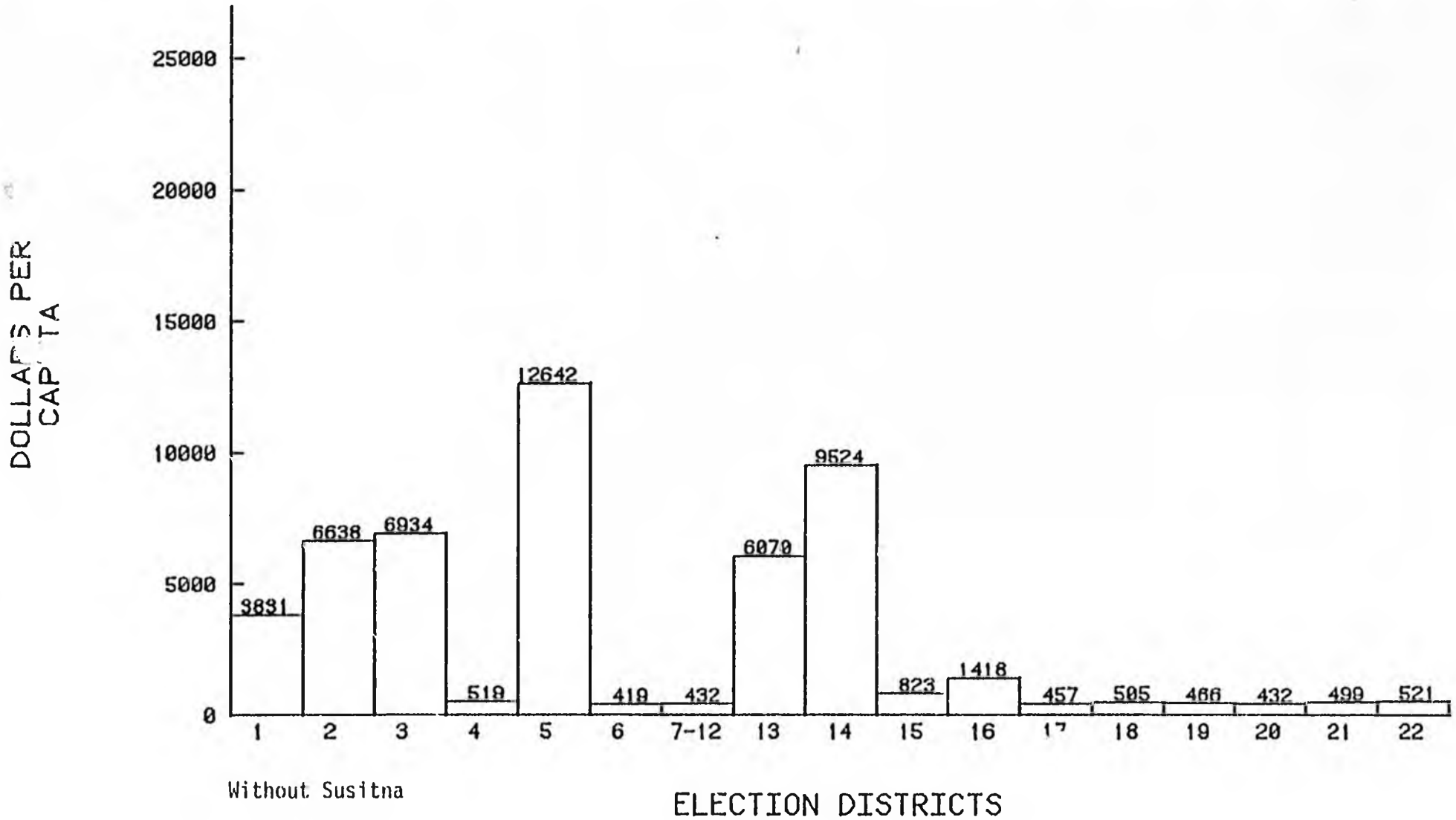
ALASKA LEGISLATURE COMMITTEE FILES 1981-1982 8672

1913 SRES SB 608 - SB 658

1913

PER CAPITA DISTRIBUTION OF SB 26 POWER FUNDING (H. FINANCE DRAFT)

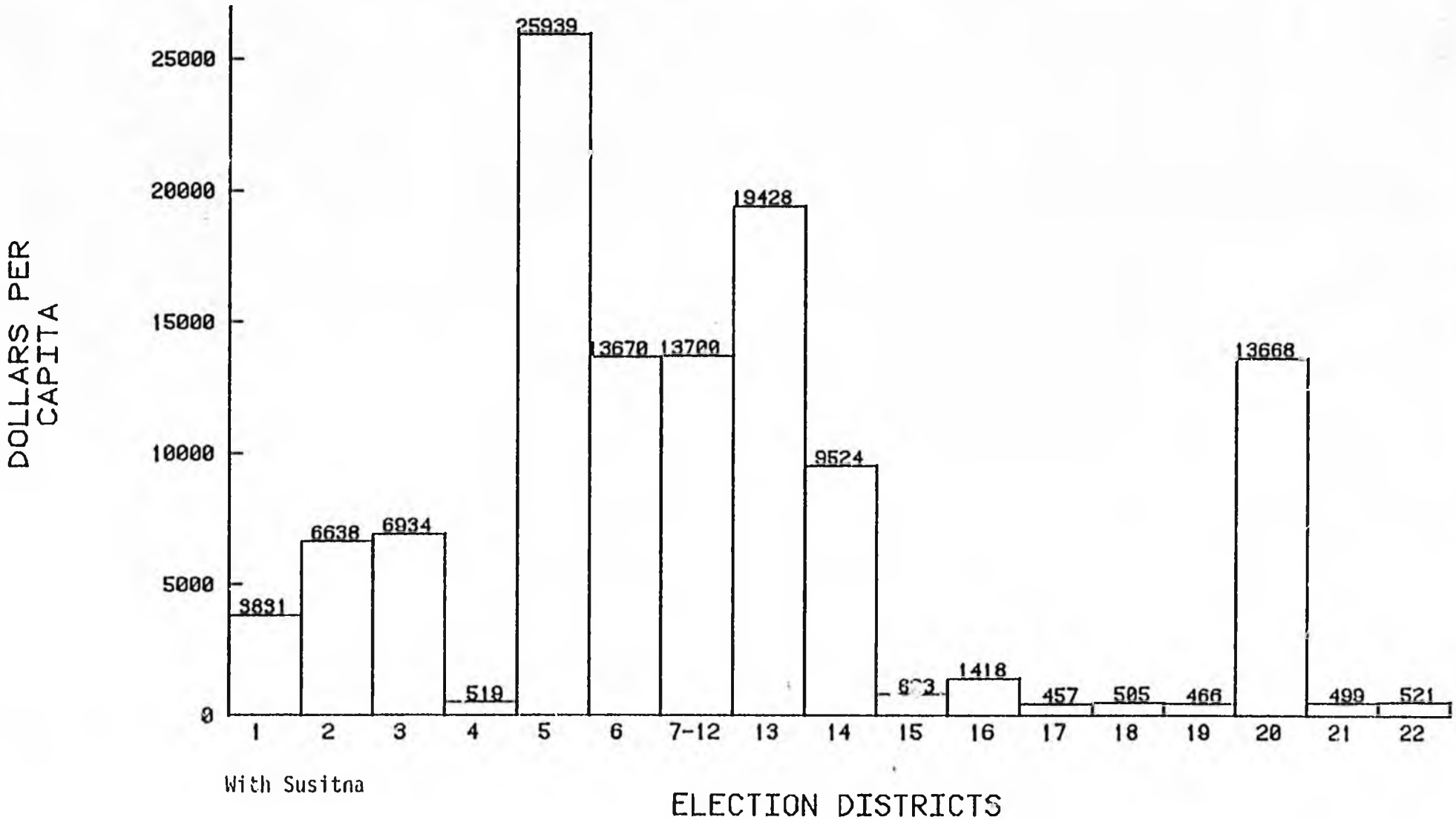
FIGURE 1



PREPARED BY:
HOUSE OF REPRESENTATIVES
RESEARCH AGENCY

PER CAPITA DISTRIBUTION OF SB 26 POWER FUNDING (H. FINANCE DRAFT)

FIGURE 2

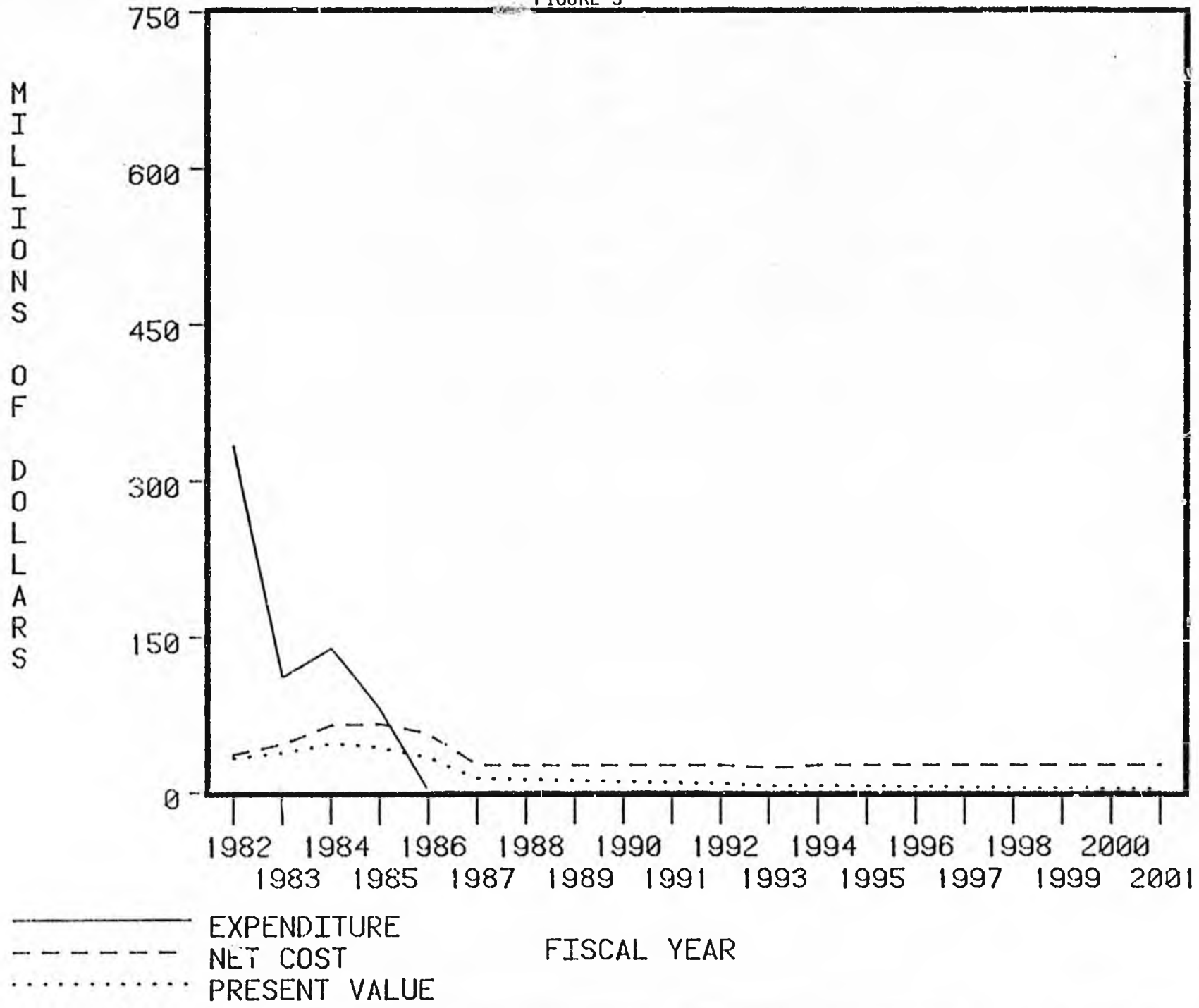


PREPARED BY:
HOUSE OF REPRESENTATIVES
RESEARCH AGENCY

HYDRO FINANCING ANALYSIS - SB 26 (H. RESOURCES VERSION)

ASSUMES NO FUNDING FOR SUSITNA PROJECT

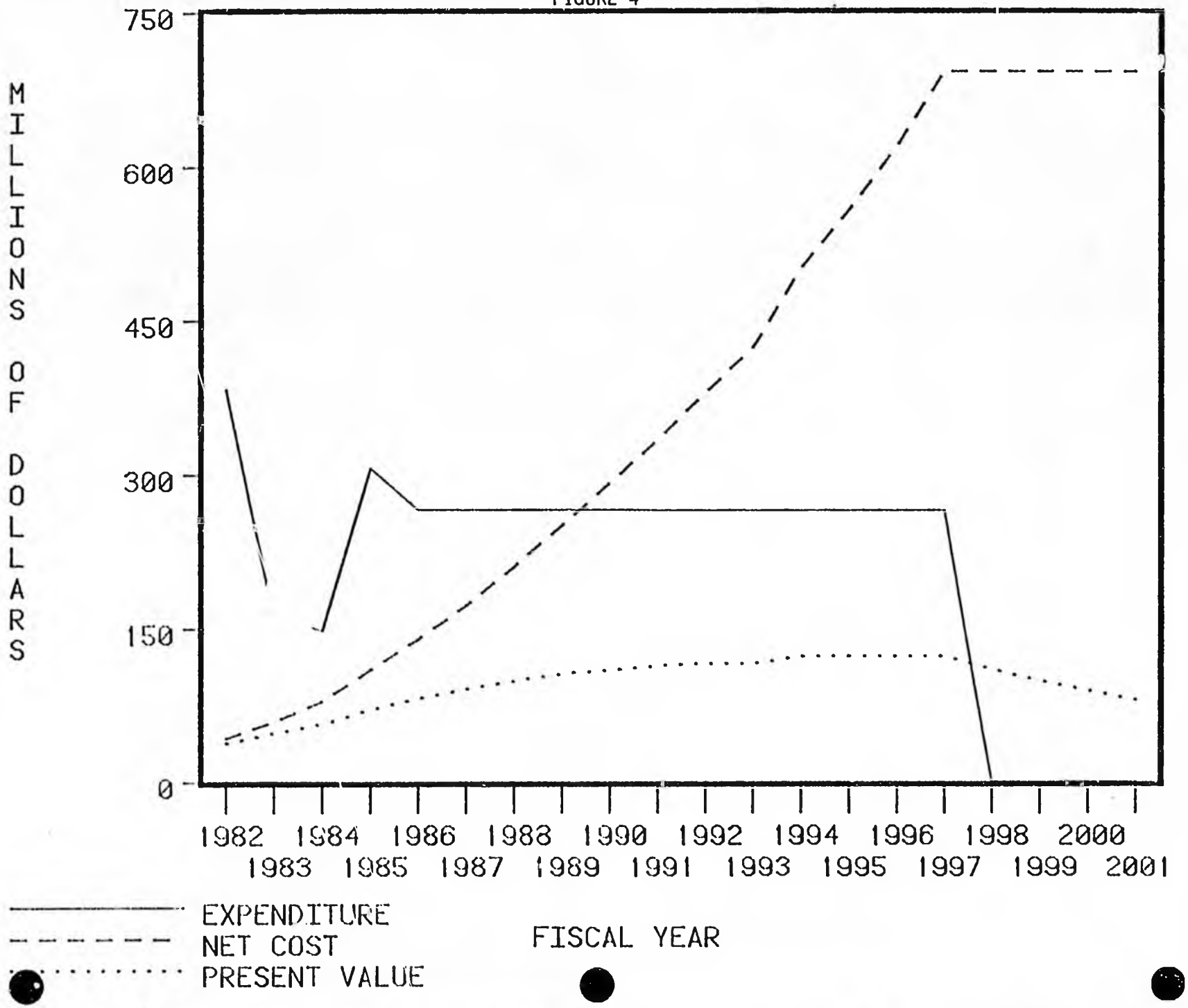
FIGURE 3



HYDRO FINANCING ANALYSIS - SB 26 (H. RESOURCES VERSION)

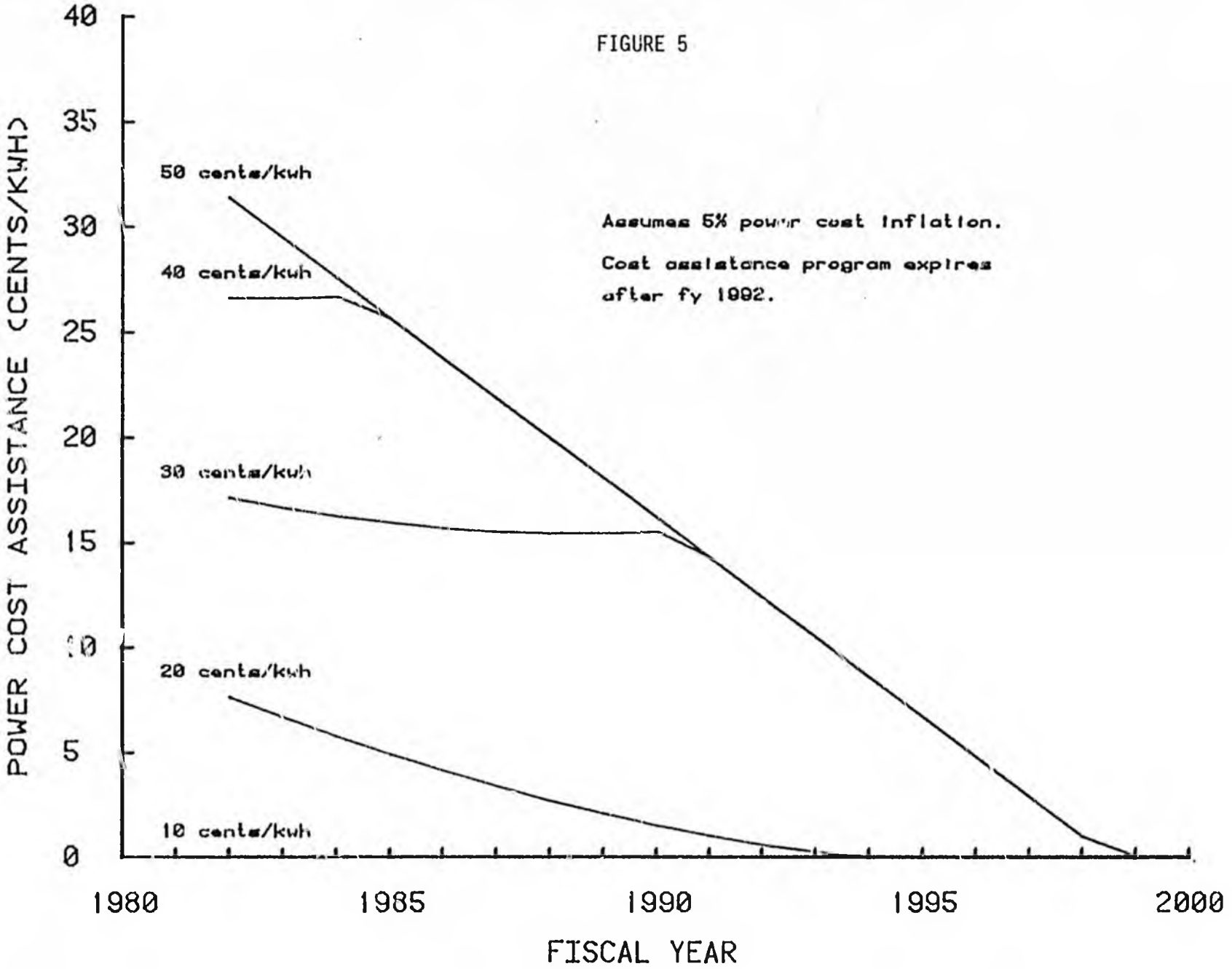
ASSUMES SUSITNA PROJECT FUNDING

FIGURE 4



ELECTRIC POWER COST ASSISTANCE LEGISLATION
SB 26 (HOUSE FINANCE WORKDRAFT)

FIGURE 5



ALASKA STATE LEGISLATURE
HOUSE OF REPRESENTATIVES
RESEARCH AGENCY

Pouch Y, State Capitol
Juneau, Alaska 99811
(907) 465-3991

June 11 1981

MEMORANDUM

TO: Representative Russ Meekins, Jr.

