

1890 SRES NENANA PROJECT 2/6/81 - POWER BRIEFING 2/9/81

INTERIM MASTER APPLICATION

Permit Information Center  
Alaska Department of Environmental Conservation

MASTER APPLICATION

NO. \_\_\_\_\_

CERTIFICATION

(to be completed by local government)

I hereby certify the project described herein is in compliance with all zoning ordinances and associated comprehensive plans administered by

CITY OF NENANA, ALASKA

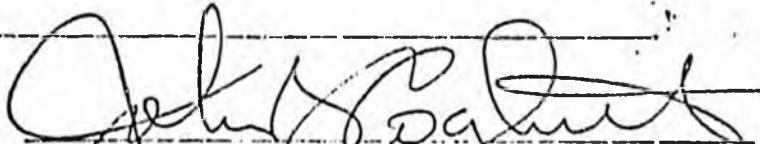
(Local Government Official's Signature)

Mayor, City of Nenana

(Title)

(Date)

I hereby certify the property described in Section II is not under the jurisdiction of any zoning ordinance or associated comprehensive plan administered by

  
\_\_\_\_\_  
(Local Government Official's Signature)

Mayor

(Title)

11-13-80

(Date)

I. Applicant Information

A. Name of Applicant: CITY OF NENANA, ALASKA

Address: \_\_\_\_\_  
(Street Number or R.F.D.) (City) (State) (Zip Code)

Phone Number: 832-5441

B. Consultant or Contact Person: ALASKA TRANSPORTATION CONSULTANTS, INC.

Address: 212 C Wedgewood Drive, Fairbanks, Alaska 99701  
(Street Number or R.F.D.) (City) (State) (Zip Code)

Phone Number: 456-1967

II. Activity Location

A. Location of Work (smallest legal subdivision): West of the City of Nenana at the Nenana River, East Middle River, and West Middle River bridge sites

Within Section 15-23, Township 4 S, Range 3 W

B. Distance and direction from nearest incorporated town or city:  
Four and one-half (4½) W. of City of Nenana  
Right-of-way, 200 feet wide to the West Middle River bridge site per project diagram.

III. General Activity Description

A. Beginning Construction Date: January 1, 1981 Completion Date: February 15, 1981

B. Description of Project (describe the project objectives, purpose and need):  
Determine alignment of bridges across the three (3) above rivers; also alignment of road between bridge sites.

C. Description of Work (describe the project construction and operation):  
Drilling test holes 10-20 feet deep, each one-fourth (¼) mile, along road alignment. Drilling test holes at bridge piling sites, one of which will be at least one hundred (100) feet deep. Survey alignment of road with bridge.

IV. SPECIFIC ACTIVITY DESCRIPTION

A. The construction or operation of this project involves: (check all appropriate boxes).

- Commercial development
- Industrial development
- Institution
- Residential development

Above checked development includes:

- Electrical
- Plumbing
- Elevator
- Mechanical equipment in structures
- Boiler
- Pressure vessels
- Pressure piping
- Prefabricated structures

Sewage disposal:

- Septic tank and drainfield installation or alternative disposal system
- Connection to municipal sewer system
- Develop or connection to nonmunicipal sewer system
- Connection to municipal water system
- Develop or connection to nonmunicipal water system
- School water supply
- Surface mining (including rock quarry, material borrow site, sand and gravel, etc.)
- Underground mining
- Dredging
- Oil and gas drilling and exploration
- Geothermal drilling and exploration
- Well injection
- Well construction
- Fireworks
- Marine facility (access, dock, float, etc.)
- Explosives
- Disposal of surplus mineral resources

Food service facilities:

- Restaurant
- Temporary
- Limited service restaurant
- Commissary
- Food vending machine
- Vending machine
- Mobile unit(s)
- Shellfish distributors
- Shucker packers
- Harvesters

- Swimming pool
- Health facility (hospital, inpatient care, nursing home, etc.)
- Home for aged
- Group care home
- Child care agency
- Day care facility
- Post secondary education facility at a new location
- Junkyard
- Alcohol or alcoholic beverages (industrial, manufacture, wholesale, retail)
- Hydraulic structure
- Irrigation, drainage
- Hydroelectric facilities
- Mobile home park
- Airfield construction or modification
- Advertising signs
- Cultural site development
- Pneumatic conveyance facilities
- Liquid petroleum gas
- Flammable and/or combustible liquids
- Shore-based handling devices
- Excavation
- Land leveling
- Stream bed alteration, movement of material within banks
- Flood control project (stream channelization)
- Aquaculture
- Agriculture
- Bulkhead
- Burning
- Dam construction
- Forest management
- Tree cutting
- Right of way clearing
- Gravel operation
- Road construction
- Solid waste disposal
- Utilities
- Port Development
- Propagation of fish or wildlife
- Landfill
- Tourist facilities (hotel, motel, recreational park, organization camp, picnic park, mass gathering)

Other Preliminary geotechnical and survey.

Yes No

B.   All or a portion of the activity will be located within 200 feet of the ordinary high water mark or within the floodplain of \_\_\_\_\_, XXXXXXXXX  
(name of stream or body of water)

NENANA RIVER, EAST MIDDLE RIVER, WEST MIDDLE RIVER \_\_\_\_\_; a tributary(s)  
(name of stream or body of water)  
of the Tanana River.

C. Work will be conducted (include anticipated dates work will take place)

Over Water JANUARY 1, 1981 --- FEBRUARY 15, 1981  
(dates)

In or under water JANUARY 1, 1981 --- FEBRUARY 15, 1981  
(dates)

D.   The proposed work will be vented or will release materials into the air. (explain)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

E.   Will the construction or use of the final facility result in the discharge of a pollutant? Into:

- Ground water
- Surface water
- Sewer system

Explain (pollutant): \_\_\_\_\_

F.   Will your proposal include facilities for the disposal of sewage?

- Septic Tank and Drainfield Installation
- Connection to Municipal sewer system
- Develop a Nonmunicipal (individual) treatment facility

G.   Will construction or operations of the final facility involve the use of ground or surface water?

- SOURCE
- Ground water
  - Surface water

- USE
- Domestic Use
  - Commercial/Industrial Use
  - Other \_\_\_\_\_

Quantity of water use: \_\_\_\_\_ cfs, or \_\_\_\_\_ gpm.

If surface water, name of source: \_\_\_\_\_  
(stream or body of water)

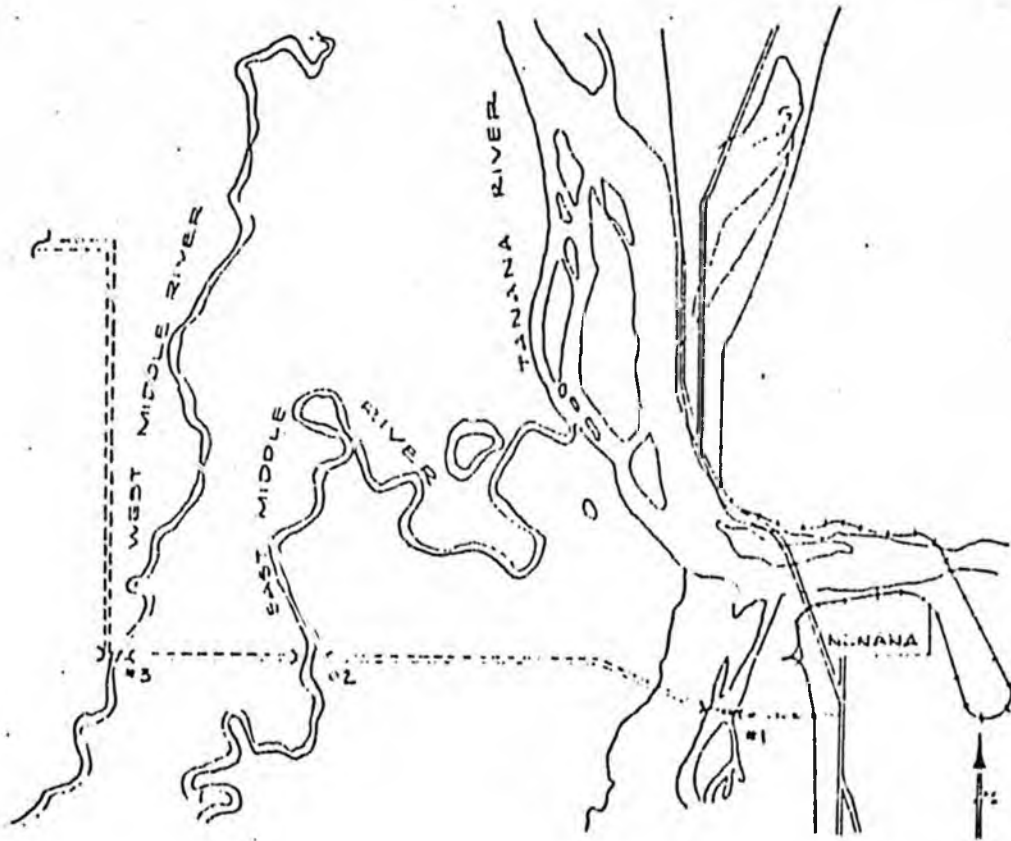
a tributary of \_\_\_\_\_  
(name of stream or body of water)

Yes No

- II.   Will your proposal include facilities for public water supply?  
 Connection to Municipal supply system  
 Develop a Non-municipal (individual) supply system
- I.   Will your proposal require the construction or modification of a dam for the storage of water?  
Height of dam: \_\_\_\_\_ feet.  
Quantity of water to be stored: \_\_\_\_\_ acre feet.
- J.   Do you plan to dispose of material by burning?  
 Natural material (organic)  
 Man-made material (processed)
- K.   Do you plan to dump any mill waste or forest debris?
- L.   Do you plan to conduct a commercial operation with power driven machinery in dead or down timber?
- M.   Do you propose to remove more than 10,000 tons or disturb more than two acres of land in order to remove gravel, clay, coal, stone, sand, metallic ore, or any other similar solid material or substance to be excavated from natural deposits on or in the earth for commercial, industrial, or construction uses?
- N.   Do you plan to conduct any activity on or directly pertaining to forest land and related to growing, harvesting or processing timber including: road and travel construction; timber harvest; precommercial thinning; reforestation; fertilization; prevention and suppression of diseases and insects; salvage of trees; right-of-way clearing; or brush control?
- O.   Do you plan to recover stray logs, other than logs owned by you, from waters of the State?
- P.   Does your proposal involve work within, adjacent to, or near a state park?
- Q.   Do you have control of the land on which the project is located? Who does?  
 I own/control the land.  
 I control the land through a license from a private individual/company.  
 The State owns the land.  
 Federal land.  
 Locally owned land.

## V. PROJECT DIAGRAM

Show the general area involved by the project. Include the proposed project improvements, existing topography, streams or bodies of water, landmarks, property lines, north arrow, scale, etc. (include additional pages if necessary)

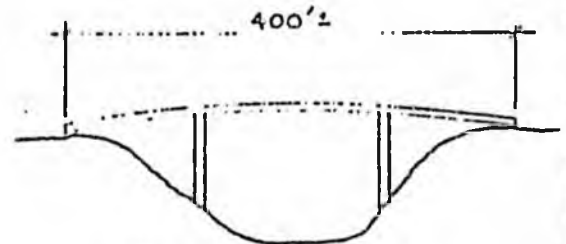


LOCATION MAP

SCALE: 1" = 1 MILE



TYPICAL BRIDGE 2 & 3  
N.T.S.



TYPICAL BRIDGE 1  
N.T.S.

VI. ENVIRONMENTAL IMPACT

Yes No

- A.   Have you been asked to complete an "Assessment of Environmental Impact"? (If completed, please attach a copy.)
- B.   Has an "Environmental Impact Statement" been requested before you begin your project? (If completed, please attach a copy.)

C. Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The information given on this application is complete and accurate to the best of my knowledge and belief.

  
\_\_\_\_\_  
(Applicant's Signature)

11-15-80

\_\_\_\_\_  
(date)

APPENDIX III  
SECTION 46.35.030-46.35.210 ALASKA STATUTES

**Sec. 46.35.030. Master application.** (a) A person proposing a project which requires the issuance of one or more permits may submit a master application to the department requesting the issuance of all permits and documents necessary before the construction and operation of the project in the state. The master application shall be on a form established by the department and shall contain sufficient information as to the location and the nature of the project, including discharge of wastes and use of or interference with natural resources of the state.

(b) Upon receipt of a properly completed master application, the department shall immediately forward a copy of the application to all heads of executive departments of the state and the chief elected official of all municipalities in which a portion of the project is proposed to be constructed, together with the date by which the agency shall respond to the master application.

(c) Each agency notified shall respond in writing to the department by the specified date, not exceeding 15 days from receipt, as determined by the department, advising

(1) whether the agency has an interest in the master application;

(2) if the response to (1) of this subsection is affirmative, the permit program under the agency's jurisdiction to which the project described in the master application is pertinent; and

(3) whether, in relation to the master application, a public hearing as provided in §§ 50 and 60 of this chapter would be in the public interest.

(d) Each notified agency which (1) responds within the specified date that it does not have an interest in the master application; or (2) does not respond as required within the specified date, may not subsequently require a permit of the applicant for the project described in the master application unless the master application contained false, misleading, or deceptive information, or other information or lack of information which would reasonably lead an agency to misjudge its interest in the master application.

