difficult to sell even at much higher interest rates. The issue is not who has jurisdiction over Bradley Lake power sales, but that any regulatory authority might question the prudence of the Bradley Lake project because of PURPA facilities and existing over capacity.

Regulation of Small Electrical and Telephone Utilities

Section 4 of SB 22 provides for the automatic regulatory exemption of electric and telephone utilities that gross less than $50,000 annually or have fewer than 500 subscribers. As of June 30, 1986 there were 307 certificated utilities in Alaska, of which 117 are regulated. This section provides for the exemption of 17 of these 117 regulated utilities. Under Alaska Statute 42.05.712, a utility or a cooperative can--by a vote of its subscribers or members--be deregulated. This statute also allows for exempt utilities or cooperatives to become regulated by the same process. At least two of the 17 utilities that would automatically be deregulated by the passage of SB 22 were previously exempt but voted to be regulated. It is unclear whether this law would again deregulate them and require another vote for deregulation It has been suggested that this statutory exemption removes the financial burden of regulation from small utilities. In cases where a financial burden does exist, the voting procedure of AS 42.05.712 can deregulate the utility. The APUC currently encourages a deregulation vote when it determines that the cost of regulation exceeds the benefits.

Removal of Military Costs from Power Cost Equalization Calculations

While the APUC believes that it is reasonable to remove the cost of military power from power cost equalization calculations, the APUC would like to conduct a cost of service investigation on a case-by-case basis to assure that power cost equalization revenues are allocated fairly between rural communities with and without military electrical utility clients. This is because military power purchases may lower the cost of electrical services in the community and any cost margin received by the utility should also be considered.

I hope you find this information useful. If you have any questions or would like additional information, please call.

Attachments

ALASKA POWER AUTHORITY

Position Paper

SPONSOR SUBSTITUTE FOR SENATE BILL NO. 22

The Alaska Power Authority supports enactment of SSSB 22. Specifically, Sections 1, 2, 4 and 5 of the bill, provide for amendments which would exempt wholesale power agreements between the Alaska Power Authority and a public utility from review or approval by the Alaska Public Utilities Commission (APUC). Enactment of this legislation is essential to the program of revenue bond financing of the Bradley Lake Hydroelectric Project.

The need for enactment of SSSB 22 is due to a 1986 amendment to APUC legislation. The amendment gives the APUC authority to review in advance and approve wholesale power agreements between public utilities. Once the agreements are in effect, the APUC may also order the parties to the agreement to renegotiate the agreement if the APUC determines that the retail power rates are not just. Where the parties are unable to agree to an amendment, the APUC may order the parties to proceed under the agreement's dispute resolution procedures.

The 1986 amendment was part of a complex, lengthy and controversial package of amendments within the "sunset" reauthorization bill for the Alaska Public Utilities Commission. The effect of the amendment on the Alaska Power Authority, its wholesale power agreements, and the Bradley Lake agreement in particular, was never addressed to the 1986 Legislature. Consequently, we are now presented with a statutory conflict. The Power Authority is exempt by statute from the APUC's jurisdiction. On the other hand, the APUC has jurisdiction over wholesale power agreements to which the Power Authority is a party.

Without an amendment to correct this anamoly, general civil construction cannot commence this season. Bond financing will be jeopardized for at least two reasons. The lengthy hearing process and any subsequent litigation arising out of the APUC's orders would delay construction of Bradley and ultimately jeopardized timely bond financing of the project. Moreover, if the APUC can order negotiation of power sales contracts in effect, bondholders will not be able to rely on the power sales contracts and the rates which are the basis for the contracts.

The Alaska Power Authority Board of Directors met on February 27, 1987, and unanimously adopted attached Resolution 1987-05, which supports legislation to be introduced during the 1987 Legislative session, for the purposes of clarification that the Alaska Power Authority and its wholesale power agreements would be specifically excluded from the jurisdiction of APUC.

Additional background information outlining the need for enactment of SSSB 22 is provided in the attached memorandum (dated March 9, 1987) from the Alaska Power Authority bond counsel of Wohlforth, Flint, and Gruening.

8629/663/1

Alaska Power Authority

Addendum to Alaska Power Authority Position Paper
SSSB 22

If SB 22 is enacted:

- Allows Bradley contracts to be signed and executed in a timely basis for construction to meet utilities' schedules of need.
- Provides certainty to wholesale power rate based on terms and provisions fixed in contract and not subject to future adjustment.
- Prevents duplication of review by State agencies. Public interest already served by Alaska Power Authority involvement.
- Lowers costs to consumers through lower interest rates on long-term debt.
- Lowers APUC review costs.
- Eliminates possibility of conflicting interpretations of contractual terms by two state agencies both assisted by the Dept. of Law

If not enacted:

- The provision for adjusting rates in the future lowers the rating of the long-term debt to less than investment grade (A-rated to "junk" bond.)*
- Unable to have former contracts until APUC re-reviews all power supply option studies already performed by OMB, legislature, utilities and their respective boards, and Alaska Power Authority and its Board (including four commissioners).
- No basis for future decisions.
- Delaying Bradley Lake by one year could increase construction costs by approximately $10 million (less any additional arbitrage earnings.)

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* Interest rate could increase 1.5 to 2.0 percent. Based on $175 million in debt and 8.0 percent and 9.75 percent interest rate for with and without exemption, respectively, debt service would increase by approximately $2.7 million per year - $81 million over life of bonds.

8652/723/1

ALASKA STATE LEGISLATURE
HOUSE OF REPRESENTATIVES
RESEARCH AGENCY

P.O. Box Y, State Capitol
Juneau, Alaska 99811-3100
Mail Stop 3100
(907) 465-3991

April 8, 1987

MEMORANDUM

TO: Representative Sam Cotten

FROM: Ginny Fay
Legislative Analyst

RE: Railbelt Energy Analysis
Research Request 87.114 (Supplemental Information)

As part of this agency's analysis of Railbelt energy, you requested that we provide additional information on cogeneration and small electrical power facilities that are covered under the Public Utilities Regulatory Policy Act (PURPA) of 1978. These facilities were generally referred to as PURPA generators in our memorandum of March 18. This memorandum initially covers the regulatory authority pursuant to PURPA and an overview of how these alternative energy regulations have affected electrical power generation in the United States. This is followed by a discussion of the potential effects of State financing of the Bradley Lake project on these types of facilities in the Railbelt. This includes a discussion of the role of the Alaska Public Utilities Commission (APUC) and Federal Energy Regulatory Commission (FERC) in the Bradley Lake Power Sales Agreement.

Regulatory Background and Authority

Precipitated by the Arab oil embargo in 1973 and further accentuated by the inability of pipelines to deliver natural gas to meet winter demands, legislation was proposed by President Carter to curb America's use of oil and gas. The legislation was designed to eliminate the country's dependence on foreign oil while simultaneously conserving "scarce" natural resources. The result of the administration's legislative package was the passage of the National Energy Acts which were signed into law by the President on November 9, 1978.[1]

Contained within the Public Utilities Regulatory Policy Act of 1978 (PURPA) were two sections regarding small power production and cogeneration.[2] The PURPA was designed to encourage conservation and efficiency in energy use, regulate wheeling of bulk power, and provide incentives for industrial cogenerators and small power producers.[3]

At present, small-scale renewable technologies are not a major factor in the nation's overall electricity supply, accounting for less than one-half of one percent of total generating capacity. Traditional utility forecasts of electricity supplies have not even included these resources in capacity planning.[4] Currently, with oil prices falling, renewable energy tax credits being phased out, and cutbacks in federal research and development support, there is a tendency to down play the future role of renewable technologies.[5] Market penetration of renewable technologies is growing, however, and most have attractive features--including short lead time, modular design characteristics, reduced environmental impacts, and inflation-proof fuel costs--that make them especially appropriate for deployment in today's uncertain utility planning environment.[6]

Although the portion of electrical power generation provided by cogeneration and small power facilities remains small, tremendous growth has occurred in the application of these technologies during the years since enactment of PURPA (Figure 1). Whether measured by the increase in total dollars expended on cogeneration equipment and related systems, by the number of applications for qualifying facility status filed with the Federal Energy Regulatory Commission (FERC), or by the increase in the nation's electrical capacity contributed by PURPA systems, it is clear that these facilities are beginning to contribute significantly to America's energy supply and have become an important factor in planning for the nation's energy needs to the year 2000.[7] Table 1 provides information regarding potential electrical power production by cogeneration.

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[2]Section 201, 92 Stat. 3134, 16 U.S.C. § 796(16) through (22), and §210, 92 Stat. 3144, 16 U.S.C. § 824a-3.

[3]Cogeneration is the sequential production of both electrical (or mechanical) energy and thermal energy from the same primary energy source.

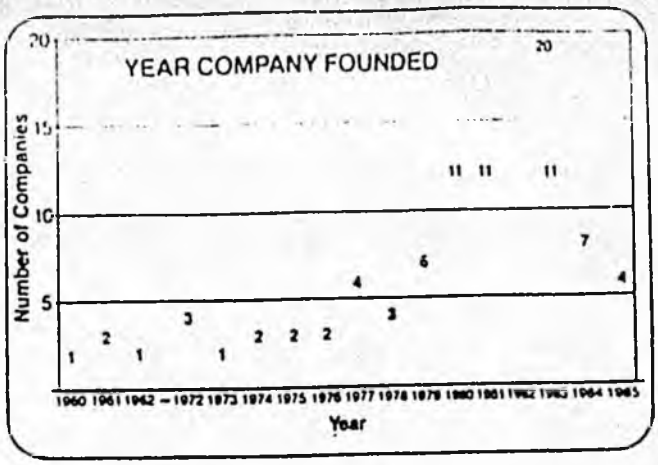
[4]The exception to this is California, which has adopted an avoided cost methodology for electrical capacity production.

[5]Scott A. Fenn, "Renewable Power Generation: Beyond the Shakeout," Public Utilities Fortnightly, November 13, 1986, p. 24.

[6]Ibid., p. 25.

[7]Michael J. Zimmer and Beverly E. Jones, "Cogeneration: Boon or Bane to Consumers?" Public Utilities Fortnightly, June 12, 1986, p. 23.

Figure 1



Source: Fenn, op. cit., p. 27

TABLE 1

Summary of Cogeneration Potential Compared to Current Capacity of Operating Power Plants as of 1983 (Megawatts)

STATE	POTENTIAL INSTALLED COGEN. CAPACITY (1)	TOTAL CURRENT INSTALLED ELEC. CAPACITY (2)	COGEN. AS A PERCENT OF TOTAL ELEC. CAPACITY
ALABAMA	1,017	19,199	5.30
ALASKA	185	1,444	12.81
ARIZONA	145	11,015	1.32
ARKANSAS	353	8,796	4.01
CALIFORNIA	3,944	39,821	9.90
COLORADO	135	6,501	2.08
CONNECTICUT	258	6,107	4.23
DELAWARE	188	2,053	9.16
DIST OF COLUMBIA	1	868	0.12
FLORIDA	1,016	31,893	3.19
GEORGIA	920	17,562	5.24
HAWAII	147	1,482	9.92
IDAHO	21	2,020	1.04
ILLINOIS	1,408	29,710	4.74
INDIANA	502	18,700	2.68
IOWA	482	8,815	5.47
KANSAS	583	9,488	6.14
KENTUCKY	534	15,965	3.34
LOUISIANA	3,298	15,695	21.01
MAINE	529	2,396	22.08
MARYLAND	410	9,816	4.18
MASSACHUSETTS	533	9,910	5.38
MICHIGAN	631	22,058	2.86
MINNESOTA	370	8,610	4.30
MISSISSIPPI	385	5,825	6.61
MISSOURI	271	15,720	1.72
MONTANA	0	3,219	0
NEBRASKA	217	5,895	3.68
NEVADA	5	4,564	0.11
NEW HAMPSHIRE	250	1,536	16.28
NEW JERSEY	1,418	13,785	10.29
NEW MEXICO	206	5,393	3.82
NEW YORK	2,126	12,040	6.64
NORTH CAROLINA	882	18,419	4.79
NORTH DAKOTA	221	3,828	5.77
OHIO	2,103	27,467	7.66
OKLAHOMA	475	12,560	3.78
OREGON	454	10,576	4.29
PENNSYLVANIA	2,512	14,824	7.21
RHODE ISLAND	82	270	30.35
SOUTH CAROLINA	940	12,316	7.79
SOUTH DAKOTA	0	2,432	0
TENNESSEE	654	18,188	3.60
TEXAS	5,110	57,615	8.87
UTAH	72	3,032	2.38
VERMONT	38	949	4.00
VIRGINIA	784	11,513	6.81
WASHINGTON	700	21,808	3.21
WEST VIRGINIA	260	15,156	1.72
WISCONSIN	1,241	10,721	11.58
WYOMING	308	5,920	5.20
TOTALS	35,344 MW	655,493 MW	6.00

SOURCES: (1) Dun & Bradstreet Technical Economic Services and TRW Energy Development Group, Prepared for U.S. Dept. of Energy, Industrial Cogeneration Potential (1980-2000) for Application of Four Commercially Available Prime Movers at the Plant Site (August 1984).

