

ALASKA LEGISLATURE SPECIAL COMMITTEE / SUBJECT FILES 8672

994 SCCOMM44: HOUSE POWER ALTERNATIVES STUDY COMM. 1979-80

1 (b) The sum appropriated may be spent or obligated by the governor, if
2 either of the events described in (a)(1) or (2) of this section occurs on or
3 before January 1, 1980.

4 (c) The program to be developed under (a)(2) of this section shall
5 include the specific site work and public involvement required to develop
6 needed environmental, economic and technical information, and must include an
7 independent analysis of seismic potential and related design factors.

8 * Sec. 2. The sum of \$150,000 is appropriated from the general fund to
9 the Alaska Power Authority for the purpose of paying the costs of developing
10 the alternative program referred to in sec. 1(a)(2) of this Act.

11 * Sec. 3. The sum of \$200,000 is appropriated from the general fund to
12 the Legislative Affairs Agency to contract for an independent study, in
13 consultation with the Alaska Power Authority, to analyze (1) existing assump-
14 tions and findings concerning the power needs and population growth projec-
15 tions of the railbelt area; and (2) possible energy supply alternatives,
16 including the proposed Susitna hydroelectric project. The alternatives shall
17 include but are not limited to smaller hydroelectric, coal and gas-fired
18 plants. A report shall be submitted to the legislature by April 15, 1980.

19 * Sec. 4. The unexpended and unobligated portions of the appropriations
20 made by this Act lapse into the general fund June 30, 1980.

21 * Sec. 5. This Act takes effect immediately in accordance with AS 01.10.-
22 070(c).
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SUGGESTED LANGUAGE FOR A LETTER OF INTENT TO ACCOMPANY SB 63

The objective of the study in section 3 is analysis of the likely costs to consumers of power from Susitna compared to the costs of power generated from other sources. This will involve a reexamination of the power growth projections for the Railbelt area, including factoringⁱⁿ the best estimates of population growth, the effect on per capita electrical use due to price increases and other trends, the likely usage by the military and industrial sectors, and the availability of power from sources which are expected to go on-line before the Susitna Project begins generation. The study will compare the economics of Susitna to possible alternatives including smaller hydro, coal, and gas, and draw conclusions about what power modes are best suited to the future needs of Alaskans. This will involve consideration of variance factors-- that is, comparisons between those modes the costs of which can be fairly well determined and those the costs of which might vary over a wide range. Environmental factors will not be considered except where they directly impact the economics. Existing data may be relied on where it exists, but original work will be required for determining future power needs and for examining the possibility of using natural gas on or from the North Slope, at the very least.

PROPOSED AMENDMENT TO COMMITTEE SUBSTITUTE FOR SENATE BILL NO. 63

Add a new section:

Sec. 3. The sum of \$200,000 is appropriated from the general fund to the Legislative Affairs Agency for contracting for an independent study concerning the feasibility of the proposed Susitna Hydroelectric Project and possible alternatives to it.

Expanded language:

The Legislative Affairs Agency shall contract for an independent study which, with the full cooperation of the Alaska Power Authority, will analyze the assumptions and findings concerning the economic and financial feasibility of the proposed Susitna Hydroelectric Project and possible alternatives to it. These alternatives shall include but are not limited to smaller hydroelectric, coal, and gas-fired plants, including the use of royalty gas from the North Slope. A report shall be submitted to the legislature by April 15, 1980.

More explicit language may be desirable in a letter of intent, or the committee might prefer to establish an oversight committee to work with the Legislative Affairs Agency in determining the exact scope of the study.

CONTRACT BETWEEN

STATE OF ALASKA
LEGISLATIVE AFFAIRS AGENCY
Pouch Y, State Capitol
Juneau, Alaska 99811

and

ENERGY PROBE
43 Queens Park Cres. E.
Toronto, Ontario M5S 2C3

The parties to this agreement are the LEGISLATIVE AFFAIRS AGENCY, on behalf of the Alaska State Legislature's House Power Alternatives Study Committee, hereinafter referred to as the AGENCY, and ENERGY PROBE, hereinafter referred to as the CONTRACTOR.

THE ABOVE PARTIES TO THIS CONTRACT, in consideration of the covenants hereinafter contained, hereby mutually agree to the terms and conditions hereinafter set forth:

CLAUSE I - STATEMENT OF WORK

(A) Scope of Work
Set out in Attachment A

(B) Schedule

1. Task 1(A) of Attachment A shall be completed by December 10, 1979.
2. Task 1(B) of Attachment A shall be completed by January 7, 1980.
3. Task 1(C) of Attachment A shall be completed by April 1, 1980.
4. Task 1(D) of Attachment A shall be completed by May 1, 1980.