FROM: Jack Kreinheder
Research Staff

RE Opportunity Costs for Hydro Investments
81-152

The attached graph shows the change in opportunity costs to the State for hydro investments under different financing alternatives, which we discussed at the Finance Committee hearing of June 4. I'm sorry I wasn't able to prepare this graph before you finished your work with the bill but I hope it is useful as a general example of the significance of opportunity costs in making decisions on legislative appropriations.

Two levels of opportunity costs are shown on the chart as Net Cost #1 and Net Cost #2. As I explained earlier, we have considered the net cost of the hydro investments as the difference between the amount the State could receive from a market investment at 11 percent interest and the 5 percent equity return which was specified in the House Resources CS for SB 25. Net Cost #1 shows the opportunity cost to the State with Susitna construction funding and the termination of the 5 percent equity return upon completion of the Watana phase of the Susitna project in 1993 (when the 500 megawatt threshold specified in the bill would be reached).

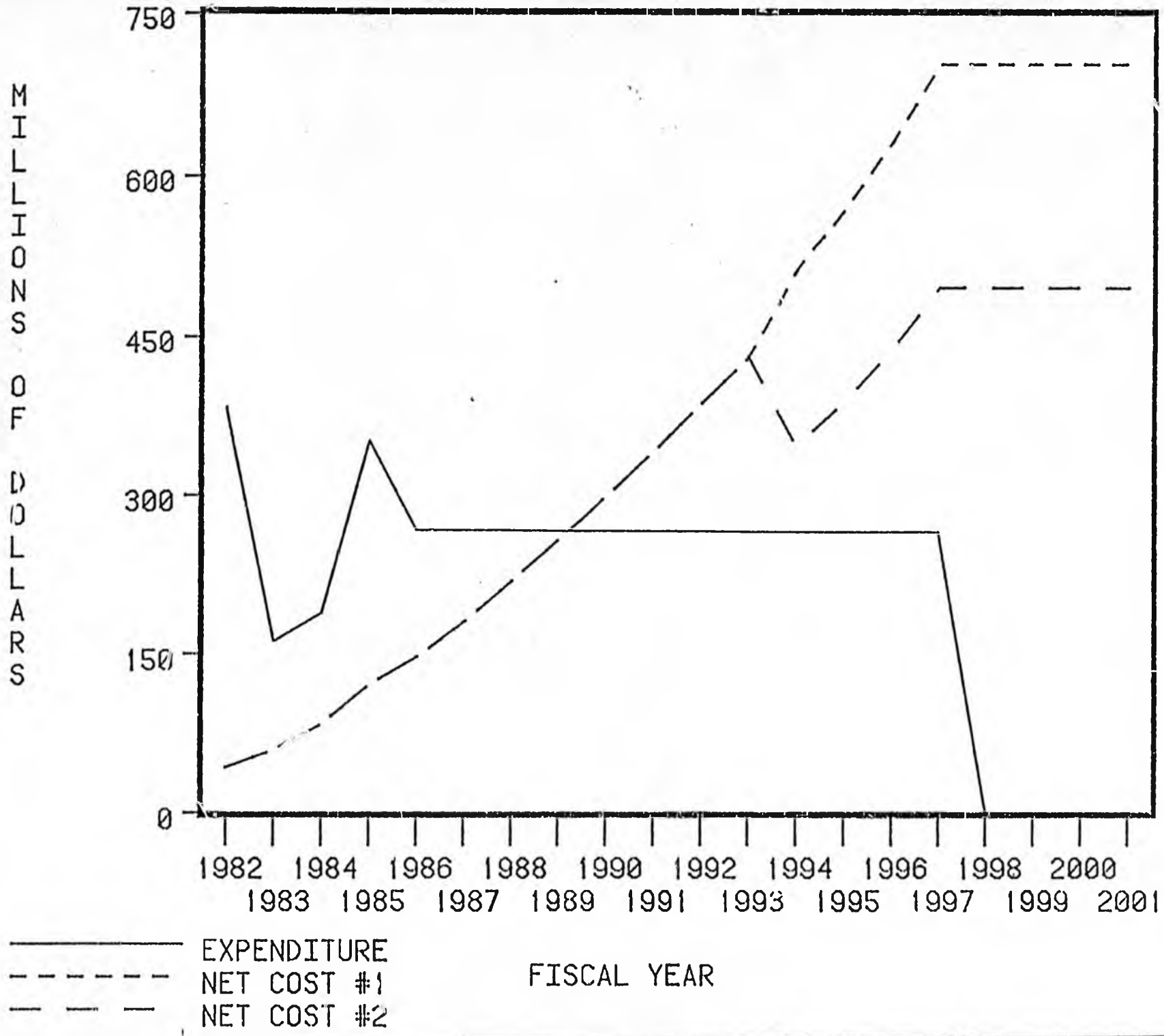
The curve for Net Cost #2 (the lower dashed curve) shows how the opportunity costs to the State would be reduced if the provision terminating the 5 percent equity return when 500 megawatts are "on-line" were to be deleted. In other words, Net Cost #2 is based on a 5 percent equity return through the year 2001 rather than just until 1993. As the graph demonstrates, the difference in opportunity costs between the two alternatives is about $180 million per year after 1993. The total difference in opportunity costs from 1993 until 2001 is about $1.28 billion.

In practical terms, continuing the 5 percent equity return from 1993 until 2001 would provide the State with about $1.28 billion in additional revenues to be invested or appropriated for other purposes. Of course, these additional revenues would be at the expense of somewhat higher power costs to electricity consumers.

I hope this example helps to clarify the value of this type of analysis for expenditure decisions. Please let us know if we may be of further assistance to you.

HYDRO FINANCING ANALYSIS - SB 26 (H. RESOURCES VERSION)

INCLUDING SUSITNA CONSTRUCTION



Alaska State Legislature
Senate Advisory Council

MEMORANDUM

Pouch V
State Capitol
Juneau, Alaska 99811

Offical Business

TO: Senator Fahrenkamp
FROM: Kurt S. Dzinich KSD
SUBJECT: Susitna Hydroelectric Project
DATE: March 10, 1982

Following summary is provided for your information and reference in the upcoming deliberations on the Susitna Hydroelectric project.

Statutory Requirements. Enclosure 1 is a copy of AS 44.83.320, 44.83.325 and 44.83.330 and covers the essential requirements to be met on proceeding with the Susitna project. Some key provisions:

1 - APA must submit preliminary report to governor and legislature by 30 April 1982.

2 - APA may not enter into any contracts other than those necessary to complete feasibility studies and reports required by 44.83.320 until the legislature approves by law the preliminary report.

3 - Within one year after legislative approval of the preliminary report the Authority may initiate construction of the Susitna project.

Schedule of Events. Enclosure 2 is a chronological sequence of events between now and 30 April 1982. The APA recommendation will be based on:

- Battelle Study addressing demand and various alternatives of providing electric energy in the Railbelt.

- ACRES study addressing technical, economic and environmental feasibility of the project.

- External Review Panel review comments by experts on all aspects of the Susitna project.

With reference to the schedule of events please note the 26 March 1982 briefing session by APA in Juneau specifically for the legislators and other interested parties.

FERC Licensing Criteria. Enclosure 3 represents a summarized version of the factors considered by FERC in determining whether to issue a license.

Sec. 44.83.320. Preliminary reports. (a) By March 30, 1981, the authority shall prepare and submit to the governor and to the legislature a preliminary report recommending whether work should continue on the Susitna River hydroelectric project, and, if the recommendation is to continue on the project, the report shall explain in detail

(1) economic evaluations and preliminary environmental impact assessments for the Susitna River hydroelectric project and all viable alternatives;

(2) the federal and state permits required to be obtained before construction can begin and the expected construction start date; and

(3) any other information the authority considers appropriate or necessary to adequately inform the governor and the legislature of the status of the Susitna River hydroelectric project.

(b) By April 30, 1982, the authority shall prepare and submit to the governor and to the legislature a preliminary report recommending whether work should continue on the Susitna River hydroelectric project, and other viable alternatives. If the recommendation is to continue on the Susitna River hydroelectric project, the report shall explain in detail

(1) the proposed conceptual design and phases of construction of the Susitna River hydroelectric project;

(2) the expected completion date of each phase of construction;

(3) the expected cost of each phase of construction;

(4) the costs to the state and consumers of the project under alternative methods of project financing, including revenue bonds, general obligation bonds, and general fund appropriations; and

(5) any other information the authority considers appropriate or necessary to adequately inform the governor and the legislature of the status of the Susitna River hydroelectric project.

(c) The preliminary reports required under (a) and (b) of this section are in addition to any reports required under AS 44.83.180 – 44.83.224. (§ 2 ch 169 SLA 1980)

Sec. 44.83.325. Restrictions on contracting. The authority may not enter into contracts under AS 44.83.300 – 44.83.360 other than those contracts necessary to complete (1) feasibility studies, (2) the preliminary reports required by AS 44.83.320, or (3) construction of the Anchorage Fairbanks intertie, until the legislature approves by law the preliminary report required under AS 44.83.320(b). (§ 2 ch 169 SLA 1980)

Sec. 44.83.330. Construction, maintenance and operation of project. Within one year after approval of its preliminary report, submitted under AS 44.83.320(b), the authority may enter into a contract for the construction of the Susitna River hydroelectric project in a manner consistent with the purpose of the project as described in AS 44.83.310. (§ 2 ch 169 SLA 1980)

ENCLOSURE 1

SCHEDULE OF EVENTS

8-9 March 1982	Policy Review Committee reviews draft Battelle Railbelt Electric Power Alternatives Study in Juneau.
10 March 1982	Workshop on Susitna related wildlife in Anchorage.
11 March 1982	Workshop on Susitna related fishlife in Anchorage.
15 March 1982	Copies of the draft ACRES report distributed by APA.
23 March 1982	APA Board is briefed on Susitna by ACRES and Battelle staffs in Anchorage. That evening there is a public meeting on same subject in Anchorage.
24 March 1982	State and federal agencies are briefed on the ACRES report in the morning while in the afternoon there is a public meeting on the same report and site access in the Susitna High School.
25 March 1982	Evening public meeting in Fairbanks on ACRES report.
26 March 1982	1982 Briefing session in Juneau on Battelle and ACRES studies for legislators and other interested parties.
15 April 1982	External Review Panel meeting with APA Board in Anchorage in the morning. After 3 p.m. APA Board will accept public testimony.
16 April 1982	From 9 a.m. to 4 p.m. APA Board will accept testimony from various agencies and utilities.
19 April 1982	APA Board holds a public meeting in Talkeetna to accept testimony.
20 April 1982	Same as above in Fairbanks.
22 April 1982	APA Board meets in Anchorage to deliberate and formulate a recommendation.
30 April 1982	APA and Board must submit preliminary report to the Governor and Legislature by this date.
- ? -	The Governor and Legislature reach a decision on whether to proceed with Susitna. (APA Board has authority under existing legislation to apply for a FERC license. If SB 826 is passed, APA will be able to proceed with engineering, design and further studies concurrenetly with the processing of the FERC license thereby allowing the project to remain on the critical path that would insure power-on-line by 1993.) As long as the approval is given at about the same time as when the FERC license is received there would be no delays in initiating the construction of the project.

ENCLOSURE 2.

Figure 4-1

FERC LICENSING CRITERIA

1. Adequacy of design
2. Economic feasiblity
3. Environmental impacts
4. Financial capability of applicants
5. Availability of power market
6. Dam safety
7. Project's adaptability to comprehensive development of the river basin
8. Potential for federal development
9. Water rights and
10. Other pertinent matters

The application is initially reviewed for completeness and compliance with FERC regulations. If the application is found sufficient, copies are circulated to appropriate federal, state, and local agencies. Agency comments are requested within a 60 to 90 day period. Once agency comments are received, the applicant is given an opportunity to comment on agency responses. At this point, the FERC staff renders a final determination as to whether an environmental impact statement is required. If an EIS is required, a draft EIS must be prepared. A 45 day comment period is required by FERC regulations. After comments have been received, a final EIS is prepared and circulated. The FERC technical staff then prepares its recommendations for Commission action. FERC's legal staff also prepares an order for final Commission consideration.

ENCLOSURE 3

DEPD-82-530-R4

STATE OF ALASKA

LONG TERM ENERGY PLAN

1982 REPORT

PRELIMINARY DRAFT
PUBLIC REVIEW COPY

Prepared For

Jay Hammond
Governor

By

Department of Co rce and Economic Development
Division of En gy and Power Development

Charles Webber
Commissioner

Lloyd M. Pernela
Director

FEBRUARY 1982

STATE OF ALASKA

LONG TERM ENERGY PLAN

1982 REPORT

PRELIMINARY DRAFT
PUBLIC REVIEW COPY

BY

BOOZ · ALLEN & HAMILTON, INC.

And

- HOMAN — McDOWELL
- PACIFIC POLAR RIMS
- NORTEC

Prepared For

State of Alaska
Department of Commerce and Economic Development
Division of Energy and Power Development
338 Denali Street
7th Floor, Mackay Building
Anchorage, Alaska 99501

FEBRUARY 1982

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I N D E X O F E X H I B I T S

FOREWORD

Each year the Department of Commerce and Economic Development, Division of Energy and Power Development, with the assistance of the Alaska Power Authority, is required to prepare a report on the Long Term Energy Plan for Alaska. This year's report documents the evolution of the State's energy program and the associated long term planning process. It builds upon the initial Long Term Energy Plan to provide on indication of the relative importance of the energy problems and potential solutions facing Alaska in the near, mid, and long term.

The report addresses the following topics:

- An "end-use" study examining and reporting on the nature and amount of energy used and the purposes of its use
- An energy development component for meeting projected thermal, electrical and transportation energy needs in the state at the lowest reasonable cost
- An energy conservation component, including regional conservation goals and measures to achieve those goals
- A component for emergency energy conservation measures applicable during times of emergency
- A report on areas or subjects of energy research, development and demonstration projects involving alternative energy systems, local energy sources, and energy conservation.

In addressing each of these topics the report focuses existing energy information to support current decision making needs. The types of energy problems facing the different regions are highlighted, along with the most attractive technical solutions to the problems. Based upon an understanding of the least cost technical alternatives, recommendations are made regarding existing and future state energy programs and policies.

This report must be viewed as part of the evolution of the long term energy planning process. As such, it establishes a regional framework and focus for addressing energy problems. While current regional information is incomplete, the report attempts to provide as much regional detail as possible in its discussion of energy problems and solutions. Additionally, specific recommendations are provided regarding how regional information and energy planning can be improved.

The Long Term Energy Plan should not be viewed as a tool for policy development, but rather as the initial step in policy implementation. Its role then is to provide a bridge between the overall energy policies and goals established by the Governor and the legislative and the detailed energy projects and activities undertaken by individual state agencies. Reviews by the Governor's office and agencies with energy related responsibilities, and the acceptance and transmission of the report to the Legislature by Governor Hammond, provide an annual means of focusing debate on the State's energy policies and goals.

Refinement of energy goals and objectives and the development of measures of performance is a critical step in the long term energy planning process. Without clearly stated objectives and measures of performance it is impossible to provide an adequate evaluation of existing or proposed state projects or programs. Without effective evaluation, it will be difficult to upgrade the State's energy activities and modify them to respond effectively to the constantly changing energy situation.

Annually, this report documents changes in the current energy situation and provides an updated view of the future. State energy projects are reviewed and evaluated in terms of their contribution to overall energy goals, and recommendations are made to modify existing programs or initiate new ones. By providing a comprehensive statewide overview of Alaska's energy situation, the plan will provide the necessary visibility to ensure that existing programs are effective in meeting state objectives and that the most cost effective energy alternatives are chosen for the state.

OVERVIEW AND SUMMARY

OVERVIEW AND SUMMARY

With all of its indigenous energy resources, its large revenues from energy production, and with many of its citizens depending on high-priced fuels, the state of Alaska has a responsibility to involve itself in energy planning. The state legislature recognized this responsibility in 1980 by requiring the development of an annual state long term energy plan*. The 1980 Act required that the plan and its annual revisions include:

- An "end-use" study examining and reporting on the nature and amount of energy used and the purposes of its use
- An energy development component for meeting projected thermal, electrical nd transportation energy needs in the state at the lowest reasonable cost
- An energy conservation component, including regional conservation goals and measures to achieve those goals
- A component for emergency energy conservation measures applicable during times of emergency
- A report on areas or subjects of energy research, development and demonstration projects involving alternative energy systems, local energy sources, and energy conservation.

By addressing the required elements presented above, the plan provides an overview of the statewide energy situation, and helps the state legislature develop just and equitable solutions to Alaska's energy problems. The overall purpose of this year's report is to focus existing energy information to support current decision making needs and provide a sense of priority across state projects and programs. To this end, the plan report describes the current and future energy situation, the least cost energy alternatives for different regions, and the consequences of pursuing these different alternatives.