(2) As reported by all utilities to Department of Energy.

This growth in cogeneration and renewable energy facilities has not been achieved without some difficulties. The struggle often has involved a portion of the energy industry which could stand to gain the most from a cooperative partnership with these budding technologies--the electric utilities.[8] The suppliers and developers of these newer energy technologies have not been dominated by the traditional utility industry. The utility industry, with a few notable exceptions, has been content to allow nonutility companies to develop and serve as a proving ground for these high-risk new technologies. Development of renewable technologies is being carried out principally by a diverse group of nonutility developers ranging from multinational aerospace and petroleum companies to small, entrepreneurial firms founded on the work of a single investor.[9] One of the principal intents of PURPA was to facilitate the incorporation of these technologies into the electrical regulatory process and markets and thereby encourage their development.

The resistance of utilities is, in part, a result of a broader restructuring of the electrical production industry. Traditionally, electric utilities have enjoyed geographic monopolies under conditions of rapidly growing power consumption. The nationwide decline in growth of electrical demand, coupled with increased competition from unregulated industries (such as the producers of insulation and more efficient lighting systems) and other utilities marketing surplus power, has made the production of electricity a more competitive industry. Perhaps the most important new form of competition for electric utilities in the long run, however, is the emergence of nonutility power producers selling power to the grid under provisions of the PURPA.[10]

With the development of PURPA, Congress gave the FERC a mandate to prescribe rules as it determined necessary to encourage cogeneration and renewable power production. Those rules were to require electric utilities to offer to purchase electric energy from PURPA facilities (referred to as "qualifying facilities"). The regulations were to ensure that the rates for such purchases would be just and reasonable to the consumers of the electric utilities and in the public interest, would not discriminate against the PURPA facility, and would result in a rate which would require the utility's customers to pay no more than they would have paid for electricity had the utility produced the electricity or purchased it from another source.[11] Thus, the price a utility would pay for electricity produced by a qualifying facility would equal the utility's "avoided cost."

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[8]Ibid.

[9]Scott A. Fenn, "Renewable Power Generation: Beyond the Shakeout," p. 26.

[10]Ibid., p. 24.

[11]PURPA § 210(b), 16 U.S.C. § 824a-3(b).

Rates for electricity purchased from qualifying facilities (QF) by electric utilities based on avoided costs fall generally into two categories: capital costs and running or operating costs. The QF is entitled to a capacity payment when the utility can avoid the capital costs of building a new generating unit by purchasing electricity from the QF. Whether or not the utility must incur capital costs to supply the needs of its customers, the utility is expected to save operating costs when it purchases electricity from a QF instead of producing the electricity from its own plants. The operating cost savings are intended to be passed on to the QF in the form of energy payments.[12] The conditions under which capacity costs should be included in avoided costs calculations has been the source of considerable debate on both the state and federal utility regulatory level. The debate is a result of both the regulatory complexities of determining avoided costs and the balancing the interests of utilities, qualified facilities, and electric consumers.

Bradley Lake Project Financing and Power Sales Agreement

The PURPA requires a public utility to purchase electric power and energy from qualifying facilities at the utility's avoided cost. As mentioned above, these avoided costs are the cost a utility would avoid by purchasing power from a qualifying facility rather than generating power itself or purchasing the power elsewhere. As a result of the State subsidy of the Bradley Lake project, avoided cost calculations for the four planned Railbelt PURPA facilities can be expected to be lower than otherwise would be likely.

The developers of all four of the PURPA projects have filed complaints with the Alaska Public Utilities Commission (APUC) against the utility to which they seek to sell power.[13] Each complaint requests the APUC to determine the avoided cost the utility is required to pay to qualifying facilities under PURPA. The complaints, and particularly the SGI complaint, also seek to prohibit the utilities from making power purchases, such as from the Bradley Lake project, that would eliminate the need for power from the private project.

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[12]Robert D. Stewart, Jr., "The Law of Cogeneration in Oklahoma," Public Utilities Fortnightly, November 27, 1986, p. 24.

[13]The four private sector power projects proposed in the Railbelt include AEM Corp. with a 25 Mw "waste coal" project in Healy selling to GVEA; SGI, Inc. with a 50 Mw waste coal project selling to AML&P; Mat-SU Energy Corp. with 20 Mw peat facility selling to MEA; and Valley Energy Corp. with a 15 Mw project fired by wood chips selling output to MEA.

Under current State law--which requires the APUC to review wholesale power sales agreements--the significance of these filings are twofold. First, because the qualifying facilities have filed dockets prior to the APUC review of the Bradley Lake Power Sales Agreement, capital costs of the Bradley Lake project would be included in the calculation of avoided costs. The second factor, however, is that because the Bradley Lake project is the "competing" incremental power purchase, the avoided capital cost would be reduced to the extent that the State subsidizes the construction of Bradley Lake. Given the APUC's authority under the current State law, Bradley Lake capital costs would be included in the calculation of avoided costs for the qualifying facilities in the Railbelt.

If Senate Bill 22--which retroactively removes APUC's authority to review wholesale power sales agreements--is passed, a second scenario results in which Bradley Lake capital costs would not be included in the calculation of avoided costs for power purchases from qualified facilities. This is based on the assumption that the Railbelt utilities will have entered into the Bradley Lake Power Sales Agreement and will have no further need for electrical power generation capacity. Once a generating facility (e.g., Bradley Lake) has been constructed, its capital cost cannot be considered part of a utility's avoided costs.[14] After the completion of the Bradley Lake project, our analysis of Railbelt demand (see our March 18 memorandum) indicates that there will be no additional generating capacity requirements until approximately 1998. Therefore, there would be no avoided capital costs for PURPA facilities. Removal of capital costs in the avoided cost calculations can be expected to have a significant impact on the economic feasibility of planned PURPA generators in the Railbelt.

Avoided costs are calculated on an individual utility basis. If SSSB 22 is passed, only operating costs would be included in the calculation of avoided costs. Because of the complexities and the variability of factors influencing these avoided cost calculations (such as what portion of each utility's electrical generation and/or purchases is Bradley Lake power), it is difficult to estimate the affect of Bradley Lake power on avoided operating costs in the Railbelt. In a recent letter,[15] Ted Moninski, of the APUC, indicated that after the seven Railbelt utilities have signed a contract requiring them to purchase Bradley Lake power, the avoided operating cost to be paid to a qualified facility would most likely be the price of Bradley Lake power--providing the purchasing utility required

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[14] Even though Bradley Lake will not have been completed, the take or pay provision of the power sales agreement will commit the signing utilities to Bradley Lake generating capacity.

[15] T.S. Moninski II, letter to Rep. Kay Brown, March 31, 1987.

additional power.[16] The price at which the Alaska Power Authority sells electricity to the Railbelt utilities becomes the incremental cost for the purchase of additional power. If the utility had no power requirements in addition to Bradley Lake power, the avoided costs would probably be below the cost of Bradley Lake power.

The public financing of the Bradley Lake project would lower the cost of Bradley Lake power. A qualifying facility under private financing might not be able to provide power at the avoided cost resulting from the public financing of the Bradley Lake project. Economic theory suggests that private financing of and production from PURPA qualifying facilities will be less with public funding of the Bradley Lake project than without. This implies that, ultimately, the State's financing of Bradley Lake will probably displace or delay at least a portion of private financing and construction of PURPA facilities in the Railbelt. This is based on the assumption that the cost of Bradley Lake power would be considered the the incremental avoided cost.

It is unlikely that Bradley Lake capital costs would be excluded from avoided cost calculations, however, because the PURPA also requires the APUC to enforce the obligated, regulated utilities to purchase power from qualifying facilities at avoided cost. Because this is a federal regulation, this aspect of the APUC's review of the Bradley Lake Power Sales Agreement cannot be eliminated by the Alaska State Legislature's removal of APUC's authority to review wholesale power sales agreements as proposed by SSSB 22. If APUC authority is removed, affected parties would most likely petition the APUC under the federal statute. Ultimately, the qualifying facilities would have standing in federal district court and the matter would pass out of State jurisdiction to the FERC. It appears that the State would retain the greatest level of control over the Bradley Lake Power Sales Agreements by not passing SSSB 22.

While there are relatively few cases regarding the application of FERC regulations in a situation analogous to the Railbelt's Bradley Lake project and qualifying facilities, one similar ruling should be noted. In a docket pertaining to the Oglethorpe Power Corporation (RE81-56), the FERC decided that when a utility sells power at wholesale to utilities who in turn distribute electricity at retail, it may collectively excuse the individual retail utilities from the obligation to purchase power from the qualifying facilities and instead allow the obligation to fall upon the wholesale generation and transmission company. Under this FERC ruling, the Oglethorpe Power Corporation was required to purchase power and resell it. This ruling implies that as part of the Bradley Lake Power Sales Agreement, the Alaska Power Authority, as the wholesale distributor of electric power, could be required to purchase and resell power from qualifying facilities.

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[16] It is uncertain, however, why the APUC would consider Bradley Lake power to be the basis for determining avoided costs rather than any of the utilities' more expensive increments of power.

The Oglethorpe decision is founded on the idea that the FERC ought to enjoy considerable latitude in making sure that the goals of PURPA--the fostering and encouragement of cogeneration and small power production--will not be compromised. Thus, even though there is no specific PURPA provision or regulation allowing for a waiver of the obligation to purchase electricity from a QF, the FERC decided that such authority was implicit where necessary to accomplish the stated statutory objective. In Oglethorpe, that authority rested upon a catchall clause in PURPA allowing the FERC to adopt "such rules as it determines necessary" to encourage cogeneration development.[17]

In the case of Oglethorpe Power, the system was operated in such a way that it was economically practical for the central wholesale arm to coordinate all QF purchases rather than to incur the expense and inconvenience of requiring each retail utility to develop and install an administrative and engineering staff for QF purchase operations. Therefore, the system was allowed to concentrate QF purchases in one spot.[18]

It should be noted that small hydroelectric projects can be qualifying facilities under PURPA. The Bradley Lake project, however, exceeds the 80 Mw capacity limit.

I hope this information is useful. If you have additional question, please do not hesitate to contact me.

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[17]Bruce W. Rastford, "Pages from the Editor," Public Utilities Fortnightly, November 28, 1985, p. 4.

[18]Ibid.

Introduced by Hanoski and Kosch

RESOLUTION 87-39

CITY OF HOMER
HOMER, ALASKA

A RESOLUTION OF THE HOMER CITY COUNCIL SUPPORTING ADOPTION OF CSSB-22 (FIN) WHICH WOULD DELETE ALASKA PUBLIC UTILITIES COMMISSION'S REVIEW OF BRADLEY WHOLESALE POWER AGREEMENTS WITH THE RAILBELT UTILITIES.

WHEREAS, the Homer City Council has consistently supported construction of the Bradley Hydroelectric Project; and

WHEREAS, the Alaska Public Utilities Commission's (APUC's) review of Bradley wholesale power agreements with the Railbelt Utilities may jeopardize funding of the project; and

WHEREAS, CSSB-22 (FIN) would delete Alaska Public Utilities Commission's (APUC's) review of Bradley wholesale power agreements with the Railbelt Utilities.

NOW, THEREFORE, BE IT RESOLVED that the Common Council of the City of Homer respectfully urges passage of CSSB-22 (FIN) which would delete Alaska Public Utilities Commission's (APUC's) review of Bradley wholesale power agreements with the Railbelt Utilities.

BE IT FURTHER RESOLVED that the City Manager is requested to distribute copies of this resolution to Governor Steve Cowper, all members of the legislature, the Alaska Municipal League and the Alaska Power Authority.

DATED at Homer, Alaska this 11th day of May, 1987.

CITY OF HOMER

John P. Calhoun, Mayor

ATTEST:

Patti J. Whalin, City Clerk

MEMORANDUM

TO: Ken Johnson (ARECA)

FROM: Tom Martin

DATE: May 13, 1987

RE: HRA Report on Railbelt Interties (May 9, 1987)

Page 2: Adding a transformer at Pt. MacKenzie or Teeland will not improve transfer capability to Anchorage or Fairbanks -- contrary to HRA report.