(e) The department shall submit application forms relating to permit programs identified in affirmative responses under (c) of this section to the applicant with a direction to complete and return them to the department within a reasonable time as specified by the department.

(f) When the applications, properly completed, have been returned to the department, each of the applications shall be transmitted to the appropriate state agency for the performance of its responsibilities of decision making in accordance with the procedures of this chapter. (§ 1 ch 60 S.L.A. 1977)

**Sec. 46.35.040. Withholding final permit.** When it appears that the applicant does not own or control the land or water necessary for the siting of the project in the master application, the department shall continue the proceedings under this chapter but may withhold the final permit until the applicant has obtained ownership or control of the land or water necessary for the site of the project. If the applicant has applied

for land or water necessary for the siting of the project from the state or a municipality of the state, the state agency or municipality shall promptly adjudicate the application for the land or water filed by applicant. (§ 1 ch 60 SLA 1977)

**Sec. 46.35.050. Notice of proposed project.** (a) The department, within 30 days after transmittal under § 30(f) of this chapter, shall cause a notice to be published at the applicant's expense once each week for three consecutive weeks in a newspaper of general circulation within each municipality in which the project is proposed to be constructed or operated. The notice shall describe the nature of the master application, including, with reasonable specificity, the project proposed, its location, the various permits or documents applied for, and the state agency having jurisdiction over each permit or document. Except as provided in (c) of this section, the notice shall also state the time and place of the public hearing which shall be scheduled not less than 20 or more than 30 days after the date of last publication of the notice. It shall further state that a copy of the master application and a copy of all applications for the project are available for public inspection in the regional office of the department nearest to where the project is proposed to be constructed or operated, as well as at the department office in the capital and any other locations the department may designate in the notice.

(b) If no part of the project is to be constructed or operated in a municipality, or if there is no regularly published newspaper of frequency at least weekly, the public notice shall be published in a newspaper in the judicial district in which the project is proposed.

(c) If the responses received by the department from state agencies under § 30(f) of this chapter unanimously state the position that a public hearing concerning a master application is not necessary in the public interest, and the department, after a careful evaluation, taking into consideration all interests involved, including the opportunity for members of the public to present views, agrees, the provisions of (a) of this section pertaining to the time and place of a public hearing shall not be included in the notice. In that case the notice shall state that members of the public may present their views and supporting materials in writing to the department regarding any of the permits applied for within 30 days after the last date of publication of the notice in a newspaper. (§ 1 ch 60 SLA 1977)

Revisor's note (1977). — AS 46.35.050(a), as it appeared in § 1, ch. 60, SLA 1977 (HCS CSSB 227), contained reference to "(b) of this section." This citation originally appeared in SB 227; however, the

subsection (b) referred to in that version became (c) of the final version of the bill as enacted. Consequently, the reference in (a) has been corrected to read "(c) of this section."

**Sec. 46.35.060. Public hearing.** (a) Except as provided in § 50(c) of this chapter, before a final decision is made on a permit application relating to a project subject to the procedures of this chapter, a public

hearing shall be held in or near the municipality in which all or a major part of the proposed project is to be constructed or operated, or, if the project is not to be constructed or operated in a municipality, the hearing shall be held at a location reasonably convenient to the site of the proposed project. The hearing shall be held in accordance with the notice given under § 50(a) of this chapter. At the hearing the applicant may submit any relevant information and material in support of his applications, and members of the public may present relevant views and supporting materials relating to any or all of the applications being considered.

(b) Each state agency having an application for a permit before it under § 50(a) of this chapter shall be represented at the public hearing by its commissioner or his designee. The commissioner of the department, his designee, or a hearing officer appointed by the governor, shall chair the hearing; however, the representative of any state agency other than the department within whose jurisdiction a specific application lies shall conduct the portion of the hearing pertaining to submission of information, views, and supporting materials which concern that application. The chairman may continue a hearing from time to time and place to place.

(c) No provisions of AS 44.52 apply to the hearing conducted under this section, and the hearing shall be conducted for the purpose of obtaining information for the assistance of state agencies and not as a trial or adversary proceeding.

(d) Federal and local government agencies may be represented at the hearings, at their option, by their chief executive officer or his designee.

(e) The hearing shall be electronically recorded, and copies of the recording shall be made available to state, federal and local agencies upon request. (§ 1 ch 60 SLA 1977)

Cross reference. — See revisor's note to AS 46.35.050.

Sec. 46.35.070. Final decision. (a) Upon completion of the public hearing the chairman, after consultation with the state agency representatives, shall establish the date by which all state agencies shall forward their final decisions on applications before them to the department. The date established shall be within the following 90-day period after the public hearing.

(b) In a situation where a notice is provided under § 50(c) of this chapter, the department shall, 30 days after the last notice publication in the newspaper, submit a copy of all views and supporting material received by it to each agency as described in the notice as having an application before it. At the same time, the department shall notify each state agency, in writing, of the date by which final decisions on applications shall be forwarded to the department. That date shall be

no later than 90 days after the date of last publication of the notice, but may be extended by the department for reasonable cause.

(c) Each final decision shall state the basis for the conclusion together with a final order denying the application for a permit or granting it, subject to a condition of approval as the deciding agency may have the power to impose. An agency which denies an application shall, with its final decision denying the application, provide a written summary suggesting alternate means of completing the project, or, if no alternative is feasible, the agency shall provide a written summary of its reasons for that conclusion.

(d) As soon as all final decisions are received by the department under (b) and (c) of this section, the department shall incorporate them, without modification, into one document and transmit it to the applicant either personally or by registered mail.

(e) Each state agency having jurisdiction to approve or deny an application for a permit shall have the power vested in it before October 1, 1977 to make such determinations. Nothing in §§ 30 — 70 of this chapter lessens or reduces these powers, and §§ 30 — 70 of this chapter modify only the procedures to be followed in the carrying out of the powers.

(f) A state agency, in the performance of its responsibilities of decision making under this chapter, may request or receive additional information from an applicant and others before or after the public hearing. (§ 1 ch 60 SLA 1977)

Cross reference. — See revisor's note to AS 46.35.050.

**Sec. 46.35.080. Withdrawal of agency from participation.** (a) A state agency responding affirmatively under § 30(b) of this chapter may withdraw from participation in the processing provided in §§ 30 — 70 of this chapter at any time, by written notification to the department, if it subsequently appears to the state agency that it has no permit programs under its jurisdiction applicable to the project.

(b) A decision by a state agency to withdraw from the proceeding is irreversible, and the state agency may not subsequently require a permit of the applicant for the project described in the master application unless the master application contained false, misleading, or deceptive information, or other information or lack of information which would reasonably lead an agency to misjudge its interest in the master application. (§ 1 ch 60 SLA 1977)

**Sec. 46.35.090. Administrative and judicial review.** (a) A person aggrieved by a final decision issued under § 70(d) of this chapter may file a notice of appeal with the commissioner requesting an adjudicatory hearing within 30 days of transmittal of the final decision to the person. A failure to file a timely notice of appeal constitutes a waiver of the

person's right to review the final decision, unless the failure was due to circumstances beyond the applicant's control.

(b) The commissioner shall grant a request for an adjudicatory hearing within 20 days of filing of the notice of appeal if he determines that the notice raises a reasonable issue of fact or law material to the final decision.

(c) A hearing officer appointed under AS 44.62.350 shall preside at hearings under this section, rule on the admission and exclusion of evidence, advise the deciding officers on matters of law, and participate in posthearing deliberations.

(d) Appeals shall be heard jointly by the commissioner, or his designee, of each agency which rendered a final decision under § 70 of this chapter for which the person requesting the hearing is aggrieved. The commissioner, or his designee, of each agency shall decide only that portion of the appeal which involves his agency.

(e) The commissioner, after consultation with other state agencies and local governments, shall adopt regulations governing the conduct of adjudicatory hearings under this section. The commissioner may enter into cooperative agreements with local governments and federal agencies for the joint holding of adjudicatory hearings. To the extent feasible, regulations adopted under this section shall conform to adjudicatory hearing procedures for the review of permit decisions under AS 30.25 and AS 46.03. Notwithstanding AS 44.62.330(a)(4), adjudicatory hearing procedures to review permit decisions under this chapter, or under AS 30.25 or AS 46.03, need not conform to the Administrative Procedure Act (AS 44.62.330 et seq).

(f) A person aggrieved by a final decision of the commissioner under this section may appeal the decision to the superior court in the manner provided by AS 44.62.560 — 44.62.570. (§ 1 ch 60 SLA 1977)

**Sec. 46.35.100. Time.** It is the sense of the legislature that time is of the essence in the processing of applications under this chapter. Whenever a section in this chapter states a time within which an act or a review is to be completed, the legislature has determined that the time allotted is adequate for a responsive state agency or municipality to complete the act or review. If unusual conditions prevent this from happening, it is the sense of the legislature that minimum extensions of the period established in this chapter may be granted upon a determination that the delay occurred beyond the control of the reviewing agency or municipality. (§ 1 ch 60 SLA 1977)

**Sec. 46.35.110. Application.** Notwithstanding any other provisions of regulation or statute relating to the processing of application for permits, the procedures set out in this chapter are exclusive for applications filed under § 30 of this chapter. The procedures of this chapter are in lieu of any procedures otherwise provided by law or

regulations, and are to be followed by a state agency in ruling upon those applications. (§ 1 ch 60 SLA 1977)

**Sec. 46.35.120. Fee schedules.** Fee schedules previously established or authorized by law for an application for a permit continue to apply. The department shall collect the fees and forward them to the appropriate state agency. (§ 1 ch 60 SLA 1977)

**Sec. 46.35.130. Compliance with local zoning ordinances and plans.** (a) No permit for a project filed under § 30 of this chapter may be issued unless the application has provided a certification from the appropriate local government that the project is in compliance with the zoning ordinances and associated comprehensive plans administered by the local government regarding the project. If the local government has no such ordinances or plans, the local government shall certify that fact. A local government may accept applications for certification under this section and shall rule upon them within 30 days. A local government may impose stipulations of performance in its approval, but, upon certification, the local government may not change the zoning ordinances as to the proposed project until the procedures of this chapter, including an appeal, are completed.

(b) Approval of an application for certification as provided in this section shall not eliminate any requirements of ordinances administered by a local government. A ruling by local government denying an application for certification is not appealable under this chapter, except that the denial of an application for certification under (a) of this section does not preclude the applicant from filing an application under a different statute or procedure. (§ 1 ch 60 SLA 1977)

**Sec. 46.35.140. Applicability of other laws.** Nothing in this chapter modifies in any manner the applicability of a land use law or regulation or local zoning ordinances to land of a state agency. (§ 1 ch 60 SLA 1977)

**Sec. 46.35.150. Regulations and authorities.** The department may adopt regulations to implement the provisions of this chapter. (§ 1 ch 60 SLA 1977)

**Sec. 46.35.160. Permit requirement information centers.** (a) The department shall establish permit requirement information centers at the commissioner's office and in all of its regional offices and may enter into an agreement with the governing body of any municipality having a population of more than 1,000 to establish and maintain local information centers to provide information to the public, in readily understandable form, regarding requirements of federal, state, and local governments for permits that must be acquired before initiating projects in this state and to provide assistance in the completion of permit applications.

(b) Each regional office of the department and other offices as the department may establish shall provide a master application to any

person requesting it. The department shall provide information, forms, instructions, and assistance in the completion of a master application under this chapter to a person requesting assistance. (§ 1 ch 60 SLA 1977)

**Sec. 46.35.170. Conflicts and compliance with federal requirements.** (a) If any part of this chapter is found in conflict with federal requirements regarding the allocation of federal funds to the state, that part of this chapter is inoperative to the extent of the conflict regarding the agencies affected, and the determination shall not affect the operation of the remainder of this chapter.

