

HCR

10

4/28/99




REPRESENTATIVE ALAN AUSTERMAN Alaska State Legislature

P.O. Box 2368, Kodiak, Alaska 99615 (907) 486-5930 • Session: State Capitol, Juneau, Alaska 99801 465-2487

MEMORANDUM

DATE: April 22, 1999

TO: Representative Bill Hudson, Chair
House Special Committee on Utility Restructuring

FROM: Representative Alan Austerman 

SUBJ: Request for Scheduling - House Concurrent Resolution 10

I respectfully request the House Special Committee on Utility Restructuring schedule a hearing for HCR 10 at your earliest convenience.

The adoption of this resolution requests the Alaska Energy Authority to divest itself of its interest in the Four Dam Pool power projects.

The referral packet is attached for your information.

Please contact Cliff Stone of my staff at 6588 as needed.

Thank you for your consideration.



REPRESENTATIVE ALAN AUSTERMAN Alaska State Legislature

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HOUSE CONCURRENT RESOLUTION NO. 10
SPONSOR STATEMENT

The State of Alaska acquired land and constructed four hydroelectric facilities in the mid 1980's. These projects are commonly referred to as the Four Dam Pool. The Alaska Energy Authority (AEA) owns these projects and is a party to a 40-year power sales agreement with local utilities serving the communities of Copper Center, Glennallen, Ketchikan, Kodiak, Petersburg, Port Lions, Valdez, and Wrangell.

Through AEA, the State of Alaska retains significant liabilities relating to these power projects because of the power sales agreement. These liabilities include responsibility for uninsured facility failure, substandard performance, deficiencies in the reserve and replacement fund and loss of power sales.

The adoption of House Concurrent Resolution 10 will request the AEA to divest itself of its interest in the Four Dam Pool.

This will be accomplished by preparing a request for proposals (RFP's) as soon as practicable for the sale of the power projects, open to the electric utilities in the communities served by the Four Dam Pool or to a consortium of electric utilities in those communities.

The terms of the RFP's will assure that the state receives a fair market value for the power projects and that the power projects will continue to provide adequate power to the respective communities.

RISK ASSESSMENT OF THE FOUR DAM POOL HYDROELECTRIC PROJECTS

SUMMARY

Harza Engineering Company has carried out an assessment of the possible costs associated with the continued operation of the hydroelectric projects comprising the "Four Dam Pool." The projects are:

- Swan Lake Project;
- Solomon Gulch Project;
- Terror Lake Project; and
- Tyee Lake Project.

The following were carried out for each project:

1. A condition assessment was performed to identify the needs for project improvements and associated costs.
2. A schedule for replacements due to normal wear and tear was identified, along with associated costs.
3. An assessment of the energy generation potential was made.
4. An analysis of the risks was carried out, probable repair costs and outage duration were identified; the likely range was identified.
5. Operation and maintenance costs were examined.

The costs were summarized to arrive at a composite annual cost in five-year increments over a 35-year future planning horizon (1996 to 2030).

Condition Assessment

As a result of the Condition Assessment, a number of items were identified at each project that merit attention in the future. In accordance with the Scope of Work, these items are classified as follows:

- **Deficient Design** - defined as a condition that does not meet the minimum generally accepted standards for safety and reliability. Only one item, the Tyee Lake Project transmission line, was determined to be deficient in design.
- **Deferred Maintenance** - defined as a condition where either regularly scheduled maintenance or maintenance to repair a damaged structure or malfunctioning component was not carried out in a timely manner. Only a few items of deferred maintenance were found.
- **Other Project Improvements** - project structures or equipment planned for replacement for reasons including obsolescence, unavailability of spare parts, premature failure, or changing operating conditions, equipment and structural repairs or modifications that have not been deferred, but are now required to correct a malfunction, or to improve functionality or safety. Other project improvements may also involve studies to address operational or design issues. In some cases, the implementation of these items is discretionary in nature.

summary of the condition of each plant is presented below.

Swan Lake

The Swan Lake Project is considered to be in excellent condition, with only one item of referred maintenance and several needed replacements and project improvement items. A major deferred maintenance item involves the need to paint the transformers at the Bailey substation and replace corroded cooling radiators. The major items of replacement involve The generator excitation system and replacement of the battery system. Present plans and budgets include the replacement of the draft tube bulkhead gates with stainless steel replacements and installation of a new intake gate feeder power supply cable is planned.

A continuing maintenance item is the collection and clearing of trash and debris that accumulates in front of the power intake. The possibility of improving the trash boom and

acquiring a tugboat and log skidder for handling trash and logs should be considered.

A portion of the transmission line is exposed to landslide risk, and is a major potential source of plant outage. A landslide stabilization study should be carried out to identify corrective measures, or alternatively, one to two miles of transmission line could be considered for relocation to eliminate this hazard.

