



Public Meetings on
**PROPOSED
SUSITNA HYDRO**



- To provide economic, financial and environmental update of the project
- To receive public comment

| | | |
|---|-----------------|-------------------------------------|
| FAIRBANKS Captain Bartlett Hotel | April 13 | 7 - 10 PM (Update & Public Comment) |
| | 14 | 1 - 7 PM (Public Comment) |
| ANCHORAGE Anchorage Westward Hilton | April 16 | 7 - 10 PM (Update & Public Comment) |
| | 17 | 1 - 7 PM (Public Comment) |
| PALMER Borough Assembly Chambers | April 19 | 7 - 10 PM (Update & Public Comment) |
| | 20 | 1 - 7 PM (Public Comment) |
| SOLDOTNA Kenai Peninsula Borough Assembly Room | April 24 | 7 - 10 PM (Update & Public Comment) |
| | 25 | 1 - 7 PM (Public Comment) |

Susitna Project Economic and Financial Update Draft Report is available at local libraries and utilities, and the Alaska Power Authority Office.

Alaska Power Authority
276-0001

Larry Crawford
Executive Director

SUSITNA PROJECT HISTORY

1975

- Corps of Engineers completes project study and Draft Environmental Impact Statement (EIS) on proposed federal Susitna Project

1976

- Alaska Power Authority established to provide project financing

1977

- Corps continues engineering and environmental studies
- State financing of Corps' project considered

1979

- Corps studies alternatives, proposes study program
- Federal funds unavailable; State assumes project
- Power Authority selects Acres American Inc. to conduct feasibility study rather than Corps

1980

- Plan of study for feasibility approved
- Battelle Pacific Northwest Laboratories begins separate alternatives analysis
- Public participation program begins

1982

- Feasibility study complete
- Project judged feasible
- Power Authority Board recommends submitting license application continuing design/environmental work

1983

- License application submitted to Federal Energy Regulatory Commission (FERC)
- FERC formally accepts application
- Environmental and engineering studies continue
- In-state settlement process begun

1984

- Finance plan submitted to FERC
- FERC Draft EIS
- Need-for-Power Hearings

Future

- FERC Final EIS
- Environmental and Dam Safety Hearings
- Initial Power Sales Agreements
- FERC License approval
- Begin design and construction

ALASKA POWER AUTHORITY

Susitna Hydroelectric Project

Public Meetings Agenda, April 13 - 25, 1984

WELCOME.....Power Authority
PROJECT INFORMATION PRESENTATION.....Power Authority
QUESTIONS AND ANSWERS.....Power Authority
PUBLIC TESTIMONY.....Until comments have been heard
CLOSING.....Power Authority

SUSITNA HYDROELECTRIC PROJECT
PUBLIC MEETINGS
April 13 - 25, 1984

Interested officials and members of the public are invited to express their comments and ask questions about the proposed Susitna Hydroelectric Project in this series of public meetings being held in Fairbanks, Anchorage, Palmer, and Soldotna.

During these meetings the Alaska Power Authority will provide an economic, financial and environmental update on the Susitna Hydroelectric Project and receive public comments on all aspects of the project, including the following report:

Susitna Hydroelectric Project
Economic and Financial Update
Draft Report, February 27, 1984
Alaska Power Authority

Copies of this report are available for review at the sign-in area; please return the reports to this area prior to leaving. The report has been provided to local libraries, utilities, Chambers of Commerce, and Mayoral offices.

During these meetings, persons may give their statements orally or in writing. Written comments will be accepted at the meetings or can be mailed. A blue comment form is available at the sign-in area. This form is ready for mailing or can be deposited in the box at the sign-in area. All mailed comments should be provided to the Power Authority prior to May 4, 1984 to insure their consideration for including in the final Update report. If you are giving public testimony, please sign-up on the sheet provided. A box has been provided at the testimony area for those who have a typed/written copy of their testimony. A green form is available for those who would like to have a question answered during these meetings but do not wish to give public testimony.