(b) The department, to the extent necessary to comply with procedural requirements of federal law relating to permit systems operated by the state, may modify the notice, timing, hearing and related procedural matters provided in this chapter. (§ 1 ch 60 SLA 1977)

**Sec. 46.35.200. Definitions.** In this chapter

(1) "commissioner" means the commissioner of environmental conservation;

(2) "department" means the Department of Environmental Conservation;

(3) "local government" means a city or borough including a municipality unified under AS 29.68.240 -- 29.68.440;

(4) "permit" means each of the following licenses, permits or authorizations required to be obtained from a state agency before constructing or operating a project in the state, or any other license, permit or authorization which may be designated by the commissioner:

- (A) waste water disposal permit -- AS 46.03.100, 18 AAC 72;
- (B) solid waste disposal permit -- AS 46.03.100, 18 AAC 60;
- (C) air emissions permit -- AS 46.03.150, 18 AAC 50.120;
- (D) pesticides permit -- AS 46.03.320, 18 AAC 90;
- (E) surface oiling permit -- AS 46.03.740, 18 AAC 75;
- (F) open burning permit -- AS 46.03.020, 18 AAC 50.120;
- (G) anadromous fish protection permit -- AS 16.05.870, 5 AAC 95.100;
- (H) critical habitat area permit -- AS 16.20.250 -- 16.20.260;
- (I) state game refuge land permit -- AS 16.20.050 -- 16.20.060;
- (J) encroachment permit -- AS 19.25.200;
- (K) utility permit -- AS 19.25.010;
- (L) driveway permit -- AS 19.05.020, 17 AAC 10.020;
- (M) state park incompatible use permit -- AS 41.20.020, 11 AAC 18.010;
- (N) access roads permit -- AS 41.20.020, 11 AAC 18.020;
- (O) water well permit -- AS 31.05.030, 11 AAC 22.140;
- (P) brine or other salt water waste disposal permit -- AS 31.05.070 [AS 31.05.030], 11 AAC 22.250;
- (Q) coal development permit -- AS 27.20.010, 11 AAC 46.010;

- (R) right-of-way and easement permits -- AS 38.05.330, 11 AAC 58.200;
- (S) special land use permit -- AS 38.05.035, 11 AAC 58.210;
- (T) tidelands permit -- AS 38.05.320, 11 AAC 62.710;
- (U) tidelands right-of-way or easement permit -- AS 38.05.320, 11 AAC 62.810;
- (V) limited personal use permit -- AS 38.05.320, 11 AAC 62.820;
- (W) permit to appropriate water -- AS 46.15.040, 11 AAC 72.050;
- (X) dam construction permit -- AS 46.15.040, 11 AAC 72.060;
- (Y) preferred use permit -- AS 46.15.040, 11 AAC 72.160;
- (Z) permit for use of timber or materials -- AS 38.05.110, 11 AAC 76.185;
- (AA) authorization for tidelands transportation -- AS 38.05.110, 11 AAC 76.205;
- (BB) special material use permit -- AS 38.05.115, 11 AAC 75.510;
- (CC) mineral and geothermal prospecting permits -- AS 38.05.145;
- (DD) tide and submerged lands prospecting permit -- AS 38.05.250;
- (EE) surface use permit -- AS 38.05.255, 11 AAC 86.500;
- (FF) burning permit during fire season -- AS 41.15.070, 11 AAC 92.010;
- (GG) miscellaneous state land use permit -- AS 38.05.035, 11 AAC 96.010;
- (HH) right-of-way permit -- AS 38.05.330;
- (5) "person" means an individual, municipal, public, or private corporation, or other entity, and includes a state agency and a local government;
- (6) "processing" and "processing of applications" means the entire process followed in relation to the making of decisions on an application for a permit and review of it as provided in §§ 30 -- 80 of this chapter;
- (7) "project" means any new activity or expansion of or addition to an existing activity, fixed in location, for which permits are required before construction or operation;
- (8) "state agency" means a state department, commission, board or other agency of the state; for the purposes of this chapter "state agency" also means a local or regional air pollution control authority established under AS 46.03.210. (§ 1 ch 60 SLA 1977)

Sec. 46.35.210. Short title. This Act may be cited as the Environmental Procedures Coordination Act. (§ 1 ch 60 SLA 1977)

## Chapter 40. The Alaska Coastal Management Program.

### Article

1. Development of Alaska Coastal Management Program (§§ 46.40.010 -- 46.40.100)
2. Coastal Management Programs in the Unorganized Borough (§§ 46.40.110 -- 46.40.180)
3. General Provisions (§§ 46.40.190 -- 46.40.210)

APPENDIX IV  
DATA REQUIRED TO DETERMINE NAVIGABILITY OF A WATERWAY

DATA REQUIRED TO DETERMINE NAVIGABILITY OF A WATERWAY

1. Name
2. Tributary to
3. Physical characteristics
  - (a) Type of waterway (river, bay, slough, estuary)
  - (b) Length
  - (c) Width
  - (d) Depth at Mean High Water
  - (e) Drainage area
  - (f) Discharge volumes (maximum, minimum, mean)
  - (g) Cross-section or profile at proposed crossing.
  - (h) Fall per mile
  - (i) Velocity of flow (maximum, minimum)
  - (j) Elevation of water surface at:
    - Design High Water (~~25~~<sup>100</sup> year flood)
    - Mean High Water (mean annual flood)
    - Mean Low Water (average low observed during navigation season)
  - (k) Extent of tidal influence
4. Past or present use of the waterway by boats, vessels, barges, rafts, canoes, etc.
5. Past or present use of the waterway for interstate commerce
  - (a) General types, extent and period of time
  - (b) Documentation, if necessary
6. Nature and location of significant obstruction to navigation
7. Length of time the waterway is open for navigation:
  - (a) Time of spring break-up
  - (b) Time of fall freeze-up
8. Description of any known proposed or completed projects to improve the condition of the waterway for navigation.
9. Pictures of the waterway in the vicinity of the proposed crossing at periods of high and low flow.
10. Pictures of any obstructions to navigation.

OIL & GAS  
LEASE PLAN,  
BRIEFING  
BY DNR.

2-8-82



# Alaska State Legislature

Official Business

## Resources Committee

Pouch V  
State Capitol  
Juneau, Alaska 99811

TO: Senate Resources Committee  
FROM: Senate Resources Committee Staff  
RE: Five-Year Oil and Gas Leasing Program  
DATE: February 3, 1982

---

Monday, February 8, 1982 Commissioner Katz, Department of Natural Resources, will brief the Senate Resources Committee on the 5-year oil and gas leasing program. The meeting will be held in the Butrovich Room, Room 205 Capitol, at 1:30 p.m.

Please find attached the following two publications prepared by the Department of Natural Resources, Division of Minerals and Energy Management:

"Five Year Oil and Gas Leasing Program," January 1982

"Oil and Gas Leasing Regulations and Statutes", January 1982

Also attached is a summary table of proposed sale areas.

AGO 886514 +

# Alaska State Legislature

GETTYE FAHRENKAMP, CHAIRMAN  
VIC FISCHER, VICE-CHAIRMAN  
BRAD BRADLEY  
DICK ELIASON  
DON GILMAN  
S J B MULCAHY  
ARLISS STURGULEWSKI



POUCH V  
STATE CAPITOL  
JUNEAU, ALASKA 99811  
(907) 465-3834  
(907) 465-3835

## Senate

### Committee on Resources

February 8, 1982  
1:40 p.m.

Beltz Room  
211 - Capitol

#### MEMBERS PRESENT

Senator Fahrenkamp  
Senator Fischer  
Senator Bradley  
Senator Gilman  
Senator Mulcahy  
Senator Sturgulewski

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Briefing on the Five-Year Oil and Gas Leasing Program  
by John Katz, Commissioner  
Department of Natural Resources

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John Katz, Commissioner, Department of Natural Resources, explained that the sale schedule is a product of in-house analysis and public input. One high-value and two lesser-value sales are planned per year; it is becoming increasingly difficult to find high value areas, and every opportunity will be used under the Alaska Statehood Act to select high-value lands. As regards seismic work, DNR underestimated the cost of purchasing it from the oil industry, so they do not have the money to acquire all the miles they will need.

Kay Brown, Director, Division of Minerals and Energy Management, stated there have been six sales so far, totalling 1.2 million acres, and resulting in \$587 million in bonus money.

Jim Eason, Deputy Director, Oil and Gas, Division of Minerals and Energy Management, stated most of the highly prospective areas in Alaska are on the north slope; therefore, the concentration of sales there is fairly heavy. Sales are also planned for some of the interior basins, although they are poorly understood geologically at this time.

Katz explained that few independents are operating in Alaska because of high costs of drilling and production, and renewed opportunities to operate in the Lower '48 due to opening of areas by the Reagan administration. He described DNR's two means of acquiring seismic information--purchase, and as a precondition of the seismic permitting process.

Eason added that seismic information is usually available to those who have money, but the cost can range from \$3,000 to \$6,000 per mile. Drilling equipment is more available than it once was, but it is highly specialized and very expensive.

Senator Sturgulewski expressed concern over keeping the pipeline "full".

Katz agreed that proposed expansion will not make up for the upcoming Prudhoe Bay decline. He stated there is a 20-year lag between the time of lease and the time of actual production.

Senator Fischer expressed the desire to accelerate the moderate and high sales so more companies can explore simultaneously.

Katz responded that one high value sale per year makes sense in terms of DNR's administrative capacity, the companies' sparse exploration capital, and the effort to sequence with federal sales. He will explore acceleration with the Alaska Oil and Gas Association in Anchorage next week and report back to the Committee.

Senator Gilman urged an examination of the regulatory process as a possible hindrance to acceleration.

Katz shares the philosophy that oil and gas production must be ready to come on line at the time of the Prudhoe Bay decline. However, it is a time consuming process because of the difficulty of drilling, the inadequacy of available equipment, logistics, and regulatory problems.

Katz outlined revenue sharing as follows: 90 State/10 Federal on BLM lands and Wildlife Refuges; 50/50 on National Petroleum Reserve lands; 50/50 on the Outer Continental Shelf.

The meeting was adjourned at 2:55 p.m.



# Alaska State Legislature

## Resources Committee

Official Business

Pouch V  
State Capitol  
Juneau, Alaska 99811

TO: Senate Resources Committee  
FROM: Senator Fahrenkamp, Chairman  
RE: Five-Year Oil and Gas Leasing Program  
DATE: February 10, 1982

---

Please find attached a copy of a portion of the State's Five-Year Oil and Gas Leasing Program. Take special note of the forecast on page 14 and the chart on page 16.

AGO 886517 +

The Department of Revenue's forecast assumes that oil prices rise on average by 8.4 percent per year or slightly less than 1.0 percent per year in real terms. The Department of Revenue's price forecast can be viewed as conservative, but prudent. Given the nature of the world oil market all price forecasts must be regarded as extremely tenuous.

For example, between January 1979 and January 1980 the weighted average international price of crude oil increased from \$13.77 to \$28.55, or 107.3 percent. By September 1980 the price has risen to \$32.62, an additional 14.26 percent. During the same one year period (January 79 to January 80) the average price of Prudhoe Bay controlled oil increased from \$5.15 to \$13.69 a barrel, or 165.8 percent. By September 1980 the controlled price had increased another 25.5 percent to \$17.19. Erratic price changes of this type, including those of 1973, are difficult to forecast, and they suggest that long-term price behavior may be characterized by intermittent sharp increases rather than predictable long-term trends reflecting the real costs of oil production. The current "stability" in oil prices is largely the result of recession in the western oil consuming nations as well as conservation stimulated rising real oil costs.

Table I yields estimates of the mean revenue flows from oil production from known state reserves in constant (1981) dollars. According to these estimates the State will receive in excess of \$57 billion over the forecast period.

Graph #1 projects much higher revenue flows than Table I in the mean (average) case. This is because the graph is in nominal (current) dollars. Thus, revenues peak in 1989 at slightly less than \$10 billion per year (in 1990-91 dollars). The corresponding real figure is approximately \$4.7 billion (1981 dollars), under assumed rates of inflation.

It is not reasonable to assume, in light of current knowledge, that the current leasing schedule (or any other schedule based on state land holdings) can fully offset the anticipated decline in Prudhoe Bay production. Proven North Slope reserves (state land only) are approximately 10 billion barrels of recoverable oil of which about 8 billion are contained in the main reservoir at Prudhoe Bay. Production from this reservoir probably will begin to decline sometime in the 1987-89 time period. Initial decline rates of 12 to 15 percent per year are projected. An oil field in the range of 500 million to one billion barrels would have to be discovered each year to offset the projected decline in production, at least for the first few years of decline.

The likelihood of this decline being fully offset by further discoveries on State land must be considered remote at this time. The State's best remaining prospects are probably in the nearshore (to the three mile limit) Beaufort Sea and adjacent onshore areas. The Department of Natural Resources has scheduled three sales in the area between now and 1984. Other sales on the schedule must be regarded as moderate to low potential in the light of current knowledge.

The current leasing policy, with increased reliance on contingency payments rather than bonuses, can help mitigate the fiscal problems that will result from the inevitable production decline in Prudhoe Bay. Although reliance on contingency payments increases the financial risk to the State, the financial risk is near term.

This conservative view of State reserves should not be interpreted as a denigration of Alaska's potential as an energy supplier (although Alaska is hardly another Saudi Arabia, which has approximately 165 billion barrels of proved reserves). Many of the most promising oil and gas prospects are offshore in federal waters or in federal reserves such as the Arctic National Wildlife Refuge and the National Petroleum Reserve. Even though the State will share in the revenues from onshore Federal reserves, this share will be less than would be the case if the State were the leasing agent.