The 1982 report on the long term energy plan builds on the initial 1981 long term energy plan, as well as other recent and ongoing studies, including: the Susitna

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*State Statute HCS CCSB 438 (Finance) amH, section 44.56.224

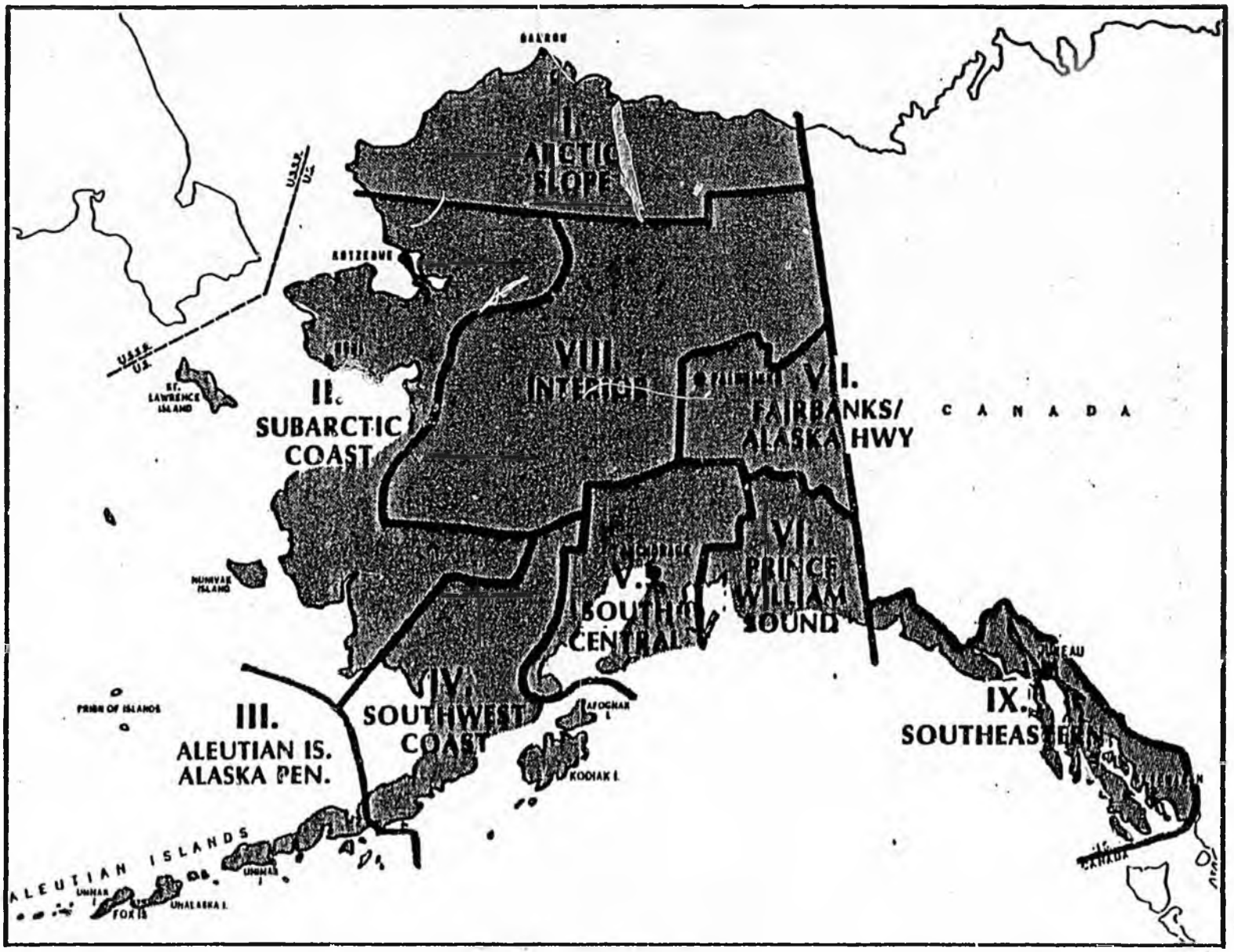
feasibility study by Acres American; the Railbelt Electrical Power Alternatives study, and the Historical and Projected Oil and Gas Use studies by Battelle Northwest Laboratories. Only the Historical and Projected Oil and Gas Use study had been completed in time to support the development of this year's plan. However, information from interim reports, working papers and draft reports from the other studies was incorporated wherever possible. This information may differ slightly from that contained in the final reports for those studies.

The primary policy objective (or question) addressed by the 1982 plan is (how) "to use Alaskan resources to meet, at the lowest reasonable cost, Alaska's current and future in-state residential, commercial, industrial and transportation energy needs." While it is recognized that there are other state social, environmental and economic objectives that must be considered in energy planning, this "least cost" objective was chosen to provide an analytical framework for the plan. The quantitative estimates of energy costs and benefits provided in the plan can be viewed as a basis for broader policy decisions involving energy and non-energy decisions.

While currently available energy data are limited, particularly at the regional and subregional levels, a regional perspective is critical to state energy planning efforts. To provide the necessary regional energy perspective the state was first divided into these major regions and ultimately into nine regions, as shown in Exhibit 1 and described in Appendix A. Three major regions are used for discussion purposes since existing data do not support analysis at a nine region level. The three aggregate regions and their components are:

- Extended Railbelt Area
  - South Central Region (Region V)
  - Prince William Sound (Region VI)
  - Fairbanks/Alaska Highway (Region VII)
- The "Bush"
  - Arctic Slope (Region I)
  - Subarctic Coast (Region II)
  - Aleutian Islands/Alaska Peninsula (Region III)
  - Southwest Coast (Region IV)
  - Interior (Region VIII)

EXHIBIT 1
ENERGY PLANNING REGIONS



- Southeast Area

  - Southeast (Region IX)

These regions were developed by aggregating Alaska's census regions to produce geographical areas having similar energy use patterns, energy problems and energy resources.

The importance of a regional disaggregation to analyze Alaska's energy situation is illustrated in the following example. Average per capita residential electricity use in the state is only slightly higher than that in the lower 48 states - approximately 3,275 kilowatt hours (KWH) in 1980, compared with the U.S. average of 3,250 KWH. Average electricity costs are also similar: Alaska's weighted average cost is approximately 6 cents per KWH, compared with 5.5 cents in the lower 48 states. However, as shown in Exhibit 2, these prices vary substantially across the state.

To illustrate these differences and evaluate their implications for energy planning, this plan provides as much detail as possible at a regional level given existing energy data. It is recognized that these data are often incomplete and different sources are likely to be inconsistent. Because of the current data problems, this year's report should be viewed as a preliminary description of detailed regional energy problems. However, the plan does provide an operational regional framework that can be utilized as a basis for energy planning from the state level all the way down to the local community level.

In conducting the analysis to support this year's report three basic questions are used to provide a means for focusing the existing information and to provide a better understanding of the options available to the state. These questions are:

- What type of energy problem does Alaska face (where, when, why, how severe)?

  - An energy price problem

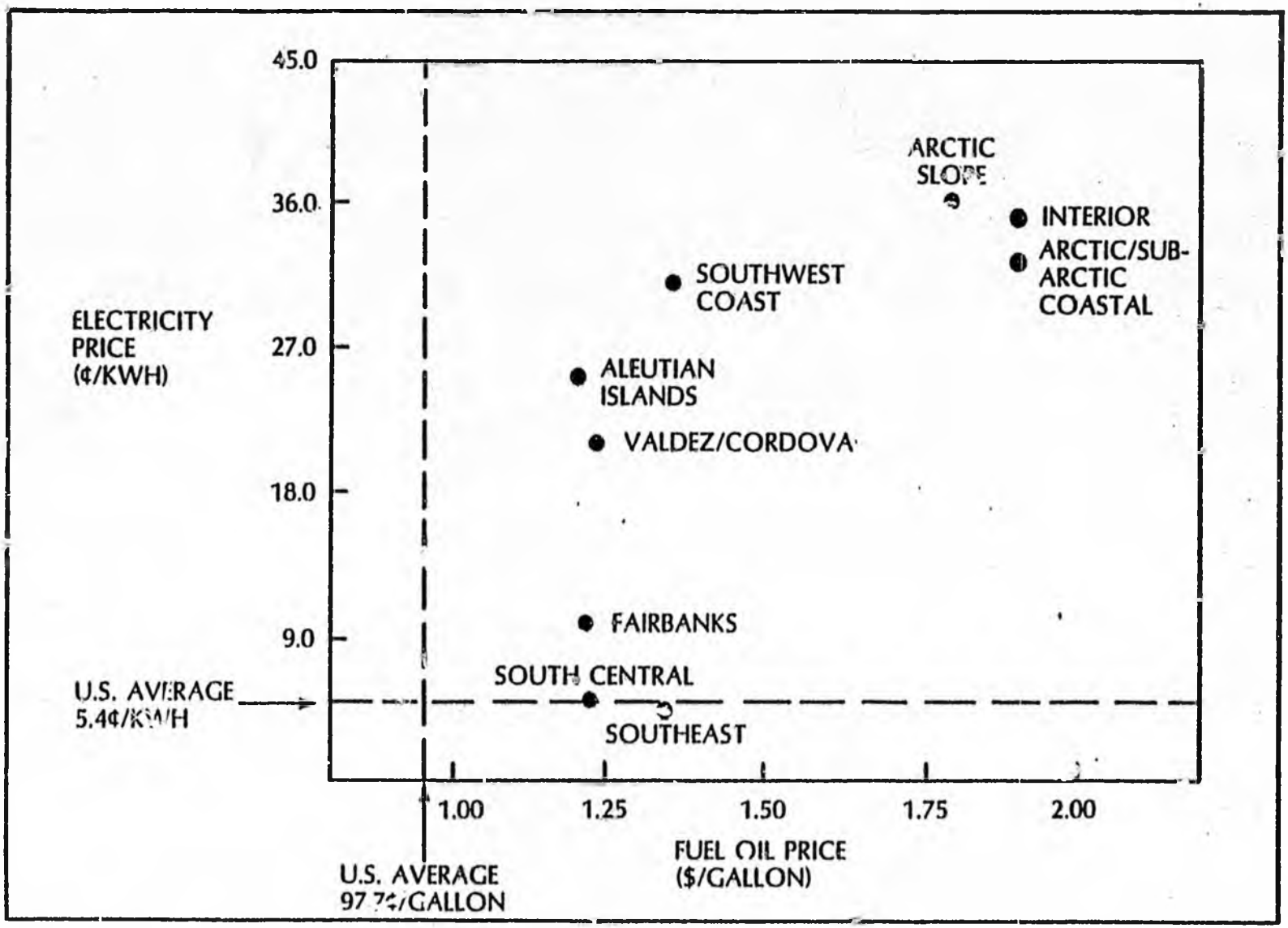
  - A resource exhaustion problem or energy production constraints

  - An energy vulnerability/reliability problem?

- What technology options are most attractive for reducing each problem?

EXHIBIT 2

COMPARISON OF RESIDENTIAL OIL AND ELECTRIC PRICES IN ALASKA: 1980



SOURCE. DEPD COMMUNITY ENERGY SURVEY
ALASKA PUC ANNUAL REPORT
EIA 1980 ANNUAL REPORT TO CONGRESS

- What is the most effective set of state energy projects and programs?

By focusing directly on existing and potential energy problems it is possible to establish a close link between the energy needs of Alaskans and the potential technological solutions and state programs that address these needs. This process will provide a basis for determining whether or not individual projects are directed towards the most pressing problems. The remaining portions of the Overview and Summary describe the most pressing existing and potential energy problems, the most attractive technological alternatives and provide recommendations for future state activities.

1. HIGH PRICES REPRESENT ALASKA'S MAJOR NEAR AND MID TERM ENERGY PROBLEM

Energy prices vary substantially throughout the state (illustrated in Exhibit 2, above). The most populated areas--the South Central and Southeast--currently pay relatively low electricity prices. Much of the natural gas used to generate electricity in the South Central region is purchased under long-term contracts negotiated in the early 1960s. The Southeast region benefits from hydropower facilities which were built prior to recent large cost increases.

Similarly, fuel oil prices in the South Central and Southeast regions are only 25 to 30 percent higher than the U.S. average. These cost differentials are not out of line with many consumer goods, which also cost more in Alaska than in the lower 48 states.

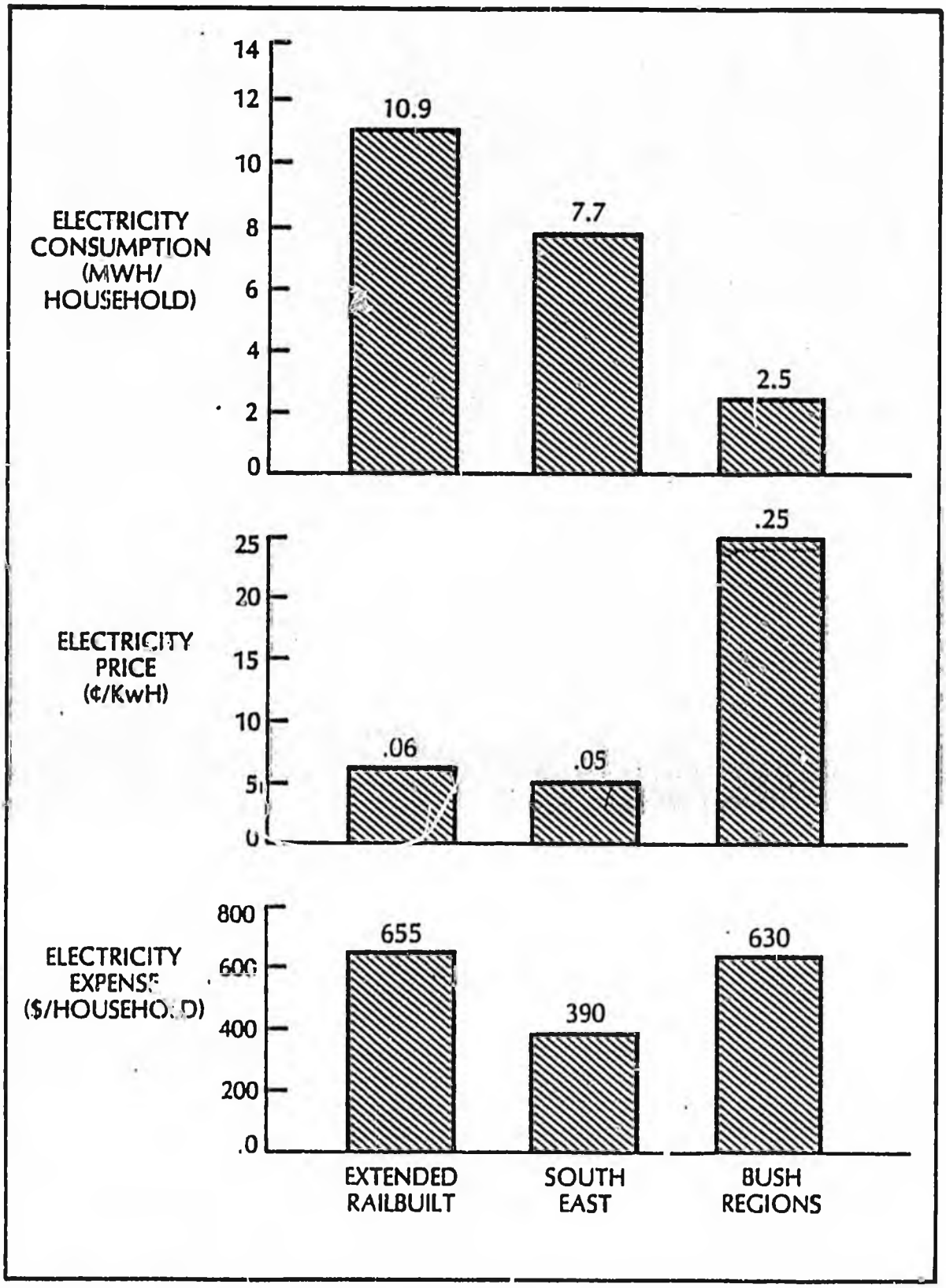
This is not the case for Alaska's rural consumers--with almost total reliance upon petroleum products--who are hit the hardest by high energy prices. Based on regional averages, they pay up to 8 times more for electricity than urban Alaskans and up to double for fuel oil. These high costs are a result of two key factors:

- High Petroleum Distribution Costs--In the bush, small volumes of diesel fuel must be shipped long distances between communities. The product changes hands many times, driving up its cost. Large inventories must be financed and kept on hand, especially during the winter, when the waterways are icebound.

- Low Conversion Efficiencies--In many communities, generating equipment has a conversion efficiency of only 12 to 18 percent. Larger bush communities such as Kotzebue have diesel generating efficiencies approaching 32 percent, and correspondingly lower electricity costs.

EXHIBIT 3

HOUSEHOLD RESIDENTIAL ELECTRICITY EXPENSE



SOURCE: DEPD COMMUNITY ENERGY SURVEY APPENDIX I-A, STATE ENERGY BALANCE

Since bush region consumers pay high energy prices, they use substantially less energy to meet electrical and thermal energy needs than do consumers in the Extended Railbelt and Southeast region, for several reasons:

- Higher electricity and fuel oil prices mandate conservation
- Dwellings are of a smaller size
- Fewer electrical appliances are used.