As discussed in the rebuttal paper to HRA's Economic Analysis of the Railbelt Interties, the load forecast prepared by HRA for the utilities is artificially low. No rigorous analysis was performed to arrive at HRA's forecast of demand.

The statement that Tesoro "intends" to self-generate is without any basis as yet. The assumption that this load will be lost is far-fetched.

Page 3: Kelly should comment on the load that was previously assumed to be picked up by GVEA.

Page 5: The HRA assumption that its study is better than those prepared on behalf of the APA is ridiculous given the time and expertise they have had at their disposal. ("Cast not the first stone")

Page 6: Railbelt Energy demand -- HRA's analysis has no basis in either expertise nor modeling capabilities.

Page 7: The statement regarding contact with Steve Severy of Marathon was at the least disingenuous. Of course, they (oil and gas producers) are going to downplay the differential to get a better price. Severy's statement is self-serving and should be ignored.

The "undecut" could be 70¢/MMBTU as easily as 60¢ or 50¢. Again, HRA is in no position to estimate these costs and should admit to it.

Using the Enstar argument that the delivery cost is not avoided and therefore that this is not a savings to ratepayers ignores the fact that it is really an Enstar stockholder problem. Since

most of the distribution costs are picked up by retail customers of Enstar and since the power generator users of Enstar gas do not pay for much of Enstar's distribution system, the reallocation issue is not so significant as Enstar makes out.

The argument also ignores the fact that over the same time that an electricity generator using non-Enstar gas is going up, so also is Enstar's own retail gas requirement.

The argument that new generators could be placed at Beluga to avoid building the Intertie from Anchorage to Kenai ignores the fact that:

1) The capacity of this line is limited and that CEA will not turn over capacity to others without compensation (which is not accounted for).

2) Only one or two units can be added at Beluga before another line must be built anyway.

3) Having all generators essentially at Beluga violates every principle of prudent planning by not spreading risks.

Page 8: The HRA argument about the reserve sharing value of the interties again is an indication that they do not understand that peak demand is highly sensitive to temperature lows in winter and that loss of load probability is the principle barometer for determining timing of capacity addition in the industry.

Using the HRA's own Figure 3 indicates that the capacity shortfall occurs in 2006 rather than 2011 as indicated for the Kenai Pennisula in the body of the report.

(Question: when did reserve sharing benefits first show up in the Lotus report?)

The argument that GVEA's coal price of $1.31/mmBTV will remain constant is absurd. GVEA will not likely be able to increase the capacity at Healy when this price occurs. As a result, it will be necessary to ship the coal either north or south at a substantial cost.

Page 9: It is true that MAPCO pays a fee for inserting #4 fuel oil back into the pipeline. However, the implication is that it effectively costs MAPCO money to get rid of this oil. Actually, MAPCO still earns money, but less, due to the penalty and transportation. HRA states that the price for oil at $20/BBL should be 39¢/gal since the price of this oil is currently 33¢/gal in Fairbanks while the world oil price

if $17/BBL. Actually, GVEA pays now a price of 41¢ while the world oil price is about $18/BBL.

GOLDEN VALLEY ELECTRIC ASSOCIATION INC. Box 1249, Fairbanks, Alaska 99707-1249, Phone 907-452-1151

May 13, 1987

RE: Response of Golden Valley Electric Association to House Research Agency "Railbelt Intertie Analysis - Research Request 87.253"

Dear Legislator:

May 12, 1987 I received a copy of the referenced analysis. Our reply to this analysis has been prepared very quickly because the Legislature adjourns in five days. I certainly understand that Ms. Fay was also required to respond to APA's analysis very quickly and that her experience associated with electric utilities, and particularly generation and transmission systems, is limited. This is meant as a compliment to the hard work she expended in preparing the analysis.

The Research Agency analysis is so seriously flawed in the following critical areas that its conclusions must be dismissed:

1. Load growth projections
2. Fuel price predictions

A third area of my concern involves the tone of the analysis perhaps more than any technical considerations. For example, when Ms. Fay assesses the benefits of the present interim intertie between Fairbanks and Anchorage, she states that the State is receiving no return on its equity investment. The return on this equity investment is being received by the consumers of the Railbelt every day. I submit that there are rather few State investments which can demonstrate such benefits and yet impose no ongoing operational costs upon the State because the users are paying 100% of the costs associated with the investment. The interties, like roads, bridges, community centers, etc. are long-life facilities (35-50 years) and therefore must be sized initially to accommodate usage levels over their entire use-lives. Although the cost-benefit ratio of the interties relative to <u>direct</u> benefits is near one, the combination of direct and indirect benefits to the consumers of the State of Alaska over the life of the project makes the investment prudent. All seven railbelt utilities and the Railbelt Energy Council disagree with Ms. Fay's final conclusion on page 10 that states "...the economic benefits of upgrading the Anchorage-Kenai and Anchorage-Fairbanks interties do not justify the projects at this time." I submit that even if the Research Agency load growth and fuel price assumptions were correct, that the interties are a wise investment which will serve over three-quarters of the State's residents now and for several generations. I guess I'm more than a little bit concerned that the Research Agency would submit this flawed analysis to legislators and pretend that it should replace the recommendations of the seven Railbelt electric utilities and the Railbelt Energy Council concerning expenditures from the Railbelt Energy Fund. Due to the limited time before the legislature adjourns, I will respond to only a few areas of concern with the Research Agency analysis. My comments will relate to the Fairbanks area. My fellow utility managers are responding as quickly as possible to the flaws in the Research Agency's analysis concerning the South-Central and Kenai systems.

Capacity

The Research Agency has made several wrong assumptions relative to Fairbanks capacity, including but not limited to counting Chena 1, 2, 3 and 4 as operable units. These units are ancient and either severely restricted by DEC or, as in the case of #4, are actually totally inoperable. They have also counted the proposed AEM 25-megawatt PURPA generation in their capacity calculation. This is absurd. This California-Idaho based outfit does not have a site, permit, fuel supply or contract with GVEA. We have been battling them before the Alaska Public Utilities Commission (APUC) since 1984 principally because the contract they demanded that GVEA sign would have resulted in a $10 million per year rate increase for our consumers. The proposed AEM machine should not be counted. The 70-megawatt Fairbanks intertie should also not be counted as capacity since, unless GVEA builds a 70-MW generator in South Central, or participates in a new unit with one of the South-Central utilities, or purchases firm capacity from South Central utilities, the intertie is not able to be counted as GVEA capacity.

The Research Agency makes some very serious errors in assuming that the capital costs of gas-turbines and coal-fired plants is identical. The cost of a coal-fired plant is typically 5 to 8 times higher than a similarly-sized gas turbine. It is also interesting that House Research seems persuaded that coal costs will not increase. The FMUS coal price recently increased roughly 40% overnight and GVEA's coal price has tripled in 15 years.

Load Projections

House Research predicts a growth between 1986 and 2010 of 1/2% per year. This is ridiculous. During 1986 when our economy was in the pits, GVEA grew at a weather-adjusted 6% in kilowatt hour sales. The first-quarter 1987 weather-adjusted growth rate is 2%. Since 1980, GVEA peak demand has grown from 70-MW to 85-MW, an annual growth rate of 4 1/2%. Projecting this post-pipeline growth to 2010 would result in GVEA's peak hitting 240 MW. Adding MUS would take the need to over 275 MW. GVEA's power requirements study, which was completed by CH2M Hill, was used in the APA load projections. It is a conservative report when compared with past load growth and should not be replaced by the horseback judgment of the Research Agency. GVEA connected 900 new services during 1986. Our applications for new services to date in 1987 are running only five behind last year. The Fairbanks economy is not sparkling, but our utility expects to continue to experience steady growth.

Intertie Usage

The Research Agency states that "the primary reason for the very low usage of the intertie in 1986 was the substantial decline in the price of diesel in Fairbanks and the consequent reduction of economic incentive to purchase over the intertie." Wrong! The primary reason for GVEA operating oil-fired generators in winter 1986 related to: (1) GVEA could not maintain adequate voltage levels with only its 25-MW Healy coal-fired unit running and no GVEA oil-fired generation running in Fairbanks. During February 1987 we completed installation of 32 megavars of capacitors at a cost of $750,000. This project enables us to now maintain voltage under peak load conditions with all GVEA

units north of Healy shut down. (2) The FMUS Chena 5, 20-MW coal-fired unit was shut down for much of the past two winters. Attached is a memo from our Dispatch Superintendent which demonstrates one of many occasions when the present intertie had insufficient transfer capability to supply all of GVEA and FMUS with only the Healy coal-fired unit on-line. This caused us to continue to run our oil-fired units. At no time, regardless of price, has the cost of oil in Fairbanks for any 30-day period been low enough to cause GVEA to start an oil-fired generator in Fairbanks rather than purchase over the intertie. However, once a unit was started for other reasons, eg: voltage support or because the intertie capacity is insufficent, then the incremental cost from our North Pole unit was, during certain periods last winter, competitive with delivered Anchorage gas-fired kilowatt hours.

During April 1987, 24 million kwhs were purchased from the Anchorage area for a savings to Fairbanks consumers of over $300,000. Anchorage area consumers made a profit on these same sales of over $150,000. All of these cost and profit dollars were returned to the Railbelt consumers through automatic electric rate flow-through mechanisms.

Fuel Price

The Research Agency talks about inability to predict the Fairbanks liquid fuel price because of "imperfections in the Fairbanks fuel market." GVEA's oil price follows the world-market price of ANS crude because of the cost-plus-margin contract GVEA has with MAPCO. Our cost runs about $9 a barrel over wellhead. A $10 wellhead creates a GVEA price of about 45 cents per gallon; a $15 wellhead creates a price of about 57 cents per gallon. A world price of $20 per barrel would mean a GVEA cost of about 52 cents per gallon, not 39 cents per gallon as projected by the Research Agency. The Agency also cites 33 cents per gallon price for liquid fuel in Fairbanks based on $17 per barrel world oil price. The actual number is 45 cents per our contract. Mr. Wright, manager of MAPCO, will confirm that MAPCO has absolutely no intention of selling its liquid fuel below wellhead cost plus transportation. He has also indicated to us that he is developing markets for turbine fuel and, although he has offered some spot price deals during the past year, they must not be relied upon. The House Research Agency probably made their errors based on three factors: (1) spot prices. (2) Inaccurate information caused by the fact that GVEA's invoiced fuel price is an estimate based on previous months' prices. The rapid price increase in March 1987 through May 1987 has not shown up on GVEA's invoices because of the two-month delay in MAPCO determining the actual cost of crude for each month. (3) GVEA realizes a 6 cent per gallon discount on about 10 million gallons per year of its purchases because of its assignment of royalty oil to MAPCO. The Research Agency's Table 4 is full of errors. For example, the July 1986 price was 28 cents per gallon, not 12 cents per gallon. The result of these errors is the Research Agency's erroneous conclusion that no intertie is needed and that Fairbanks should go merrily forth burning oil. The 50,000 residents this Cooperative serves strongly disagree!

Military Installation Demand

The Research Agency casually dismisses our projection that 30-MW of military electrical demand will be served by Fairbanks utilities. They ignore the fact that within the past year we have picked up the Murphy Dome AFS and over the past several years have picked up several other off-base sites. We are currently in negotiations to pick up the entire load at Fort Greely and expect success during 1987. We are now serving two megawatts of military housing at Fort Wainwright which was built during the past year.

The military average cost per kilowatt hour is over 7 cents. We can provide power to the military for slightly more than half their cost. GVEA can also help Fort Wainwright eliminate a serious environmental problem caused by ice fog which shuts the Richardson Highway down during very cold weather when their condensing pond generates fog. The fact of the matter is that GVEA will be serving additional military loads in the future.

Conclusion

The House Research Agency concludes that because of insufficient fuel price differentials and insufficient demands for power, the interties are not feasible. Both of their reasons leading to the conclusions are full of errors; therefore, their conclusion is erroneous. The interties should be built from the Railbelt Energy Fund as recommended by the Railbelt Energy Council and all seven Railbelt electric utilities as soon as possible.

Mike Kelly
General Manager

INTER-OFFICE MEMO

GOLDEN VALLEY ELECTRIC ASSOCIATION

March 10, 1987

To: Bob Orr/Mike Kelly

From: Marvin Riddle

Subject: Alaska Intertie Usage

On Tuesday, March 3, 1987 we were preparing to shut down the North Pole generator and purchase power. FMUS's Chena 5 Plant was shut down for maintenance.