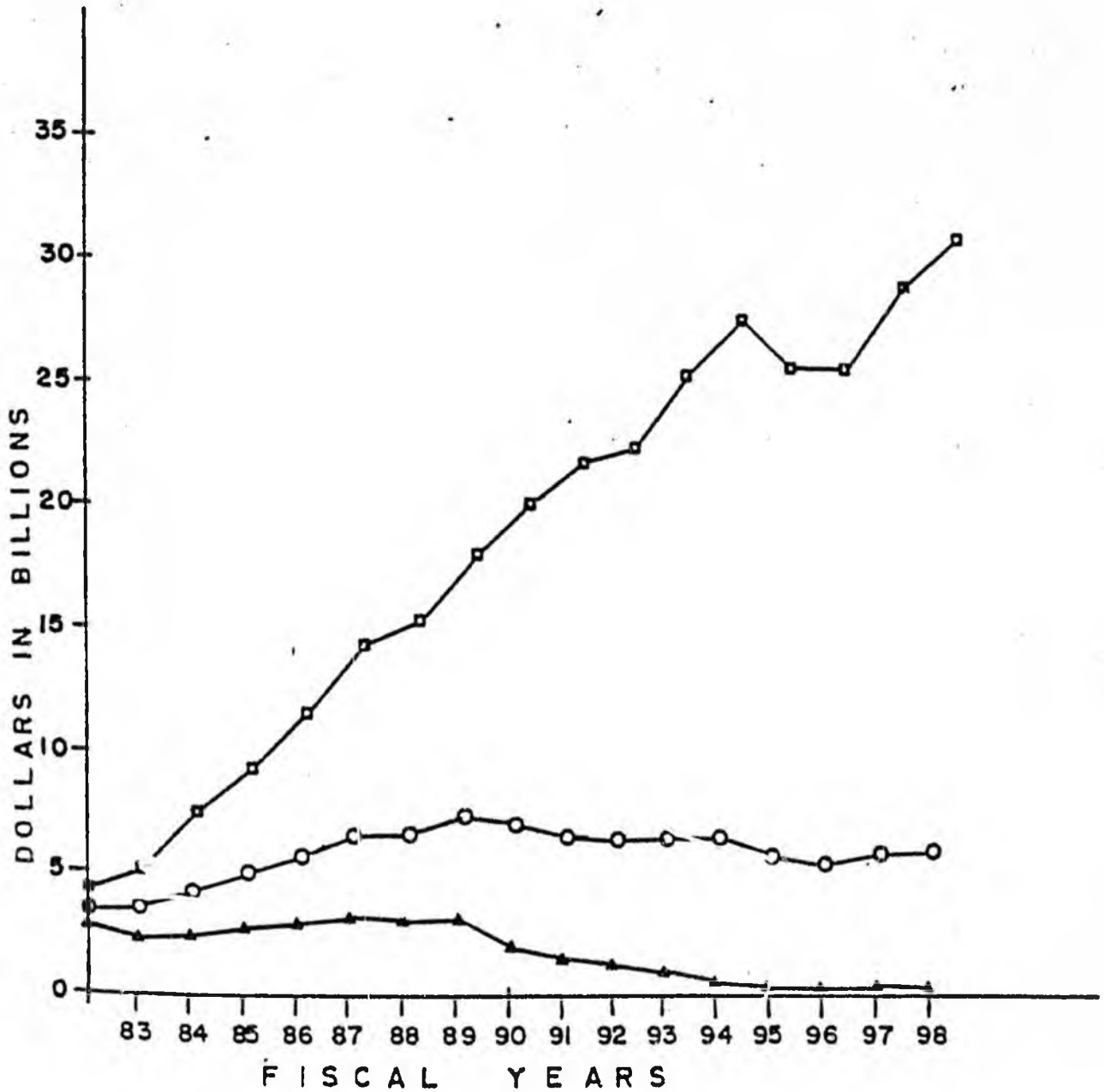
It is possible that rising real prices for oil will augment the supply of oil from known reservoirs such that the high range estimates in Table I become more likely. Increasing real prices will encourage closer well spacing, improve the economics of secondary and enhanced recovery techniques, and lengthen field life, all of which serve to increase ultimate recovery.

Additionally, rising real oil prices increase the purchasing power of a given supply. One would have to assume, absent additional discoveries, that real oil prices would have to rise at a compound rate of 15 percent per year after the late 1980's to offset the decline in Prudhoe Bay production. The development of alternative fuel sources (coal, nuclear, oil shale, natural gas, solar) and price-induced conservation place long-term limits on oil price increases (although as 1973 and 1979 indicated, substantial real increases are possible in the short run). These factors suggest that oil price increases may be more moderate than the 15 percent (real) per year needed to offset the decline in Prudhoe Bay production, and indicate that the 1990's will begin a period requiring fiscal restraint for the State unless alternative revenue sources are developed.

This chapter has presented a conservative estimate of future oil revenues. This conservatism is born of prudence as well as an incomplete understanding of the State's hydrocarbon potential. Currently, State agencies possess only scant knowledge of Alaska's subsurface geology due to the relatively unexplored status of state land.

GRAPH No. 1

# TOTAL PETROLEUM PRODUCTION REVENUES



## LEGEND

□ = High Expected Values

○ = Mean Expected Values

△ = Low Expected Values

AGO 886520

Source: Alaska Dept. of Revenue, Petroleum Revenue Division Quarterly Report Dec. 1981

Table I

Constant Dollar  
 Petroleum Production Revenue Forecast  
 (Average Expected Values in Millions of 1981 Dollars)

Fiscal Year	Total Severance and Conservation Taxes (Mean)	Total Royalties (Mean)	Total Petroleum Revenues (Mean)
1982	1715.42	1660.32	3375.74
1983	1819.65	1767.00	3320.97
1984	2214.09	2145.07	3725.78
1985	2616.13	2542.58	4094.21
1986	2964.88	2879.84	4297.58
1987	3436.51	3348.10	4615.38
1988	3207.14	3674.92	4328.34
1989	3585.11	4075.06	4453.59
1990	3437.58	3964.24	3979.47
1991	3191.77	3754.38	3473.08
1992	3114.12	3733.77	3170.32
1993	3148.97	3802.17	2970.57
1994	3145.97	3818.50	2763.68
1995	2792.95	3502.32	2314.43
1996	2622.77	3377.51	2040.91
1997	2821.20	3655.70	2043.18
1998	2849.11	3779.28	1943.81

Source: Department of Revenue  
 Division of Petroleum Revenue

PROPOSED SALE AREAS \*

<u>Date</u>	<u>Sale Area</u>	<u>Sale #</u>	<u>Acreage</u>	<u>Petroleum Potential</u>	<u>Bidding Method</u>
2/2/82	Lower Cook Inlet	35	600,000 acres	low	12.5% + \$10/acre
5/26/82	Beaufort Sea	36	60,000 acres	moderate/high	not yet selected
8/82	Middle Tanana Basin & Copper River Basin	37	1,150,000 acres proposed	low/moderate	not yet selected
8/82	Chakok R. Exempt Acreage	37A	1,874 acres	moderate	not yet selected
9/28/82	Prudhoe Bay Uplands	34	1,500,000 acres proposed	moderate/high	not yet selected
1/83	Norton Basin	38	undetermined	low/moderate	not yet selected
5/83	Beaufort Sea	39	undetermined	moderate/high	not yet selected
9/83	Upper Cook Inlet - Lower Susitna Valley	40	undetermined	moderate	not yet selected
1/84	Minchumina Basin	42	undetermined	low	not yet selected
5/84	Beaufort Sea	43	undetermined	moderate/high	not yet selected
9/84	Bristol Bay Uplands	41	undetermined	low/moderate	not yet selected
1/85	Holitna Basin	46	undetermined	low	not yet selected
5/85	Kuparuk Uplands	47	600,000 acres proposed	moderate/high	not yet selected
9/85	Hope Basin	45	undetermined	low/moderate	not yet selected
1/86	Kuparuk Islands	48	560,000 acres proposed	moderate/high	not yet selected
5/86	Cook Inlet	49	undetermined	moderate	not yet selected
9/86	Camden Bay	50	undetermined	moderate/high	not yet selected

\* see map page 2 for locations

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A 30 885522

NOTE REGARDING THE FOLLOWING FRAME ON MICROFILM:

COMPLETE DOCUMENT IS AVAILABLE IN ORIGINAL FILES  
IN ALASKA STATE ARCHIVES. TITLE PAGE ONLY HAS  
BEEN FILMED.

State Five-Year Leasing Program  
Presented to the  
Second Session, Twelfth Alaska Legislature

STATE OF ALASKA

Jay S. Hammond  
Governor

John. W. Katz  
Commissioner  
Department of Natural Resources

January - 1982

AGO 886524

NOTE REGARDING THE FOLLOWING FRAME ON MICROFILM:

COMPLETE DOCUMENT IS AVAILABLE IN ORIGINAL FILES  
IN ALASKA STATE ARCHIVES. TITLE PAGE ONLY HAS  
BEEN FILMED.

# **Oil And Gas Leasing Regulations And Statutes**

**As Contained In The  
Alaska Administrative Code  
And The Alaska Statutes**



**State Of Alaska  
Department Of Natural Resources  
Division Of Minerals And Energy Management**

**January, 1982**

POWER

BRIEFING

2-9-81



Official Business

# Alaska State Legislature

## Senate

RESOURCES COMMITTEE

MEMORANDUM

Pouch V  
State Capitol  
Juneau, Alaska 99811

-----  
TO: SENATE RESOURCES COMMITTEE

FROM: SENATE RESOURCES COMMITTEE STAFF

9:45am. ✓ DATE: February 6, 1981

RE: Briefing - Monday - February 9, 1981 - 1:30 p.m.  
Senate Finance Room  
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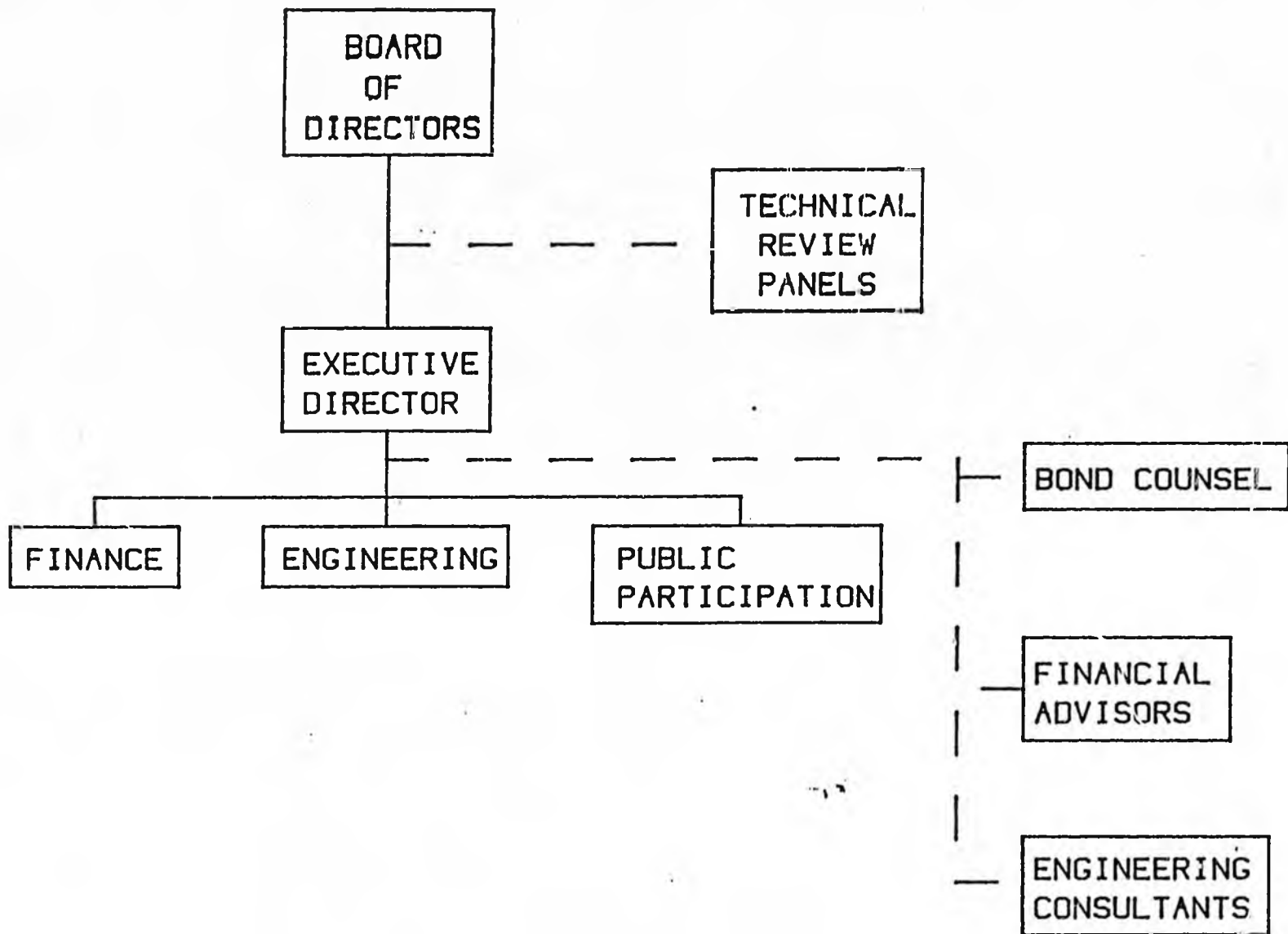
Attached please find a copy of the Alaska Power Authority's Brochure. Eric Yould, Executive Director of the Authority will be briefing the Committee Monday.