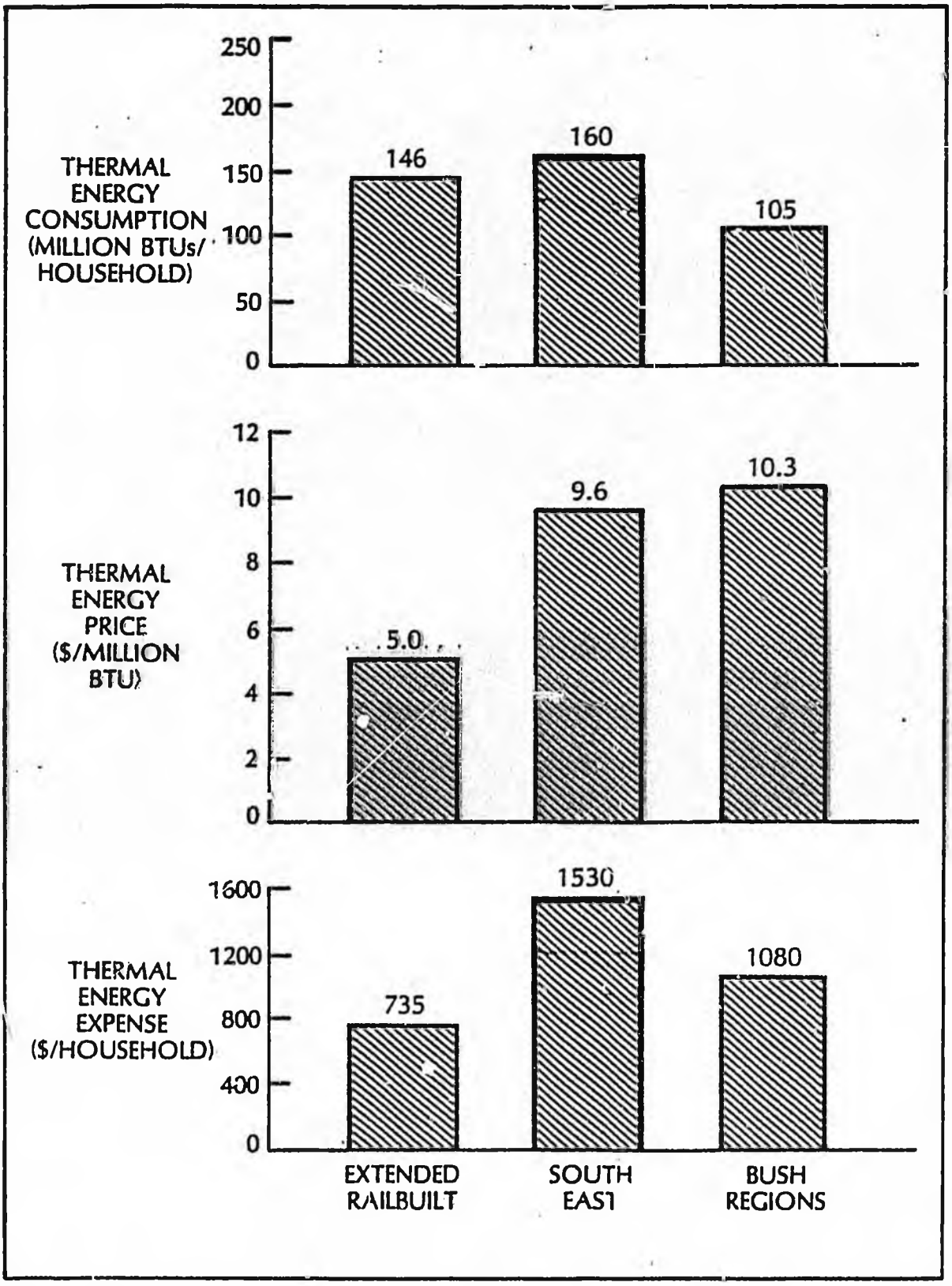
Even though substantially less electrical and thermal energy is used in the bush regions, bush households spend approximately the same annual amount for electricity and spend substantially more to meet their thermal needs. Electricity and thermal energy consumption patterns for the three regions are shown in Exhibits 3 and 4.

All Alaskans, urban and rural, will be affected by oil and natural gas price trends in the coming years. It appears that crude oil prices will remain level or even decline during the next few years. Current world economic conditions coupled with a substantial increase in energy use efficiency have greatly reduced world oil demand. Worldwide economic recovery, which would stimulate oil demand, is not likely to take place for at least a year. An excess demand for oil, which would push prices upward, may not be felt in the world oil markets until after 1985. These conditions suggest that excess oil supplies will continue until the late 1980s.

During the late 1980s and 1990s, world energy prices can be expected to increase, but at a more moderate rate than that experienced during the 1970s. Alaskan oil prices can be expected to track this more moderate real annual growth rate of about 2.5 percent through the year 2000.

High oil prices mean that Alaskan's also pay more for transportation fuels than residents of the lower 48 states. Even though approximtely 50 percent of transportation fuel is used for international and domestic jet aviation, high prices for highway gasoline and diesel have a substantial impact on individual energy expenditures. If a household used 1,000 gallons of fuel annually, their expenditures would range between $1,400 and $1,700 depending upon exact fuel prices. This is roughly equal to the amount spent on thermal energy and not quite twice the amount spent on electricity.

EXHIBIT 4
HOUSEHOLD RESIDENTIAL THERMAL ENERGY EXPENSE



SOURCE: DEPD COMMUNITY ENERGY SURVEY
APPENDIX I-A, STATE ENERGY BALANCES

Alaskan natural gas prices are expected to stay relatively level through the early 1980s, for a special reason. Currently the Anchorage area relies primarily on Cook Inlet natural gas to meet its thermal and electrical needs. Many 20 year contracts for this gas were initiated in the 1960s. The gas purchased today under these contracts is very low-priced (e.g., 18¢ to 25¢/mcf) compared with other energy sources. When these contracts expire in the mid-1980s, prices should rise to $2.00 to $2.68 per MCF.

2. ELECTRICITY AND THERMAL ENERGY USE PROVIDE THE GREATEST OPPORTUNITY FOR NEAR AND MID TERM ENERGY COST SAVINGS

Electricity use currently represents the smallest portion of total state energy use. However, it represents one of the fastest growing uses, approximately 10 percent annually over the last decade. The commercial/industrial sector was the dominant user of electricity in each of the three regional groups (see Exhibit 5). That sector accounted for over half of the states total electricity consumption.

Although electricity costs for most Alaskans are low, bush region residents have very high power costs. Substantial improvements can be made in the efficiency of electricity generation in the bush regions. There are two ways that these high costs can be mitigated:

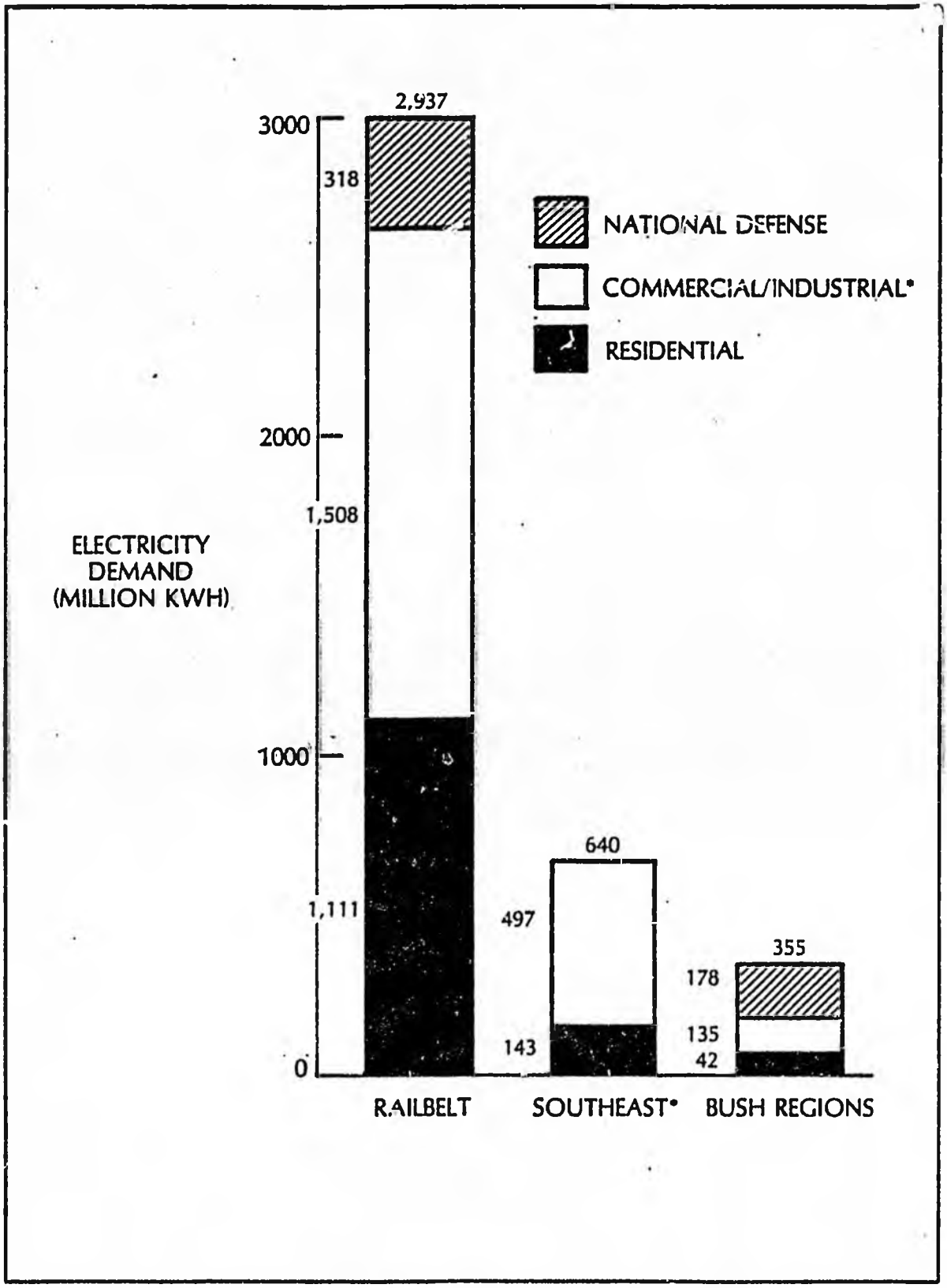
- Fuel Substitution--Wind power, hydropower, and fossil fuels have the potential to generate electricity at a lower cost

- Increased Generation Efficiency--costs can be reduced by improving maintenance and operating procedures and more efficiently matching generator size to electricity demand.

There is substantial incentive to explore fuel substitution possibilities, since many technologies look to be attractive even under modest fuel escalation assumptions (Exhibit 6). As the exhibit illustrates, small wind machines with installed costs of $5,000 per KW, running at a capacity factor (C.F.) of 25 percent, would be competitive with diesel generators today. Despite the initial attractiveness of fuel substitution options, the feasibility of substituting alternative fuels and technologies for diesel oil are severely limited by resource availability and the small scale of village electricity demand. The actual cost effectiveness of these alternatives must, therefore, be determined on a community by community basis.

Diesel generator efficiency can be increased by improved maintenance and by matching generator size with electrical demand. Exhibit 7 shows the wide variation in electrical generator efficiency in the bush regions. Achievement of effi-

EXHIBIT 5
ELECTRICITY USE BY SECTOR



* COMMERCIAL/INDUSTRIAL SECTOR INCLUDES NATIONAL DEFENSE PURCHASES
SOURCE: APPENDIX I-A, STATE ENERGY BALANCES

EXHIBIT 6
INDIFFERENCE PRICES
CAPITAL COST OF ALTERNATIVE TECHNOLOGIES TO COMPETE WITH DIESEL GENERATION IN THE BUSH REGIONS

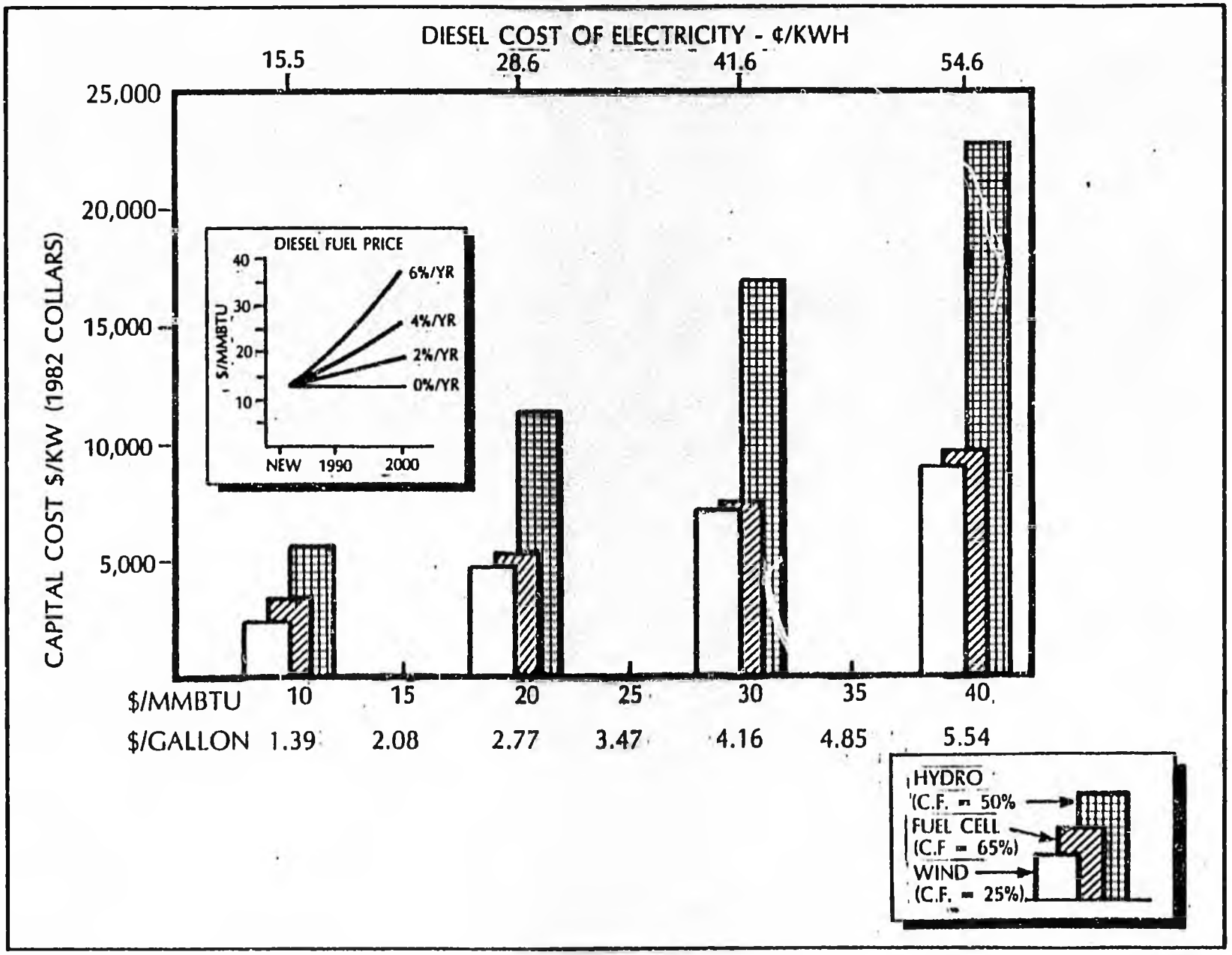
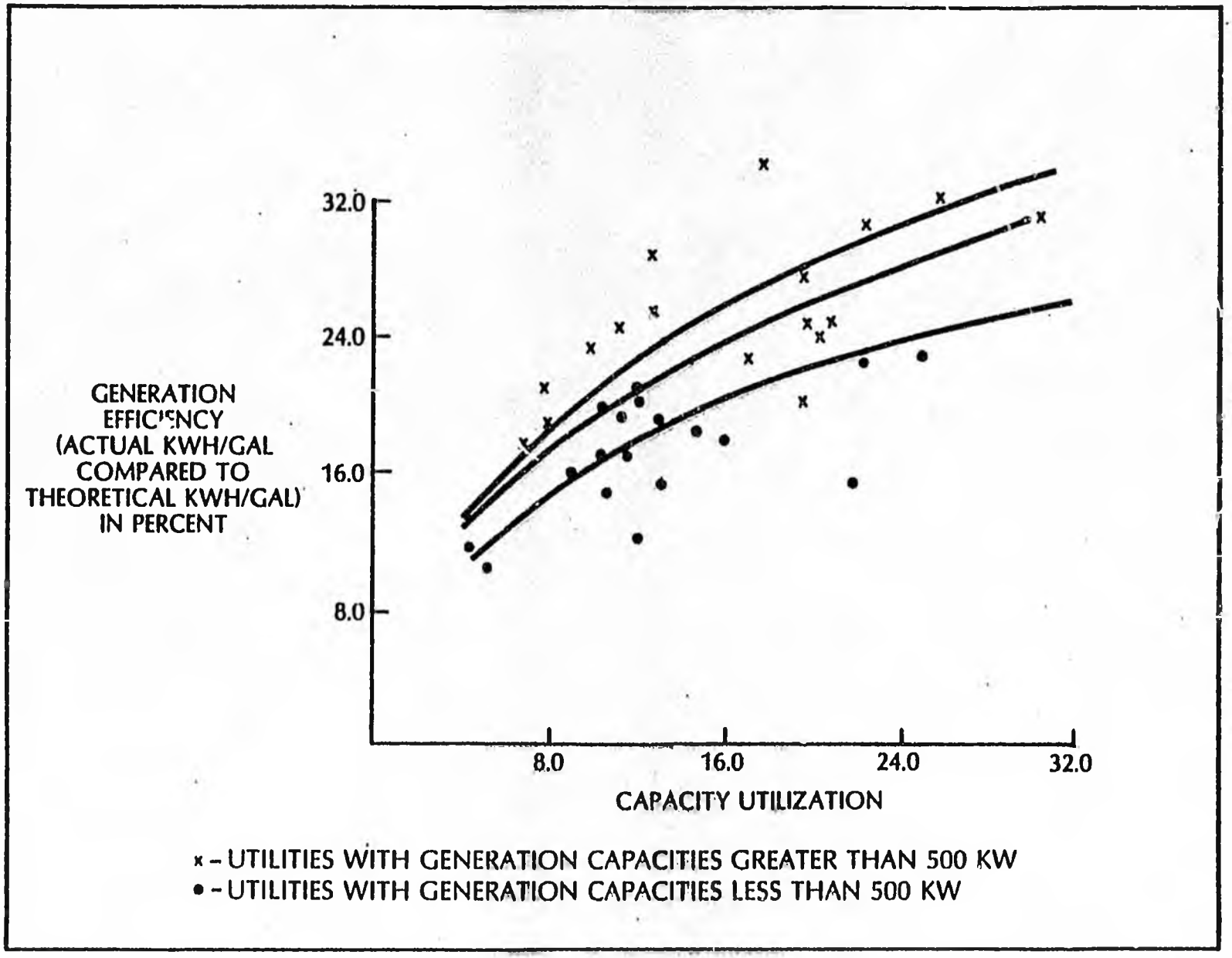


EXHIBIT 7
CAPACITY UTILIZATION IN BUSH REGIONS



ciencies above 30 percent would be an ambitous, but beneficial, the goal for all local utilities. For those utilities with operating efficiencies below 20 percent, such improvements could result in fuel cost reductions of up to 50 percent. Commensurate consumer savings would follow. Generator maintenance may be improved through state sponsored training and outreach programs. The state can also help in matching generator size with demand. Two options are available:

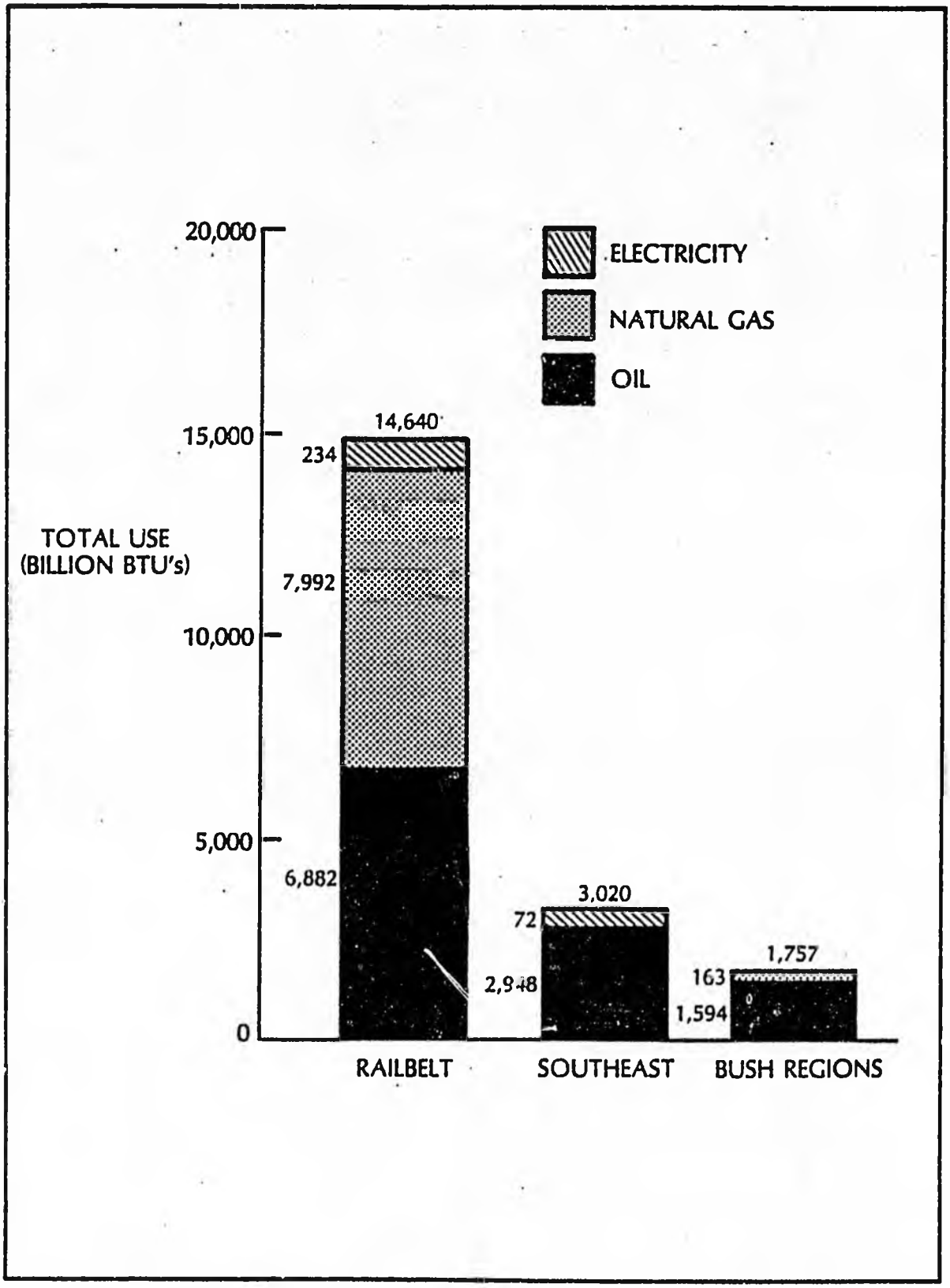
The most cost effective method of matching generator size with demand is to down size the diesel generators. This option, where feasible, will be more economical than construction of an expensive intertie system -- costs range from $40,000 to $90,000 per mile depending upon system type and location. This results from the fact that the maximum efficiency of a small intertie system, before transmission losses, is not significantly better than a set of well run independent diesels.

The state's thermal energy needs are met principally by oil and natural gas. Both the quantity of energy used and the mix of fuels differs substantial by region (see Exhibit 8). The Southeast and bush regions rely primarily on oil for meeting thermal energy needs, while oil, natural gas and electricity are all used in the Extended Railbelt Region.

Thermal energy efficiency in Alaska's existing buildings is low relative to today's construction practice. Three elements affect the overall cost of meeting thermal energy needs in residential and commercial buildings:

- The fuel--cost and energy content
- The building shell integrity--thermal gain and loss characteristics

EXHIBIT 8
RESIDENTIAL THERMAL DEMAND BY ENERGY SOURCE



SOURCE: APPENDIX I-A, STATE ENERGY BALANCES

- The fuel conversion unit (e.g., furnace)--cost and efficiency.

Where fuel is expensive, as it is in the bush regions, there is substantial incentive to substitute fuels and/or improve conversion efficiency and building shell integrity. For those consumers who use low-cost natural gas or low cost electricity--primarily in the Railbelt and Southeast regions--the incentive to substitute fuel sources or increase efficiency is low. As energy prices rise in the late 1980s and early 1990s, however, more efficient technologies such as heat pumps--which have proven successful during a year demonstration in Juneau and Ketchikan--will be introduced, particularly as diesel costs rise in the Southeast.

Thermal losses in Alaska's buildings can be reduced from 10 to 30 percent or even more in rural areas. In many cases an expenditure of $300 will result in a 10 percent reduction in building energy use and savings of $180 annually; while a reduction of 30 percent and savings over $500 annually, can be achieved with expenditures of $1000-$2500 per building. The relative effectiveness of a variety of conservation and atternative energy measures is shown in Exhibit 8A. Information from current state audit programs will be used to confirm and refine these estimates for use in next year's plan.

Substantial advances have been made in furnace and heating technologies during the last decade. For Alaskans, improved oil furnaces, natural gas furnaces, and wood stoves can result in immediate cost savings. For example, a 30 percent improvement in furnace efficiency, offered by advanced natural gas and fuel oil furnaces can save $500-$1000 per residence.

3. <u>WHILE ALASKA'S ENERGY SUPPLIES ARE PLENTIFUL IN THE NEAR TERM, PROJECTED GROWTH IN ELECTRICITY CONSUMPTION DICTATES IMMEDIATE CONSIDERATION OF SUPPPLEMENTAL ELECTRICAL SUPPLIES</u>

In light of the projected price trends and regional energy use patterns discussed above, Alaska's overall energy demand is expected to grow moderately during the coming years. The projected growth rates vary by region:*

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*Source: Battelle, "Historic Oil and Gas Consumption and Projections through the Year 2000," for the Department of Natural Resources.

EXHIBIT 8A

COMPARISON OF EQUIVALENT ENERGY COST FOR SELECTED CONSERVATION/END-USE TECHNOLOGIES

TECHNOLOGY	EXAMPLE LOCATION	TYPICAL INITIAL INSTALLED COST	EXPECTED LIFETIME (Years)	ANNUAL PRIMARY ENERGY SAVINGS (Mil. Btu/Yr.)	BASIS OF ENERGY SAVINGS	LEVELIZED ANNUAL ENERGY COST $/Mil Btu
Attic insulation and weather stripping owner	Anchorage	$ 300	25	20	10% of base 200 MCF gas/yr.	$1.90
Insulation/storm windows, etc. (high level)	Anchorage	$2,500	25	82	30% of base 200 MCF gas/yr.	$5.20
Weatherization package for rural housing projects	Small, remote village	$1,000/house	15	42	25% of base 1,200 gal oil/year	$3.50
Advanced oil fired boiler for a house	Juneau	$1,000 (incremental cost over std. unit)	15	36	20% of base 1300 ga. oil/yr.	$4.10
Wood stove using free wood	Skagway/ Southeast	$ 900	10	137	75% of base 1300 gal. oil/yr.	$1.20
Wood stove using purchased wood @ $50 cord	Skagway/ Southeast	$ 900	10	137	15% of base 1300 gal. oil/yr.	$6.20
Passive solar (250 sq. ft. direct gain system	Fairbanks	$3,750	20	28	20% of base 1500 gal. oil/yr. (assumes a super insulated house)	$17.90
Generator waste Heat recovery	Small rural village with 100K diesel generator	$100,000	20	1400	Supplies 100% of heat for local 20,000 sq. ft. school (or 10,000 gal. oil/yr. savings	$9.60

Notes:

1. Discount rate assumed is 12%.
2. Maintenance and other operating expenses assumed to be small compared to cost savings.

- In the Extended Railbelt - electricity demand is projected to grow at 3.5 percent annually; thermal energy demand will increase about 2 percent per year. Transportation fuel demand will increase at slightly less than 0.5 percent per year and feedstock demand is projected to remain constant, since no new projects are assumed to be built.

- The Southeast - should experience slow thermal energy demand growth (less than 1 percent per year), and strong growth in electricity demand (about 4 percent per year) and transportation fuel demand (about 1.5 percent per year).

- In the Bush - thermal energy demands will grow by less than 1 percent per year, while demand for electricity should increase by 7 percent per year and transportation fuel demand should increase by about 1 percent per year.

Electricity consumption is expected to grow more rapidly in the bush and Southeast regions than in the Extended Railbelt, because less electricity is currently used per capita in those regions, and even small increases in population growth and appliance usage will result in significant percentage increases.

Electricity consumption in the Extended Railbelt is projected to increase modestly in the absence of major economic develop- ments. Yet even under this condition, major capacity additions will be required in the early 1990s, unless effective load management can be undertaken to increase capacity utilization rates.

Alaska's total energy resources are sufficient to easily meet projected needs well into the 21st century. However, it is not yet clear how these resources will be used to satisfy future needs. During recent years, growth in natural gas use has far outstripped growth in petroleum use. During the last decade, petroleum use has grown at 5 - 6 percent annually, while natural gas use has grown substantially faster--averaging 9-10 percent annually during the decade. These figures reflect the rapid population and energy use growth in the South Central region, where natural gas is the leading fuel.

Despite substantial future price increases, such as those discussed above, natural gas is likely to remain the fuel of choice in the South Central region to meet thermal needs and provide for peak load electricity generation. Hydropower and coal-fired power plants are the most attractive options for baseload power generation in this region due to the long term availability of coal and hydro resources. Natural gas prices would have to rise to at least $10 per MCF before power

generation alternatives such as hydropower become more attractive, or before fuel oil or coal-generated electricity replace natural gas for space heating. Wood at nominal prices may be competitive with natural gas for home heating; commercially sold wood may be competitive if wood prices can be kept below $40 - $50 per cord as natural gas prices rise in real terms.

Given the economic attractiveness and convenience of natural gas for meeting thermal and electrical needs, there is only one factor that may inhibit its future use: the adequacy of Cook Inlet reserves. The Alaska Department of Natural Resources conducts an annual forecast of the likely future trends in oil and natural gas demand and supplies. Results of that study indicate that sufficient Cook Inlet reserves exist to supply the South Central region until the year 2000, provided that:

- New coal or hydropower generation plants are used to meet future electricity demands
- No additional Cook Inlet reserves are used commercially except for ammonia/urea production at historic levels, Tokyo LNG at existing production levels, and Pacific LNG Phase I at planned levels.

If these conditions are met, current reserves could very well exceed demand through the year 2000. A shortfall of approximately 13 percent--about 500 billion cubic feet or approximately 2 1/2 years consumption--of current reserves will occur, however, if natural gas is used for expanded electric power generation. While Cook Inlet reserve production ratios are declining rapidly, there may be substantial additional reserves in the region. Estimates of undiscovered recoverable reserves in the South Central region range from 7 to 50 TCF.

These factors lead to the conclusion that the major pressure to reduce natural gas use will be to mitigate the impact of price increases, rather than the need to extend supply through the year 2000. Such price pressure may not be severe when compared to natural gas prices in the lower 48 states, or to the costs of thermal energy alternatives in the South Central region and the rest of Alaska. However, efforts must be undertaken now to assure that alternatives to natural gas exist for electricity generation and to encourage residential natural gas users to anticipate the price shocks through conservation.

Oil production on lands where the state has a royalty interest is expected to decline more than 50 percent by 1997. Total statewide oil production averaged 1.6 million barrels per day (BPD) in 1980. North Slope production accounted for 1.5

million BPD; while the remainder was produced in the Upper Cook Inlet. Overall, oil production on those/North Slope lands in which the state holds at least a partial royalty interest is expected to peak at about 1.7 million BPD in 1990. At the peak, production from the Lisbourne, Flaxman Island and Point Thompson reservoirs will offset declines in the Sadlerochit Reservoir. After this peak, production is expected to decline to about 725 thousand BPD in 1997. At the same time, Cook Inlet production will decline to 14,000 BPD by 1997. The major impact of the decline in oil production will be felt in state revenues, rather than on the availability of petroleum products in the state. Sufficient west coast refinery capacity and the likelihood of increased oil production on non-state lands will likely assure sufficient supplies.

In addition to oil and gas, Alaskans use solid fuels such as coal, wood and peat, as well as renewable energy sources such as hydropower and wind. Vast amounts of the resources exist in Alaska; however, together they supply only six percent of Alaska's current energy needs. This percentage will increase as the costs of existing energy supplies increase.

The transition to alternative energy sources is hampered by a number of factors:

- Not enough is known about regional resource quantity, quality and expected extraction and delivery costs
- Distances between known energy sources and centers of use may be substantial
- Limited, small-scale demand makes economical large-scale resource development unfeasible

The importance of these factors varies dramatically by region.

- In the Bush regions, where less costly energy alternatives are badly needed, little is known about the quantity, quality and costs associated with alternative energy sources. In addition, there is a mismatch between the scale of energy demand and the scale required for local commercial development of alternatives.
- In contrast, the Railbelt regions has abundant supplies of coal, hydropower, and peat as well as demand sufficient to support the large-scale extraction, delivery and conversion. However, the economic attractiveness of these alternatives are not fully determined.

- In the Southeast region, where current energy costs vary dramatically, the costs of extracting, delivering, converting and transmitting alternative energy sources are high.

Making these resources economically viable require an understanding of the range of technologies available to meet Alaska's energy needs. This subject is addressed in the following section.

4. ANALYSIS OF ALASKA'S CURRENT AND FUTURE ENERGY SITUATION POINTS TO A NUMBER OF STATE-SPONSORED ACTIVITIES THAT COULD HELP ALASKANS MEET FUTURE ENERGY NEEDS AT THE LOWEST POSSIBLE COST

Given current data limitations and the limited operating experience of many research development and demonstration projects, it is impossible to chart an all-encompassing long-term course at this time. There is sufficient information available, however, to support a number of low-risk, high-payoff activities. In addition to these activities the state can seek additional information to estimate the benefits and costs of other programs more accurately. Six specific recommendations are highlighted to help the state determine how Alaska's vast energy resources can be most effectively used to meet future needs.

(1) Determine The Attractiveness of Hydropower Projects and Fossil Fuel Power Plants for Satisfying Future Electrical Generating Requirements

In the Extended Railbelt and in some Southeast communities, electricity demand is projected to increase enough to require the addition of substantial new electrical genertion capacity. The major generation alternatives are:

- Hydropower projects
- Coal-fired steam power plants
- Residual oil-fired steam power plants.

Hydropower projects and fossil fuel power plants represent two fundamentally different types of long-term generation alternatives:

- Hydropower Projects--have high construction costs but no fuel costs and relatively low operating and maintenance requirements, as a percentage of installed capital cost.

- Fossil Fuel Power Plants--have lower construction costs but substantial fuel costs and relatively high operating and maintenance costs.

Three major factors drive the variability of hydroelectricity prices, as shown in Exhibit 9:

- The size and location of the project. The upper panel of Exhibit 9 shows the variability in the price of hydroelectricity for four randomly selected hydroelectric projects. The prices shown assume the Governor's proposal for capital recovery of the initial investment.* Some projects (e.g., Tyee Lake) have high prices in the early years, but prices remain relatively flat as demand for electricity keeps pace with inflation adjusted operating costs. Other projects (e.g., Terror Lake) have very competitive electricity prices in the early years, but prices escalate rapidly in later years as growth in demand lags the inflation rate.

- Policies regarding recovery of capital. The middle panel of Exhibit 9 illustrates the variability in electric prices over time as a function of the financing assumptions used. In the example, electricity prices are relatively flat over time under the Governor's capital recovery proposal, but they increase dramatically if the state decides to earn a real return on the money invested.** If the state demands a real return on the capital invested in hydro projects, the price of electricity could triple over 30 years--which would double the price of electricity in later years compared to the Governor's proposal.

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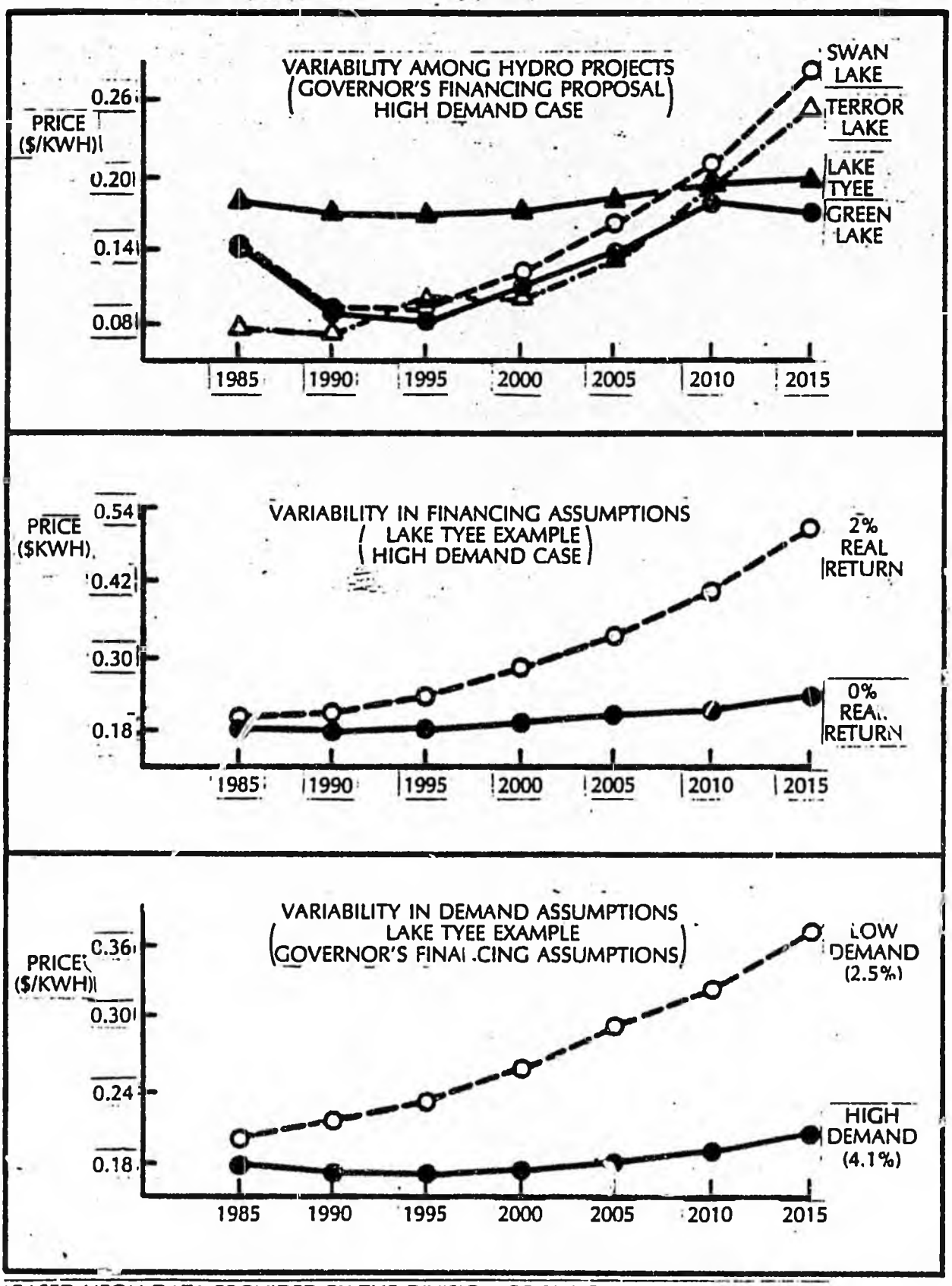
*The Governor's proposed capital recovery approach is a 33 year repayment of the initial investment, plus an inflation adjusted annual repayment of capital based upon the average inflation rate during the preceding 20 years, plus repayment of O&M expenses.