Solomon Gulch

The Solomon Gulch Project is considered to be in good condition. The only major area of concern is corrosion of the penstocks. The rate of corrosion is being monitored. Painting the exterior of the penstocks would be prudent to improve resistance to corrosion and extend the useful life. In general, the penstock is expected to perform satisfactorily for the next 36 years, but there may be a need for repair in local areas where corrosion is advancing at a higher rate.

The penstock valves are reportedly capable of closure against full turbine discharge, but cannot close against the flow that would result in the event of a penstock rupture. In view of the long portion of exposed penstock, and the corrosion problem that is being monitored, it would be prudent to replace the penstock valves to provide protection in the event of penstock rupture. Any deficiencies in the penstock intake bulkheads would need to be corrected to carry out this work.

The major source of plant outage is the 112 mile transmission line. The section between the Meals and P11 substations is particularly susceptible to avalanche outage. Consideration should be given to installation of buried cable in areas susceptible to avalanche outage.

Another source of concern is the settlement of the P11 substation building. Corrective measures should be implemented to prevent interruption of service if the settlement continues.

Terror Lake

The Terror Lake Project is considered to be in generally good condition. However, there are some structural aspects that require maintenance and remedial repair measures. The major aspects that require attention involve the repairing excessive leakage at the intake gate,

performing tunnel repairs, and reinforcing the side channel spillway at the main dam.

The Rolling Rock diversion is believed to be a source of sediment that causes excessive turbine wear. The construction of a sand sluicing system was started, but was not finished because of problems with the contractor. More detailed study should be carried out to determine the most efficient way to resolve the sediment problem. Possible solutions could involve completion of the installation of the sediment discharge system or abandoning Rolling Rock as a diversion, while allowing it to remain in place to function as a surge facility.

The Terror Lake facility was recently affected by a large flood. Some of the project buildings at the powerhouse site are at-risk due to flooding from the Kizhuyak River. Permanent dikes and river training facilities should be designed and constructed.

Tyee Lake

Except for the transmission line, the Tyee Lake Project is considered to be generally in good condition. Some structural maintenance that is required involves shoring up housing and storage buildings at the site, and reinforcing the exposed rock face that forms the back wall of the powerhouse. An inspection of the unlined power tunnel by use of a remotely operated vehicle to evaluate its condition would be prudent.

The transmission line is the source of many outages. The transmission line is considered to be deficient in design since ground clearance criteria is not met under loading conditions that could have been reasonably foreseen at the time of design. Studies are underway (by others) to address corrective measures.

Electrical controls to the gate house for remote operation would improve operation and safety in the event of an emergency situation. Dredging of the harbor will improve access.

Energy Generation Potential

Analysis of the energy generation potential results in the following estimates of average annual generation potential:

Swan Lake Project -	70.1 GWh per year
Solomon Gulch Project -	52.9 GWh per year
Terror Lake Project -	117.0 GWh per year
Tyee Lake Project -	109.0 GWh per year
Four Dam Pool Total -	349.1 GWh per year

The output of Tyee Lake is limited by the electrical demand in the areas served by the project. The proposed intertie with the Swan Lake Project would help better utilize the generation potential of the Tyee Project.

The Terror Lake powerhouse was designed to accommodate the addition of a third unit. A preliminary cost analysis indicates that the addition of a third 12.5-MVA generating unit at Terror Lake warrants additional feasibility level investigation. The third unit will not provide additional energy, but will provide additional peaking capacity that is needed in the system.

Additional expansion options at Tyee and Swan Lake projects do not appear warranted at this time. At Tyee, the operating capabilities are not fully utilized because of limited electrical demand. At Swan, increasing the storage or generation capacity appears to be expensive in comparison with other possible generation options that may be available, if the need does indeed exist.

The output of Solomon Gulch is limited by the electrical demand in the areas served by the project. An expansion of the storage capacity is not warranted or economically justified based on a detailed study performed in 1992.

Risk Related Costs

The analysis described in the accompanying report included an analysis of cost to repair structures and components that might be damaged due to natural events, accidents and internal failures (an unknown failure due to design, construction or material deficiency). The

Associated outage duration was also investigated. The expected annual risk related cost, and an estimate of the outage that might be associated with the risk-related events, was estimated. The expected annual cost and outage duration is tabulated below:

	Expected Risk-Related Repair Cost (1995 US\$ per year)	Expected Risk-Related Outage Duration (days per year)
Swan Lake Project	159,529	13.4
Solomon Gulch Project	291,464	22.8
Terror Lake Project	349,308	18.9
Tyce Lake Project	312,387	23.5

Figure 1 presents the cumulative distribution curves that result from the analysis, indicating the range of possible costs and outage duration for each project.