CLAUSE II - PERIOD OF PERFORMANCE

The period of Performance shall be retroactive to November 1, 1979, and terminate on July 1, 1980.

CLAUSE III - TERMINATION

This contract may be terminated by either party upon 30 days notice to the other party.

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CLAUSE IV - PROJECT DIRECTOR

The Project Director shall be the Honorable Brian Rogers, Co-Chairman of the House Power Alternatives Study Committee.

CLAUSE V - COMPENSATION AND METHOD OF PAYMENT

- (A) Payment for Task 1(A) and 1(B) of Attachment A shall not exceed U.S.\$4,000.00 and shall be payable immediately upon billing by the CONTRACTOR.
- (B) Payment for Task 1(C) of Attachment A shall not exceed U.S.\$4,000.00 and shall be payable immediately upon billing by the CONTRACTOR.
- (C) Payment for Task 1(D) of Attachment A shall not exceed U.S.\$2,000.00 and shall be payable immediately upon billing by the CONTRACTOR.
- (D) Total compensation shall not exceed U.S.\$10,000.00.
- (E) The CONTRACTOR shall receive no payment in addition to that specified in Clause V(D) for travel and related expenses unless the Project Director requests that the CONTRACTOR travel between the CONTRACTOR'S place of business and Juneau.

CLAUSE VI - RECORDS, DOCUMENTS, AUDITS

The CONTRACTOR shall maintain accurate records, including detailed time records, as may be required by the AGENCY. The records are subject to inspection by the Project Director of the AGENCY at all reasonable times. All documents, reports and writings produced in the course of the work performed under this contract are, upon delivery to the Project Director or the AGENCY or at termination of this agreement, the property of the AGENCY, and/or in the public domain; provided that the CONTRACTOR will have the right to use any such materials for purposes of writing about or discussing the issues.

CLAUSE VII - ALL WRITING CONTAINED HEREIN

This agreement contains all the terms and conditions agreed upon by the parties. No other understandings, oral or otherwise, regarding the subject matter of this agreement shall be deemed to exist or to bind either of the parties to this agreement.

IN WITNESS WHEREOF, the parties have executed this agreement on the dates indicated.

CONTRACTOR

LEGISLATIVE AFFAIRS AGENCY

Chris Conway
Energy Probe

Myrton R. Charney
Executive Director

Accepted:

Approved as to Form:

Rep. Brian Rogers	Date
Co-Chairman, House Power	
Alternatives Study Committee	

Agency Legal Counsel _____ Date _____

ATTACHMENT A

1. Scope of Work

A. Examine current state and structure of the ISER electricity demand forecast. Collect data and information in order to perform a more detailed investigation of the forecast in conjunction with ISER forecasting personnel.

B. Prepare report to ISER forecasting staff which states an evaluation of the current model, identifying areas in which it should be revised and improved. Outline any additional data requirement necessary for an in-depth analysis of the forecast.

C. Maintain an ongoing analysis and development of alternative coefficient and independent variable values and an ongoing analysis of structural adequacy of model.

Continue involvement and discussions with ISER personnel resulting in development and evaluation of alternative model structure and components.

Perform a sensitivity analysis on electricity demand as it relates to different market share and efficiency assumptions.

D. Examine normative context within which the ISER forecast will be introduced, with specific reference to the effects of proposed or potential policies on electricity growth and the impact of these policies on preferred model structure and interpretation.

Submit final report outlining: the revisions (if any) that were made to the ISER forecast during the course of Energy Probe's involvement and the rationale for these revisions, changes that were recommended by Energy Probe but which were not incorporated into the model and the effects (if any) of these, the appropriate role and interpretations of the model results given these revisions.

2. Other Considerations

A. CONTRACTOR may provide additional services upon the request of the Project Director.

B. Scope of Work will include travel for 4 round-trips between Toronto and Alaska.

9/25 HA FINANCE

ERIC YOULD Ak Power Auth.

Finance project
Finance + own project
Finance, own, operate (e.g. Susitna)

Biggest service - capital intensive hydro + coal plants

Use revenue bonds, state seed money, (recon study, detailed feasibility analysis $\Rightarrow$ FERC. once ok $\Rightarrow$ Rev Bonds).