**For example, the state may decide to require a return on hydroelectric projects that equals the return achieved by investing the money in market securities. In today's markets, even "riskless" securities (e.g., Treasury Bills) provide a return greater than inflation.

EXHIBIT 9

FACTORS THAT DRIVE HYDROELECTRICITY IN ALASKA*



*BASED UPON DATA PROVIDED BY THE DIVISION OF BUDGET AND MANAGEMENT, OFFICE OF THE GOVERNOR

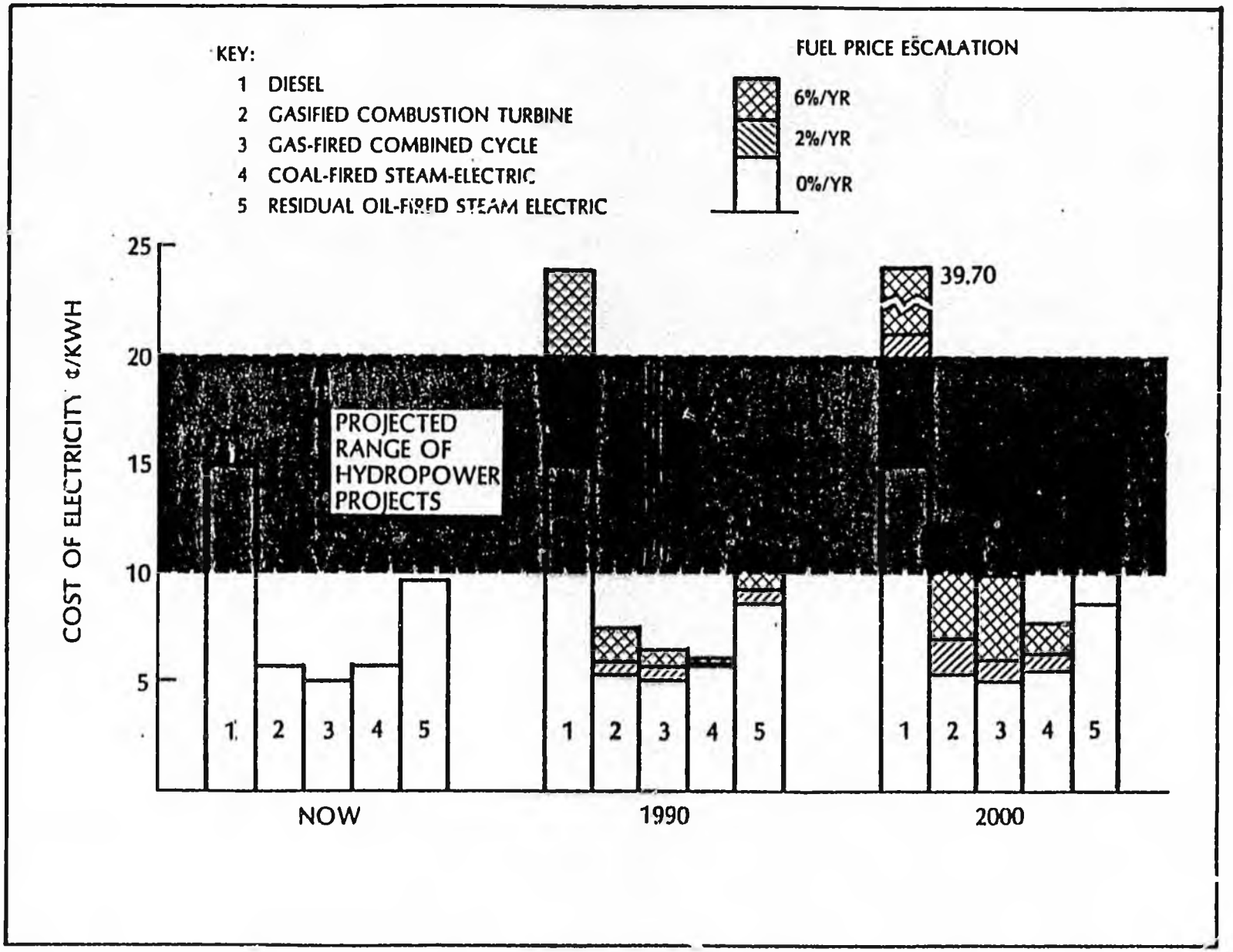
Assumptions about growth in demand. The lower panel of Exhibit 9 shows the effect of demand growth rates on the price of electricity. The high demand case (4 percent annual growth through the year 2015) reflects the historic growth in demand from 1976 through 1980. The high demand case produces lower prices because the greater volume of KWH hours is spread over the same fixed costs. The low demand case (2.5 percent annual growth) reflects the projections of demand growth provided in the feasibility study of Lake Tyee. As can be seen from the lower panel of Exhibit 9, the price of electricity could double by the year 2015, should demand for Lake Tyee hydroelectricity grow at 2.5 percent rather than 4 percent.

Thus, hydropower projects may reduce the risk of escalating fossil fuel prices, but they reduce planning flexibility and are more costly in the mid-term. Even though hydropower projects insulate future consumers from the possibility of high future fossil fuel prices, they represent a substantially higher cost alternative in the near- and mid-term. This situation is illustrated in Exhibit10.

For comparison purposes, hydro electricity prices are assumed to range between 10¢/KW and 20¢/KW--similar to the range for the four projects shown in Exhibit 4--between now and the year 2000. The range is shown as a shaded band in Exhibit10. Currently, all of the fossil-fired generation alternatives, except diesel, compare favorably with projected hydro electricity prices. The relative attractiveness of the fossil-fuel alternatives diminishes by the year 2000, if substantial real rates of price escalation are assumed. However, as shown, coal-fired, steam-electric plants are likely to remain an attractive alterntive to hydropower plants even with substantial price increases.

Viewed from the present, conventional power plans alternatives represent a less risky investment for the state, because less current money is spent and near-term electricity costs can be reduced to a level below both the diesel and hydro alternatives. However, if one believes that conventional fuel costs will escalate rapidly for a substantial period of time, the conventional options may be riskier, because they would expose Alaskans to the risk of escalating fuel prices.

EXHIBIT 10
COMPARATIVE COST OF ELECTRICITY FOR CONVENTIONAL TECHNOLOGY OPTIONS ¢/KWH IN CONSTANT 1982 DOLLARS



SOURCE: BOOZ, ALLEN & HAMILTON ESTIMATES

(2) The State Must Move Quickly to Determine the Economic Viability of Alternative Energy Resources to Lower Energy Costs in the Bush Regions

Energy costs in the bush are high and likely to escalate even higher during the late 1980s. Many resource options appear to offer lower costs than diesel fuel. The state is already moving to develop these alternatives. However, the state should focus more precisely on:

- Determining the costs of extracting and delivering alternative fuels to bush communities, in order to establish economic distances and quantities for resource development

- Determining the quantity and quality of the energy resources within economic distances of the rural communities.

The purpose of these efforts should be to determine the viability of energy resources for individual communities or groups of communities, rather than to simply document the statewide energy resource base.

(3) The State Should Increase Energy Conservation and Energy Efficiency Activities to Meet Near-Term Energy Needs

Over the next five years, substantial reductions in energy use with corresponding reductions in energy expenditures can be achieved through relatively simple energy conservation actions. These improvements are applicable to meeting thermal and electrical needs in all regions of the state. The cost-effectiveness of the measures differs substantially among climate and fuel types.

Specific programs and types of activities include:

- Energy audit and conservation programs can reduce residential thermal losses by up to 40 percent. Average household savings would range between $400 and $800 annually. It is estimated that total energy savings of between $10 and $20 million could be achieved with a state investment of less than $100 million in state funds (assuming the state purchases and installs the conservation measures).

- Increased Generating Efficiency of Small Diesel Power Plants can reduce fuel use by as much as 35 percent. Estimated savings for a typical rural household range from $200 to $400 annually, assuming all reductions in fuel costs were passed on to consumers.

Substitution of advanced fuel oil and kerosene heaters. These heaters can be up to 95 percent efficient, compared with currently popular "drip" oil furnaces which have efficiencies below 50 percent. Shifting to the advanced furnaces can reduce fuel use by 25 to 50 percent and reduce total fuel costs in the average home by roughly $900 per year. If other conservation measures are incorporated in the home first, a new furnace would save only $600, but the total heating bill would be reduced from approximately $2300 to below $1000 as a result of both energy conservation and improved furnace efficiency.

State sponsored demonstration projects must focus on establishing the expected economic performance of those alternative technologies with the greatest promise for meeting mid-term energy needs. At present many efforts are underway to demonstrate the feasibility of alternative technologies in the unique Alaskan environment. These efforts must be viewed as a test of the potential economic attractiveness of the technologies, in addition to demonstrating their technical feasibility. Economic performance criteria must be met or exceeded before technologies and projects receive further emphasis.

(4) Existing State Energy Policies and Programs Must be Assessed to Assure That They Effectively Address the Most Critical State Energy Problems

Alaska has greatly expanded its energy policies and programs over the past few years. Major emphasis has been placed on establishing programs and providing funds for specific energy projects and to directly minimize the impacts of rising prices. The intent of most of these actions is clear; to develop renewable energy resources--primarily hydropower, to assist in the electrification of rural Alaska and to equalize the burden of higher energy prices for all Alaskans.

In many cases the impacts of these programs have not been felt, since most have been in existence for less than two years. The lack of experience makes it difficult to assess the relative effectiveness of the different policies in encouraging the use of Alaskan resources to meet at the lowest reasonable cost, Alaska's thermal, electric and transportation energy needs. However, it is possible to establish a framework for this assessment to provide insights into how effective alternative policies are likely to be.

As highlighted earlier, the types of energy problems facing Alaskans can be reduced to basically three types:

- High costs and/or prices--resulting in high levels of energy expenditures
- Resource exhaustion and capacity constraints--leading to future energy shortages
- Supply vulnerability and reliability--causing short-term emergencies.

Given this structure, it is possible to identify the existence, location, timing, cause and severity of energy problems. For example, the major energy problems identified in Chapters I and II include:

- <u>High costs and/or prices which are</u>:
  - Current electricity costs in the bush
  - Current fuel oil prices in the bush
  - Current electricity costs in rural Southeast Communities
  - Mid to long term natural gas prices in the South Central region
- <u>Resource exhaustion and/or capacity constraints, which are:</u>
  - Cook inlet natural gas in the long term
  - Long-term electrical generation capacity in the Extended Railbelt
  - Long-term electrical generation capacity in the urban areas of the Southeast
- <u>Supply vulnerability and reliability, which are:</u>
  - Current fuel supplies to bush communities
  - Reliability of current electrical generation and distribution in the bush.

Existing and proposed state polices can be quickly assessed to see which type of problem they address, and their relative effectiveness in solving specific energy problems can utilimately be evaluated.

For example, the Power Cost Assistance Program subsidizes 95 percent of the price of electricity above 12¢/KWH but not exceeding 45¢/KWH. This program was initiated to minimize the hardship of transition from expensive diesel generated electricity to cheaper alternatives. In so doing, however, the symptom is being treated rather than the cause--which in itself is not an improper policy goal--but the likely outcomes of this program may not encourage the required increased generation efficiency or the subsitution of lower cost generation alternatives. As illustrated in Exhibit11 and explained more fully in Chapter IV, a consumers electrical bill may in fact rise as a result of this subsidy program. Because of the substantially lower effective price faced by the consumer, demand may increase significantly and the state would end up with an expense of over $2000 annually.

Clearly, this is an expensive way for the state to mitigate the impacts of higher diesel fuel prices and encourage increased electricity use in the bush, since inefficiencies develop when consumers do not base their decisions on actual costs of production.* Because of the state's third party payment, consumers will not see the total electricity consumption and utilities would see little decline in sales if they raised prices up to 45¢/KWH. In that sense the test of the marketplace is removed from the transaction between utilities and their customers. Less pressure exists for utilities to be productive and for consumers to be efficient in their electricty consumption.

Similarly, inefficiencies may result, and the state would not achieve the lowest costs possible, when one electrical generation source--hydropower--is given favorable financial treatment over another alternative--coal. As was discussed above, a coal-fired steam power plant may be the lowest cost near term alternative source of electricity. However, if hydropower projects received subsidized financing--i.e., less than the market rate of return--hydroelectricity may actually be "priced" more cheaply than electricity generated from coal. This lower "price" results not from lower "costs" of generation, but rather, from the subsidy being given to electricity consumers by the state.

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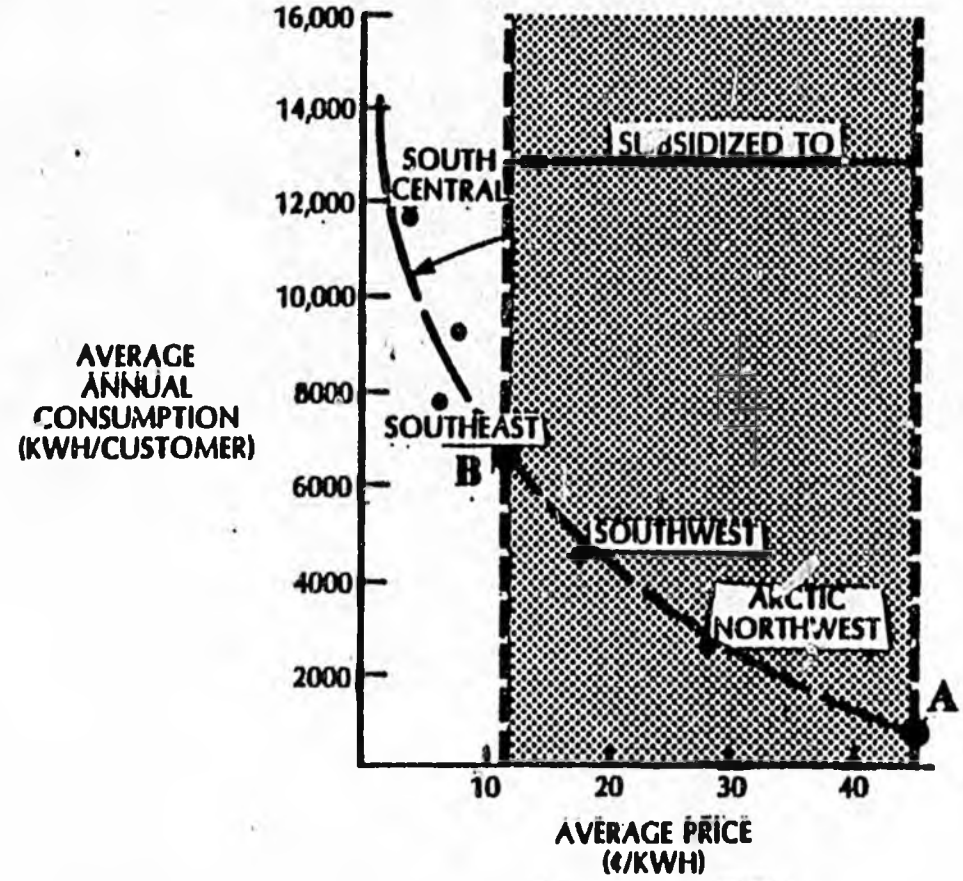
*It must be noted that increased electricity sales may result in improved diesel utilization which would have a beneficial impact on unit costs. However, this impact is expected to be very small relative to the total state subsidy.

EXHIBIT 11

COMPARISON OF RESIDENTIAL ELECTRICITY PRICES AND USE



FOR A "TYPICAL" COMMUNITY

PRICE (¢/KWH)	QUANTITY (KWH/COST.)	ANNUAL COST ($/CUSTOMER)
5.0	10,280	515
10.0	7,300	730
12.0	6,500	780
15.0	5,560	830
20.0	4,320	860
30.0	2,580	770
[illegible]	840	380

AFTER SUBSIDY APPLIED:

- CUSTOMER BILL INCREASES FROM $380 TO $780
- SUBSIDY PAID BY STATE EQUALS $2015 ($0.31/KWHX6500 KWH)

REGRESSION EQUATION: Y = 17,200-4300 LN (P); $R^2$0.71

SOURCE: AP ADMIN.; REGRESSION BASED UPON DATA FROM OVER 70 COMMUNITIES

As discussed above, if the probem being addressed is the lack of future electrical generation capacity in the Extended Railbelt and Southeast regions, all options should be evaluated on a consistent basis. If substantially different financing assumptions are used for each alternative, their true relative costs may not be fully understood and the state may undertake projects that do not provide the lowest energy costs.