Although the graphs in Figure 1 illustrate the range and expected probabilities associated with the anticipated risk related cost and outage duration, there is a possibility of catastrophic events that will result in very large damage cost and a long outage duration. Financial planning for covering uncertain events must consider this possibility.

Operation and Maintenance Costs

For this study, operation and maintenance costs are based on an analysis of historical costs, brought to a common 1995 price level, and averaged. Joint costs are allocated to projects by prorating on the basis of at-site costs in proportion to the at-site costs of all four projects. The estimated average annual operation and maintenance cost for all four projects, excluding fixed charges for debt service and equipment replacement fund contributions, is \$6.8 million at the 1995 price level.

Summary of Expected Costs

Table 1 presents a summary of the expected annual costs, in five year increments, for the 35-year planning horizon considered in this study. All costs are presented in 1995 dollars.

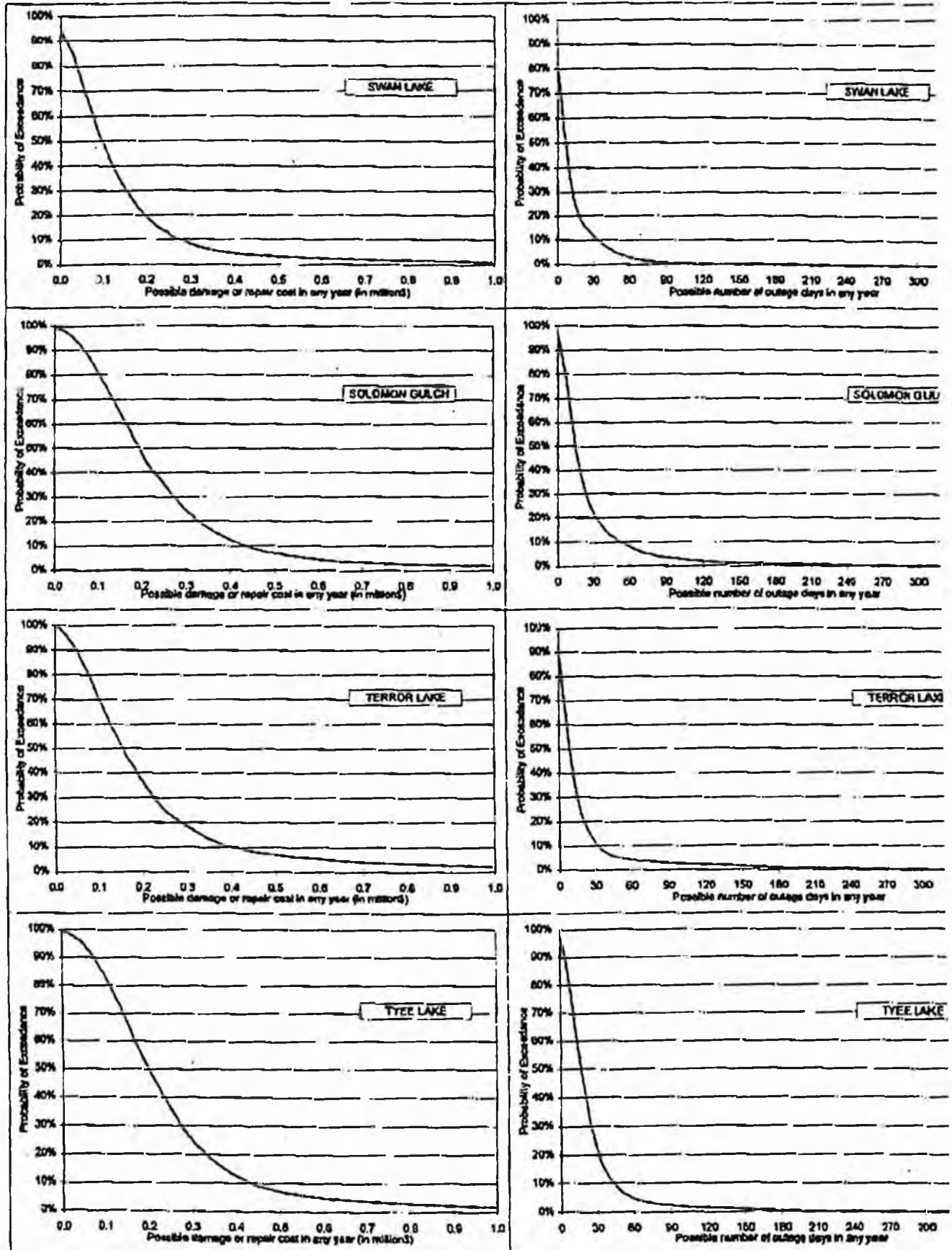
Table 2 presents a summary of the expected costs for various items. Certain items included in Table 2 are based on expenditures to take place in the period 1996 to 2000, and are at 1995 price levels. In addition, Table 2 presents the annual costs on a levelized basis for two separate replacement funds, and the annual risk costs at 1995 price levels.