These meetings will be recorded and transcribed by a court reporter. All statements (oral and written) will become part of the public files associated with the Susitna Hydroelectric Project.

\$ 92.664 million spent to date

$\frac{12\ 000\ 000}{2000}$ million spent by ADPAG, aquatic?
Salmon in Sloughs

\$ 6000 / fish

SUSITNA HYDROELECTRIC PROJECT

WRITTEN COMMENT

NAME: _____

ADDRESS: _____

ORGANIZATION
AFFILIATION: _____

COMMENT:

SUSITNA HYDROELECTRIC PROJECT
April 13-25, 1984 Public Meetings

If you would like to have a question answered during these meetings, please complete this form.

Name: _____

Address: _____

Organization Affiliation: _____

WRITTEN QUESTION

WRITTEN COMMENT

ADDRESS:

**ORGANIZATION
AFFILIATION:**

COMMENT:

705/188

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Susitna Project Office
Alaska Power Authority
334 West 5th Avenue, Second Floor
Anchorage, Alaska 99501

FOLD

THE SUSITNA PROJECT

INTRODUCTION

The Alaska Power Authority has filed for a Federal Energy Regulatory Commission (FERC) license to construct and operate the Susitna hydroelectric project. The Susitna project would play a major role in meeting the future electrical demand of the Alaskan Railbelt, where over 70 percent of the State's population currently resides.

PREVIOUS STUDIES

A U. S. Bureau of Reclamation reconnaissance study completed in 1948 first identified the hydroelectric potential of the Susitna River Basin. A project feasibility study was completed by the Bureau in 1961. It recommended a five stage river development plan be authorized by the U.S. Congress. The U.S. Army Corps of Engineers completed a comprehensive feasibility study in 1975 and recommended a two dam development concept. This report was updated in 1979 with Devil Canyon and Watana being reaffirmed as the appropriate sites. The economic feasibility was also reaffirmed.

POWER AUTHORITY STUDIES

Pursuant to a request from the 1980 Legislature, a detailed study of the economic, engineering, environmental, and financial feasibility of the project was undertaken for the Power Authority by Acres American, Inc. To ensure an independent and objective evaluation of alternatives, the 1980 State Legislature had also requested that an independent consultant prepare a study of Railbelt electrical power alternatives. Accordingly, the Office of the Governor contracted with Battelle Pacific Northwest Laboratories, Inc. (Battelle) to analyze and prepare a series of reports on alternative means of meeting anticipated Railbelt electric power demand, including a forecast of electrical power demand in the Railbelt through the year 2010.

The Power Authority's study was completed in April, 1982 and concluded "that there is a high probability that development of the hydroelectric potential of the Susitna Basin would provide significant cost advantages when compared to alternative means of meeting projected Railbelt power demands. . ."

On April 26, 1982 the Power Authority Board of Directors forwarded their recommendations to the Governor and the Legislature concerning the future development of the Susitna project. The Board's recommendations were:

- 1) The Power Authority should continue pre-construction developmental efforts of the Susitna project;
- 2) The Legislature should authorize the Power Authority to submit a FERC license application; and
- 3) The Legislature should appropriate additional funds for the continuation and intensification of environmental studies, site exploration, and initiation of project design.

Based on the Board's recommendation, the Legislature authorized funds for the continuation of pre-construction activities on the Susitna project.

In its December 1982 report, Battelle concluded that the Susitna project would provide the lowest cost of power over an extended time period and be the most resistant to inflation. An addendum to that report noted that there had been a decline in world oil prices during the period from January through March, 1982. Although these lower world oil prices would make the Susitna project less attractive economically, the addendum concluded that the Susitna project still was the best means of meeting the Railbelt's long-term power requirements.

The Susitna hydroelectric project FERC license application was prepared based on data developed in the feasibility and project alternatives studies and, with Legislative authorization, was filed with the FERC on February 28, 1983. Noting the sensitivity of the project's economic feasibility to world oil prices, the FERC directed the Power Authority to refine the relevant studies in the application to reflect up-to-date projections of world oil prices and other sensitive data.