(5) Next Year's Long Term Energy Plan Report Must Provide the Strategic Context for Energy Planning in the State

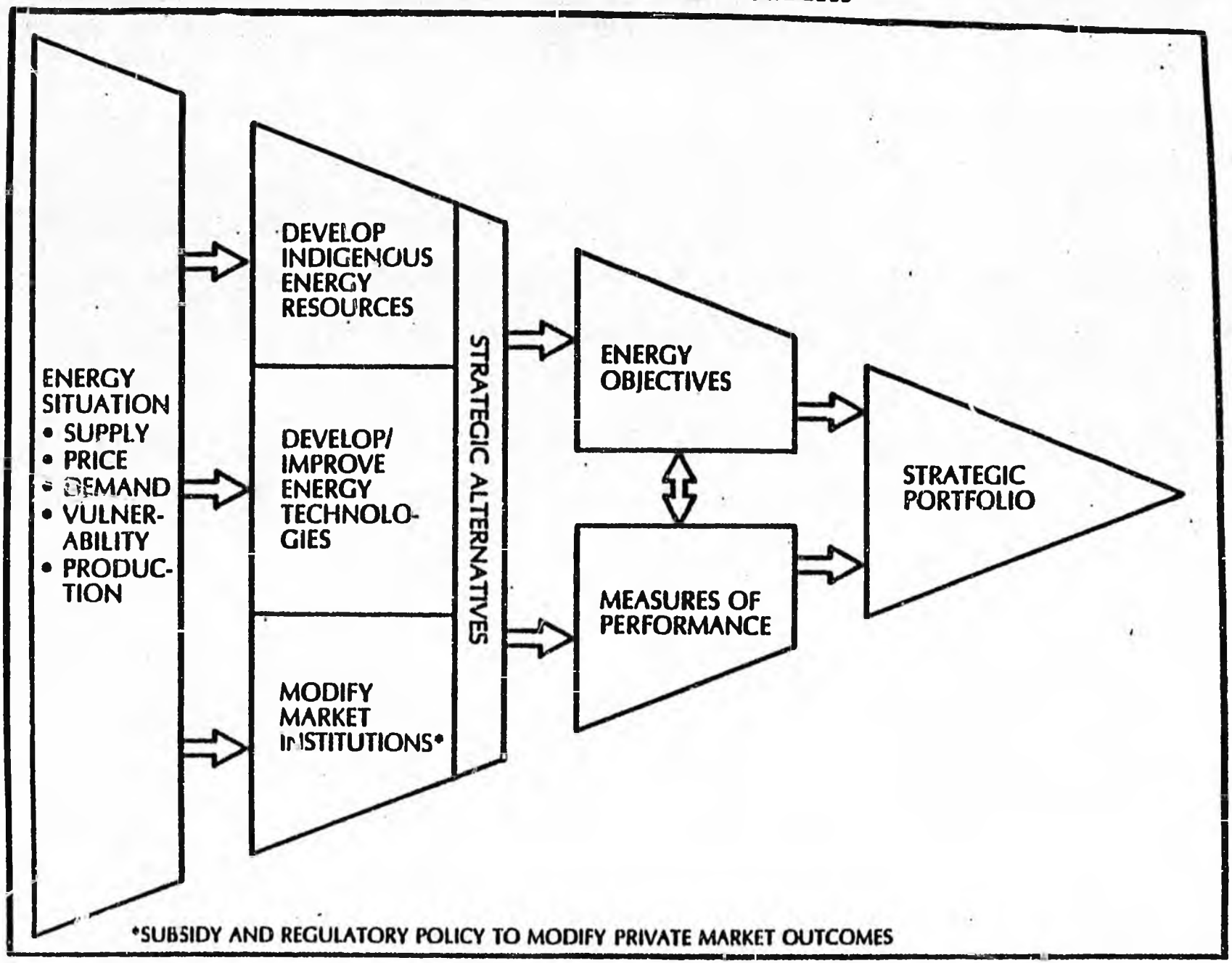
Many of the items addressed above emphasize the need for a statewide strategic energy plan. This years report addressed many of the requirements of a strategic plan, but it did so in an uneven manner due to data limitations and time constraints. Exhibit 12 illustrates the key elements of a strategic energy planning process for the state. The elements and their roles include:

- Energy Situation--which highlights the types of energy problems facing the state in the near, mid and long term
- Strategic Alternatives--which respresent the basic program and policy alternatives available to the state
- Energy Objectives--which represent the consensus of Alaskans regarding the most desirable energy future for the state and are used to evaluate strategic alternatives
- Measure of Performance--which can be used as a basis for evaluating the performance of strategic alternatives
- Strategic Portfolio--which represents the "best" set of energy energy resource and technology development activities, as well as the most attractive subsidy and regulatory policies.

While each of these elements have been addressed to the extent possible in this year's report, substantial refinements are needed to produce a definitive 1983 report. The requirements for refining each of these elements during the next year are discussed more fully below.

EXHIBIT 12

STRATEGIC ENERGY PLANNING PROCESS



- Analysis of Alaska's Energy Situation is Critically Dependent Upon the Development of a "Bottoms-up" Picture of Regional Energy Needs. Because of the variability in energy problems across the state it is necessary to define the energy problems and available strategic alternatives on a regional or community basis. Reliable regional data are necessary for the estab- lishment of sound and effective programs which address the specific energy needs of each region. To date, much of the states energy use data has been collected independently within many private and government agencies and compiled at the statewide level, in turn, with regional estimates often derived from the aggregate state data.

  Regional data fabricated from statewide data are of limited usefulness when policy and program decision making requires a higher level of understanding as to what is actually taking place within each region. For example, to set reasonable program objectives for subsidizing rural electricity rates or for assisting in the purchase of bulk fuel storage capacity for rural communities, the state should have better information on the current energy needs of each rural community. Currently this information is sketchy at best.

  These village specific and regional data needs could be vastly improved through the upgrading and expansion of DEPD's Rural Community Energy Survey. This survey could be modified slightly and supplemented by a regular field sur- vey conducted by state energy personnel. The modified/supplemented DEPD survey would form the nucleus of a comprehensive state regional energy data base.

- Strategic Alternatives Must be Accurately Characterized. This year's, report provides estimates of the cost and energy savings for many of the resources and technologies under consideration. Actual data based on Alaskan experience is incomplete and needs to be improved. In addition, specific evaluations of the impacts of subsidy programs such as the Power Cost Assistance Program, discussed earlier in this chapter, should be undertaken to better understand actual program impacts.

- Greater Emphasis Must Be Placed on Clearly Specifying Energy Objectives and Developing Measures of Performance. Collectively, existing state energy programs implicitly define Alaska's energy objectives. However, without a more explicit

definition of the State's economic and energy development objectives, a basis for resolving policy and program conflicts will not exist. Furthermore, without this definition the measure of whether or not a particular policy best meets the state's energy resource development and use needs are by definition impossible to measure. The net result is an under directed approach to program implementation with a high likelihood for misallocation of state resources.

A Formal Evaluation Process Must be Undertaken To Establish the Relative Importance of the Strategic Alternatives. Currently, the state lacks a systematic approach for the review and prioritization of all energy programs and technology projects. To ensure the state funds are spent most effectively, it should develop and implement a consistent and economically rational methodology for evaluating and comparing energy programs and projects. The evaluation of energy programs, such as energy conservation grants, should take into account the following:

- Program costs or expenditures including administration costs

- Program benefits or impacts either qualitative -- number of home receiving assistance and type or assistance received of quantitative -- the actual level of reduction in energy use

Technical evaluations of projects such as wind machine demonstrations should include the following:

- Total costs of the project and the state's share

- Construction, operating, and maintenance costs

- Data on the project's performance and reliability.

Given this type of information, it will be possible to calculate expected energy costs and expected total energy impacts for different programs and projects. Their relative benefits and cost can be compared and they can be matched explicitly with state energy objectives.

The strategic planning process outlined above will provide the state with an objective system for assessing likely program benefits and evaluating program results. This planning process should involve an independent review of major programs and projects and should measure progress against clear quantifiable objectives.

The state's energy policy and program activities appear comprehensive -- covering all functional aspects of energy program planning and development. However, given the recent rapid increase in energy policy and program activities the state should undertake a consistent and economically rational approach for an evaluation of existing energy programs and projects with the objective of modifying them to more effectively meet overall state energy goals.

* * * * *

This section has presented the key findings and recommendations of the 1982 Report on the State of Alaska Long Term Energy Plan. The main body of the 1982 report follows. It addresses each of the areas required in the legislation and is organized in the following manner:

- Chapter I - Current and Projected Energy Use--which examines the amount and purpose of energy use in the state and the prices of different energy sources.

- Chapter II - Energy Supplies and Resources--Which documents existing and projected energy supplies and their potential applicability for meeting projected energy needs and lowering energy costs

- Chapter III - Regional Technology Options--which presents an analysis of the potential energy savings for those technology options including conservation measures, that have the lowest costs for meeting near, mid and long term state energy needs

- Chapter IV - State Energy Programs and Policies--which reports on current state energy activities and provides recommendations for program modifications and additions, including those dealing with the possibility of energy emergencies.


SB
658

COMMITTEE REPORT

SENATE

FURTHER: Finance

1/14/82

Date: 2/15/82

Mr. President:

The Committee on RESOURCES has had SB 658

increasing the fees for a commercial fishing license

under consideration and (a majority of the committee) (the committee) reports it back with the following recommendations:

[ ] do pass [ ] do not pass

[ ] do pass with attached amendments(s)

[ ] replace with CS for _____ [ ] same title [ ] new title

and recommends _____

[ ] AND attaches a "Letter of Intent" [ ] New Fiscal Note

[ ] reports it back without recommendation

[ ] referred to the _____ Committee

MEMBERS SIGNING
DO PASS

MEMBERS HAVING
OTHER RECOMMENDATIONS:

_____

CHAIRMAN

S 60 (Rev. 12/78)

LEGISLATION SUMMARY

HB 554: "An Act increasing the fees for commercial fishing licenses; and providing for an effective date."

Sec. 1: Changes the resident commercial fishing license fee from $10 to $15. Changes the nonresident fee from $30 to $45.

Sec. 2: Effective date retroactive to January 1, 1982.

PRIME SPONSOR: Malone

CO-SPONSOR(S): None

SB658

Alaska State Legislature

House

JUNEAU, ALASKA

14-4
yes

MESSAGE TO THE SENATE

Date May 17, 1982

MR. PRESIDENT:

The House has passed SB 658(efd added) (increasing the fees for a commercial fishing license; eff. date) with the following amendment:

HCSSB 658(Res)amH "An Act relating to fees for licenses and permits for commercial fishing; and providing for an effective date."

(29-1)

Emyloue Lloyd

Chief ~~Clerk~~ of the House

SENATE RESOURCES COMMITTEE
LEGISLATION CHECKLIST

BILL NUMBER SB 656

IDENTIFICATION:

BILL NAME: increasing the fees for a commercial fishing license

SPONSOR(S): Labor + Commerce

RELATED BILLS PENDING: HB554 - 3/4/82 ✓ HB554

DATE INTRODUCED: 1-14-82

REFERRALS Resources, Finance

INITIAL RESEARCH:

INITIAL BILL SUMMARY COMPLETED ✓ 2 stats
Bill summary HB 554 ✓

SUMMARY BY LEGAL DIVISION:
DEPT. OF LAW SUMMARY:

SPONSOR CONTACTED FOR BACKUP MATERIALS:

FISCAL NOTE:

AGENCY RESPONSE:

OTHER INTERESTED SENATORS OR REPS. NOTIFIED:

BACKGROUND RESEARCH:

SIMILAR BILLS INTRODUCED IN PREVIOUS LEGISLATURES:

RESPONSES FROM INTERESTED PERSONS AND/OR GROUPS.

OTHER STATE OR FEDERAL PRECEDENTS, REGULATIONS, LAWS:

HEARING PREPRATION:

CHAIRMAN BRIEFED:

DATE AND PLACE SET:

STAFF MEMO TO COMMITTEE:

TELECONFERENCE

BACKGROUND MATERIAL DISTRIBUTED

PSA/PRESS RELEASE

LIST OF WITNESSES:

SUGGESTED AMENDMENTS/CS DRAFTED:

LEGISLATION SUMMARY

SB 658: "An Act increasing the fees for a commercial fishing license."

Sec. 1: Changes the resident commercial fishing license fee from $10 to $30. Changes the nonresident fee from $30 to $90.

PRIME SPONSOR: Labor & Commerce

Alaska State Legislature

BETTYE FAHRENKAMP, CHAIRMAN
VIC FISCHER, VICE-CHAIRMAN
BRAD BRADLEY
DICK ELIASON
DON GILMAN
BOB MULCAHY
ARLISS STURGULEWSKI

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

Senate

Committee on Resources

DATE: Janaury 18, 1982

TO: Bob Mulcahy
Chairman
Fisheries Subcommittee

FROM: Bettye ~~Fahrenkamp~~
Chairman
Senate Resources Committee

The following bill has been referred to the Senate Resources Committee:

SB 658 An Act increasing the fees for a commercial fishing license.

I am assigning it to the Fisheries Subcommittee for your Subcommittee's consideration.

cc: Members Senate Resources Committee

Alaska State Legislature

Senate

JUNEAU, ALASKA

RESOURCES SUBCOMMITTEE ON FISHERIES

February 1, 1982

TO: Senator Bettye Fahrenkamp, Chairman
Senate Resources Committee

FROM: Senate Resources Subcommittee on Fisheries

SUBJ: SB 658 "An Act increasing the fees for a commercial fishing license."

The subcommittee has taken testimony and reports SB 658 back to the committee as a whole with the following recommendations.

Members	Recommendation
Senator Mulcahy	
Senator Eliason	"
Senator Gilman	Do Pass

SENATE AMENDMENT

By Senate Resources Committee

To: _____ SENATE BILL No. 658

To: _____ HOUSE BILL No. _____

PAGE: 1 LINE: 20

Add new section: *Section 2. This Act takes effect January 1, 1983.

This amendment needed by the Department of Labor because commercial licenses are sold by the calendar year.

Bill No. Senate Bill 658

Date January 21, 1982

Title "An Act increasing fees for a commercial fishing license."

Contact: Judy Knight 465-2700
Elaine VanderSande
465-2766

The Department of Labor recommends passage of Senate Bill No. 658 increasing fishing license fees to $30 per resident and $90 per nonresident from the present $10 and $30 in order to increase revenue to the Fishermen's Fund through its 60% portion of the fees.

The purpose of Fishermen's Fund is to relieve fishermen of some of the accident or occupational illness burden of commercial fishing. Due to inflation and increased usage of the Fund, expenditures have risen above revenues in yearly escalating amounts since FY 79 despite restriction on costs imposed by the Fishermen's Fund Advisory and Appeals Council. The Fund balance on January 13, 1982 was down to $278.1.

In November 1981 the Fishermen's Fund Advisory and Appeals Council recommended increasing revenues by (1) payment to Fishermen's Fund of 60% of all money collected for license fees as a portion of limited entry permits (including duplicate permits), and (2) increasing license fees to $20 per resident and $60 per nonresident.

With passage of Senate Bill No. 658, Fishermen's Fund will be able to continue assisting commercial fishermen and will be able to again pay some optional costs which have temporarily been suspended, such as transportation to return the fisherman from the medical facility, extensions above maximum limits, and assistance after discharge from the hospital (convalescence benefits). The Fund would then fulfill the intent envisioned with its implementation in 1951.

Without passage of Senate Bill No. 658, Fishermen's Fund will be insolvent, and probably the law should be repealed.

FISHERMEN'S FUND BALANCE PROJECTIONS WITH LEGISLATION
(Actual figures above dividing line; estimates below)

	July 1 Starting Balance	Adjustment	Receipts	Expenditures	June 30 Ending Balance
FY '79	$ 698.5	$	$ 393.2	$ 364.3	$ 727.4
FY '80	727.4	65.7	402.3	461.7	602.2
FY '81	602.2	29.7	409.8	502.5	479.9
FY '82	479.9	48.7	410.0	650.0 (200.0 G.F.)	391.2
FY '83	391.2		877.6	765.0	503.8
FY '84	503.8		1,230.0	880.0	853.8
FY '85	853.8		1,230.0	1,000.0	1,083.8

POSITION PAPER/Department of Labor

FISHERMEN'S FUND BALANCE PROJECTIONS WITH LEGISLATURE

			July 1 Starting Balance	Year End Adjustment	Receipts	Expenditures	June 30 Ending Balance
	FY	79	698.5		393.2	364.3	727.4
	FY	80	727.4	(65.7)	402.3	461.7	602.2
ACTUAL	FY	81	602.2	(29.7)	409.8	502.5	479.9
	FY	82	479.9	(48.7)			
	FY	82			410.0	650.0[1]	391.2
	FY	83	391.2		877.6	765.0	503.8
	FY	84	503.8		1,230.0	880.0	853.8
License	FY	85	853.8		1,230.0	1,000.0	1,083.8
Fees	FY	86	1,083.8		1,230.0	1,100.0	1,213.8
$30/90	FY	87	1,213.0		1,230.0	1,210.0	1,233.0
	FY	88	1,233.0		1,230.0	1,331.0	1,132.0
	FY	89	1,132.0		1,230.0	1,464.0	898.0
	FY	90	898.0		1,230.0	1,610.4	517.6
	FY	91	517.6		1,230.0	1,771.4	(23.0)
	FY	82			410.0	650.0[1]	391.2
License	FY	83	391.2		643.8	765.0	270.0
Fees	FY	84	270.0		820.0	880.0	210.0
$20/60	FY	85	210.0		820.0	1,000.0	30.0
	FY	86	30.0		820.0	1,100.0	(250.0)

1 Includes $200.0 General Fund

These projections assume:

Legislation increasing license fees takes effect January 1, 1983.

The number of fishermen licensed will not change significantly; thus receipts will remain constant.

The number of claims filed will increase yearly through FY '85 primarily due to withdrawal of U. S. Public Health Service coverage. After FY '85 the number of claims and expenditures will stabilize with increased costs of 10% for inflation only.

The cost per claim will rise in FY '83 and '84 because optional benefits will be allowed which presently have been restricted. (The Fishermen's Fund Advisory and Appeals Council monitors the condition of the Fund in determining benefits which will be allowed.)

EVS:kmb
L:56

STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

DEPARTMENT OF LABOR

OFFICE OF THE COMMISSIONER

P. O. BOX 1149 · JUNEAU, ALASKA 99811
Phone: 465-2700

January 20, 1982

Mr. Michael Thill
Administrative Assistant
Senate Labor & Commerce Committee
Pouch V
Juneau, AK 99811

Dear Michael:

You requested information on Fishermen's Fund concerning the number of claims, benefit costs, projected claims cost, and revenue projections. Elaine VanderSande, Fishers' Fund Officer, and I have worked together to provide our best guess at the estimates and projections you have requested.

Number of Claims

ACTUAL				PROJECTIONS			
FY 79	FY 80	FY 81	FY 82*	FY 82	FY 83	FY 84	FY 85
1,615	1,678	1,621	792[1]	1,700	1,900	2,100	2,350

Expenditures for Claims

FY 79	FY 80	FY 81	FY 82*	FY 82	FY 83	FY 84	FY 85
$288.2	$408.4	$459.5	$262.1[2]	$550.0	$650.0	$750.0	$875.0

Administrative Costs[3]

FY 79	FY 80	FY 81	FY 82*	FY 82	FY 83	FY 84	FY 85
$100.9[4]	$73.0	$91.7	$48.0	$100.0	$110.0	$125	$133

* Number of claims, expenditures, and costs reflect actuals through December 31, 1981.

The following revenue information has been prepared. Actual revenue receipts are as follows:

	FY 79	FY 80	FY 81
	$393,186	$402,228	$409,842
Revenue from Permits :	$151,074	$165,702	$151,056
Revenue from Licenses:	$242,112	$236,526	$258,786

7-39LH

Projected Revenue

	FY 82	FY 83	FY 84	FY 85
Under Existing Statutes	$ 410.0	$ 410.0	$ 410.0	$ 410.0
SB 658 Proposal	$ 410.0	$ 877.6	$1,230.0	$1,230.0
SB 658 Proposal With Interest[5]	$	$ 15.1	$ 26.1	$ 26.9

Listed below is an estimate of Fishermen's Fund balances reflecting actuals through FY 81 and estimates for receipts assuming Senate Bill 648 becomes law. Balances do not include interest.