Problem w/ small hydro, but revenue bonds will not invest for small communities

Cannot act timely on small generation.

$\Rightarrow$ Need ok for small projects w/o legislature
It's a matter of economics. A matter of what is feasible.
Are using coal gasification $\rightarrow$

BOB SULLIVAN (pres) Ak Mutual Savings

Board - AHFC

would prefer guarantee program

FLOYD JOHNSON - American Legion

SB 152 HB 20 Personal, business loans lost in transition

ED KEARN

AG LOANS

University Student
Center

- thru gymnasium complex

8:30 - 11:45

People to attend
Susitna meeting on Nov. 9

* - notified

- * Seifert - renewable resources - solar
- * Baumgartner - energy conservation & end use
- * Goldsmith - demand forecast
- * Jamie -
- * Eric Myers - policy develop
- * Marc Fryer - oversee renew. resources
- * Chris Conway
- * Bob Crowe } demand critique
- (206) 447-6521
206 * Arlon Tussing - overview
- (415) 669-7155 * Brad Suck (?) - demand critique
- * Jim Van der Myn (?) - energy conservation
- * Jerry Plunkett - " "

General Concerns

- (1) Integrity - conflicts of interest / a) demand stud.
b) study can't build
- (2) Adequacy of fishery studies / Hara-Hara letter
- (3) Ability of demand to integrate varying assumptions
projections, etc.
- (4) Quality of study of alternatives
esp. conservation
- (5) Geotechnical -
- ✓ (6) Marketing of power - guarantees vs. presale
/ danger of cost overruns
- (7) Public participation (compliance world)
- (8) I/O processes, etc. models need to be
developed for Alaska

Talk to APA about responsibility in guiding large project -
need to spend \$ on information - pipeline experience, obj
comparative

United States Senate

WASHINGTON, D.C. 20510

WEEKLY SUMMARY

JUNE 25 - 29

(A review of activities in Washington, D.C., during each week the Senate is in session. Available without charge: write to 3121 Dirksen Building, U.S. Senate, Washington, D.C., 20510.)

WASHINGTON -- The Office of Management and Budget has finally seen the light and released its hold on the Susitna Hydroelectric Project. OMB conveyed the project to the Congress on Tuesday, thereby approving it for final design engineering. The action comes more than two years after the Corps of Engineers approved the site and requested the go-ahead for full project planning. OMB required further geologic and environmental research and provided an additional \$3 million to perform the research. That work was finished early this year and again the Corps said full planning was justified. But OMB delays went on. I have been negotiating with OMB throughout the year to get the project released, while at the same time I introduced legislation which would have given direct Congressional authorization, thereby superceding the need for OMB approval.

Susitna would be a two-dam project, located on the Susitna River about halfway between Anchorage and Fairbanks. It can provide more than half the electricity needs of the "railbelt" area, including Anchorage, Fairbanks and Seward -- and it can do so at a relatively low cost, with a minimum of environmental consequence (especially compared to alternatives like coal and oil-fired plants). It would put Alaska solidly onto a renewable resource power base.

Susitna now enters the so-called Phase I stage. During this stage, final pre-construction work is completed: engineering design, cost/benefit analysis and final environmental impact statement. The decision to construct is not made until after Phase I work is completed -- probably between three and four years for Susitna. The estimated cost is around \$2 billion. The project would involve a 635-foot concrete dam at Devil Canyon, with generating capacity of 775 megawatts (775 million watts); and an 810-foot earthfill dam at the Watana site 31 miles upstream with capacity of 792 megawatts. Together, they would generate an estimated 6.91 billion kilowatt hours per year, about 60 per cent of the estimated "railbelt" need in the early '90s, when they are to be completed.

The project is proceeding under the Hydroelectric Power Development Act of 1976, which I authored and which permits a state to use the Corps essentially as a contractor in building a dam. The state pays for the dam and owns it, along with the power it produces. But at the same time, the federal government guarantees the project, paying for Phase I work if it should produce a "no-go" decision. State funding also gets the project out of the Congressional appropriations process, which means no funding delays, and that in turn means quicker and less expensive construction.

At the same time, I am also working with the OMB on a proposal for

Budget
Susitna

(3)

DRAFT

MEMORANDUM

TO: The Honorable Brian Rogers

FROM: Gregg Erickson

SUBJECT: A natural gas based electric economy in central and southcentral Alaska - hazards and prospects

SUMMARY

An important part of the legislature's study of alternatives to the proposed Susitna Hydroelectric Project will be an analysis of the prospects and possible risks associated with basing the electrical economy of the railbelt area of Alaska on natural gas fired generation. At your request, we submit here our preliminary study design for conducting this Analysis. We propose to carry out the work described below for a fixed fee contract price of \$20,000 over a period of 3-1/2 months, commencing on 1 December 1979 and concluding on 15 March 1980.