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Figure 1 - Range of Expected Annual Costs and Outage Days

Range of Expected Annual Costs

Range of Expected Number of Outage Day



MEMORANDUM

**State of Alaska
Department of Law**

TO: D. Randy Simmons
Executive Director
Alaska Industrial Development
and Export Authority

FROM: Keith A. Laufer *KL*
Assistant Attorney General
Governmental Affairs Section, Anchorage

DATE: January 27, 1997

FILE NO:

TEL. NO: 269-5135

SUBJECT: Four Dam Pool

I. INTRODUCTION

Recently there have been developments with respect to the Four Dam Pool projects owned by the Alaska Energy Authority ("AEA"). This memorandum will provide a background with respect to the projects and the existing power sales agreement between the State and the purchasing utilities. In addition, this memorandum will discuss the proposal received from former United States Senator Mike Gravel on behalf of a group of investors, the Energy Group, to purchase the projects.

II. BACKGROUND

A. The Projects and the Power Sales Agreement

The State constructed and acquired the projects constituting the Four Dam Pool in the mid 1980's. The cost of the projects to the State was approximately \$483 million. The Four Dam Pool is owned by AEA and consists of four hydroelectric projects serving five communities. Power from the Tyee Lake project is sold through Thomas Bay Electric Association to the communities of Wrangell and Petersburg. Power from the Swan Lake project is sold to Ketchikan Public Utilities. Power from the Solomon Gulch project is sold to the Copper Valley Electric Association serving the Glennallen and Valdez areas. Finally, power from the Terror Lake project is sold to Kodiak Electric Association. The power from all the projects is sold under the terms of a Long Term Power Sales Agreement (the "PSA") between the purchasing utilities and the AEA. The projects are operated by the individual utilities pursuant to operating agreements between the utilities and AEA.

The PSA was executed in October, 1985 and has an initial term of 45 years; terminating October, 2030. Under the PSA, to the extent the purchasing utilities require power, they are required to first purchase the power produced from the Four Dam Pool. The price of the power is established by a formula in the PSA. Under the formula, the power rate has two components. The first component covers the operating cost of the four projects. For this purpose, operation costs of the four projects are pooled to determine one operating cost component for the entire

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Four Dam Pool. The second component of the rate is the "debt service component." The debt service component is somewhat a misnomer as no debt was issued by the State to finance the projects (although funds were loaned from the Department of Commerce and Economic Development to AEA to partially finance the projects). The debt service component is the payment to the State in partial repayment of the State's investment in the projects. The debt service component is determined by reference to a debt service schedule contained in the agreement. The debt service component provides for rate "re-openers" in certain events based on the cost of power in the railbelt. In AEA's view, the likelihood of the next rate re-opener significantly altering the current rate is unlikely.

In fiscal year 1996, the power rate for energy produced by the Four Dam Pool was 6.4 cents per kWh. This rate consists of an operating cost component of 2.4 cents and a debt service component of 4.0 cents. For fiscal year 1996, the debt service component produced a debt service payment of about \$11 million dollars. AEA has estimated that the present value of the debt service payments to the State over the remaining term of the PSA is approximately \$165 million dollars. This amount assumes a discount rate of 7%.

Under the PSA, AEA retains significant liabilities related to the projects. In particular, AEA is responsible for uninsured facility failures, substandard performance, and deficiencies in the reserve and replacement fund. Moreover, the utilities obligation to purchase power is not a "take or pay" obligation. Rather, the utilities only pay for power actually purchased from the projects. While the utilities are required to purchase power first from the Four Dam Pool projects to the extent they require power, if the projects are not producing power for some reason, there is no obligation for the utilities to continue to pay.

The PSA also creates a "self-help right" on the part of the utilities. Under that provision of the PSA, if AEA does not fulfill its obligations regarding repairs to the projects, the utilities may withhold their debt service payment to the State and utilize the funds withheld to perform the necessary repairs.

As part of the 1993 legislation that re-organized AEA, the legislature has pre-allocated the debt service payments that are received from the Four Dam Pool to specific funds. Pursuant to AS 42.45.050, debt service payments made by the Four Dam Pool utilities are to be appropriated by the legislature as follows: 40% to Power Cost Equalization and Rural Electric Capitalization Fund; 40% to the Southeast Energy Fund; and 20% to the Power Project Fund to be used for Statewide energy projects. None of the Four Dam Pool debt service payment has been allocated to AEA to fulfill any of its repair obligations under the PSA, nor has AEA been appropriated any other funds to perform such obligations.