In scheduling power, we discovered that the economy energy was available in Anchorage and it would have been the cheapest source, but the combined system loads of GVEA and FMUS were 105 MW. The Healy Plant should have been the only unit being run based on economics, but the Intertie is only capable of transmitting 70 MW.

Therefore, we were transmission line capacity deficient by 10 MW. Since we could not decommit the North Pole unit, the economics changed and the line could not be loaded fully.

This has reoccurred six other days since March 3 and I suspect it will be a limiting factor through the entire month of March.

Marvin Riddle
System Dispatch Supt.

TOTAL P.02

Testimony of Ralph (Andy) Johnson
May 8, 1987 House Judiciary Committee
SB 22

My name is Ralph (Andy) Johnson. I am a Native Alaskan by birth and inheritance. I am now a retired power engineer who has over forty years of experience in the production, transmission, and distribution of electricity. I received my technical education from college extension courses, correspondence courses and home study.

My power plant experience started in a small hydro-electric power plant at Sisters Lake on Chichagof Island in 1941. (I had worked as a lineman for O.E. Schombel in Haines, Alaska before that.) 1942-1947 in own oil-fired steam powerplant on Japonski Island, Sitka. 1945-1953 electrical contractor, Sitka and Anchorage. 1953-1973 Chugach Electric Association in Anchorage, Knik Arm, 1953-1966 coal-fired steam, 1966-1973 gas-fired, 1957-1973 construction and operation of Cooper Lake Hydro. 1961 and 1973 Bernice Hot Springs power plant, oil then oil or gas-fired gas turbine with waste heat boiler. 1963-1973 International Station power plant in Anchorage, oil, then oil or gas. 1965-1973 Beluga power plant natural gas fired turbines, construction and operation.

In a utility that was growing as fast as CEA was, we could not get money fast enough and would use up at least two year's money every year. We grew from a 9 megawatt peak in 1953 to an 180 megawatt peak in 1972. Part of my job at CEA at that time was to estimate the cost of hydro, diesel, steam and gas turbine power plants, run them on paper for thirty-five years, then recommend to the general manager which type to build, because of the big difference in capital costs of each type. The difference in interest costs more than bought the fuel for a gas turbine.

I was president of CIRI (Cook Inlet Region, Inc.) 1973 to 1975. Under my leadership, the corporation changed from one everyone thought would fail to a start of what it is today.

1975-1979 I was General Superintendent for Homer Electrical Association.

1977 to present I am President of Salamatof Native Association, Inc.

After Dale Teels introduction, I must say I am a friend of Mr. Teel and that I have no connection with his company. In fact, in 1959, before Anchorage Natural Gas was in existence, I tried to get CEA to build a gas turbine power plant in Kenai using cheap Kenai gas. The engineer for CEA and the manager at that time couldn't see a plant in Kenai. But Bud Schultz put the plan in operation in Beluga when he became manager.

Regarding Bradley Lake, two years ago, I proposed to build a gas turbine powered plant in Kenai if the State of Alaska would let me use the $250 million for thirty-five years. I would have given the utilities the 352 million KWH Bradley Lake would produce, sell them 270 million at $.02 per KW, then give them back the $250 million and the power plant.

I made a slightly different proposal this year, copies of which I am giving to you for later reading, plus a cost comparison I made of Bradley Lake versus a gas-turbine.

I am not hear to speak on any of the proposals. I am here to speak against the passage of SB 22.

First, I agree with what Mr. Barnes and Mr. Teel have already stated.

Second, the state of the art has progressed to the point where gas turbines with regeneration are the most cost effective and efficient thermal generation units today. CEA's plant at BLPP was, the, or one of the, first gas turbines that was used for base load power generation.

I am now going to comment on several statements made by previous speakers. A statement was made that the production of Bradley Lake (40 MW firm, 90 MW peak) was insignificant in the total Railbelt power system. I agree with this, but why should it cost almost as much as all the rest of the system. We need the APUC to be our watchdog and protect us from this kind of management.

A speaker stated that not knowing what the APUC would do about Bradley Lake cause the utilities to build Soldotna No. 1, a plant that is not going to be needed and cannot be economically run for at least three years. Then he stated that the REA's were very good at looking out for their consumers and a majority of them were in favor of their form of management. All the Germans were for Hitler, but was his management good? We, the consumer, have to pay for all the mistakes REA management makes, so again, we need an unbiased, professional, APUC watchdog.

The report by the Legislative Research Agency, dated 3/18/87, on page 25, shows construction cost of a gas turbine at 350 KW as $325 million and Bradley Lake at $244.6 million. Nowhere in the report can I find how these figures were derived. An 80 MGW GT installed cost $30 million today. Gas turbine life has been listed as 20-25 years.

Both CEA and Anchorage Municipal Utility have gas turbines that are over 25 years old and could be used as long as needed. As long as the proper annual repairs are made, a gas turbine will last as long as a hydro plant.

Proper management of a growing utility dictates base loading the most efficient unit and using the older, smaller (usually) unit for peaking. There will usually come a time when the smaller units are so insignificant that the space they occupy is more valuable to be used for some other purpose.

Using existing proposed contract prices today, an 80 MW gas turbine with switch gear and transformer can be turn-keyed for $30 million. If the balance of the $250 million Bradley Lake costs is invested and the interest used by the plant, 630,720,000 KWH can be produced for the system for $0.015 each and save the consumers of the Railbelt about $1 billion in 35 years, then return the $250 million.

The fact that a gas turbine of 80 MW capacity which can peak at 90 MW and produce almost twice as many KWH's as Bradley Lake has never mentioned in any of the report seems to me to be a deliberate omission to make Bradley Lake look better.

People say gas is too valuable for other purposes to burn for electrical generation, but it is okay to send it to Japan to use. Why shouldn't we be able to use it for cheap power generation?

Everyone says that Bradley Lake will be cheap power after fifty years. Who knows what we will be using for power fifty years from now? Many things that are commonplace today were not even dreamed of fifty years ago. We might be using fusion, solar, or even dropping rocks in a box.

Please don't remove what little protection a consumer has between him and the utilities.

No government dam has ever been built within the estimated cost. Some of you are quite familiar with Four Dam Pool, sometimes referred to as the Four Damn Fools. Do you want to subject us to the same problems?

Help us to keep a watchdog between us and the REA or APA. Don't pass SB 22 or any other bill that finances Bradley Lake.

It was also brought out in the testimony of those from the Railbelt that they would not sign a "take or pay" contract without the intertie line, another $200 million. The intertie is something that will be needed. Why blackmail the people into paying for Bradley Lake to get it?

Why should we spend $500 million dollars to get cheaper gas turbine generated power up the Railbelt?

If the state has more money than it knows what to use it for, build Bradley Lake and the intertie.

If you want to do something that will help Alaska, stop Bradley Lake. Build the intertie and pay for it out of the savings in the next 35 years.

Added on May 10, 1987

I see by today's paper that the Finance Committee approved $4.8 million to study a steam plant (105 MW) at Nenana; to let them spend $234 million in revenue bonds to give 600 people three years of construction and 500 people permanent jobs, this is what we can expect if SB 22 is passed. Another example why we need a watch dog. Is there no end to what the electrical industry is trying to do to us consumers? As long as anything can be part of the rate, there is no hope for us.

Ralph A. Johnson
Box 7031
Nikiski, Alaska 99635
Phone: 776-8701

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STATE OF ALASKA

ALASKA PUBLIC UTILITIES COMMISSION

Before Commissioners: Carolyn S. Guess, Chairperson
Melvin R. Weatherly
Susan M. Knowles
Louis E. Agi
Kathleen L. Whiteaker

In the Matter of the Filing of a Tariff Revision, Designated as TA49-10, Filed by COPPER VALLEY ELECTRIC ASSOCIATION, INC., for an Interim and Permanent Rate Increase

Docket U-84-69

STATEMENT OF ISSUE--CITY OF VALDEZ

The City of Valdez (City), by and through its counsel, Hughes, Thorsness, Gantz, Powell & Brundin, and pursuant to Order No. 4 in the above-captioned docket, submits its statement of issue to the Alaska Public Utilities Commission (Commission).

A review of the tariff revision, designated as TA49-10, filed by Copper Valley Electric Association, Inc. (CVEA) yields one overwhelming issue. That issue is whether the Commission has the statutory obligation to examine the cost of power of CVEA and to determine what items within that cost of power should be passed on by CVEA to the ratepayer. As is evident by AS 42.05.381, the Commission is statutorily mandated to protect the Alaskan ratepayer:

> Rates to be just and reasonable. (a) All rates demanded or received by a public utility, or by any two or more public utilities jointly, for a service furnished or to be furnished shall be just and reasonable. . . .

As is obvious from an analysis of CVEA's cost of power, the ratepayers of CVEA are paying for administrative costs which are neither just nor reasonable. The particular costs are completely unacceptable to valid rate-making practices.

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Since the cost of power is based upon an agreement between CVEA and the Alaska Power Authority (APA), it is necessary to look at AS 44.83.090 for the authority of the Commission with respect to power contracts. As is evident by subsection (b):

> The authority [APA] is not subject to the jurisdiction of the Alaska Public Utilities Commission. Nothing in AS 44.83.010-44.83.425 grants the authority any jurisdiction over the services or rates of any public utility or diminishes or otherwise alters the jurisdiction of the Alaska Public Utilities Commission with respect to any public utility including any right the Commission may have to review and approve or disapprove contracts for the purchase of electricity by a public utility.

It is clear from AS 44.83.090(b) that the legislature maintained the Commission's jurisdiction to protect the ratepayers of Alaska from overly aggressive cost of power contracts.

After a thorough review of Docket U-82-19, it is obvious that the Commission satisfies itself with working out the methodology of a flow-through cost of power adjustment on an interim basis and does not look further as to what specific items the price per kilowatt hour includes. This abdication of the Commission's duty under state law and its obligation to the Alaskan ratepayer is unforgivable. In effect, the ratepayer is put in the position of accepting whatever cost of power is arrived at between CVEA and APA. There has become, through Commission inaction, a deregulation of cost of power, perhaps the most important segment is the entire rate-making process.

As is indicated by Attorney Hoge's letter of February 26, 1985, to the Commission:

> In addition to the need for current adjudication of the rate redesign, the cost-of-power adjustment (CPA), Docket U-82-19, should also be included in this proceeding at this time. As of today, there have been twelve (12) interim orders issued in Docket

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U-82-19. The CPA needs to be made a permanent rate as part of CVEA's overall rate redesign. The rate redesign is premised on a single cost of service category for generation and transmission and the existence of an interim CPA is not compatible with that design. Simply stated, the rate redesign and the CPA are interrelated and dependent parts of this rate case.

In essence, each and every interim cost of power adjustment allowed on an interim, refundable basis, will be determined appropriate and receive the imprimatur of the Commission without any review of the elements included within the price per kilowatt hour cost of power figure. The City, as a ratepayer of CVEA, finds this procedure totally unacceptable.

The City respectfully requests that the Commission review the cost of power to CVEA. Further, the City requests that no permanent rate relief be granted CVEA without such a review. The Commission has a statutorily imposed duty to protect the Alaskan ratepayers; disavowal of this duty cannot be tolerated.

Respectfully submitted this 19th day of April, 1985.

HUGHES, THORSNESS, GANTZ,
POWELL & BRUNDIN
Attorneys for City of Valdez

By Mary K. Hughes
Mary K. Hughes

HUGHES THORSNESS
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Gas Turbine report given at the Nikiski Chamber of Commerce
on January 15, 1987 by Ralph A. Johnson

In making a comparison between the cost of Bradley Lake Hydro-project and a gas turbine in the Kenai area all the financial persons and reports that I saw seemed to use terms that the average lay person can't seem to make much sence out of, such as: discount-rates, net present value, net future value, etc..

I am going to use confirmed quotations, costs with estimated escalation and will talk only about todays dollars. Labor, taxes and miscellaneous expenses are the only things and the only quantities that were calculated in this method and I used a Danish diviation diget or a SWAG (scientific wild absolute guess) for those values. I think that it is only fair and reasonable to use the same parameters in all cost analyses, so I said that the State of Alaska would have to put up $200,000,000 the same as it will have to do for Bradley Lake.

The figures that I am quoting will vary somewhat from the gas turbine costs quoted by the APA in their report to Mike Navarre dated 1-2-87. I used one of their calculated kwh rates of $0.05 per kwh.

Energy produced by a gas turbine varies considerable in cost with the percentage of load the turbine carries hence the part-load operation of the turbine, with the rest of the capacity being carried as spinning reserve is more expensive than running it at high load which will supply twice as many kwh to the system as Bradley Lake.