BACKGROUND

Since you are already fully familiar with the background of the Susitna project itself, and the factors that caused the legislature to request a Study of Alternatives, we will discuss these matters only briefly.

Although questions remain concerning the railbelt electricity demand projected for the next decade and beyond, existing studies by the region's utilities and others anticipate average annual growth rates of 10% or more.

The Susitna project is being held out by its proponents as a means of meeting this growing demand, and simultaneously insulating power consumers from the repetitive cycle of energy cost increases that have marked the past seven years. Whatever the promise of the Susitna Project may be, however, a judgment of its appropriateness must be made in the context of the various alternatives that are available to it. One of these alternatives is clearly an electrical economy based on natural gas. Such a development path would be an extension of what has already occurred in the Anchorage area, where natural gas has come to completely dominate the generation picture. A similar scenario may be plausibly constructed for the interior, commencing with the completion of the Northwest Alaska Gas Pipeline.

Even if the Susitna Project is constructed, service reliability standards will require that new generation capacity be developed in the Anchorage/Kenai and Fairbanks intertie areas to handle both the load growth occurring between now and the time Susitna comes into service, and to serve as backup to Susitna once it

(12)

is built. Almost all of this interim and "backup" generation capacity is expected to be either gas fired or easily convertible to natural gas.

Given these expectations it is reasonable to review in depth the question of whether Alaska might be able -- or more importantly, well advised -- to dispense with Susitna entirely. An important component of the information necessary to answer this question will be elucidated in the study outlined below.

STUDY DESIGN

1. **Historical Background:** The choices raised by the Susitna project are not totally unprecedented, even in Alaska. For example, the decision to construct a MINE mouth power plant at Healy added, in the context of the Fairbanks power demand of that day, a comparable increment of capacity. The Rampart and Eklutna experiences also provide important insights to the kinds of issues posed by Susitna. We contemplate conducting this part of the project in association with an academic historian who has already written on and studied this particular sub-area of Alaska history.
2. **Institutional Factors:** Recent federal legislation (the power plant and industrial fuel use of 1978) sharply restricts the extent to which natural gas (and oil) may be used to fire new electrical generation facilities. A central part of this project will be an evaluation of whether this and other potential end use regulations effectively eliminate the natural gas alternative.

At first blush, it would seem unwise for Alaska to pursue a power strategy that so clearly flies in the face of congressionally enunciated national policy. Nevertheless, several factors argue for careful consideration of whether this policy will pertain in the future, and -- if it does -- whether exceptions might be made for Alaska. For example, it is possible that a transfer of Alaska's royalty gas might be structured in a way that avoids the act's restrictions; a legal analysis of the act directed at this issue will be a part of this project.

If the act cannot be circumvented, it is still possible that economic factors unique to Alaska or general to the nation will result in some sort of "amendment" of the current "policy." This has already happened to some extent in response to the administration's recent realization of a potential "near term" "surplus" of natural gas. Environmental protection factors or "unique hardship" arguments may also be possible.

(3)

In any event, even if Susitna is approved it seems certain that some sort of relief from the Act's restriction will have to be sought, since the demand growth expected between now and the earliest date Susitna could come on line can not realistically be met by coal fired generation (oil fired generation is also restricted).

3. **Economic Factors:** The major economic hazard associated with expanded reliance on natural gas for power generation is that Alaska gas prices will continue to rise in response to world oil price increases. If world energy prices continue to rise, it is likely that the phasing out of federal regulation ~~of~~ natural gas prices would make those prices even more responsive to market forces than they have in the past.

On the other hand, major discoveries of new gas in the state or pipeline investments which make existing reserves accessible to Alaska markets may restrain the rate of price increase. An analysis of these and related issues is essential to assessing the "natural gas option."

4. **Engineering Factors:** The efficiency of gas fired generation facilities will be examined in order to move from expected gas prices to expected "bus BAR" power costs. Although not directly related to the question of a gas based electric economy, we would also propose to evaluate in substantial detail (at \$5,000 additional cost) the potential for substitution of natural gas for electricity in direct consumer applications as a means of moderating the growth of electrical demand. There is obviously great potential for this sort of substitution in the interior, but quantitative data, and data on the extent of natural gas market saturation in southcentral would need to be obtained.