B. Funding of Required Repairs

In March, 1994, it became apparent that significant repairs were required to be made to the Tyeer Transmission Line which is a part of the project. In addition, required repairs were identified for

the Terror Lake and Swan Lake projects and for spill prevention controls at the projects. Under the PSA, these repairs were the obligation of the State. Because AEA had no funds with which to make the repairs, the purchasing utilities filed suit against AEA in an effort to invoke their self-help rights under the PSA to withhold their debt service payments and utilize those funds to conduct the required repairs. In settlement of that lawsuit, the State agreed with the utilities that limited self-help would be invoked for fiscal year 1996. Funds withheld by the utilities were used for engineering studies to determine the proper scope of the repairs which were required to the projects. As part of the settlement AEA agreed to enter into discussions with the purchasing utilities regarding the possible transfer of ownership of the projects to the utilities.

In fiscal year 1996, the Administration proposed legislation that would have altered the allocation of revenues from the Four Dam Pool. Under the Administration's proposal, debt service payments would have first been allocated to AEA to pay debt service on debt that would have been issued by AEA to fund the required repairs. The legislature, however, failed to pass the proposed legislation and, as was expected, the utilities elected to utilize their self-help rights to withhold the entire debt service payments for fiscal year 1997 and 1998 in order to fund the necessary repairs. Because of the disruption in the debt service payments, no contributions from the Four Dam Pool will be made in either fiscal year 1997 or 1998 to the Power Cost Equalization and Rural Capitalization Fund, the Southeast Energy Fund, or the Power Project Fund.

C. Divestiture Discussions with Purchasing Utilities

In August 1994, the utilities and AEA agreed to mutually explore the possibility of transferring ownership of the Four Dam Pool projects to the utilities. As part of the settlement of the 1995 litigation with the utilities, AEA agreed that it would continue these discussions with the utilities. Chief of Staff Ayers sent a letter to the utilities which described certain requirements which must be met for the Administration to support a transfer of the projects to the utilities. The requirements were that (1) the PSA remain in effect through the transfer, (2) AEA's duties and obligations under the PSA be completely transferred to a joint utility entity and AEA be fully released from those obligations and duties, (3) the State receive adequate value (to be determined) for the projects, and (4) the transfer be subject to review by the legislature.

Authority staff met with the utilities in several meetings over the course of the period from August, 1995 to February, 1996. Ultimately, these discussions broke down over the proper value to be paid by the utilities for the projects. AEA proposed that the reasonable value of the facilities, assuming the utilities completed, at their own cost, the repairs to the Tye Transmission Line, was \$84 million. AEA arrived at this purchase price by first discounting to present value the payment stream of the debt service payments that would be made to the State over the remaining term of the PSA. The present value of the payment stream utilizing a 7% discount rate was approximately \$165 million dollars. From this amount, AEA subtracted the estimated cost of AEA's continuing repair and risk obligations under the PSA. To arrive at this number, AEA utilized the results of an engineering and risk analysis prepared for the projects by

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Harza Engineering Corporation. This study was jointly directed and funded by the purchasing utilities and AEA.

The utilities rejected AEA's proposal. The utilities indicated that, if they were to be required to complete the Tyee repairs, they believed the value of the projects to be somewhere between \$0 - \$20 million. The primary differences between the State and utility values were that the utilities perceived a high risk that energy loads for the region could significantly decline and that inflation could significantly increase the costs of ownership. In addition, the utilities stated that they believed that any transfer of the project would have to result in an immediate significant rate reduction in the wholesale power rate. The utilities factored in a 1 cent per kWh reduction in rates as part of their review of value.

Because the utility and AEA opinions of value were so disparate, the parties agreed to take a hiatus in the discussions to determine if other approaches were possible. Recently, AEA sent a letter to the utilities indicating that divestiture discussions could be reopened if the discussions looked promising and requesting that the utilities bring forth a new proposal in which to open discussions. The purchasing utilities are meeting in February, 1997 and will be preparing a response and counter proposal to AEA.

III. PROPOSAL FROM FORMER U.S. SENATOR GRAVEL

In September, 1996, the Authority received an unsolicited proposal from Former United States Senator Mike Gravel indicating a desire on behalf of the Energy Group to purchase the Four Dam Pool projects from the State for \$84 million plus additional funds to repair the projects up to a cap of \$100 million. The Authority indicated to Mr. Gravel that AEA was in discussions with the purchasing utilities regarding divestiture and, pending the conclusion of those discussions, that the Authority would not entertain discussions regarding other options. Mr. Gravel took his proposals to the communities themselves and began preliminary due diligence with respect to the projects. To our knowledge, the purchasing utilities, while not receptive to the proposal, have nonetheless been courteous and cooperated with Mr. Gravel's due diligence. In December, 1996, at Mr. Gravel's request AEA staff met with Mr. Gravel. Once again, Mr. Gravel was informed that the Authority would not open discussions or entertain proposals regarding the purchase of the Four Dam Pool until and unless the utilities agreed that AEA entertain such discussions.