I have a quotation from General Electric Company that they will install a turn key 80Mw ISO, Frame size 7 gas turbine for 250 per kw. This would include a turbine, building, fuel skid, transformer and circuit breaker. I have used $270 per kwh to be safe.

I have a gas price quote at $1.70 per mcf; with escalation of 4¢ per year.

With site improvements, power line and gas line connections total invested costs will be $30,000,000.

Using these costs I can and will build an 80MW gas turbine powered electric generation plant and supply the electrical consumers of south central Alaska with 600,000,000 kwh per year for the next 35 years. The plant would operate at a 90% plant factor and have a 90 MW peaking capacity. This will save the people of south central Alaska about $1,250,000,000 over the cost of Bradley Lake power. With a slight modification of terms I will do the same thing and return the $200,000,000 if a fifty year term is used.

GAS TURBINE PLANT FRAME 7 GENERAL ELECTRIC CAPITAL COSTS

Turbine 80 MW @270 kw (quoted $254)	$20,800,000
Land, 40 acres @ $6,000 per acre	240,000
Gas tap	250,000
Electric tap	250,000
Engineering	250,000
Site improvements	250,000
Finders fee	200,000
2 automobiles @ $20,000 each	40,000
Tools	50,000
Radio & phone	40,000
Miscellaneous	100,000
Spare parts	6,000,000
Total Capital Costs	$28,470,000

30,000,000 @ 7% 12 per year 35 years; $191660 x 12 =	$ 2,300,000
Labor 5 men @ $50.00 x 1.5 =	780,000
1 Superintendent @ 75.00 x 1.5 =	112,500
Miscellaneous expense, oil tools, etc	160,000
Annual maintenance expense	200,000
Annual expense less fuel	$ 3,552,500

Gas at 2.40 mcf 80,000 x ,9 plant factor t 8760=	630,720,000 kwh
630,720,000 x 12,000 ÷ 100000 = mcf	7,568,640
7,568640 mcf x $2.40 =	$ 18,164,736
Annual operating cost	$ 21,717,236
$ 200,000,000 @ 7% 420 pmts in 35 years =	1,272,712 pmt
12 pmts	15,532,552
630,720,000 kwh @ .01	6,307,200
Annual income	21,639,752
630,720,000 kwh @ .015 =	9,460,800
Total income	$24,793,352

3,000,000 profit per year
over a 35 year period
Bradley Lake cost= $.05kwh
CEA cost $.07kwh

$0.05 x 352,000,000 x 35 =	$ 616,000,000
$0.07 x 278,720,000 x 35 =	682,864,000
Cost of power for 35 years	$1,298,864,000

$0.15 x 630,720,000 x 35	331,128,000
Savings with gas turbine	$ 962,736,000

$27,649,600 savings/year

3-9-87

COST COMPARISON OF BRADLEY LAKE AND AN 80 MEGAWATT GAS TURBINE FOR 35 YEARS

Total invested dollars at Bradley Lake	$328,000,000.00
Total invested dollars at Gas Turbine	30,000,000.00
Capital costs at R% per annum 12 payments/year	
B.L. 328,000,000	$25,145,386.00
G. T. 30,000,000	2,299,883.00
35 year average operating cost less capital costs.	
B.L.	2,000,000.00
G. T.	1,252,000.00
G. T. average fuel cost	
630,p720,000kwh/yr, gas $2.40 mcf	
12,000 btu heatrate = 7,568,640 mcf	18,164,736.00
Total average annual operating costs	
B. L.	$27,145,386.00
G. T.	21,716,569.00
Average annual income and kwh cost	
B.L.	352,000,000 kwh
G. T. 80,000 x 8760 x .9 =	630,720,000 kwh
$27,145,386.00 ÷352,000,000 =	$0.07712
$21,716,569.00 ÷ 352,000,000 =	$0.0617/kwh
Gas turbine can produce 630,720,000 kwh annually.	
352,000,000 kwh x $0.039	$13,728,883.00
278,720,000 kwh x $0.039	10,870,080.00
Total cost to utilities	$24,598,080.00
Cost of 630,720,000 kwh from B. L. and Chugach Electric	
352,000,000 kwh at .07712	$27,145,386.00
278,720,000 kwh from CEA at .06 (est).	16,723,200.00
Total cost to utilities using B.L.& CEA	$33,446,400.00
Total yearly savings to utilities	$ 8,848,320.00

To make the comparison equal the G.T should be given at least $200,000,000.00 to use and pay back at 7% for 35 years. This would reduce the cost of power to the utilities even more.

Senator John B. (Jack) Coghill
Alaska State Legislature

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Juneau, Alaska 99811
(907) 465-4797

Box 55028
North Pole, Alaska 99705
(907) 488-0862

May 4, 1987

MEMORANDUM

To: Representative Donley,
House Labor and Commerce Committee

From: Senator Jack Coghill

Re: CSSSSB 22 (Fin), "An Act exempting certain telephone and electric utilities and certain transactions from regulation by the Alaska Public Utilities Commission; restricting the authority of the Alaska Public Utilities Commission in considering certain costs in connection with rates charged by a utility and with calculating power cost equalization; and providing for an effective date."

My original sponsor substitute was two-fold in purpose, the Senate Finance Committee version includes APUC dealings with certain power equalization calculations.

I will address each purpose separately. First, my original concept was to exempt small electric and telephone companies, those having less than 250 subscribers, from regulation by the APUC. The exemption now is raised to 500 subscribers. Presently the existing law specifies that small utilities with less than $50,000 gross annual income are exempt from regulation. This bill expands the definition to include subscribers. The high costs of energy in the rural areas still means low subscriber levels.

Many small electric and telephone companies have contacted me in the last two years to vent their frustrations concerning the cost of regulation. These utilities have to go through much the same process that the big companies do. These costs have been passed along to the consumer. Many others can not even afford to begin the process, so they are saddled with uneconomical rate structures.

I believe that if the APUC can not come up with a reasonable process to assist these small owners, then they should be exempted. I believe that consumers are more apt to petition the APUC for regulation if rates become outrageous, than petition to ask for deregulation.

Secondly, within the last month, a serious problem has developed between the APUC and the Alaska Power Authority. Secs. 1, 2, 3, 5, and 6 address this problem.

Up until last year and the passage of HB 314, the APUC "sunset" legislation, a wholesale power purchase contract between the APA and a regulated utility was not within the jurisdiction of the APUC. Under AS 42.05.431(b) the Commission now has the authority to approve power purchase contracts. Included in your packet is an attorney general's opinion on the issue.

This legislation restores the jurisdictional balance that existed before 1986 legislation and again exempts wholesale power sale contracts from APUC jurisdiction and specifies that all costs incurred by a utility in connection with a contract with the APA are considered prudent.

Leaving this situation unchanged will seriously affect the Bradley Lake hydroelectric project and future large project financing through revenue bonds. It also could allow the APUC to retroactively call for review of any old APA wholesale power agreements, for example the four dam pool.

Sec. 7 removes United States Department of Defense facilities from power cost equalization calculation.

I urge you to support this bill.

ELECTRIC AND TELEPHONE UTILITIES IMPACTED BY SB 22

I. 250 OF FEWER SUBSCRIBERS

Name of Electric Utility	Number of Users
Andreanof Electric Corporation	37
Aniak Light & Power Company, Inc.	170
Arctic Utilities, Inc.	25
Bettles Light & Power, Inc.	50
Egegik Light and Power Homer Lee Leonard d/b/a	65
I-N-N Electric Cooperative, Inc.	226
Levelock Electric Cooperative, Inc.	57
Manley Utility Company, Inc.	70
McGrath Light & Power Company[1]	220
Northway Power & Light, Inc.	91
Pelican Utility Company[2]	76
Tanana Power Company, Inc.[1]	178
Teller Power Company[1]	73

Name of Telephone Utility	Number of Main Access Lines
Whittier Telephone Company	178

II. 251 TO 750 SUBSCRIBERS

Name of Electric Utility	Number of Users
Gwitchyaa Zhee Utility Company	296
Haines Light & Power Company, Inc.	740
Yakutat Power, Inc.	298

Name of Telephone Utility	Number of Main Access Lines
Bristol Bay Telephone Cooperative, Inc.	730
Bush-Tell, Incorporated	347
Yukon Telephone Company	333

Information derived from the Alaska Public Utilities Commission's 1985 Annual Report.

1 Based on 1984 information

2 Based on 1983 information

ELECTRIC UTILITIES
(1985 Calendar Year)

Utility	Net Plant	Revenues: Total Revenues	Revenues: Net Income	Users
(Gross Operating Revenue greater than $5,000,000)				
Alaska Electric Light & Power Company	$ 36,936,458	$ 16,391,650	$ 798,097	10,710
Alaska Village Electric Cooperative, Inc.[1]	25,864,476	11,548,022	563,856	4,672
Chugach Electric Association, Inc.	360,541,250	97,051,827	14,533,318	58,713
Copper Valley Electric Association, Inc.	14,310,043	7,229,017	865,775	2,323
Golden Valley Electric Association, Inc.	122,259,215	42,647,009	5,373,060	25,059
Homer Electric Association, Inc.	70,947,394	20,477,467	2,655,173	16,165
Kodiak Electric Association, Inc.	26,568,384	12,106,789	2,804,601	4,024
Matanuska Electric Association, Inc.	99,197,479	39,021,882	4,316,796	26,678
Municipal Light & Power Department Municipality of Anchorage d/b/a	144,442,370	98,579,459	1,011,063	30,558
Subtotal	$898,657,065	$370,213,102	$30,881,739	178,902
(Gross Operating Revenue greater than $1,500,000 but less than $5,000,000)				
Alaska Power & Telephone Company	$ 2,902,490	$ 3,047,178	$ 352,082	1,529
Arctic Utilities, Inc.[2]	2,732,249	4,185,866	535,897	25
Barrow Utilities and Electric Cooperative, Inc.	1,105,062	3,200,768	928,716	1,231
Bethel Utilities Corporation, Inc.	2,781,816	4,240,333	128,504	1,631
Kotzebue Electric Association, Inc.	3,383,891	3,982,594	312,388	946
Nushagak Electric Cooperative, Inc.	4,844,043	3,282,667	104,124	1,082
Tlingit-Haida Regional Electrical Authority	3,501,162	2,864,219	249,277	911
Subtotal	$23,250,713	$31,773,625	$2,690,998	7,353

[1] Communities being furnished electric utility service by Alaska Village Electric Cooperative, Inc.

Alakanuk	Hooper Bay	New Stuyahok	Scammon Bay
Ambler	Huslia	Noatak	Selawik
Andreafsky	Kaltag	Noorvik	Shageluk
Anvik	Kasigluk	Nulato	Shaktoolik
Chevak	Kiana	Nunapitchuk	Shishmaref
Eek	Kivalina	Old Harbor	Shungnak
Elim	Koyuk	Pilot Station	Stebbins
Emmonak	Lower Kalskag	Pitkas Point	Togiak
Gambell	Marshall	Quinhagak	Tokcook Bay
Goodnews Bay	Makoryuk	St. Marys	Tununak
Grayling	Minto	St. Michael	Upper Kalskag
Holy Cross	Mountain Village	Savoonga	Wales

[2] Information Presented for Year Ended 6/30/85.

[illegible] UTILITIES (CONT.)
[illegible] Calendar Year)

Utility	Net Plant	Revenues: Gross Revenues	Revenues: Net Income	Users
(Gross Operating Revenue greater than $500,000 but less than $1,500,000)				
Aniak Light and Power Company, Inc.	$ 514,789	$ 618,573	$ 83,597	170
G & K, Inc.		(Not Reported)		
Gwitchyaa Zhee Utility Company[3]	555,659	671,536	(28,331)	296
Haines Light & Power Company, Inc.	1,177,642	1,307,287	91,302	740
I-N-N Electric Cooperative, Inc.	1,535,948	636,877	28,609	226
McGrath Light & Power Company		(Not Reported)		
Sand Point Electric Company, Inc.[4]		(Not Reported)		
Tanana Power Company, Inc.	751,297	831,920	33,870	178
Yakutat Power, Inc.	651,880	744,488	54,336	298
Subtotal	$ 4,987,175	$ 4,610,681	$ 285,388	1,908
(Gross Operating Revenue less than $500,000)				
Andreanof Electric Corporation[2]	$ 154,533	$ 98,852	$ 15,399	57
Battles Light & Power, Inc.	305,347	443,071	24,903	50
Egegik Light and Power Homer Lee Leonard d/b/a	244,407	167,855	62,769	69
Levelock Electric Cooperative, Inc.[3]	64,082	155,592	17,865	57
Manley Utility Company, Inc.[5]	187,974	50,976	(15,710)	70
Manokotak Power Company, Inc.		(Not Reported)		
Napaskiak Ircinaq Power Company	124,300	183,175	(4,675)	Not reported
Northway Power & Light, Inc.	194,639	328,534	26,724	91
Pelican Utility Company		(Not Reported)		
Teller Power Company Helen M. and Robert R. Blodgett d/b/a		(Not Reported)		
Subtotal	$ 1,211,200	$ 1,272,443	$ 109,406	313
TOTALS	$928,106,153	$537,869,851	$33,967,531	188,476

(2) Information Presented for Year Ended 6/30/85.