5. **The Decision Making Structure:** The decision to build Susitna is effectively a government decision, although one in which the utilities and others will be extensively consulted. If Susitna is not built, the decision as to what alternatives are to be pursued may be taken in a much more decentralized context, a context in which the individual utilities would be expected to play a more leading role. If a decision was reached by the legislature to opt for natural gas fired generation, the means of implementing that decision would need to be carefully considered. We intend to ADDRESS this matter carefully, with particular attention to the institutional structures (such as the Alaska Power Authority) which might be used or fashioned to implement it.

For me to do before I leave

15/03

15/03

- ① finalize ISEK contract
- ② finalize Centre for Policy Studies contract
" Tuck "
- ③ Prelim work on other contracts
- ④ Gather material for various sections
both in-state & out-of-state -
★ complete Bibliography
- ⑤ Review most important existing studies
- ⑥ Continue contacting possible consultants
- ⑦ ~~Be~~ Keep interested parties posted on
progress of study.
- ⑧ Help get Conservation section going properly.

Massoni Associates

1717 N Street, N.W.
Washington, D.C. 20036
(202) 833-2131



Suite 218
520 Commonwealth Avenue
Boston, Massachusetts 02215
(617) 232-2513

reply to: 57 Westbourne Terrace
Brookline, MA 02146

SR Box 1791K
19501

September 25, 1979

Mr. Mark Wittow
Alaska Legislature
727 N Street
Anchorage, Alaska 99501

Dear Mark,

I enjoyed our discussion Monday evening on approaches that might be used to evaluate the hydroelectric facility that you described. I welcome the opportunity to submit some preliminary thoughts on the topic to you and to members of the Alaska Legislature. As I mentioned during our telephone conversation, several senior members of Massoni Associates have spent a considerable amount of time studying and analyzing energy policy and technology. I understand that you are concerned with assessing policies as well as technical dimensions. In the following paragraphs, I have outlined some considerations for structuring an appropriate evaluative framework.

Basic to this type of study is the premise that the concern is not simply energy, rather it is energy as part of a state's development policy. Thus, the real decision that must be made must necessarily reflect the style and quality of life that Alaskans prefer. There are considerations directly related to the energy facility--for example, siting, mode of production, environmental impacts, costs. However, more important, though generally overlooked, are the reasons (or the objectives) for creating any additional energy capacity--that is, why is more energy needed? To what use will it be applied? Too frequently, assessments of alternative energy sources focus solely on a comparison of technologies, rather than on more important questions about near- and long-term uses of energy and the effects of these particular uses on the development of the area(s) to be served. Benefit/cost studies can be quite useful, but, by themselves, tend to be flawed since such studies generally assume that the issues are primarily technical; they also presuppose the acceptability of any energy supply. Further, there is the danger of being seduced by the simplicity of the dollar as a single, summary measure. Accepting the dollar as an inclusive measure masks the assumptions about what values the dollar represents, which, under the best of circumstances, are complex and often conflicting.

An evaluative framework which allows the assessment of a proposed energy facility within the context of a broad development policy must be concerned with at least the following questions:

1. What development issues are at stake?
2. What evaluative criteria should be applied?

3. What data are required to apply such criteria?
4. What analytic techniques are appropriate?
5. What range of conclusions is it possible to draw?
6. What will be the mode of presentation of the evidence and the conclusions?

Such an approach must assess both direct and indirect factors.

While the consideration of direct factors will be influenced by various regulatory requirements, the evaluative framework just described places these requirements within a broader context, allowing the comparison of alternative sources in such areas as:

- *technological development--principles of operation, major components, operating experience, reliability, ability to meet schedules and to fill needs;
- *economics--capital costs, operating costs, funding sources, pricing of power; and
- *environmental consequences--air, water, and land use impacts.

Comparisons necessarily consider the effects of energy provision at the proposed site; however, the implications of not building the proposed facility at all, or of delaying provision of more energy, or of providing power through multiple sources (perhaps at one other site or on a dispersed-site basis) must also be considered. The study of direct factors tends to emphasize energy needs and definitions.