**ALASKA POWER AUTHORITY**

## PURPOSE

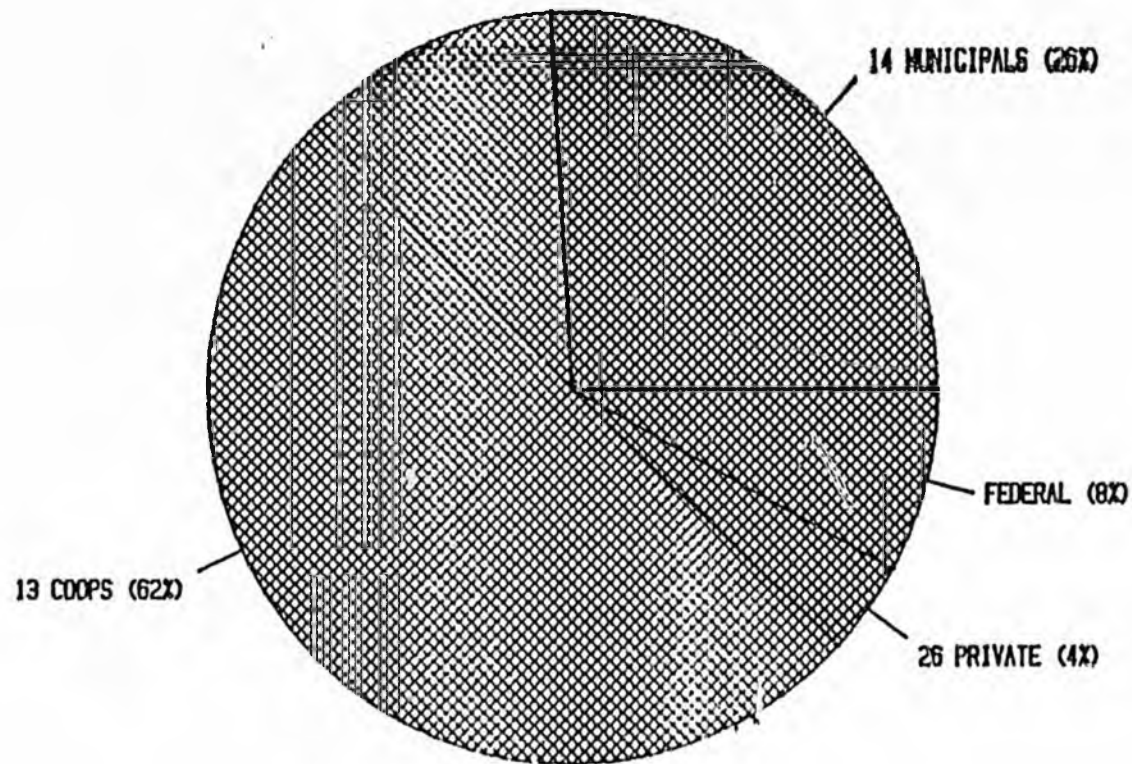
Promote, develop and advance the general prosperity and economic welfare of the people of Alaska by providing a means of constructing, acquiring, financing and operating power production facilities limited to fossil fuel, wind power, tidal, geothermal, hydroelectric, or solar energy production and waste energy conservation facilities.

- o Financing
- o Feasibility Study Funding
- o Develop, Own and Lease
- o Develop, Own, Operate and Wholesale