(3) Information Presented f[illegible]e-month period 7/1/84 - 4/30/85.

(4) Certificate No. 233 [illegible] ferred from Pelican Utility Company to Sand Point Electric Company, Inc., in 198[illegible]

(5) United Companies, Inc., acquired controlling interest of Manley Utility Company, Inc., in 1985.

TELECOMMUNICATION UTILITIES
(Long Lines and Local Exchange Carriers)
(1985 Calendar Year)

Utility	Net Plant	Total Revenues	Net Income	Main Access Lines
(Gross Operating Revenue greater than $4,000,000)				
Alascom, Inc.	$394,863,699	$290,913,750	$40,896,931	N/A
Anchorage Telephone Utility Municipality of Anchorage d/b/a	194,981,783	101,332,244	19,722,151	115,524
General Telephone Company of Alaska	11,507,574	7,409,69[illegible]	892,607	9,867
Glacier State Telephone[1] Company	81,032,395	38,183,932	6,815,238	26,212
Juneau and Douglas Telephone[2] Company	24,151,156	16,518,149	2,328,639	14,878
Matanuska Telephone Association, Inc.	84,761,609	24,648,697	2,289,692	-Not Reported-
Sitka Telephone Company[1]	17,098,806	7,678,049	394,816	6,550
United Utilities, Inc.	10,907,615	5,150,501	484,279	3,160
Subtotal	$819,384,837	$492,035,016	$75,824,353	176,191
(Gross Operating Revenue greater than $1,000,000 but less than $4,000,000)				
Arctic Slope Telephone Association Cooperative, Inc.	$ 4,301,006	$ 4,390,249	$ 829,683	1,215
Bristol Bay Telephone Cooperative, Inc.	3,312,409	1,417,223	(277,110)	730
Copper Valley Telephone Cooperative, Inc.	9,366,962	3,398,175	585,213	2,641
Interior Telephone Company	7,842,077	4,230,172	245,836	-Not Reported-
National Utilities, Inc.	1,271,048	1,309,041	279,438	1,081
Nushagak Telephone Cooperative, Inc.	3,078,305	1,606,325	223,807	1,120
OTZ Telephone Cooperative, Inc.	3,806,236	1,698,591	35,403	1,409
Telephone Utilities of[2] Alaska, Inc.	2,620,592	1,698,047	206,915	1,450
Subtotal	$35,398,635	$19,683,823	$2,129,185	9,646

(1) In 1986, these utilities were consolidated into Telephone Utilities of the Northland, Inc.

(2) In 1986, Juneau and Douglas Telephone Company was consolidated with Telephone Utilities of Alaska, Inc.

TELECOMMUNICATION UTILITIES (CONT.)
(Long Lines and Local Exchange Carriers)
(1985 Calendar Year)

Utility	Net Plant	Total Revenues	Net Income	Main Access Lines
(Gross Operating Revenue less than $1,000,000)				
Bush-Tell, Incorporated	$ 1,911,480	$ 663,813	$ 14,081	347
Mukluk Telephone Company, Inc.	2,861,082	952,095	44,782	-Not Reported-
Whittier Telephone Company[3]	—	—	—	—
Yukon Telephone Company	806,635	604,934	(151,792)	333[4]
Subtotal	$ 5,579,197	$ 2,220,842	$ (92,929)	680
TOTAL	$860,562,669	$513,939,681	$75,860,609	186,517

(3) Whittier Telephone Company was purchased by Yukon Telephone Company in 1985.

(4) Number of main telephones.

HOUSE COMMITTEE REPORT

(7)

Date referred: 4/24/87

FURTHER REFERRALS: Judiciary
Finance

DATE: ____________

The Labor & Commerce Committee has considered CSSSSB 22(Fin)

"An Act exempting certain telephone and electric utilities and certain transactions from regulation by the Alaska Public Utilities Commission; restricting the authority of the Alaska Public Utilities Commission in considering certain costs in connection with rates charged by a utility and with calculating power cost equalization; and providing for an effective date."

RECOMMENDS:

[ ] replace with ____________ [ ] the same title

[ ] attached amendment(s) [ ] a new title

[ ] do pass

[ ] do not pass

[X] no recommendation

[ ] individual recommendations

[ ] additional referral to the ____________ Committee

ADOPTS: [ ] ____________ letter of intent

ATTACHES NEW FISCAL NOTE(s):

[ ] fiscal impact

[ ] zero fiscal note

[ ] zero with analysis

[ ] same as previous fiscal note published ____________

[X] same as previous zero fiscal note published 3-12-87

SIGNING DO PASS:

[signature]

SIGNING OTHER RECOMMENDATIONS:

W Furnace NO REC

Cliff Davidson no rec

[signature] no rec.

David Donley NO REC

[signature] NO REC

[signature] Ellis NO REC.

____
Chairman's signature

No 11.8

STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE

Bill Version: SSSB 22(Fin)
Publish Date: 3-12-87

REQUEST:

Revision Date: March 10, 1987
Title: Act exempting certain telephone utilities and certain transactions from APUC regulations
Sponsor:
Requestor:

Agency Affected: Commerce & Econ. Dev.
BRU: Alaska Public Utilities Commision
Components: Operations

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL	-0-	-0-	-0-	-0-	-0-	-0-
REVENUE	-0-	-0-	-0-	-0-	-0-	-0-

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	-0-	-0-	-0-	-0-	-0-	-0-

POSITIONS:

FULL-TIME	-0-	-0-	-0-	-0-	-0-	-0-
PART-TIME						
TEMPORARY						

ANALYSIS:

Passage of this version of SB 22 will return the Alaska Public Utilities Commission to the level of activity which it had prior to the passage of the legislation last year concerning AS 42.05.431(b). Therefore, there will be no increased costs associated with this legislation.

Prepared by: T.S. Moninski II, Executive Director Phone: 276-6222
Division: Alaska Public Utilities Commission Date: March 11, 1987

Approved by Commissioner: D. Anthony Smith, Commissioner Date: March 11, 1987
Agency: Department of Commerce and Economic Development

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)
Senate Secretary

5535W31187a

MEMORANDUM State of Alaska

TO: Larry Crawford
Executive Director
Alaska Power Authority

DATE: July 31, 1984

FILE NO: 166-568-84

TELEPHONE NO: 276-3550

FROM: Norman C. Gorsuch
Attorney General
By: Carolyn E. Jones
Assistant Attorney General

SUBJECT: APUC jurisdiction over APA power sales agreements

You have asked what jurisdiction, if any, the Alaska Public Utility Commission (APUC) has to review and approve an agreement in which a local utility regulated by the APUC contracts to buy power from the Alaska Power Authority (APA). As we understand the facts, the APA anticipates selling and five local utilities intend to buy hydroelectric power generated by the "Four Dam Pool." One of the regulated utilities has questioned whether the APUC has jurisdiction to approve a wholesale agreement for hydroelectric power and the rates charged under the agreement. We conclude that the APUC has statutory jurisdiction to examine the terms of a local utility's wholesale power agreement with the APA only if the APUC has reason to investigate, as set out in AS 42.05.511, the local utility's management practices involved in entering the wholesale agreement. The APUC does not have authority to review rates or practices of the APA, and does not, in ordinary circumstances, approve a utility's wholesale power purchase agreements.

When the legislature first created the Alaska Power Authority, it provided that any contracts to sell power would be subject to review by the APUC. AS 44.56.090(8). This provision was consistent with the APUC's general authority, set out in AS 42.05.370 1/ to review contracts for the sale of electric power by a public utility because the APA was a public utility as defined in the APUC Act.

1/ AS 42.05.370 provides, in part,

> [E]very public utility shall file with the Commission . . . its complete tariff . . . and all classifications, rules, regulations, and terms and conditions under which it furnishes its services and facilities . . . to regulated or municipally owned utility for resale to the public, together with a copy of every special contract with customers which in any way affects or

(Footnote Continued)

Two years later, however, the legislature substantially amended AS 44.56.090 to provide, in part, that the APA would not be subject to the jurisdiction of the APUC. AS 44.56.090(b) (Renumbered in 1981 as AS 44.83.090(b). In his April 6, 1977 transmittal letter, Governor Hammond stated that the purpose of the proposed amendment was to clarify the relationship between the authority and the APUC by providing that the APUC would not have jurisdiction over the APA. Committee Report - House Finance, April 19, 1978 at . A review of the testimony before both the House and Senate Finance Committees reveals that the practical effect of this clarification was to eliminate problems the authority was having in financing its projects through the sale of bonds. Committee Minutes - House Finance, April 10, 1978 at 374; testimony of Eric Yould, Executive Director, Alaska Power Authority, id at 374, 376; testimony of Argetsinger, ("Bond people get very nervous when any outside agency gets into control.").

A second question is whether, in spite of AS 44.83.090(b), the APUC has jurisdiction to review the APA wholesale power agreements as part of its regulation of the purchasing utility. If so, the intent of AS 44.83.090(b) could be defeated. If the APUC has authority to approve or disapprove a wholesale power agreement that the purchasing utility intended to sign with the APA, the practical effect would be the same as if the APA had to submit the agreement to the APUC. The APA would not be able to market its bonds and finance construction of its power projects. Furthermore, while the APUC clearly has the authority to investigate a utility's rates when the utility is the selling utility, we can find no authority in AS 42.05 which would permit the APUC to review these wholesale purchase agreements from the point of view of the utility as a purchaser. See AS 42.05.141 (general powers and duties of APUC include investigating utility's rates and making and requiring just, fair and reasonable rates); AS 42.05.431 (APUC may fix just and reasonable rate after investigation and hearing).

The APUC does, however, have broad statutory authority to examine the management practices of a utility, AS 42.05.511 2/

(Footnote Continued)
relates to the serving utility's rates, tolls, charges, rentals, classifications, services or facilities.

2/ Sec. 42.05.511. Unreasonable management practices. (a)
(Footnote Continued)

. This broad authority has never been interpreted by the Alaska Supreme Court. It is conceivable that the APUC could rely on this power to investigate the wholesale power purchase agreement if it perceived that the utility had engaged in imprudent management by entering the APA agreement. This action, however, would have to be considered extraordinary, and be supported by some evidence of imprudence or inefficiency. Even if the APUC were to conduct such an investigation, it is not clear that disapproving or setting aside a wholesale power agreement with the APA would be a permissible remedy.

CONCLUSION

The APUC lacks the authority to approve or disapprove a wholesale power agreement by which the APA sells its hydroelectric power to a regulated electric utility. Once the APA and the purchasing utility have agreed to the sale and the rates charged under the agreement, no further authorization is necessary to enter into such an agreement. However, this conclusion does not suggest that the APUC would be precluded from examining the APA wholesale power agreements under its broad "management practices" authority in appropriate circumstances.

CEJ:cah

(Footnote Continued)
The commission may investigate the management of a public utility, including but not limited to staffing patterns, wage and salary scales and agreements, investment policies and practices, purchasing and payment arrangements with affiliated interests, for the purpose of determining inefficient or unreasonable practices which adversely affect the cost or quality of service of the public utility.

(b) Where unreasonable practices are found to exist, the commission may, after providing reasonable notice and opportunity for hearing, take appropriate action to protect the public from the inefficient or unreasonable practices and may order the public utility to take the corrective action the commission may require to achieve effective development and regulation of public utility services.

ALASKA POWER AUTHORITY

Position Paper

SPONSOR SUBSTITUTE FOR SENATE BILL NO. 22

The Alaska Power Authority supports enactment of SSSB 22. Specifically, Sections 1, 2, 4 and 5 of the bill, provide for amendments which would exempt wholesale power agreements between the Alaska Power Authority and a public utility from review or approval by the Alaska Public Utilities Commission (APUC). Enactment of this legislation is essential to the program of revenue bond financing of the Bradley Lake Hydroelectric Project.