FISHERMEN'S FUND BALANCES

	July 1 Starting Balance	Adjustment	Receipts	Expenditures	June 30 Ending Balance (without interest)
FY '79	$ 698.5	$	$ 393.2	$ 364.3	$ 727.4
FY '80	727.4	65.7	402.3	461.7	602.2
FY '81	602.2	29.7	409.8	502.5	479.9
FY '82	479.9	48.7	410.0	650.0	391.2
FY '83	391.2		877.6	765.0	503.8
FY '84	503.8		1,230.0	880.0	853.8
FY '85	853.8		1,230.0	-1,000.0	1,083.8

Figures below the horizontal line are all estimates and were used to calculate interest.

As I discussed with you on the phone, the Department, at the Council's request, investigated the feasibility of interest being credited to the Fund. This was also discussed with Legislative Audit in 1979. Reference should be made to the annotations in AS 37.05.155 and Attorney General's Opinion No. 5, 1969 (enclosed). Also enclosed is Section 6554 of the State Administrative Manual for your reference.

I hope this is the information you requested. We will be happy to discuss with you or Troy. Please give us a call. Thanks for your interest and concern.

FOOTNOTES

1 Actual number of claims filed through January 1, 1982. The number of claims have not reflected the sharp rise anticipated as a result of the withdrawal of U.S. Public Health Service coverage of fishermen. One contributing factor is low crab stocks resulting in curtailment of crab fishing this year. Additionally, some medical facilities particularly in Dutch Harbor and Kodiak have been reluctant to accept Fishermen's Fund claims after Council adopted a policy of referring fishermen on vessels with protection and indemnity insurance coverage to that coverage. This policy of denying Fishermen's Fund coverage to this group has been abandoned.

2 Dut to shortage of funds, the Fishermen's Fund Advisory and Appeals Council sharply restricted optional coverage such as extension of limits, transportation costs, and convalescence benefits which have resulted in lower total claims costs.

3 Administrative costs have been projected and estimates prepared using a 10% inflation factor. Fiscal Year 1984 includes some equipment replacements.

4 Includes some claim costs.

5 Assumes interest rate of 6% based on one half of projected fund balance as of June 30 of each year, beginning June 30, 1983.

6 Expenditures include $200.0 in General Funds; therefore, only $450.0 was subtracted from Fishermen's Fund revenue.

Sincerely,

Judy Knight

Judy Knight
Special Assistant
to the Commissioner

JK:kmb
j:20

Enclosures

Money belonging to the State is either in the Treasury or outside of the Treasury. Money outside of the Treasury consists of collections temporarily retained by agencies in local depositories pending transmittal to the Department of Revenue and money retained by public corporations in local depositories as a result of statutory authority.

Money in the Treasury belongs to the General Fund or special funds. All deposits are credited to the General Fund unless the law requires that they be credited to a special fund.

6554 - INVESTMENTS (7-69)

Investments may be held in the name of a fund only if the law establishing the fund authorizes investments. If the law establishing a fund does not provide for investments, investments may not be held in the name of that fund.

Income on investments may be credited to a fund only if the law establishing the fund provides for crediting investment income to it. If the law establishing a fund does not provide for crediting it with investment income, any investment income must be credited to the General Fund.

Whenever the law establishing a fund authorizes investments and provides for the disposition of investment income, the fund is referred to as a specifically invested fund. A specifically invested fund, therefore, is a fund for which there is specific statutory authority both as to the investment of excess cash and the application of investment income.

Only a few funds are specifically invested. Monies on deposit in other funds are invested with other excess cash in the State Treasury and earn income which is credited directly to the General Fund.

All investments held must be of a type authorized by law. For instance, if the statute setting up a fund provides that excess cash may be invested in obligations of the United States, then U. S. Treasury obligations are the only investments that may be held by that fund. That fund cannot be invested in corporate stocks and bonds.

6555 - FORMAT (7-69)

The remaining sections of this part of the manual consist of information on the principal funds on deposit in the State Treasury. The format in which information is presented is outlined below:

> A separate section presents the fundamentals of each fund. Following the section number is the name which the fund is commonly called. Following this a summary of pertinent matters under the following headings and subheadings is presented.

TABLE 1

FISHERMEN'S FUND

REVENUES EXPENDITURES AND CASES

1976 - 1982

Fiscal Year	Revenues	%Increase over 1976	Expenditures	%Increase over 1976	Total Cases	%Increase over 1976	Total Approved	%Increase over 1976
1976	214,950	n/a	143,788	n/a	629	n/a	534	n/a
1977	246,258	14.6	185,084	28.7	757	20.3	741	38.8
1978	321,432	49.5	265,331	84.5	1006	59.9	900	68.5
1979	393,186	82.9	326,886	127.3	1615	156.8	1399	162.0
1980	402,228	87.1	336,840	134.3	1678	166.8	1459	173.2
1981	409,842	90.6	461,052(P)	220.6	1625(P)	158.3	1400(P)	162.2
1982	418,000(E)	94.5	923,400(E)	542.2	3255(E)	417.5	2832(E)	430.3

(P) Preliminary

(E) Estimated

STATE OF ALASKA
THE LEGISLATURE

LEGISLATIVE AFFAIRS AGENCY

POUCH Y - STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

M E M O R A N D U M

January 5, 1982

SUBJECT: Alteration of the dedication to the fishermen's fund (Work Order No. 12-2135)

TO: Senator Bob Mulcahy

FROM: Edward H. Hein
Legislative Counsel

You have asked whether it is permissible under the Alaska Constitution to provide that 60 percent of the fees for renewal of limited entry permits and interim use permits be dedicated to the fishermen's fund (AS 23.35.150).

The short answer is that such a change would amount to an unconstitutional expansion of a dedication, in violation of Article IX, Sec. 7. However, it would be permissible to increase the amount of the commercial fishing license fee and the percentage of that fee sent to the fishermen's fund. Furthermore, the amount paid by a fisherman for a commercial fishing license could be credited toward payment of a crew member license, a limited entry permit or an interim use permit, as is provided under current law.

Article IX, Sec. 7 provides:

> The proceeds of any state tax or license shall not be dedicated to any special purpose, except as provided in section 15 of this article or when required by the federal government for state participation in federal programs. This provision shall not prohibit the continuance of any dedication for special purposes existing upon the date of ratification of this section by the people of Alaska.

The fishermen's fund was established in 1951 (sec. 4, Chapter 100, SLA 1951) and was "grandfathered in" under the second sentence of Article IX, Sec. 7 because the fund

existed upon the date of ratification of the Alaska Constitution (April 24, 1956).

No Alaska Supreme Court case has prescribed the manner and extent to which a dedicated fund, or the tax or license upon which it is based can be altered by the legislature. Several Opinions of the Attorney General have discussed this question. Op. Atty. Gen., Nos. 7, 9, 14, (Alaska 1959); Op. Atty. Gen., No. 9 (Alaska 1975); Op. Atty. Gen., No. 22 (Alaska 1978). The opinions uniformly concluded that the legislature may not increase or decrease the rate of the dedication or the amount of the tax or license fee from which the dedicated revenues are derived. The opinions further concluded that a dedication cannot be altered so as to include new or additional sources of revenue. In other words, according to the Attorney General, the dedication is frozen in exactly the form and amount as existed upon the date of ratification of the constitution. In its most recent opinion on the subject, however, the Attorney General's office has reversed its view in part and concluded that the legislature may increase or decrease the amount of the tax or license fee from which a dedication is derived without violating Article IX, Sec. 7. Op. Atty. Gen., June 30, 1981 (Alaska).

A close rereading of the Minutes of the Constitutional Convention indicates that the Committee on Finance and Taxation, which drafted Article IX intended to allow the legislature to increase or decrease both the rate of an existing dedication and the amount of the tax or license fee from which the dedication was derived.

During the floor debates on the constitution, Delegate Ralph Rivers proposed to amend Article IX, Sec. 7 so as to delete the phrase, "the continuance of" from the second sentence of the section. In proposing the amendment, Delegate Rivers apparently assumed that the continuance of a dedication after ratification of the constitution meant that the dedication was frozen at the exact rate and in the exact amount that existed on the date of ratification.

> R. RIVERS: . . . I'm in accord with their idea of not letting any more allocations come along, but when you say 'continuance of' allocations I immediately think of the rate of allocations as well as the subject matter.

Then Delegate Steve McCutheon said:

> The principle behind this sentence is not that the rates are frozen, it is the principle of allocating earmarked funds. It is not a matter of percentage-wise, it is a theory of earmarked funds and I can't see his [R. Rivers] argument in this by striking out "continuance". He proposes that this is going to cure the proposition of a freeze. He thinks it is a freeze. It is not a freeze in any respect of the word as far as I can see; it is a matter of a theory of earmarked funds and doesn't have anything to do with dollar and cents or percentages.

Then Delegate Barrie N. White responded to Delegate Victor River's request for a statement of the intent of the Committee on Finance and Taxation. Mr. White, a member of that committee, answered:

> "WHITE: I think I can answer for all the Committee on that, Mr. Rivers. It is not the intent of the Committee that this be interpreted to mean a freeze in any way, shape, or form. The Committee feels that the objections raised by Mr. [Ralph] Rivers are covered by the existing language. The reason of the Committee resists the deletion of the words 'continuance of' is that it would then mean that the legislature could discontinue a presently earmarked fund next year and then 50 years from now bring it back into being. We do not intend that that be the case.
>
> "V. RIVERS: If you are not freezing an amount, could they raise an existing allocation under this? On the gasoline tax could they raise that to six per cent according to your thinking on this?
>
> "WHITE: Certainly they could.
>
> "V. RIVERS: If they lowered it down to three could they then reenact two more after that?
>
> "WHITE: The Committee intends that this not have any reference to rates at all. The Committee intends that this apply to the allocation of particular taxes to a particular purpose and no more than that.

> "V. RIVERS: I just wanted this in the record. Now if they wipe it out altogether, discoutinue it, it's gone forever, is that right?
>
> "WHITE: That is right.
>
> "V. RIVERS: But if you discontinue half of it, you can raise it back up?
>
> "WHITE: That would mean that."

4 Minutes, Alaska Constitutional Convention, 2404 - 2405.

Immediately following this discussion, Ralph River's proposed amendment was rejected by voice vote of the body. Earlier in the day, Delegate Maurice Johnson had proposed a similar amendment which would have deleted the phrase "prohibit the continuance of" and would have inserted the words "apply to". During discussion of that amendment, Delegate Leslie Nerland, said:

> Mr. President, I think I can speak for at least the majority of the Committee [on Finance and Taxation], perhaps the whole Committee, but we would oppose this amendment because it was the intention of the Committee that the present allocated earmarked funds be allowed until such a time as they might be removed from the books but it was not our intention that they be removed and put back in again at some later date, so we would oppose that and any other change of wording that would allow that.

4 Minutes, Alaska Constitutional Convention, 2383 - 2384.

This passage reinforces the statement of Delegate White that the intention of the Committee on Finance and Taxation in using the phrase "continuance of" was only to assure that if a dedication were completely discontinued, it could not be reinstated years later merely because it had been in existence on the date of ratification of the constitution.

Thus, according to members of the committee that drafted Article IX, Sec. 7 was intended to prevent alteration of the particular source of revenue and the particular purpose for which that revenue was being dedicated, but no more than

that. Thus, the phrase "all commercial fishermen's licenses" is limited to the meaning it had at the time the constitution was ratified. At that time, there was only one type of commercial fishing license in Alaska. 1949 ALCA secs. 39-4-17 - 39-4-18.

Today, the "commercial fishing license" still exists in AS 16.05.480. The limited entry permit and the interim use permit are licenses different from the "commercial fishing license". The limited entry permit and interim use permit are the successors to the gear license, established in 1959 (sec. 8, Article 3, Chapter 94, SLA 1959), and repealed in 1978 (sec. 19, Chapter 105, SLA 1977). Permit holders are required to purchase a "commercial fishing license" under AS 16.05.480. The money paid for the commercial fishing license by the permit holder is credited toward the renewal fee for the permit (AS 16.43.160(a)).

Thus, the phrase "all commercial fishing licenses" in AS 23.35.150 does not include limited entry permits or interim use permits. In my opinion, expanding the definition of "all commercial fishing licenses" to include limited entry permits and interim use permits would be to alter the source of revenue from which the dedication to the fishermen's fund is derived, in violation of Article IX, Sec. 7.

Based upon the discussion in the Minutes of the Constitutional Convention, including the statements of two members of the Committee on Finance and Taxation, I conclude that the legislature is constitutionally permitted to increase or decrease the rate of the dedication to the fishermen's fund, and the amount of the fee for a "commercial fishing license". It should be noted that the commercial fishing license fee for nonresidents was increased in 1966 from $15 per year to $30 per year (sec. 1, Chapter 93, SLA 1966). If it is unconstitutional to increase the amount of the license fee, then the state has been in violation of Article IX, Sec. 7 for the past 15 years.

Finally, I should again emphasize that the Alaska Supreme Court has not ruled on the question of the manner and extent to which the legislature can alter a dedication that existed on the date of ratification of the Alaska Constitution. Furthermore, the Court has previously held that opinions of

individual members of the constitutional convention generally are not considered to be a safe guide in ascertaining the purpose of a majority of the convention when adopting a particular provisions. But reports of committees and statements of chairmen of such committees stand on a more solid footing, and may be resorted to in determining the intent of the enacting body. Starr v. Hagglund, 374 P.2d 316 (Alaska 1962). I am not certain what weight the Court would give to the statements of Delegates White and Nerland, who were members of the Committee on Finance and Taxation, but neither of whom was chairman. In my opinion, the statements of Nerland and White, who asserted that they were speaking before the body on behalf of the whole committee, should be weighted heavily by the Court when interpreting the meaning of Article IX, Sec. 7.

EHH:ljb

commissioner shall make monthly remittances of the fees collected to the proper state official. The commissioner is not liable for defalcation or failure to account for the fees collected by an agent, but he shall require a bond in the sum he considers adequate, conditioned upon the faithful accounting of money collected.

(b) A person appointed by the commissioner of revenue under AS 16.05.460 to issue licenses under AS 16.05.440 — 16.05.480, except salaried employees of the state, shall retain the sum of 15 per cent of the interim-use or entry permit fee for assisting in completion of the annual application or renewal form for the interim-use or entry permit. An agent shall transmit promptly to the Commercial Fisheries Entry Commission all application or renewal forms and fees collected by him, less the authorized commission, together with a full accounting of the fees. The commissioner and the Commercial Fisheries Entry Commission are not liable for defalcation or failure to account for the fees collected by an agent, but the commissioner shall require a bond in the sum he considers adequate, conditioned upon the faithful accounting of money collected. (§ 5 art III ch 94 SLA 1959; am § 9 ch 31 SLA 1963; am § 1 ch 8 SLA 1977; am §§ 5, 6 ch 105 SLA 1977)

Effect of amendments. — The first 1977 amendment substituted "15 per cent" for "five per cent" in the first sentence of subsection (a).

The second 1977 amendment designated the former provisions of this section as subsection (a), and in that subsection, substituted "AS 16.05.440 — 16.05.480" for "AS 16.05.440 — 16.05.720" and "15 per cent" for "five per cent" in the first sentence, "An agent" for "A deputy" in the second sentence, and "an agent" for "a deputy" in the fourth sentence, and inserted "license" preceding "fees collected" in the second sentence. The amendment also added subsection (b).

This section amended by SB 158

Sec. 16.05.480. Commercial fishing license. (a) A person engaged in commercial fishing shall obtain a commercial fishing license. The fee for the license is $10 for residents, and $30 for nonresidents. Except for those which are also entry or interim-use permits, all commercial fishing licenses are nontransferable. The commercial fishing license shall be retained in the possession of the licensee, readily accessible for inspection at all times. No more than one fee may be charged annually against a person. For the purposes of this section, "commercial fishing license" includes entry permits and interim-use permits issued under ch. 43 of this title and crewmember fishing licenses.

(b) A person applying for a resident commercial license under this section shall provide the proof of residence which the department requires by regulation.

(c) Repealed by § 12 ch 123 SLA 1978. (§ 6 art III ch 94 SLA 1959; am § 19 ch 131 SLA 1960; am § 1 ch 93 SLA 1966; am § 2 ch 42 SLA 1968; am § 8 ch 105 SLA 1977; am §§ 1, 2, 12 ch 123 SLA 1978)

Effect of amendments. — The 1977 amendment rewrote the first sentence of subsection (a), substituted "crewmember" for "commercial" in the third sentence of subsection (a), and also in subsection (b), deleted "his" preceding "residence" in subsection (b), and added subsection (c).

Sections 1 and 2, ch. 123, SLA 1978,

STATE OF ALASKA

DEPARTMENT OF LABOR

JAY S. HAMMOND, GOVERNOR

BOX 1149
JUNEAU, ALASKA 99811
PHONE: 465-2700

January 12, 1982

Mr. Michael Thill
Administrative Assistant
Senate Labor and Commerce
Committee
Pouch V
Juneau, AK 99811

Dear Michael:

The Department provided copies of Richard Austerman's Special Report on Alaska Fishermen's Fund to the Fishermen's Fund Advisory and Appeals Council members. Attached are comments received from the council members concerning the report and solutions for maintaining the solvency of the Fishermen's Fund. I thought you and Senator Mulcahy might be interested.

I am looking forward to working with you again this session. Thank you again for scheduling my meeting with the Senator yesterday and please convey my thanks to Senator Mulcahy for his time.

Sincerely,

Judy Knight

Judy Knight
Special Assistant

JK/mjs
D-85

Enclosure

EXCERPT FROM MINUTES OF NOVEMBER 1981 FISHERMEN'S FUND ADVISORY AND APPEALS COUNCIL MEETING:

> In order to meet projected administrative and claim expenses, the Council recommended, first, that the law allowing only one contribution into Fishermen's Fund per fisherman issued a permit under AS 16.43 be changed to allow a contribution for each permit issued which includes a commercial fishing license. Their second recommendation was to raise license fees, double if necessary, to meet revenue requirements.

In a December 21, 1981 telephone discussion, Ole Haynes reaffirmed his support for the above statement.

EVS

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DEC 22 1981

FISHERMEN'S FUND

To Elaine VanderSande
Administrator
Fishermens Fund

Thoughts on the report are that all recommendations sound fine to me.

Although I think the council wanted 30-60 on licenses. Would like 30-50, for the simple reason that $50 is not much to leave in Alaska.

Used to think about lowering the 2500 limit but I think $100[00] deductible would be just as effective.

Evers Johnson