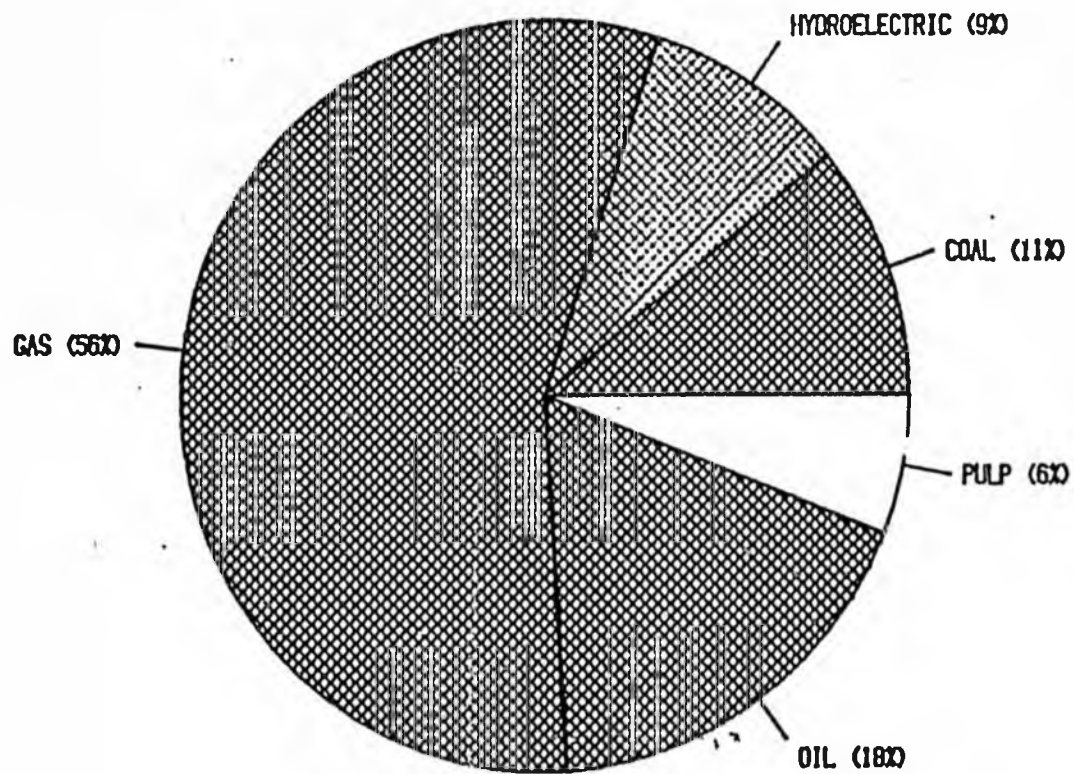
# GENERATION BY TYPE OF UTILITY

1979 UTILITY GENERATION - 3,866 GWH



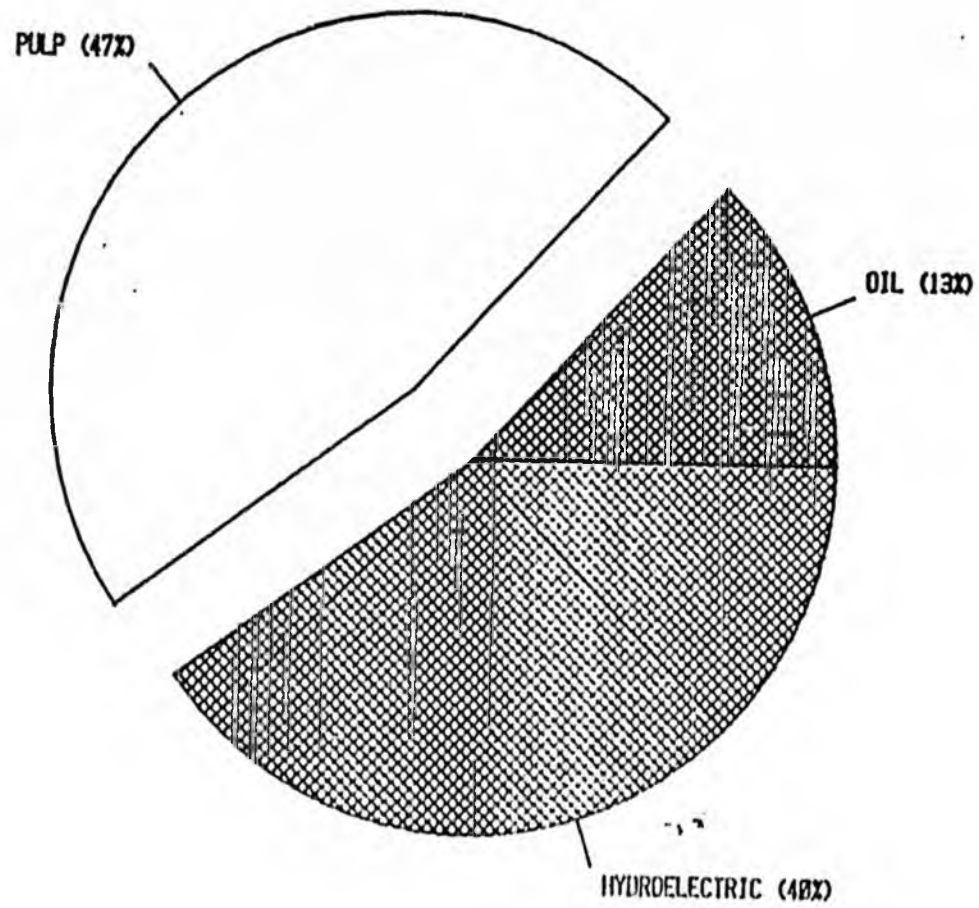
# STATEWIDE GENERATION BY ENERGY SOURCE

1979 STATEWIDE GENERATION - 4,836 GWH



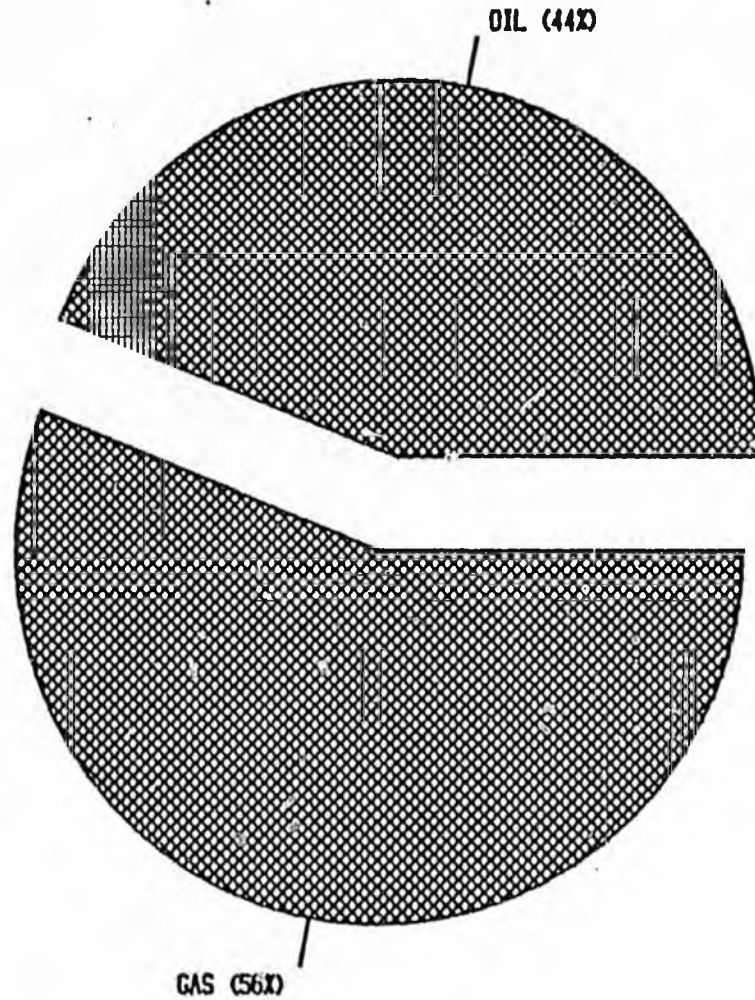
# SOUTHEAST GENERATION BY ENERGY SOURCE

1979 SOUTHEAST GENERATION - 657 GWH



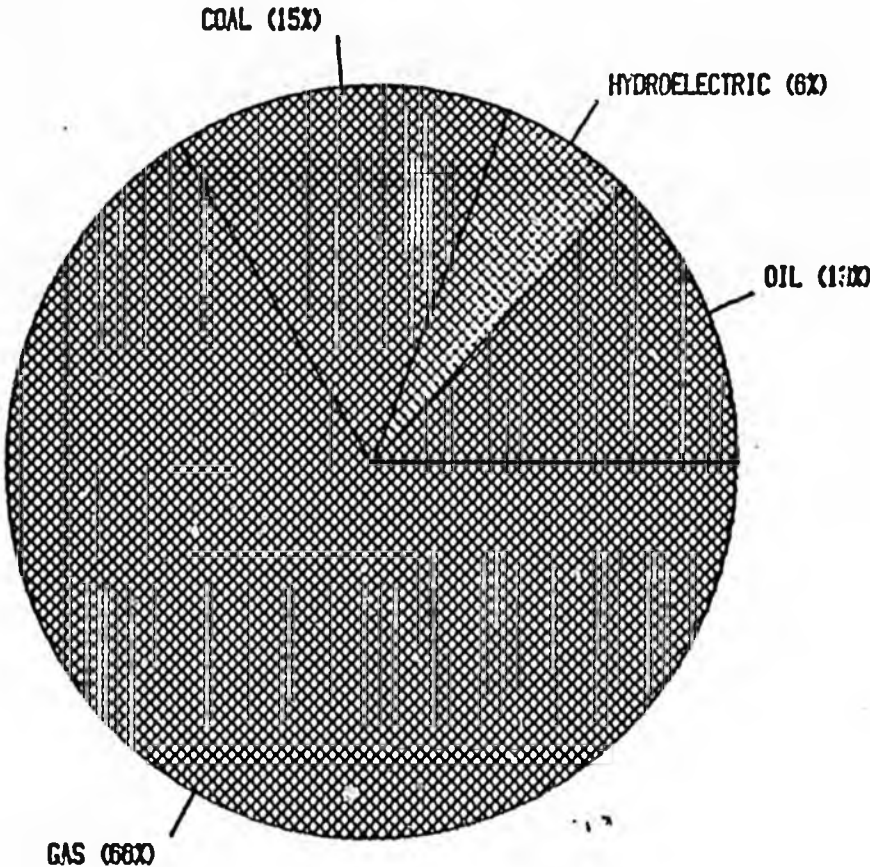
# RURAL GENERATION BY ENERGY SOURCE

1979 RURAL GENERATION - 782 GWH



# RAILBELT GENERATION BY ENERGY SOURCE

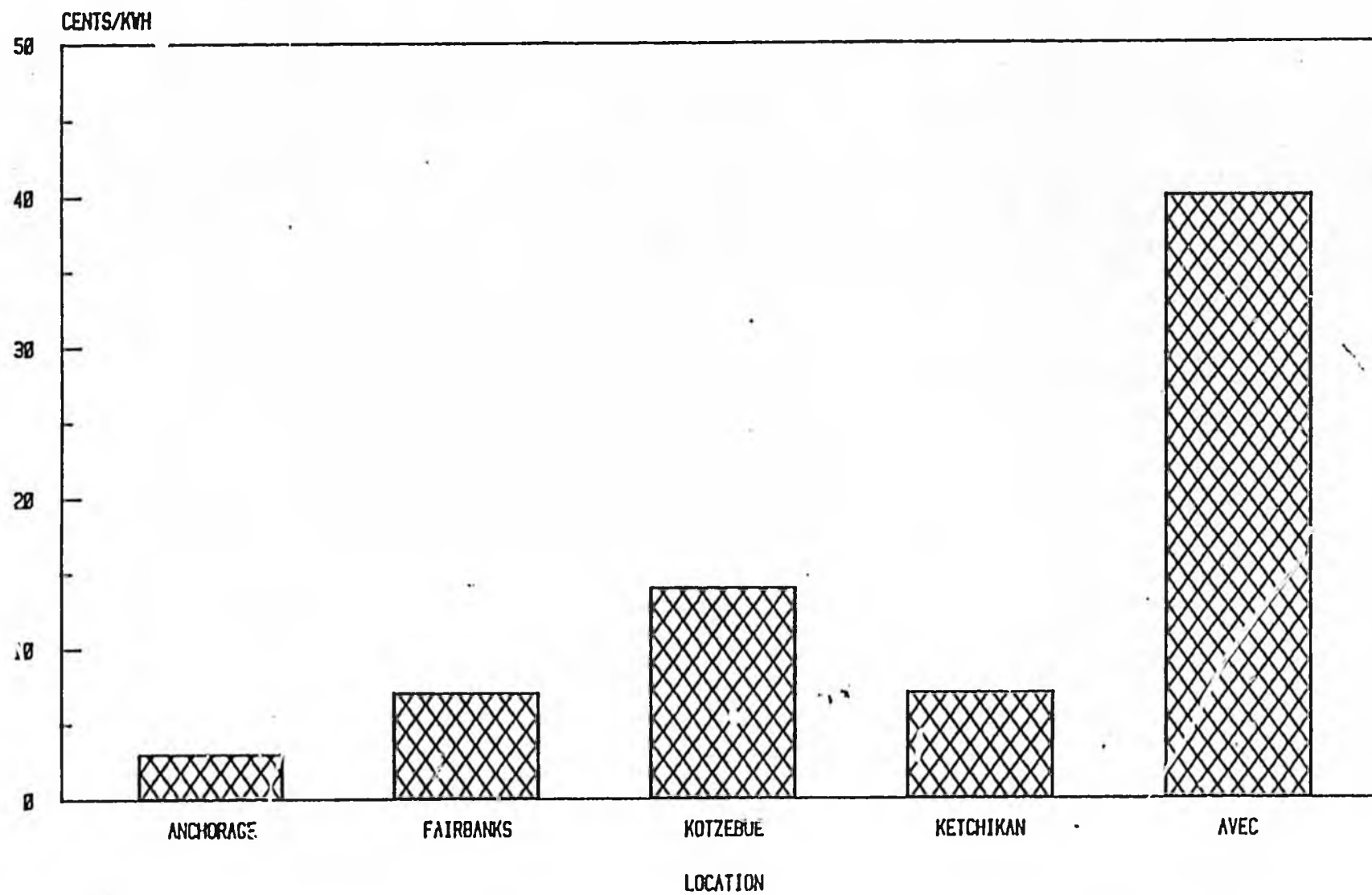
1979 RAILBELT GENERATION - 3,397 GWH



## ALASKA FUEL COST TRENDS

	<u>PREVIOUS COST (YEAR)</u>	<u>CURRENT COST (YEAR)</u>	<u>ANNUAL RATE OF INCREASE</u>
HEALY COAL	\$4.50/ton (1967)	\$14.50/ton (1979)	10%
AVEC DIESEL OIL	\$0.35/gal (1973)	\$1.40/gal (1980)	22%
COOK INLET GAS	\$0.15/mof (1971)	\$1.50/mof (1980)	29%

# COST OF POWER, 1980



ALASKA



• FAIRBANKS

• ANCHORAGE

• VALDEZ

• Solomon Gulch

■ Lake Elvo

• DILLINGHAM

• HOMER

• Bradley Lake

• KODIAK

• Terror Lake

• JUNE AU

• SITKA

• PETERSBURG

• WRANGEL

• Tyee Lake

• Swan Lake

• KLAWOCK

• Black Bear Lake

• KETCHIKAN

NEAR TERM PROJECTS

# SOLOMON GULCH HYDROELECTRIC PROJECT

LOCATION: Adjacent to the Alyeska Pipeline  
Terminal at Valdez

MARKET: Valdez and Glennallen, population  
approximately 6,000

TYPE: Rockfill dam at outlet of Solomon Lake,  
auxiliary dam and spillway, penstock,  
powerhouse, and 104 mile 115 KV trans-  
mission line.

OUTPUT: 12 MW installed capacity  
56,000,000 Kwh average annual energy.

CAPITAL REQUIREMENTS: \$20,000,000 remaining

# TERROR LAKE HYDROELECTRIC PROJECT

LOCATION: Kodiak Island

MARKET: Kodiak and the USCG station, service area population approximately 8,000

TYPE: Rockfill dam at outlet of Terror Lake, four small diversion dams, diversion channels and shafts, power tunnel, powerhouse, 17 miles of 69 KV transmission line.

OUTPUT: 20 MW installed capacity  
132,000,000 Kwh firm annual energy

CAPITAL REQUIREMENTS: \$110,000,000

1984-3% -48  
9 - 95m  
1.5% 151m

## SWAN LAKE HYDROELECTRIC PROJECT

LOCATION: 22 miles northeast of Ketchikan near  
Carroll Inlet.

MARKET: Ketchikan, service area population 12,600

TYPE: 190 foot high thin arch concrete dam raising  
the level of Swan Lake, with a power tunnel,  
powerhouse, port facility, switchyard and 31  
miles of 115 KV wood pole transmission lines.

OUTPUT: 22 MW installed capacity  
67,000,000 Kwh of firm annual energy

CAPITAL REQUIREMENTS: \$110,000,000 with a State  
contribution of \$18,000,000

# TYEE LAKE HYDROELECTRIC PROJECT

LOCATION: 40 miles southeast of Wrangell near  
Bradfield Canal

MARKET: Petersburg and Wrangell, service area  
population 6,400

TYPE: Lake tap of 1,370-foot elevation Lake Tyee,  
power tunnel, surge tank, powerhouse, and 83  
miles of 115 KV transmission lines.

OUTPUT: 30 MW installed capacity  
133,000,000 Kwh of firm annual energy

CAPITAL REQUIREMENTS: \$60,000,000 with a State  
contribution of \$15,000,000

# GREEN LAKE HYDROELECTRIC PROJECT

LOCATION: 10 miles southeast of Sitka on the  
Vodopad River.

MARKET: Sitka, service area population 8,800.

TYPE: 280-foot-high double-curvature, concrete-  
arched dam at the outlet of existing  
Green Lake, with a 1,910-foot-long power  
tunnel, powerhouse, access roads,  
substation and 8 miles of 69-KV wood pole  
transmission lines.

OUTPUT: 16.5 MW installed capacity  
64,900,000 KWh average annual energy

CAPITAL REQUIREMENTS Total \$62,000,000 with a  
State contribution of  
\$8,200,000. Remaining  
requirements of \$5,000,000.



# POWER CREEK HYDROELECTRIC PROJECT

LOCATION: 7 miles northeast of Cordova

MARKET: Cordova, population approx. 2,500.

TYPE: 80-foot-high concrete dam, intake, 8,000 foot-long penstock, powerhouse, and 6 miles of transmission line. Run-of-river project.

OUTPUT: 5 MW installed capacity  
32,000,000 KWh average annual energy

CAPITAL REQUIREMENTS: \$51,000,000

# SCAMMON BAY HYDROELECTRIC PROJECT

LOCATION: Spring-fed stream at Scammon Bay.

MARKET: Scammon Bay, population 200.

TYPE: 8-foot rock-filled gabion dam, intake structure 3,500-foot-long penstock, and powerhouse. Run-of-river project.

OUTPUT: 150 KW installed capacity  
529,000 KWH average annual energy

CAPITAL REQUIREMENTS: \$2,100,000

## SMALL HYDROELECTRIC PROJECTS

**LOCATION:** Streams located near population centers and in areas of relatively high precipitation and topographical relief. Regional studies of small-scale hydroelectric potential have been completed for Southeast Alaska, Kodiak Island, Alaska Peninsula, Aleutian Islands, Southwest Alaska, and AVEC villages.

**TYPE:** Generally run-of-river projects providing replacement energy as available.

**OUTPUT:** Typically 100 KW to 1 MW installed capacity

**COST:** Typically \$5,000-15,000 per installed KW

# PORT LIONS HYDROELECTRIC PROJECT

LOCATION: On Port Lions River at Kizhuyak Bay  
on Kodiak Island

MARKET: Port Lions, population 250.

TYPE: 7-foot-high sheet pile forebay dam,  
upstream storage dam, 2,100 feet of  
st. penstock, and powerhouse.  
Run-of-river project.

OUTPUT: 180 KW installed capacity  
715,000 KWh average annual energy

CAPITAL REQUIREMENTS: \$1,500,000

Communities that exhibit the potential for economic small-scale hydroelectric development:

Chignik Bay	Atka	Ouzinkie	Kaltag
Chignik Lagoon	Nikolski	Port Lion	Kiana
Chignik Lake	False Pass	Larsen Bay	Shungnak
Perryville	Unalaska	Ambler	Togiak
Ivanoff Bay	Akhiok	Elim	Angoon
Cold Bay	Karluk	Goodnews Bay	Tenekee Springs
King Cove	Old Harbor	Grayling	Gustavus

# BLACK BEAR LAKE HYDROELECTRIC PROJECT

LOCATION: 8 miles east of Klawock on Prince of  
Wales Island

MARKET: Klawock, Craig, and Hydaburg, service  
area population 1,200 year-round.

TYPE: 28-foot bin wall and rockfill dam at outlet  
of Black Bear Lake, penstock, powerhouse,  
and 52 miles of 23 KV transmission line.

OUTPUT: 5 MW installed capacity  
22,000,000 Kwh firm annual energy

CAPITAL REQUIREMENTS: \$30,000,000

## BRADLEY LAKE HYDROELECTRIC PROJECT

LOCATION: At the head of Kachemak Bay near Homer  
on the Kenai Peninsula

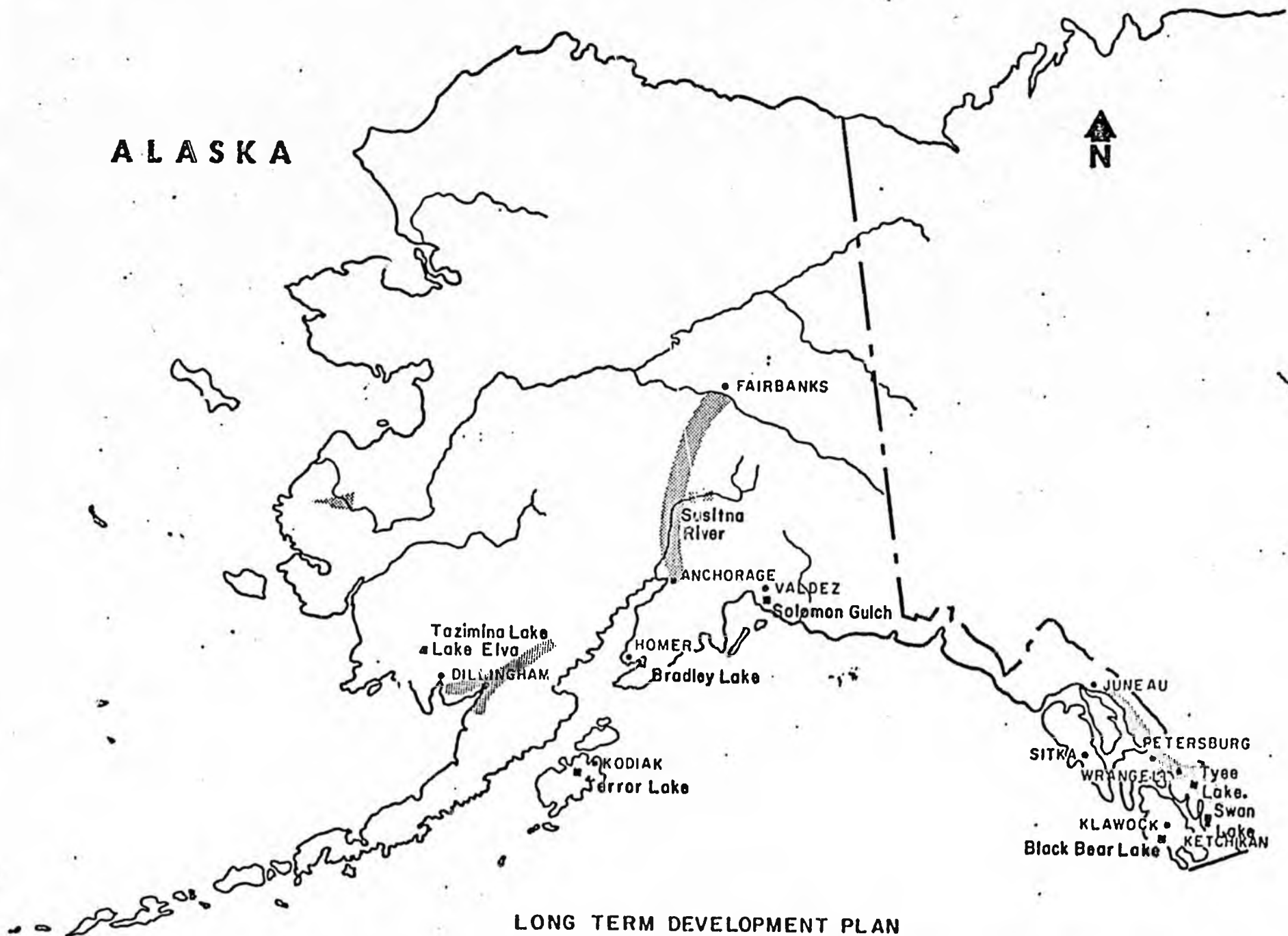
MARKET: Kenai Peninsula and perhaps Anchorage.  
Kenai Peninsula population 22,000.