The need for enactment of SSSB 22 is due to a 1986 amendment to APUC legislation. The amendment gives the APUC authority to review in advance and approve wholesale power agreements between public utilities. Once the agreements are in effect, the APUC may also order the parties to the agreement to renegotiate the agreement if the APUC determines that the retail power rates are not just. Where the parties are unable to agree to an amendment, the APUC may order the parties to proceed under the agreement's dispute resolution procedures.

The 1986 amendment was part of a complex, lengthy and controversial package of amendments within the "sunset" reauthorization bill for the Alaska Public Utilities Commission. The effect of the amendment on the Alaska Power Authority, its wholesale power agreements, and the Bradley Lake agreement in particular, was never addressed to the 1986 Legislature. Consequently, we are now presented with a statutory conflict. The Power Authority is exempt by statute from the APUC's jurisdiction. On the other hand, the APUC has jurisdiction over wholesale power agreements to which the Power Authority is a party.

Without an amendment to correct this anamoly, general civil construction cannot commence this season. Bond financing will be jeopardized for at least two reasons. The lengthy hearing process and any subsequent litigation arising out of the APUC's orders would delay construction of Bradley and ultimately jeopardized timely bond financing of the project. Moreover, if the APUC can order negotiation of power sales contracts in effect, bondholders will not be able to rely on the power sales contracts and the rates which are the basis for the contracts.

The Alaska Power Authority Board of Directors met on February 27, 1987, and unanimously adopted attached Resolution 1987-05, which supports legislation to be introduced during the 1987 Legislative session, for the purposes of clarification that the Alaska Power Authority and its wholesale power agreements would be specifically excluded from the jurisdiction of APUC.

Additional background information outlining the need for enactment of SSSB 22 is provided in the attached memorandum (dated March 9, 1987) from the Alaska Power Authority bond counsel of Wohlforth, Flint, and Gruening.

8629/663/1

Alaska Power Authority

Addendum to Alaska Power Authority Position Paper
SSSB 22

If SB 22 is enacted:

- Allows Bradley contracts to be signed and executed in a timely basis for construction to meet utilities' schedules of need.
- Provides certainty to wholesale power rate based on terms and provisions fixed in contract and not subject to future adjustment.
- Prevents duplication of review by State agencies. Public interest already served by Alaska Power Authority involvement.
- Lowers costs to consumers through lower interest rates on long-term debt.
- Lowers APUC review costs.
- Eliminates possibility of conflicting interpretations of contractual terms by two state agencies both assisted by the Dept. of Law

If not enacted:

- The provision for adjusting rates in the future lowers the rating of the long-term debt to less than investment grade (A-rated to "junk" bond.)*
- Unable to have former contracts until APUC re-reviews all power supply option studies already performed by OMB, legislature, utilities and their respective boards, and Alaska Power Authority and its Board (including four commissioners).
- No basis for future decisions.
- Delaying Bradley Lake by one year could increase construction costs by approximately $10 million (less any additional arbitrage earnings.)

---

* Interest rate could increase 1.5 to 2.0 percent. Based on $175 million in debt and 8.0 percent and 9.75 percent interest rate for with and without exemption, respectively, debt service would increase by approximately $2.7 million per year - $81 million over life of bonds.

8652/723/1

RESOLUTION 87-05

WHEREAS the Alaska Power Authority is an instrumentality of the State of Alaska and created by the legislature , in the interests of promoting the general welfare and public purposes of all the people of the state, to reduce consumer power costs and otherwise to encourage the long-term economic growth of the state, including the development of its natural resources, through the establishment of power projects;

WHEREAS the Alaska Power Authority is not subject to the jurisdiction of the Alaska Public Utilities Commission;

WHEREAS the Alaska Power Authority is authorized by statute to borrow money and issue bonds the principal and interest on which are payable from the income and receipts or other money derived from projects financed with the proceeds of the bonds and from revenue-producing contracts including a contract providing for the security of the bonds made by the authority with any person;

WHEREAS the Alaska Power Authority is currently concluding negotiations with the Railbelt utilities for the sale of project capacity and power from the Bradley Lake hydroelectric project;

WHEREAS a portion of the project's construction costs will be financed with the proceeeds of a $175,000,000 bond issuance by the Alaska Power Authority;

WHEREAS execution of the Bradley Lake agreement by June, 1987 is necessary in order that civil construction of the project may commence during this construction season;

WHEREAS, during the 1986 legislative session, the Legislature enacted AS 42.05.431(b) as part of a complex, lengthy and controversial package of amendments within the "sunset" reauthorization bill for the Alaska Public Utilities Commission;

WHEREAS AS 42.05.431(b) provides that a wholesale power agreement between public utilities is subject to advance approval of the commission and the Alaska Public Utilities Commission has ordered Anchorage Municipal Light and Power to submit the Bradley Lake power sales agreement to the commission for advance approval;

WHEREAS AS 42.05.431(b) permits the Alaska Public Utilities Commission to issue a comparable order to other Railbelt utilities who will be purchasers under the Bradley Lake wholesale power agreement;

WHEREAS AS 42.05.431(b) further provides that, once a wholesale power agreement is in effect and the commission determines that the rates set in accordance with the agreement

are not just and reasonable, the commission may order the parties to negotiate an amendment to the agreement, or to use the dispute resolution procedures contained in the agreement;

WHEREAS there now exists an anomaly between AS 44.83.090(b) which provides that the Alaska Public Utilities Commission does not have jurisdiction over the Alaska Power Authority and AS 42.05.720(4)(A) which seemingly gives the commission the authority to order the Alaska Power Authority to renegotiate its wholesale power agreements and to proceed under the contract's dispute resolution procedures;

WHEREAS the effect of AS 42.05.720(4)(A) on the Alaska Power Authority and its wholesale power agreements was never addressed to the 1986 Legislature;

WHEREAS AS 42.05.720(4)(A) creates a statutory conflict with the legislation authorizing the authority to finance the establishment of power projects through the issuance of bonds and with the legislation exempting the authority from the jurisdiction of the Alaska Public Utilities Commission;

WHEREAS prolonged hearings before the Alaska Public Utilities Commission and litigation subsequent to the hearings would jeopardize timely bond financing of the project, and

WHEREAS bondholders would be unable to rely on the rates agreed upon in a power sales agreement where there is a prospect of the Alaska Publid Utilities Commission ordering a change in an agreement already in effect;

IT IS HEREBY RESOLVED that the Alaska Power Authority will ask the 1987 Alaska Legislature to enact legislation clarifying that wholesale power agreements for the sale of project capacity or power from a public works project of the state are not subject to review or approval by the Alaska Public Utilities Commission.

IT IS FURTHER RESOLVED that the Alaska Power Authority will ask for statutory language as provided in Option ___ and considered today at this meeting.

The resolution having been submitted to a vote, the vote thereon was as follows:

YEAS: Poe, Halloran, Allison, Schaeffer, Hufman, Mathis, Nunn

NAYS: Ø

ABSENT: Ø

And the resolution was declared adopted on this the 27th day of February, 1987.

ALASKA POWER AUTHORITY

BY: ______________________________
Lee R. Nunn, Chairman

BY: ______________________________
Robert D. Heath, Secretary

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*JUNEAU OFFICE
**ADMITTED IN NEW YORK ONLY

OF COUNSEL
ROGER G. CONNOR
RICHARD W. GARNETT, III

MEMORANDUM

TO: Mr. Robert E. LeResche
Executive Director
Alaska Power Authority

FROM: Wohlforth, Flint & Gruening

RE: Sponsor Subtitute for Senate Bill No. 22

DATE: March 9, 1987

Enactment of the above Bill, which would exempt wholesale power agreements between the Alaska Power Authority and a public utility from review or approval by the Alaska Public Utilities Commission, is essential to the program of revenue bond financing of the Bradley Lake Hydroelectric Project.

The $267,500,000 of Variable Rate Demand Bonds issued in October, 1985, are presently outstanding to provide short-term financing for the Bradley Lake Hydroelectric Project. These Variable Rate Demand Bonds, which are secured by Letters of Credit from three large Japanese banks, initially are due in 199[illegible] and are subject to two one-year extensions. In order for successful long-term take-out financing to be marketed so as to retire the Variable Rate Demand Bonds, power sales agreements with the utilities to be served must be entered to secure the long-term debt.

Revenue bond financing of power generating facilities throughout the rest of the country is typically secured by power sales agreements, such as those which are in course of negotiation with the utilities to be served by Bradley Lake. The public body which is the authorizing entity and the participant utilities must be free to enter into the wholesale

power agreements unfettered by regulatory powers of a public utilities commission. Power sales agreements pledged to secure long term debt, once entered into, cannot be disturbed while the debt is outstanding. The provisions of AS 42.05.-031(b), which provide for initial approval and continuing Commission jurisdiction, would seriously impede and perhaps make impossible conventional revenue bond financing secured by power sales agreements of the Bradley Lake Project. Enactment of Sponsor Substitute for Senate Bill No. 22, eliminating these provisions, is therefore essential to financing of the project pursuant to power sales agreements with the utilities.

EEW:jg

Enclosure: Sponsor Substitute for
Senate Bill No. 22.

RESOLUTION 87-05

WHEREAS the Alaska Power Authority is an instrumentality of the State of Alaska and created by the legislature , in the interests of promoting the general welfare and public purposes of all the people of the state, to reduce consumer power costs and otherwise to encourage the long-term economic growth of the state, including the development of its natural resources, through the establishment of power projects;

WHEREAS the Alaska Power Authority is not subject to the jurisdiction of the Alaska Public Utilities Commission;

WHEREAS the Alaska Power Authority is authorized by statute to borrow money and issue bonds the principal and interest on which are payable from the income and receipts or other money derived from projects financed with the proceeds of the bonds and from revenue-producing contracts including a contract providing for the security of the bonds made by the authority with any person;

WHEREAS the Alaska Power Authority is currently concluding negotiations with the Railbelt utilities for the sale of project capacity and power from the Bradley Lake hydroelectric project;

WHEREAS a portion of the project's construction costs will be financed with the proceeeds of a $175,000,000 bond issuance by the Alaska Power Authority;

WHEREAS execution of the Bradley Lake agreement by June, 1987 is necessary in order that civil construction of the project may commence during this construction season;

WHEREAS, during the 1986 legislative session, the Legislature enacted AS 42.05.431(b) as part of a complex, lengthy and controversial package of amendments within the "sunset" reauthorization bill for the Alaska Public Utilities Commission;

WHEREAS AS 42.05.431(b) provides that a wholesale power agreement between public utilities is subject to advance approval of the commission and the Alaska Public Utilities Commission has ordered Anchorage Municipal Light and Power to submit the Bradley Lake power sales agreement to the commission for advance approval;

WHEREAS AS 42.05.431(b) permits the Alaska Public Utilities Commission to issue a comparable order to other Railbelt utilities who will be purchasers under the Bradley Lake wholesale power agreement;

WHEREAS AS 42.05.431(b) further provides that, once a wholesale power agreement is in effect and the commission determines that the rates set in accordance with the agreement

are not just and reasonable, the commission may order the parties to negotiate an amendment to the agreement, or to use the dispute resolution procedures contained in the agreement;

WHEREAS there now exists an anomaly between AS 44.83.090(b) which provides that the Alaska Public Utilities Commission does not have jurisdiction over the Alaska Power Authority and AS 42.05.720(4)(A) which seemingly gives the commission the authority to order the Alaska Power Authority to renegotiate its wholesale power agreements and to proceed under the contract's dispute resolution procedures;

WHEREAS the effect of AS 42.05.720(4)(A) on the Alaska Power Authority and its wholesale power agreements was never addressed to the 1986 Legislature;

WHEREAS AS 42.05.720(4)(A) creates a statutory conflict with the legislation authorizing the authority to finance the establishment of power projects through the issuance of bonds and with the legislation exempting the authority from the jurisdiction of the Alaska Public Utilities Commission;

WHEREAS prolonged hearings before the Alaska Public Utilities Commission and litigation subsequent to the hearings would jeopardize timely bond financing of the project, and

WHEREAS bondholders would be unable to rely on the rates agreed upon in a power sales agreement where there is a prospect of the Alaska Publid Utilities Commission ordering a change in an agreement already in effect;

IT IS HEREBY RESOLVED that the Alaska Power Authority will ask the 1987 Alaska Legislature to enact legislation clarifying that wholesale power agreements for the sale of project capacity or power from a public works project of the state are not subject to review or approval by the Alaska Public Utilities Commission.

IT IS FURTHER RESOLVED that the Alaska Power Authority will ask for statutory language as provided in Option ___ and considered today at this meeting.