The evaluation of indirect factors incorporates broader development issues, especially issues which are specifically linked to Alaska's development policies. We suggest creating a Program Budget for Energy, connecting energy provision with energy use--relating outputs to inputs. Thus, the preferred ends--the objectives of increasing the energy supply--dominate this aspect of the evaluative framework. The extent to which efficiencies might create inequities can be determined; the ability of alternative sources to serve near- and/or long-term development goals can be quantified. For instance, the choice between a central power solution and a dispersed-site generating solution might best be based on a standard of acceptability for the state development policy which would take into account population dispersion, industrial location, impact on employment, and so on.

I hope this letter clarifies the approach we would utilize to structure an evaluative framework for assessing the desirability of a proposed hydro-electric facility. We are, of course, cognizant that any study must be undertaken within a regulatory context; we would, however, stress, the value--particularly to legislators--of placing any discussion of energy within a framework which makes the central consideration the energy facility's short- and long-term impacts on Alaska and its development.

I enclose my resume along with information on Massoni Associates. The firm has the capability to undertake the work described here as well as

to conduct followup studies. It is our practice to assemble teams of Massoni staff tailored to meet the needs of specific clients and to conduct specific projects. When it is appropriate, we involve talented professionals from other organizations with which we have working relationships.

A rough estimate is that preparation of an evaluative framework would require twenty to thirty professional days; professional (staff) costs plus direct costs (travel, reproduction, and so on) would total between \$10,000 and \$15,000.

We would welcome the opportunity to work with you.

Sincerely,

Thomas E Nutt-Powell

Thomas E. Nutt-Powell, AICP
Senior Associate

Enclosures



DEPARTMENT OF ECONOMICS
EDMONTON, Alberta, Canada
T6G 2H4

THE UNIVERSITY OF ALBERTA

Tels: Office (403)-432-2544
Eco. Dept. Office (403)-432-3406
Home: (403)-436-6904

September 27, 1979

Mr. Mark Wittow
Alaska Legislature
727 N Street
Anchorage, Alaska 99501
USA

Dear Mr. Wittow:

Pursuant to our phone conversation, I am enclosing a cv which I prepared two years ago. Since that time I have had accepted for publication an article, "Class and Oil in Alberta," which is to appear in a book of readings, Oil and the Class Struggle, edited by P. Nore and T. Turner. The book, which will be published by ZED Press, London England, is scheduled to appear at the end of October.

I was invited to give a paper at the International Seminar on Energy, held in Hyderabad, India in January, 1979. While there, I was also invited to have a private tea with then Prime Minister Desai and discuss energy matters with him.

In January 1978 I signed a contract with the British publishing firm of Croom-Helm to write a book on The Political Economy of North American Oil. I am writing this book at the present time.

I have also developed for the Faculty of Extension of the University of Alberta a TV series on beginning economics. This TV course has turned out to be quite popular. In addition the Canadian Broadcasting Company asks me quite frequently to comment on energy-related matters. On Monday, October 1 the CBC will film my comments on the economics of the tar sands. This film will appear some time in October on a very popular national program, "The Nature of Things".

In May, 1979 I appeared as an intervenor in hearings of Alberta's Energy Resources Conservation Board on the application of Esso Resources to substitute natural gas for coal in its proposed heavy oil plant at Cold Lake, Alberta. I gave an analysis of the economics of oil and gas and urged that Esso's application be denied. The Board denied the application.

I trust that you have sufficient information about me to make a decision on whether you want me to work for you. If you desire any elaboration, please call me. If you want to call, please remember that on Monday, Wednesday and Friday I will not be able to be reached between noon and 3 PM, Edmonton time and that I have classes on Tuesdays and Thursday evenings from 4:30 to 10. I usually spend Tuesdays & Thursday afternoons at home working on my book. If you are interested in me, please send me the proposal so that I can see whether I am in a position to work on it.

Sincerely

Edward H. Shaffer, PhD
Associate Professor

CURRICULUM VITAE

Edward H. Shaffer

September 1, 1977

1. Date of Birth: January 26, 1923

2. Education:

<u>School</u>	<u>Years Attended</u>	<u>Degree</u>
Columbia	1963-1966	Ph.D.
Michigan	1951-1955	
Michigan	1948-1949	M.A.
Michigan	1946-1948	B.A. (with Honors in Economics)
Maryland	1942-1943	
Frostburg State (Md.)	1940-1942	

3. Employment:

ACADEMIC

Alberta	1971 to date	
Alberta	1970-1971	Visiting Associate Professor
Occidental College	1968-1970	
Western Washington State College	1965-1968	

NON-ACADEMIC

W. J. Levy, Inc. NYC	1962-1963
Economic Consultant (Self-Employed)	1957-1962

4. Course Taught:

ALBERTA

Government and Business	Business 312
Business Economics	Business 323
Economic Problems	Business 441
The Energy Industry, Public Utilities and Regulation*	Business 442
Energy Industry Policy*	Business 569
Canadian Economic Development	Extension

*I instituted these courses.