TYPE: 100-foot concrete gravity dam at the outlet  
of Bradley Lake, diversion channels, lake  
tap, power tunnel, underground powerhouse,  
switchyard, and 10 miles of 115 KV wood pole  
transmission line.

OUTPUT: 70 MW installed capacity  
306,000,000 Kwh firm annual energy

CAPITAL REQUIREMENTS: \$200,000,000

# ALASKA



LONG TERM DEVELOPMENT PLAN

# TAZIMINA HYDROELECTRIC PROJECT AND INTERTIE

LOCATION: North of Lake Iliamna on the west side  
of Cook Inlet

MARKET: Fifteen communities in the Bristol Bay  
Region

TYPE: Earthfill 38-foot forebay dam, earthfill  
45-foot storage dam, penstock, powerhouse,  
access road and 181 miles of 138 KV trans-  
mission line.

OUTPUT: 18 MW installed capacity (first stage)  
79,000,000 Kwh firm annual energy

CAPITAL REQUIREMENTS: \$80,000,000

# WEST CREEK HYDROELECTRIC PROJECT

LOCATION: West Creek in the vicinity of Skagway

MARKET: Skagway and Haines, market area  
population 2,400.

TYPE: 107-foot-high concrete dam, 11,000-foot-  
long power tunnel, surge tank, powerhouse  
and transmission facilities.

OUTPUT: 5.4 MW installed capacity  
27,000,000 KWh average annual energy

CAPITAL REQUIREMENTS: \$55,000,000

## SOUTHEAST INTERTIE

LOCATION: Southeast Alaska

MARKET: Juneau, Petersburg, Wrangell, Ketchikan  
and intermediate communities

TYPE: Interconnection of major hydroelectric  
facilities (Snettisham, Tyee and Swan)  
and adjacent load centers.

PURPOSE: Reliability and exchange of economy  
energy.

# RAILBELT INTERTIE

LOCATION: Southcentral Alaska

MARKET: Anchorage and Fairbanks

TYPE: Interconnection of existing systems at  
138 KV

PURPOSE: Reserve sharing and economy energy  
exchange

CAPITAL REQUIREMENTS: \$55,000,000

# SUSITNA HYDROELECTRIC PROJECT

LOCATION: Upper Susitna River NE of Talkeetna between Anchorage and Fairbanks

MARKET: Fairbanks, Anchorage, Matanuska Valley, Kenai Peninsula

TYPE: 810-foot rockfill dam and powerhouse at Watana (first stage)

635-foot concrete gravity dam and powerhouse at Devil Canyon (second stage)

364 miles 345 KV transmission line

FIRST STAGE OUTPUT: 700 MW installed capacity  
3,100,000,000 Kwh firm annual energy

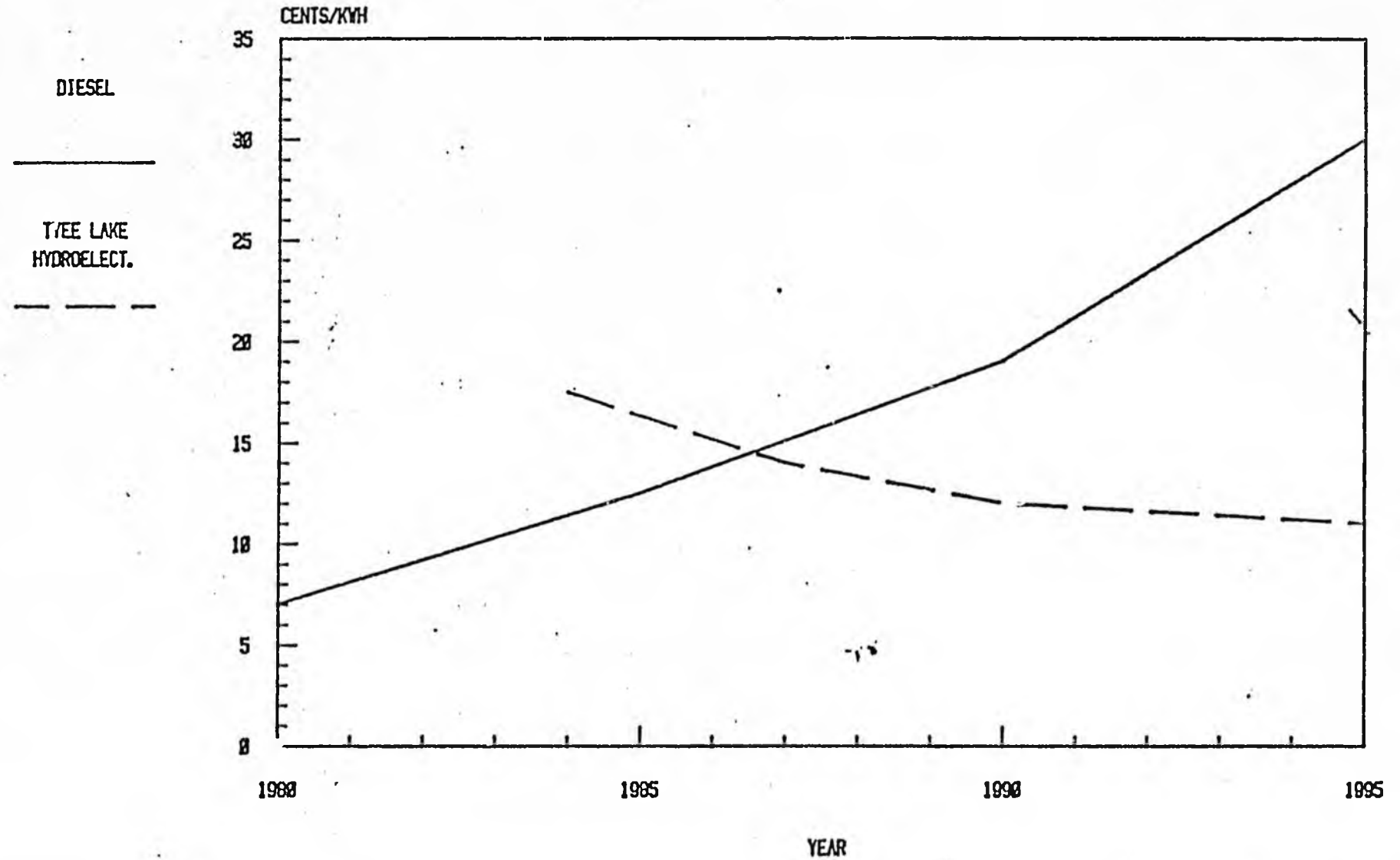
ULTIMATE OUTPUT: 1,392 MW installed capacity  
6,100,000,000 Kwh firm annual energy

COST ESTIMATE (October 1978): \$ 2.5 billion



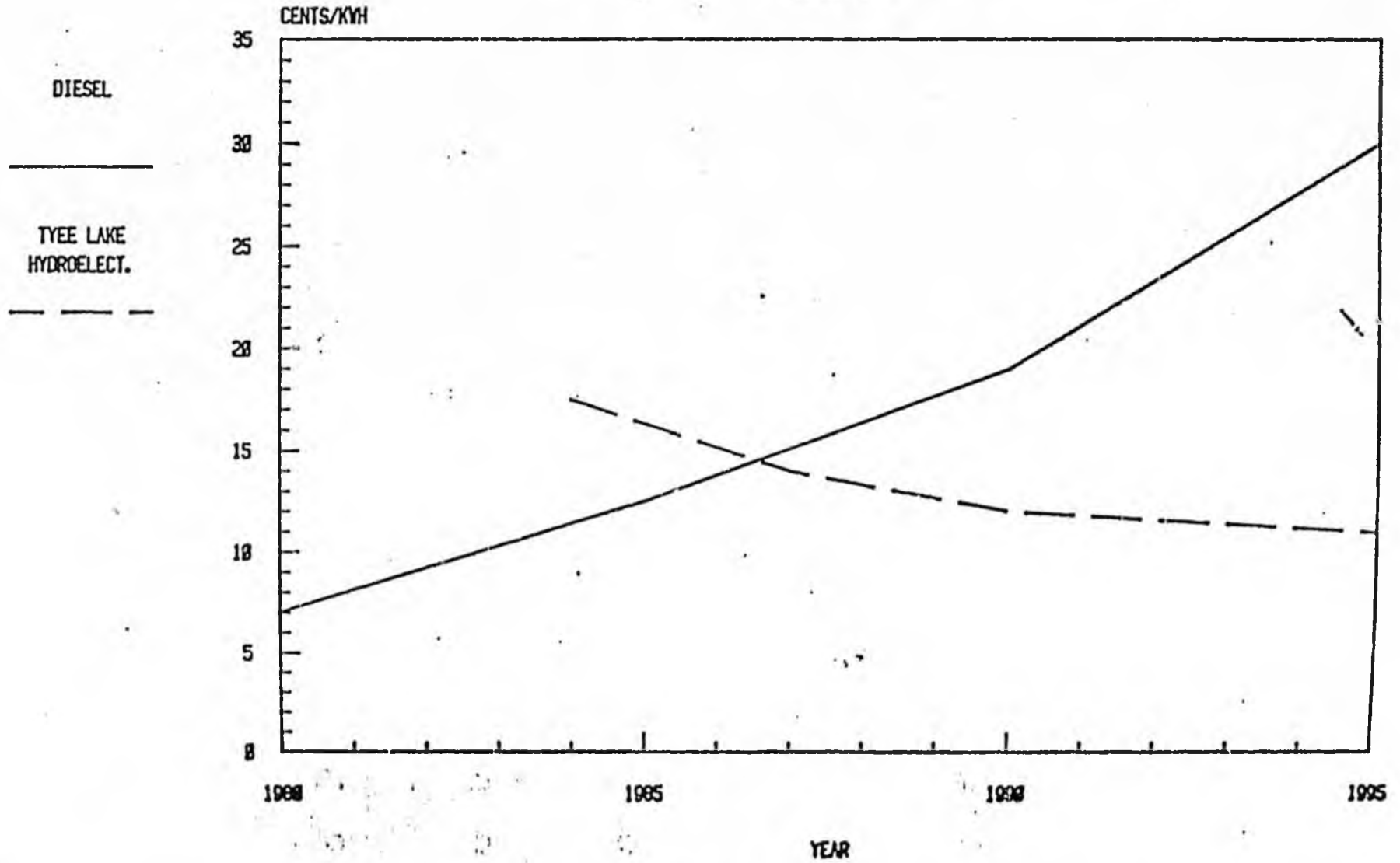
# TYPICAL COST OF POWER OUTLOOK

BUSBAR COST



# TYPICAL COST OF POWER OUTLOOK

BUSBAR COST



## FINANCING ALTERNATIVES

- POWER AUTHORITY REVENUE BONDS
- STATE GENERAL OBLIGATION BONDS
- REVENUE BONDS WITH STATE GUARANTEES
- STATE GENERAL FUND LOAN  
(EQUITY INVESTMENT)
- STATE GENERAL FUND APPROPRIATION
  - debt service payment
  - reduction of bondable costs
- NON-STATE ASSISTANCE
  - Federal (REA & FFB)
  - CFC

File  
Minutes copy

ALASKA POWER AUTHORITY

# ALASKA POWER AUTHORITY

## 1980 YEAR-END STATUS REPORT

About the Power Authority

The Power Project Loan Fund

The Power Production Cost Assistance Program

The Planning and Development Process

The Overall Power Development Situation

Sources of Generation

Economic and Financial Feasibility

Project Status Summary

# ALASKA POWER AUTHORITY

## ALASKA POWER AUTHORITY

### 1980 YEAR-END STATUS REPORT

#### About the Power Authority

The Power Authority is a public corporation made up of a five member Board of Directors who are appointed by the Governor and approved by the Legislature. Its offices are in Anchorage where a staff of ~~seventeen~~ conduct the day-to-day business of the Authority. The Power Authority was initially staffed in January 1978. The present members of the Board of Directors are Mr. Charles Conway, Chairman; Mr. Arnold Espe, Vice Chairman; Mr. Robert Weeden; Mr. Thomas Kelly; and Commissioner Charles Webber, an ex officio member.