The resolution having been submitted to a vote, the vote thereon was as follows:

YEAS: Poe, Halloran, Allison, Schaeffer, Hufman, Mathis, Nunn

NAYS: Ø

ABSENT: Ø

And the resolution was declared adopted on this the 27th day of February, 1987.

ALASKA POWER AUTHORITY

BY: _____
Lee R. Nunn, Chairman

BY: _____
Robert D. Heath, Secretary

MEMORANDUM

To: Rep. John Sund
Chairman
House Judiciary Committee

Date: May 7, 1987

Through: Becky Bear
Information Officer
DC&ED

From: Ted Moninski II
Executive Director
Alaska Public Utilities Commission

Subject: CS for SSSB22

This memorandum is submitted as a supplement to the previous written comments which have been directed at the various versions of SB22 (copies of the earlier comments which remain relevant are attached).

In particular, the Commission wishes to present its response to the recent amendments to the bill which were added during proceedings before the Senate Finance Committee and are now reflected as Sections 3 and 7 of the Committee Substitute.

Section 3 -- Amending AS 42.05.511

In an earlier memorandum to the Senate, the Commission requested clarification regarding the impact of the Sponsor Substitute (which would remove all Alaska Power Authority (APA) wholesale power transactions from Commission review) on the Commission's responsibilities under Section .511 of the statute. Section .511 requires consideration of the prudence of utility costs within the context of a specific rate case. The Commission's confusion centered on not having the ability to pass upon the wholesale power agreements in the first instance, yet at the same time being required by law to consider the prudence of costs incurred under those agreements for ratemaking purposes.

While the Commission appreciates the Senate's efforts at providing the requested clarification, the language of Section 3 simply goes far beyond any concern for protecting the integrity of costs attributable to the APA or the income stream necessary to guarantee adequate revenue to service the debt associated with APA projects. In fact, Section 3 can only be read to "open the floodgate" which will result in the inclusion of virtually any utility cost that can even remotely be argued to be associated

with wholesale power transactions and thereby eliminating and public interest review of these expenses.

In its previous comments, the Commission estimated that removing Commission jurisdiction over APA wholesale power transactions could result in the effective deregulation of up to 50% of a regulated utility's revenue requirement (depending on the specific circumstances of the utility and the degree to which it relied upon APA generated power). The almost unlimited ability to flow through costs that would accompany adoption of Section 3 would certainly expand the "deregulation" effect already alluded to.

The Commission has repeatedly stated that it would not take an advocacy position regarding the underlying policy questions of SB22, but Section 3 speaks to a new set of issues which deviate substantially from the basic intent of the balance of the bill. The Commission must go on record as opposing the language now included in Section 3.

Section 7 -- Amending AS 44.83.162

Section 7 really has nothing to do with the deregulation of certain utilities or utility transactions, but rather presents specific legislative guidance on the method by which the Commission will calculate a utility's assistance entitlement under the state's Power Cost Equalization (PCE) program. The amendment would remove the "...costs of kilowatt-hour sales associated with a United States Department of Defense facility." (DOD) from APUC consideration in the PCE calculation.

The Commission believes that it understands the intent of this provision and does not oppose it on any policy grounds. The language of section 7 is somewhat ambiguous, however, and may not necessarily produce the result the sponsor intended. Specifically, both the revenues and the costs associated with such DOD transactions should be removed from the PCE calculation. Further the Commission should be required to validate the cost component by some "cost of service" methodology which will ensure the accurate identification of the costs to be excluded.

Alaska Consumer Advocacy Program
13 West Seventh Avenue • P.O. Box 103111 • Anchorage, Alaska 99510 • (907) 272-6355 or 278-3663

TESTIMONY OF ALASKA CONSUMER ADVOCACY PROGRAM
ON CS FOR SPONSOR SUBSTITUTE FOR SB NO. 22

Good afternoon, members of the committee. My name is Joel Rothberg, and I am the staff attorney for the Alaska Consumer Advocacy Program (ACAP). On behalf of ACAP I would like to thank the committee for the opportunity to speak here today.

My purpose is to speak first against adoption of those portions of the bill before the committee which would remove wholesale power contracts between the Alaska Power Authority and a public utility from the jurisdiction of the Alaska Public Utilities Commission. Removal of these contracts from APUC jurisdiction would be a severe blow to the interests of Railbelt utility consumers and of the public at large.

ACAP also objects to those parts of the bill which would exempt from regulation utilities with fewer than 500 subscribers unless 25 per cent of the subscribers petitioned the APUC for regulation.

The obvious interest of the utilities in promoting this legislation is that its passage would free them to negotiate wholesale power agreements with the APA for Bradley Lake power without having to subject those contracts openly to the scrutiny of the APUC staff, competing power producers, and other energy production and conservation experts.

Evaluating the benefits of Bradley Lake power necessarily entails resolving extremely complex questions relating to estimation of demand over long periods of time, the costs of various power production methods, possibilities for energy conservation, financing costs, and rates. Difficult as these questions would

be were the main issue only the cost of Bradley Lake power, they are greatly complicated by the claims of alternative energy producers now before the APUC that they can produce power at lower cost than that from Bradley Lake or any existing conventional source.

One of these alternative producers, Valley Energy Corporation, argues that under the federal Public Utility Regulatory Policy Act, or PURPA, because the electricity it will produce from wood chips is more economical than any other source over a 20-year period, MEA, which is in the market for power, must purchase Valley Energy power and will have to do so even if it contracts for power from other sources. Thus, the effect of passage of this legislation is that MEA could be obligated to buy Bradley Lake power under a contract with the APA at the same time that it is obligated to buy Valley Energy power under an order from the APUC.

Utility consumers are entitled to the determination of all these issues by an expert, neutral adjudicator, as it is they who will pay the cost of unnecessarily expensive power and excess power. That adjudicator is the APUC. It cannot be the APA, which is not empowered to adjudicate competing claims of utilities and the public and which makes no pretense of expertise in, for example, demand estimation. The APA certainly cannot claim neutrality; for months the chairman of the APA and members of its staff have worked tirelessly to promote Bradley Lake. The APA has a valuable role to play in the process of deciding whether utilities should be able to buy power from Bradley Lake but it must not be the final decision-maker.

There is no good reason for removing the APA contracts from APUC jurisdiction. The utilities will argue that the delay entailed by APUC review will make financing of Bradley Lake either more expensive or even unavailable. That argument begs the question of why the people of this state should be denied the most thorough, expert, independent evaluation possible from the APUC in evaluating these contracts.

Just as entitled to regulatory protection are consumers in utilities with fewer than 600 subscribers. There is no reason to assume that just because a utility is small its service will always be adequate and its rates reasonable.

These small utilities are usually remote and rural in character. An indication of the kinds of problems that can arise in these settings can be found in the recently issued report of the APUC staff on AVEC operations. The report shows that although AVEC is improving, numerous problems remain in the areas of supervision. accountability, and training of village operators, maintenance, materials management, construction and engineering.

The communities that would lose the benefit of APUC regulation are similar to those in the AVEC system. Without Commission monitoring or effective competition, when service problems arise or rates go up, consumers have no alternative but to take what they are given. In the absence of an indication from these consumers that they do not need the APUC to deal with their utilities, the legislature should not turn its back on them.

MEMORANDUM

TO: Sen. Don Bennett
Sen. Johne Binkley
Co-Chairmen
Senate Finance Committee

Date: April 2, 1987

Through: Becky Bear
Information Officer
DC & ED

From: Ted Moninski
Executive Director
Alaska Public Utilities Commission

Subject: Impact Analysis - SSSB22

Attached is the APUC's impact statement for the above referenced bill. Also attached is a copy of the Commission's reply to a letter from Rep. Kay Brown which addresses some of the same substantive issues evaluated in the impact statement. The Commission had previously submitted separate fiscal notes for the original bill and the sponsor substitute. To avoid confusion, I have merged these two notes and have included the new, combined fiscal note with this impact statement.

It is my understanding that the Senate Finance Committee will consider SSSB22 during a Committee hearing now scheduled for Tuesday, April 7, 1987, at 9:00 a.m. This hearing will, I am advised, be teleconferenced through the Legislative Teleconference Network. I would appreciate your distributing this memorandum and its attachments to the other members of the Finance Committee at your earliest convenience.

In light of the fact that a formal case touching upon many of the same issues to be considered in SSSB22 is now pending before the Commission, no Commissioner will provide testimony on Sections 1,2,4,5 and 6 of the Bill. Prior testimony on Section 3 has been given and further comment on Section 3 is included with this impact statement.

The Commission has asked that I be present to provide any necessary testimony or clarification for the attached materials. I will, therefore, be available for comment at the Anchorage LIO at the date and time referenced above. Please inform me of any schedule changes or any other information you may require prior to the Committee meeting.

Impacts of Sections 1,2,4;5,6 of SSSB22

The following is an evaluation of the probable impacts of adopting or not adopting the policies contained in the above referenced sections of SSSB22. The Commission's comments are directed at its own regulatory responsibilities and are not intended to reflect a comprehensive consideration of all issues.

If Passed:

Wholesale power sales transactions between regulated utilities and the APA are exempt from Commission oversight. The public interest responsibility for evaluating these transactions would reside solely with the APA and the various review mechanisms used to evaluate specific project proposals. Regardless of its other merits/demerits, this approach would lack the broader overview of power supply decisions which could be provided by the Commission.

Also, this Bill does not purport to alter the Commission's authority to judge the prudence of a utility's purchased power costs at the time of a specific rate case, under AS 42.05.511(a).[1] However, even if the Commission continues to have the authority to make case-specific adjustments, ratepayers and utility owners of cooperative and municipal utilities are one and the same, making any after-the-fact disallowance of APA-related costs for these entities relatively meaningless.

The proposed jurisdictional changes would effectively remove from Commission review a substantial percentage of a utility's costs which, as stated above, might be directly passed through to the ratepayers by operation of law. For retail utilities under the four-dam pool arrangement, for example, there are instances of APA-supplied power costs which account for as much as 50 percent or more of a utility's rates for service. Even under first-cut and conservative projections for Bradley Lake-supplied power, the range of impact, assuming sign-up of the full complement of railbelt utilities, appears to be between 8 percent and 20 percent of a utility's rates.

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[1] The Commission believes that this issue needs further consideration and clarification to determine whether the Commission can, in fact, disallow APA contract costs in rates <u>after</u> the contracts are in place, or whether all APA-related costs must be included in rates without any Commission review or adjustment.

To the extent that the purpose of this bill is to eliminate all Commission oversight for contractual transactions involving an APA project, that objective may not be achieved. Under the federal Public Utilities Regulatory Policies Act (PURPA), a utility is required to purchase power from a "Qualifying Facility" (QF). By Congressional delegation, the Commission is responsible for enforcing that obligation. Because of this, even if the authority over APA-utility contracts is removed by legislative action in Alaska, the Commission may still be required to act under federal law to prohibit purchases by regulated utilities where such purchases would threaten to subvert the intent of the federal statutes. QF's could also seek a remedy in the federal courts or before the Federal Energy Regulatory Commission to ensure that their rights are protected. Thus, the jurisdictional limits on the Commission established by this bill do not guarantee that there will be no impediments to APA contracting or financing.

If Not Passed:

The Commission would have to approve all future wholesale power contracts between regulated utilities and the APA.

The contract review process would entail a public notice period of thirty days, preliminary Staff investigation of the contract and Commission action based on any public comment and the initial Staff analysis. The Commission may approve, reject or suspend the contract, stating its findings and conclusions for taking action. Assuming the request for approval contains sufficient information, the Commission could take action within 45 days of the date of filing. In the event a party objects to Commission approval of the contract, procedures to effect an adjudicatory proceeding would ensue.

COMMISSION POSITION STATEMENT RE: SECTION 3 OF SSSB22

Under Section 3 of the bill (the original SB22 as amended), which would deregulate certain electric and telephone utilities, the Commission continues to believe that as a matter of public policy, the statutory procedure already in place is superior to automatic deregulation. AS 42.05.711(f) gives consumers a choice of what level of regulatory protection best serves their individual circumstances through an election. Consumers of five utilities affected by this bill have held deregulation elections. Of the five, the consumers of two utilities, Tanana Power and Iliamna-Newhalen Electric Cooperative, Inc., have voted to retain regulation. If Section 3 is adopted, it is not clear what continuing effect the previous vote to continue APUC jurisdiction would have in light of the "blanket" deregulation provided for in this proposal. However, if adoption of this section results in their deregulation, it will be in direct conflict with a democratic vote of the affected consumers.