In order to provide revised electrical demand forecasts, the Power Authority retained Battelle Northwest to review the computer-based electrical demand forecasting effort. This effort was necessary to respond to FERC's specific request regarding forecasting methodology as well as to provide a means of periodically updating the project feasibility.

On July 11, 1983, the Power Authority complied with the FERC directive and submitted supplemental data and an electric power demand forecast based on a "no supply disruption" oil price forecast developed by Sherman H. Clark Associates (SHCA), a firm specializing in oil price forecasting. The SHCA projection was adopted by the Power Authority Board of Directors after extensive review of several other world oil price forecasts and is almost identical to the State Department of Revenue Forecast (DOR) used in the December 1983 Department of Revenue, Petroleum Revenue Forecast. The electrical demand forecast of a 2.8 percent increase per

year incorporated the effects of world oil prices as forecast by SHCA and supported the economic feasibility of the project. The license application, as supplemented, was accepted by the FERC on July 29, 1983. FERC is presently estimating that the license could be issued in March 1987. This schedule includes 20 months for Need for Power and Environmental/Dam Safety Hearings.

ECONOMIC AND FINANCIAL UPDATE DRAFT REPORT

Concurrent with FERC's directive to address the 1983 reduction in world oil prices, the Power Authority Board of Directors instructed the Power Authority staff to prepare a complete "update" report on the economic and financial feasibility of the project. The report was to use the most current data on the key economic variables affecting the project's feasibility, including world oil prices and the pricing and availability of alternative fuels.

CONCLUSIONS OF UPDATE DRAFT REPORT

The Draft Susitna Economic and Financial Update Report was presented to the Power Authority Board of Directors on March 9, 1984. The Draft Update report concludes:

- ° Assuming the SHCA forecasted world oil prices, the Susitna project is economically more attractive than non-Susitna alternative plans. The construction of the Susitna project would result in a cost savings of \$1.06 billion (in 1983 dollars) over the non-Susitna alternatives during the first 50 years of operation.
- ° The construction cost estimates in 1983 dollars for the Watana and Devil Canyon phases as submitted to the FERC are \$3.8 and \$1.6 billion, respectively. System design refinements could result in a reduction of the Watana phase costs of approximately \$300 million.
- ° The electric energy demand forecast for the Railbelt is sufficient to absorb the entire output of the Watana phase of the project in 1996.
- ° Based on either of two recommended financing options, about \$2 billion (1983 dollars) in State equity and rate stabilization fund contributions will be required for the total project. These contributions are necessary to ensure that the initial cost of energy from Susitna will be marketable. If REA or tax exempt financing cannot be made available, the State's equity contribution may have to be increased.

- ° Major changes in economics and in load projections could change the anticipated cost savings of the Susitna project. Lower world oil prices, lower energy demand, higher construction costs or higher interest rates could reduce project feasibility. Conversely, higher world oil prices, higher energy demand, lower Susitna construction costs, or lower interest rates would increase the Susitna project's feasibility.