Mr. Gravel nonetheless went on to explain his proposal. Under Mr. Gravel's proposal, a new entity would acquire the Four Dam Pool Projects from the State. Ownership of the new entity would be comprised of two ownership groups. The first group would be the lower 48 utility investor group that Mr. Gravel represents. The second group would be a community stock ownership plan ("CSOP") under which utility purchasers in the various communities served by the Four Dam Pool would gain ownership shares. As proposed, the utility investor group would obtain financing for one half of the project purchase price while the trustee of the CSOP would obtain financing for the other half of the purchase price. Under the proposal, the community

stock ownership plan trustee would obtain a guarantee or other financial assistance from the State in order to facilitate the CSOP financing.

An important element of Mr. Gravel's proposal is the termination of the PSA. According to Mr. Gravel, the sale would not be viable unless the PSA were terminated and a new power sales agreement or agreements were entered into. The Energy Group proposal calls for a rate of return to the Energy Group investors of between 12% and 15%. Mr. Gravel indicated that under his proposal the communities would be guaranteed a wholesale power rate of 6.5 cents per kWh for 30 years, the period of the anticipated financing necessary to consummate the purchase. The operational component of that rate, however, would be subject to regular adjustments utilizing an index such as the Consumer Price Index.

Mr. Gravel indicated that the new entity could obtain operational savings by consolidating operational responsibility in the new entity. Mr. Gravel stated that this would likely result in the elimination of a number of jobs. Under the proposal, the new entity would be responsible for compensating those employees whose jobs are eliminated.

Mr. Gravel has commenced efforts in the local communities to increase knowledge about his proposal and has met with various community groups. Mr. Gravel has indicated to AEA that, unless the communities or the utilities come up with some sort of fatal flaw with his proposal, he intended to pursue the proposal with the legislature. I understand that Mr. Gravel has begun his legislative efforts in earnest by engaging several lobbyists on behalf of his investor group.

IV. PURCHASING UTILITY POSITION ON GRAVEL PROPOSAL

The purchasing utilities have sent a letter advising AEA of the utilities' continuing interest in pursuing divestiture discussions with the State. A copy of that letter is attached as Exhibit A. In addition, the utilities have asked AEA to reject the Gravel group's proposal and that AEA negotiate a sale with the utilities. The utilities have indicated that they have numerous objections to the proposal provided by Senator Gravel. It is our understanding that the principle objections are that any savings or profits that could be created by the projects would be shared 50% with Outside investors and that the Energy Group would be a "limited liability" company. In the utilities view, all savings or profits should benefit the communities. In addition, the utilities have stated that it would be difficult, if not impossible to gain the consent of all the communities to any change in the current PSA.

V. CONCLUSION

The proposal submitted by former Senator Gravel focuses attention on the existing structure of the Four Dam Pool and the need to develop a long term plan to put the projects on a sound economic footing. Should you require any additional information, please let me know.

PMC RESOLUTION TO RESUME DIVESTITURE NEGOTIATIONS WITH AEA

RESOLUTION 99-51

WHEREAS, the State of Alaska, through the Alaska Energy Authority (AEA) is the owner of four hydroelectric facilities commonly known as the Four Dam Pool (Lake Tyee, Swan Lake, Solomon Gulch and Terror Lake); and

WHEREAS, in 1985 the AEA and Kodiak Electric Association, Copper Valley Electric Association, and the municipal utilities in Wrangell, Petersburg and Ketchikan ("Purchasing Utilities") entered into the Long-Term Power Sales Agreement (PSA) providing for the sale of energy from the projects to the Purchasing Utilities; and

WHEREAS, the PSA identifies each of the projects as a "Dedicated Facility" for the respective utility or utilities taking delivery of energy from such project; and

WHEREAS, each of the projects is the principle source of electricity for each of the Purchasing Utilities and has a substantial impact on the economic welfare of each community; and

WHEREAS, the Purchasing Utilities and AEA have devoted substantial resources to the negotiation of transfer of project ownership from AEA to the Purchasing Utilities; and

WHEREAS, to assist in developing ownership transfer terms, the Purchasing Utilities and AEA jointly funded a detailed study of project conditions and risks; and

WHEREAS, in July 1997, the Purchasing Utilities presented to AEA a proposal for the purchase of the facilities; and

WHEREAS, AEA ended transfer negotiations in December 1997 and no negotiations have occurred since that time; and

WHEREAS, the Purchasing Utilities have been and remain willing to resume good faith negotiations of an ownership transfer;

NOW, THEREFORE BE IT RESOLVED:

The Purchasing Utilities of the Four Dam Pool desire to resume negotiations with AEA for the transfer of ownership of the Four Dam Pool projects to the Purchasing Utilities.