Curriculum Vitae

Edward H. Shaffer

4. Courses Taught; cont'd.

OCCIDENTAL

Economic Development
Economics of Government
Intermediate Economic Theory
Introduction to Price Theory
History of Civilization
International Trade and Commercial Policy
Institute on Urban Immobilities

WESTERN

Introduction to Economics
Principles of Economics
Intermediate Price Theory
Statistics
History of Economic Thought
Government and Business
General Education
Humanities

5. Graduate Dissertations:

William J. Gallivan, M.A. Economics
Andre Bourassa, M.A. Economics
Richard Arthur Preece, Ph.D. Economics
Leonard H. Landry, M.A. Economics
Randy G. Morse, Ph.D. Political Science
Robert A. Funnell, M.A., Dept. of Rural Economy

6. Other Teaching:

<u>Year</u>	<u>Bus. 445-9</u>	<u>Bus. 599</u>
1975	1	-
1974	3	1
1973	1	2
1972	1	-

7. Publications;

The Oil Import Program of the United States: An Evaluation. New York; Praeger. 1968.

"Economics of Oil and Gas" in Canadian Perspectives in Economics. Toronto: Collier-Macmillan Canada. 1972 (co-authored with E. Hanson).

"A Global Perspective on Energy", Canadian Dimension, October 1975.

7. Publications; cont'd.

- Industrial Organization in Canada: Selected Readings,
Edmonton: University of Alberta, (4 editions).
(Co-edited with Profs. S. McFadyen & G. Reschenthaler)
- "Interlocking Directorships" in ibid., 4th ed., pp. 15-6.
- "Canada's Energy Policy" in ibid., pp. 468-80.
- "Introduction: the State in the Modern Industrial
Society" in ibid., 2nd ed., p. 1.
- ["Energy Conservation Boards" in The Performance of
Selected Independent Regulatory Commissions in Alberta,
Saskatchewan and Manitoba. G. B. Reschenthaler, editor.
Prepared for the Canadian Consumer Council. 1972.
- "Marketing Prospects Fairly Good for 1971", The Edmonton
Journal, January 25, 1971, p. 5.
- "Economic Prospects of Alberta and NWT", The Roundup,
June 1971.
- "The Empire of Exxon" in James Laxer and Anne Martin (eds.),
The Big Touch Expensive Job. Toronto, Press Porcépic, 1976.
- "Dynamics of Economic Warfare". NeWest Review, March 1976
(book review).
- "The Political Economy of Alberta-Synthetic Crude",
Canadian Dimension, Vol. 12, No. 1 (1977) (book review).

8. Articles accepted but still not published:

- Review of Edgar J. Dosman, The National Interest: The
Politics of Northern Development, 1968-75. Submitted
to Canadian Dimension.
- "The Political Economy of Oil in Alberta" in
David Leadbeater (ed.), The Political Economy of Alberta.

9. Research Grants Received:

- Department of Energy, Mines & Resources for Research on
the Impact of Oil Exports on Alberta's Economy, \$4,000,
1971.
- University of Alberta. General Research Grant for
Research on International Concentration Ratios, \$60, 1971.
- University of Alberta. General Research Grant for
Research on International Concentration Ratios, \$150, 1975.

10. Other Scholarly Activity:

Presented paper, "International Trade, Capital Movements and Competitive Policy" to Western Economic Association, August 25, 1972. Paper is currently being revised.

Discussant, Western Economic Association, August 30, 1971.

Reviewer for Dickenson Publishing, Co.

Acknowledgements from:

Dr. Ernest Dale, "Management Must Be Made Accountable", Harvard Business Review, March-April 1960, p. 49.

Dr. R. H. Scott, "Avarice, Altruism, and Second Party Preferences", The Quarterly Journal of Economics, February 1972, p. 1.

Dr. R. E. Hamilton, "Natural Gas and Canadian Policy" in Erickson & Waverman (eds.) The Energy Question, Vol. 2, p. 164.

Dr. L. Pratt, The Tar Sands: Syncrude and the Politics of Oil, p. 10.

Dr. Edgar J. Gunther & Mr. Frederick A. Goldstein, Current Sources of Marketing Information.