*low cost* The role of the Power Authority is to identify, evaluate and develop electrical power production facilities utilizing the most appropriate technology from among those that are commercially available (except nuclear power generation). The Power Authority's degree of involvement varies depending upon local desires and capabilities. While power project facilities recommended for development can be financed, constructed, owned and operated by the Authority, in many cases involvement is confined to financing alone, or just to the early phases of project evaluation and development.

By its nature as a public corporation, the Power Authority is eligible subject to IRS regulations to sell bonds whose interest to bondholders is tax free. This status lowers the cost of debt capital.

Complimenting the Authority's power development role are two specific programs that it administers, the Power Project Loan Fund and the Power Production Cost Assistance Program.

#### The Power Project Loan Fund

The Legislature has appropriated to the Power Authority \$33,805,000 specifically for loans for power project development since 1978. Loans to individual utilities approved to date include:

1. Alaska Electric Light & Power Company in Juneau for Salmon Creek and distribution system improvements - \$1,500,000.
2. Ketchikan Public Utilities for the Swan Lake Project - \$21,850,000.
3. Thomas Bay Power Commission for the Lake Tye Project - \$180,000.
4. Kodiak Electric Association for the Terror Lake Project - \$3,150,000.
5. Kodiak Electric Association for the Port Lions Project \$250,000.

## ALASKA POWER AUTHORITY

6. Iliamna/Newhalen Electric Cooperative for diesel generation and system development - \$300,000.
7. City of Wrangell for diesel generator overhaul - \$45,000.
8. City of King Cove for diesel generator purchase - \$200,000.
9. City of Akutan for purchase of a 200 KW hydro turbine generator - \$125,641.

### The Power Production Cost Assistance Program

The Legislature in 1980 created a separate fund from which to pay a portion of the power production costs of eligible electric utilities. Assistance is provided to a utility if its actual power production costs exceed a certain threshold level established by a legislatively mandated formula.

The program funding was reduced by Governor Hammond from \$2.851 million to \$1.451 million. The Alaska Public Utilities Commission determines utility eligibility and power production costs, and it determines state assistance per kilowatt-hour of sales for individual utilities. The Power Authority makes disbursements of assistance funds to eligible utilities based upon power production assistance determined by the Commission and statements of sales to eligible customers submitted by the eligible utilities. The program became operational in late October of 1980. The reduced funding of the program is currently estimated to be sufficient to provide full assistance to eligible utility customers until April of 1981. Unless supplemental funding of the program is provided by April 1981, the level of assistance will be reduced. The program will be terminated unless FY'82 funding is appropriated. To date nine utilities, serving over 60 communities, have applied for assistance.

### The Planning and Development Process

For certain projects, legislation dictates a multi-step process leading to power facility construction. The Authority first performs a reconnaissance study to assess the electrical energy needs of a community or region and to identify the power production alternatives available to satisfy those needs. The reconnaissance study serves as the basis for recommending more detailed data collection activities, resource assessments or detailed feasibility studies of one or more specific power project alternatives. Reconnaissance study results are used to guide Power Authority budget requests and reports are provided to the Legislature, the Administration and to the communities involved.

As a subsequent step, the Authority performs feasibility studies to obtain detailed information and analyze the technical, economic and environmental aspects of a particular project or program previously recommended in a reconnaissance study. In identifying the preferred project or program for a community or region, the Authority considers all available energy alternatives in terms

## ALASKA POWER AUTHORITY

of cost, technical suitability, environmental impact, and local preferences. Feasibility studies are accomplished at a level of detail comparable to that required for license applications submitted to the Federal Energy Regulatory Commission.

Accompanying the feasibility report is a plan of finance that compares project financing alternatives and recommends the most appropriate means to insure project financing while minimizing state assistance. When state financial assistance is recommended, the plan of finance identifies the estimated value of the state assistance, whether it comes in the form of a subordinated loan, loan guarantees, equity contribution or other means.

The Power Authority submits feasibility reports and accompanying plans of finance to the Legislature. Concurrently the reports are reviewed by the Division of Budget and Management, and this review is also submitted to the Legislature. The Authority cannot proceed with advanced engineering or design of a proposed new project until the Legislature enacts law authorizing the project. This sequential development process of reconnaissance study, feasibility study, finance plan, Division of Budget and Management review and legislative authorization is required for new projects that will generate more than 1.5 megawatts of power and that either (1) require a state appropriation or (2) is based on a plan of finance that requires the issuance of general obligation bonds or other pledge of the credit of the state. Specifically excepted from this criterion are certain projects which the Legislature has already acted upon and which are identified in Section 48 of HCS CSSB 438.

### The Overall Power Development Situation

#### Sources of Generation

In 1979, the last year for which data has been compiled, statewide electrical generation totalled 4.8 billion kilowatt hours. There were five sources of that energy: gas (56%), oil (18%), coal (11%), hydroelectric (9%) and wood pulp (6%). The state is fortunate to have its own ample supplies of each of these energy sources. While all are present, however, some are more vulnerable than others to cost escalation and federal regulation. It has been the general recommendation of the Power Authority for Alaska to gradually move away from energy sources over which the state has relatively little control with respect to supply and/or price. This equates to a preference for those energy sources that are relatively insulated from inflation, from extreme competition, and from price pressure in lower 48 or international markets. Specifically, these are hydroelectric, coal, and perhaps wind and wood depending on technological advances. The actual preferred energy source varies among localities and over time, being a function of the extent of energy demand, transportation and fuel costs, local expertise and the proximity to energy sources.

#### Economic and Financial Feasibility

The Authority has found that while life cycle economic cost analyses often identify one generation alternative as the most preferred, financing constraints often argue against the most cost effective project. This is unfortunate because the project selected on the basis of short-term financing considerations often will result in greater costs over the long run.

## ALASKA POWER AUTHORITY

Despite the financing problem, the longer term perspective of a life cycle economic analysis often shows the hydroelectric project to be clearly superior to the diesel generator or oil or gas turbine. This situation suggests an important and timely role for state intervention. From the perspective of insuring long-term, stable priced and secure electrical power, the state can provide a mechanism to alleviate the immediate financing problem and thereby encourage development of the most cost effective long term solutions. The means for this state intervention include the issuance of revenue bonds of the Power Authority which may be guaranteed or partially guaranteed by the state; the issuance of general obligation bonds of the state; leveraged leasing; appropriations from the general fund for loans, equity investment, or debt service payment; and any combination of the above financing arrangements.

The purpose of the state assistance in whichever form is to lower the cost of borrowed capital for construction of projects and the cost of energy to consumers in the critical first years of project operation. It will also assist development of renewable energy projects and permit stable economic development.

### Project Status Summary

Following is a summary of current Power Authority activities and the status of various power projects. Included is information on the location of the project or study, current status, size of project (if applicable), and the Power Authority's role. This role varies among several functions:

- \* Grant and loan administration
- \* Program management of reconnaissance level studies
- \* Revenue bond or other financing
- \* Project management where a specific project is in planning and development
- \* Technical assistance

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Project/Study	Location	Status	Size	Power Authority Role
AEL&P Transmission Improvements	<i>elect. heat via heat surges</i> Juneau	Completed	N/A	Power Project Loan
Akutan Hydro <i>Twimail assist, loans</i>	Akutan	Feasibility Study and Preliminary Design Complete	190 KW	Power Project Loan and Technical Assistance
Port Lions Hydro ‡	Kodiak Island	Design Underway	200 KW	Power Project Loan
Swan Lake Hydro ‡	Ketchikan	Under Construction	22 MW	Power Project Loan and Construction Financing
Tye Lake Hydro	Petersburg, Wrangell, and Kake	Final Design, License Pending	20 MW	<u>Project Management</u>
Diesel Generators	Iliamna/ Newhalen Wrangell King Cove		N/A	Power Project Loan Power Project Loan Power Project Loan
Salmon Creek Hydro Rehabilitation	Juneau		N/A	Power Project Loan
Black Bear Lake Hydro	Klawock, Craig, and Hydaburg	Detailed Feasibility Studies Underway	5 MW	<u>Project Management</u>
Wood Waste Generation	Hoonah	Feasibility Assessment Underway	2.7 MW	Program Management
Haines Hydropower	Haines, Skagway	Feasibility Assessment Complete	2.5 - 5.4 MW	Program Management
Susitna Hydro	Fairbanks, Anchorage, Kenai Peninsula, Glennallen, and Valdez	Detailed Feasibility Studies Underway	1,500 MW	Project Management

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Project/Study	Location	Status	Size	Power Authority Role
Railbelt Intertie	Fairbanks, Anchorage	Detailed Feasibility Studies and Route Selection Underway	N/A	Project Management
Terror Lake Hydro	Kodiak	Final Design, License Pending	20 MW	Power Project Loan and Construction Financing
Lake Elva Hydro	Dillingham	Detailed Feasibility Studies Underway	1.5 MW	Project Management
Brevig Mission Distribution System	Brevig Mission	Work in Progress	N/A	Grant Administration
District Heating System	Fairbanks	Feasibility Study Underway	N/A	Grant Administration
Nushagak Waste Heat Study	Dillingham	Design Pending	N/A	Grant Administration
Wood-Fired Heating System	Noatak	Design Underway	N/A	Grant Administration
Geothermal Development	Kotzebue	Site Investigations Underway	N/A	Program Management (RSA to DEPD)
Geothermal Development	Unalaska	Site Investigations Underway	N/A	Program Management (RSA to DEPD)
<u>Reconnaissance Studies</u>	Tanana, Cordova, Sitka, Angoon, Shungnak, Kiana, Ambler, Scammon Bay, King Cove, Goodnews Bay, Togiak, Grayling, Kaltag, Savoonga, White Mountain, Elim, Sand Point, Akhiok, Larsen Bay, Old Harbor, Ouzinkie, Russian	Studies Underway	N/A	Program Management

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Project/Study	Location	Status	Size	Power Authority Role
Reconnaissance Studies (continued)	Mission, Sheldon Point, Hughes, Buckland, Koyukuk, Crooked Creek, Chuathbaluk, Stony River, Sleetmute, Red Devil, Takotna, Telida, and Nikolai			
Waste Heat Demonstration	Rural Villages	Site Selection	N/A	Project Management
Northwest Alaska Coal Assessment	Kobuk River Valley, Seward Peninsula, Norton Sound Coast, Point Hope, and Point Lay	Feasibility Assessment Underway	N/A	Program Management
Wind Power Demon- stration	Unalakleet	Pre-construc- tion Activities Underway	N/A	Program Management (RSA to DEPD)
Wind Power Demon- stration	Skagway	Pre-construc- tion Activities Underway	N/A	Program Management (RSA to DEPD)
Power Production Cost Assistance	AVEC, THREA, other Villages	Program Underway	N/A	Program Administration
Tazimina River Hydro	Bristol Bay	Stream Gauging	18 MW	Project Management
Reconnaissance Studies	Nome, Kotze- bue, Bethel, Dillingham, Kake, Angoon, Hoonah, Klawock Haines, and Skagway	Studies Com- plete	N/A	Program Management
Solomon Gulch Hydro	Valdez, Glennallen	Under Construction	12 MW	Construction Financing

# Alaska State Legislature

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VIC FISCHER, VICE-CHAIRMAN  
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## Senate

### Committee on Resources

February 9, 1981  
1:30 p.m.

Senate Finance  
5th Floor - Capitol

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#### MEMBERS PRESENT

SENATOR FAHRENKAMP  
SENATOR BRADLEY  
SENATOR ELIASON  
SENATOR GILMAN  
SENATOR MULCAHY  
SENATOR FISCHER

#### HOUSE MEMBERS PRESENT

REPRESENTATIVE ZHAROFF  
REPRESENTATIVE HAUGEN  
REPRESENTATIVE BETTISWORTH  
REPRESENTATIVE BARNES  
REPRESENTATIVE VASKA  
REPRESENTATIVE SUTCLIFFE

#### OTHER PRESENT

SENATOR DANKWORTH

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The Committee was briefed by Eric Yould, Executive Director, Alaska Power Authority and Dave Hutchens, Executive Director, Alaska Rural Electric Cooperative Association.

Eric Yould, stated that the purpose of the Power Authority is to promote, develop and advance the general prosperity and economic welfare of the people of Alaska by providing a means of constructing, acquiring, financing and operating power production facilities. The role of the Authority is to identify, evaluate and develop electrical power production facilities utilizing the most appropriate technology (except for nuclear power). The Authority defers as much control as possible to local communities in order to respond to local desires and capabilities. Power facilities recommended for development can be financed, constructed, owned and operated by the Authority. In many cases involvement is confined to financing, project evaluation or development.

Mr. Yould further stated that the Authority administers two programs. The Power Projects Loan Fund issues loans to individual utilities for power project development. The Power Production Assistance Program, pays a portion of the power production cost of eligible electric utilities if their actual power production costs exceeds a certain threshold level. The Assistance Program became operational in late