DATED this 5th day of APRIL, 1999.

PROJECT MANAGEMENT COMMITTEE

By: *Donald E. Lewis*

Chairman

Approved at the PMC meeting held March 31, 1999.

PROJECT MANAGEMENT COMMITTEE

THE STATE ENERGY PROGRAM

Following the dramatic increase in oil prices in 1979-1980, the State was in a financial position to pump massive amounts of money into the development of energy projects.

During the early 1980s, the Alaska Energy Authority constructed or acquired four projects – Tyee Lake, Terror Lake, Swan Lake, and Solomon Gulch. The costs for constructing or acquiring the projects was initially paid by bond financing. Eventually, the bonds were replaced with money lent to the Authority by the Department of Commerce and Economic Development, from the Power Development Revolving Loan Fund.

In an effort to equalize power costs for the communities served by the four projects, the Alaska legislature provided that these four projects would be considered as one project – the Initial Project. Together they would be operated and managed jointly and the wholesale power rate for power sales would be the same for all four projects.

Between May and October of 1985, the parties engaged in intense negotiations. The Memorandum of Understanding between the Authority and the Representatives of the Four Dam Pool communities (signed on May 8, 1985), forged the basic tenets of what was to become the Long-term Power Sales Agreement for the Four Dam Pool.

THE POWER SALES AGREEMENT

On October 28, 1985, the Alaska Power Authority (now the Alaska Energy Authority), the Cities of Ketchikan, Wrangell and Petersburg, the Copper Valley Electric Association and the Kodiak Electric Association entered into a Long-term Power Sales Agreement.

- WHO** The long term power sales contract is between the City of Petersburg, the City of Ketchikan, the City of Wrangell, Kodiak Electric Association, Copper Valley Electric Association and the Alaska Energy Authority.
- WHAT** There are four operating hydroelectric projects owned by the State of Alaska: Lake Tyee, serving Petersburg and Wrangell; Swan Lake, serving Ketchikan; Terror Lake, serving Kodiak; and Solomon Gulch, serving Copper Valley.
- WHY** Energy from the projects displaces energy formerly generated by diesel plants in each community. Electricity costs no longer depend upon diesel fuel prices and were projected to be lower than diesel-generated

power. The contract provides a long term resource with a relatively stable cost and predictable economic future.

HOW

Term: The contract is for 45 years (1985 to 2030), renewable for a period up to the useful life of the projects.

Power: Each purchasing utility is entitled to receive, as needed, all the power available from its project and can benefit directly and indirectly from the sale of any surplus power from its project. The utility pays the agreed upon rate for the power it requires. No minimum amount or minimum payment is required.

Wholesale Power Cost: Each community pays the AEA a "postage stamp" rate for energy from the projects. The rate is established at the start of each fiscal year to cover estimated operating costs and agreed contributions toward debt retirement.

Operating Costs: Payments cover actual on-site costs, project-specific costs incurred by the AEA and utility management personnel, maintenance, and a fixed annual contribution of \$500,000 to an equipment renewals and replacement fund.

Debt Service: A schedule of debt service rates is agreed in advance for successive 15-year periods during the contract. The 1986 rate started at 2.6 cents per Kwh, rising in steps to four cents per Kwh for the years 1990-2000. Prior to 2000, a "rate opener" mechanism will establish the basis for rates between the years 2000-2015.

Risks: As owner of the four projects the AEA bears certain risks throughout the term of the contract and any renewals. These risks are:

- Uninsured project failures;
- Substandard project performance;
- Inadequacies in the funds for renewal and replacement of components;
- Failure of any of the participating utilities to pay their share.

Operation and Maintenance: The five utilities operate and maintain the four projects through a combination of local control and oversight by a Project Management Committee. The Committee consists of representatives from each of the five utilities and the AEA, and operating decisions are subject to management procedures adopted by the Committee (see *Four Dam Pool Policies and Rules of Procedure Handbook*).

"UNUSUAL" PROVISIONS OF THE POWER SALES AGREEMENT

1. **Construction financing - substantial State grant**
 - no bonds (loan from general fund)
 - rate not tied to actual debt service
2. **Requirements obligation, no "take or pay" obligation**
3. **Pooling of costs - concept of "Initial Project"**
4. **Division of risks between Authority and Purchasing Utilities**
5. **Use of the PMC for contract implementation**

OBLIGATIONS OF THE AEA, PURCHASING UTILITIES AND PMC

The Long-Term Power Sales Agreement creates a number of duties and responsibilities. Some, such as the financial obligations, rest on the individual parties (the AEA and purchasing utilities). Other responsibilities are vested in the group jointly through the PMC.