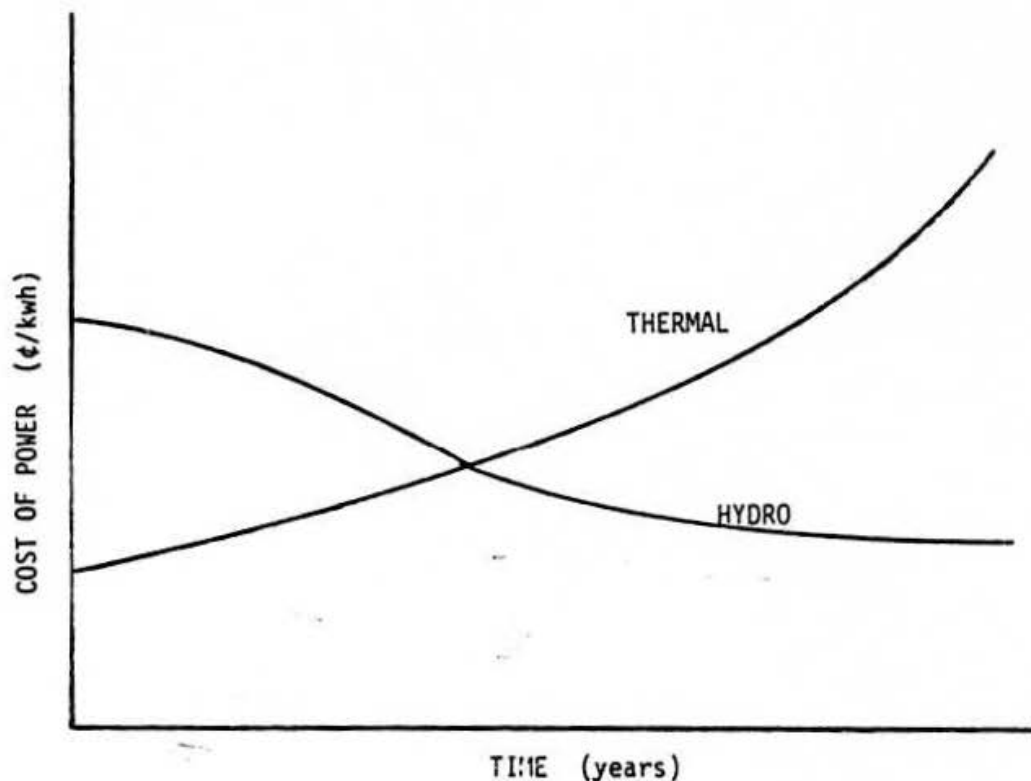
SUMMARY

The results of both the Susitna feasibility study and the update of that study indicate that the Railbelt electrical energy generating capacity will have to be increased to meet projected demand. The limited supply of natural gas in Cook Inlet and the projected high cost of natural gas from the North Slope are expected to require the Railbelt electrical utilities to look to other energy sources for electrical generation. The most likely options for electrical power generation for the Railbelt appear to be either the Susitna hydroelectric project or a fossil fuel-based alternative. This fossil fuel-based alternative would rely primarily on coal-fired generation after the year 2000.

The Power Authority has conducted extensive engineering, environmental, economic, and financial feasibility studies of both the Susitna project and non-Susitna alternatives. The conclusion of these studies and of the Draft Update is that the Susitna project is economically feasible and can provide long-term benefits over the non-Susitna alternatives.

In order to compare the Susitna and non-Susitna alternatives, the long-term costs and benefits of the projects must be carefully considered. Hydroelectric projects differ considerably from thermal projects such as gas and coal-fired generation. A hydroelectric project is characterized by high front-end construction costs, low operating costs, and a useful life of 50 years or more, while thermal plants generally have lower front end costs, high operating costs, and a life of 25 to 30 years. The cost of power from a hydroelectric project is relatively insensitive to inflation once construction is complete, while the cost of power from a thermal plant increases as the fuel cost inflates.

Over a period of time, the annual operating costs of a thermal plant may more than offset the high early capital costs of a hydroelectric facility. A graphic example of these cost differentials is as follows:



A hydroelectric project is usually developed for maximum utilization of the facility over the life of the project and may have some excess capacity in the early years of operation, while thermal plants can be added in small increments that more closely match the growth in power requirements.

The Railbelt is reaching a critical period in which increased electrical generation capacity will be required. Electrical demand in the Railbelt is predicted to increase, and several utilities have publically discussed problems associated with providing adequate generation to meet those projected needs. The decision whether to invest State funds in the development of the Susitna hydroelectric project or to rely upon non-Susitna alternatives is one that will be made by the people of the State through their elected representatives.

PURPOSE OF MEETING

The purpose of tonight's meeting is to brief the public on the current status of the Susitna project, including the findings of the Draft Update report, and to take public comment.