A. Financial Obligations of AEA and Purchasing Utilities

The Long-Term Power Sales Agreement imposes certain financial responsibilities on both the Alaska Energy Authority, as seller, and the five utility signatories, as buyers.

Generally speaking, the obligations of the utilities are for regular, recurring expenses that are funded through the rates paid by the utilities to buy power from the AEA. The obligations of the AEA, on the other hand, are for the coverage of various contingencies.

1. *AEA Financial Obligations*

The agreement requires the AEA to pay for any of the following items:

- a. Any costs associated with damage to or premature failure of any Four Dam Pool equipment that is not covered by insurance (Sections 4(d) and 6(b)(ii));
- b. Any costs associated with substandard performance of any of the Four Dam Pool facilities (Sections 4(d) and 6(b)(ii));
- c. Any costs of necessary renewals or replacements of equipment at any of the Four Dam Pool facilities to the extent there are any unexpended proceeds from the loan used to finance the Initial Project (Section 6(b)(iii)(D));
- d. Any costs of necessary renewals or replacements of equipment at any of the Four Dam Pool facilities that exceed the amounts then available in the Renewals and Replacements Fund (Section 4(d)); and
- e. Any costs associated with the failure of any purchasing utility to make its required payments (Section 4(d)).

2. *Purchasing Utility Financial Obligations*

The agreement requires the purchasing utilities to pay for the following items:

- a. The total costs of operating the Four Dam Pool facilities, including the costs of insurance (Sections 5(b)(i)(A) and (B)(I));
- b. The specific administrative and general costs of the AEA required for administration of the Four Dam Pool facilities (Section 5(b)(i)(B)(11));
- c. The costs associated with the Project Management Committee (Section 5(b)(i)(B)(III));
- d. The annual contributions to the Renewals and Replacement Fund (Section 5(b)(i)(C)); and
- e. An agreed-upon contribution to the debt service on the loan from the Alaska Department of Commerce that financed construction of the Four Dam Pool facilities (Section 5(b)(ii)).

B. *Other Duties and Responsibilities*

In addition to financial obligations, the Long-Term Power Sales Agreement imposes duties and responsibilities for the operation and protection of the Initial Project:

1. *AEA Duties*

- a. To sell power to each Purchasing Utility up to the full capability of each dedicated facility (Section 3(a));
- b. To make power continuously available to each Purchasing Utility and subject to certain rights of interruption (Section 4(a));
- c. To construct, maintain and repair any AEA owned facilities in accordance with Prudent Utility Practice (Section 4(b)); and
- d. To maintain records necessary for purposes of the agreement and of FERC licensing requirements (Section 10).

2. *Participating Utility Duties*

- a. To purchase and pay for power needed for utility loads in excess of loads served by pre-existing hydro facilities (Sections 3(a), 3(b) and 3(c));
- b. To construct, maintain and repair any utility owned facilities in accordance with Prudent Utility Practice (Section 4(b));
- c. To maintain records necessary for purposes of the agreement and of FERC licensing requirements (Section 10); and
- d. To take actions necessary to maintain the integrity of the agreement (Section 12).

3. *PMC Duties*

- a. To establish and deposit funds in the Initial Project Revenue Fund (Section 5(e));
- b. To establish, administer and approve expenditures from the R&R Fund (Sections 6(b)(i), 6(b)(iii)(C) and 7(e)(ii));
- c. To disburse funds to pay operating costs and debt service and to make the R&R contribution (Section 5(f));
- d. To meet at least quarterly (Section 7(c));
- e. To adopt rules to govern the Committee's affairs (Sections 7(d) and 7(e)(iv));
- f. To develop annual budgets (Section 7(e)(i));
- g. To arrange for insurance for Initial Project facilities, including determination of coverage limits, choice of insurers and disposition of insurance claim proceeds (Section 7(e)(iii));
- h. To adopt standards and arrange for the annual audit of all power production costs (Sections 7(e)(iv) 7(e)(v) and 7(g));
- i. Develop and adopt technical, operating and maintenance standards for the Initial Project equipment and facilities (Section 7(e)(vi));

- j. Establish an annual rate that is sufficient to pay for all costs under the contract (Sections 7(e)(vii) and 5(f));
- k. Develop load estimates as necessary for the Agreement (Section 7(e)(viii));
- l. Develop standards for capital asset acquisition and accounting (Section 7(e)(ix));
- m. Develop standards for expenditures which acquire unanimous agreement (Sections 7(e)(x) and 1(f));
- n. To adjudicate disputes, or adopt procedures for the adjudication of disputes between parties, prior to litigation (Section 8(a)); and
- o. Various duties relative to rate reopener, the first such duty being to provide a load forecast by 1998 (Section 9(c)).