Dr. Ernest Dale, Management: Theory & Practice, pp. VIII-IX.

Discussant, Work and Leisure Conference, University of Alberta, April 5, 1971.

Resource Person, Conference on War and Welfare, University of Washington, January 17, 1968.

Referee for Professor R. E. Hamilton, Department of Economics, York University, 1973.

Presented paper, "The Political Economy of Canadian Energy" to Seminar, Energy Studies Program, Economisch-Geografisch Institut, Erasmus Universiteit, Rotterdam, Holland, March 31, 1977.

Presented paper, "The Employment Impact of Oil and Natural Gas in Alberta, 1961-1970", to Class in Regional Economics, Geografisch Institut, Erasmus Universiteit, Rotterdam, Holland, March 30, 1977. Paper is currently being revised.

Presented Talk, "The Economics of Energy" to Department Linguistique, Institut Francais De Gestion, Paris, France, April 25, 1977.

Curriculum Vitae

Edward H. Shaffer

10. Other Scholarly Activity: cont'd.

Presented paper, "The Employment Impact of Oil and Natural Gas in Alberta, 1961-1970" to Pacific Northwest Regional Economic Conference, Victoria, May 7, 1976. Paper is currently being revised.

Presented paper, "Canadian Energy Policy", Loyola College, Montreal, March 8, 1973.

Presented paper, "Man, Oil and Society" to faculty and students, University College, University of Manitoba, November 8, 1974.

Presented paper to Seminar, Department of Economics, University of Alberta, "The Employment Impact of Oil and Natural Gas in Alberta, 1961-1970", Sept. 26, 1975.

Presented paper to Seminar, Department of Sociology, University of Alberta, "The Employment Impact of Oil and Natural Gas in Alberta, 1961-1970", Oct. 22, 1975.

11. Honours and Awards:

Graduated University of Michigan with Honors in Economics, 1948.

Appointed President's Fellow, Columbia University, 1964.

Named to Omicron Delta Epsilon, International Honor Society in Economics, 1970.

Listed in Contemporary Authors.

Listed in American Men & Women of Science.

Listed in Who's Who in the West.

12. Committees at the University of Alberta:

Member, Staff Travel Committee, 1972-4

Chairman, Staff Travel Committee, 1972-3

Member, Graduate Studies Policy Committee, 1974-6

Member, Admissions Requirements Committee, General Faculties Council, 1973-5

Appointed to subcommittee of GFC Committee on Research, 1973. Because of lack of funding, subcommittee has never met.

Curriculum Vitae

Edward H. Shaffer

13. Other University Service:

Brought Tom Collyer, Provincial Liaison Officer,
DBS to Campus, 1970.

Was a speaker at Student Activity Day, 1973.

Brought prominent speakers to Bus. 441 class.

Helped organize Conference on Foreign Ownership, 1971.

Addressed Met E 590 - Seminar, Department of Mining
and Metallurgy.

Brought Professor Donald MacKay, University of Aberdeen,
Scotland, to Campus to lecture on "The Political Economy
of North Sea Oil", May 5, 1975.

Invited to lecture to class of Prof. L. Pratt, Department
of Political Science, Jan. 20, 1976 and Sept. 30, 1975.

Invited to give talk on Government Regulation of Business
before student seminar, Faculty of Business Administration
and Commerce, Feb. 26, 1976, held in Banff.

14. Community Services:

Member, Management Development Advisory Committee,
Faculty of Extension.

Addressed Glendale Chamber of Commerce, Glendale, Cal.,
February 26, 1969.

Addressed the Westside Jewish Community Center,
Los Angeles, April 7, 1969.

Participated in College Urban Affairs Workshop,
University of Southern California, May 14, 1970.

Helped organize and participated in Seminar on
Competition Policy, Edmonton, November 17, 1971.

Introduced Speaker (Dean Chambers), Graduation Dinner,
Department of Extension, June 13, 1972.

Was invited to address Parliamentary Caucus, NDP,
Edmonton, December 7, 1973. I advocated the creation
of a National Petroleum Company. Such a company,
PetroCan, has since been created.

Addressed the "Real Energy Conference", Winnipeg,
Manitoba, March 8, 1974.

Addressed students of Strathcona High School on "Will
We Make It?" on Earth Day, March 23, 1975.

Spoke to National Study Conference, Student Christian
Movement on "Energy and the Multinationals", Pigeon
Lake, Alberta, May 8, 1975.

14. Community Services; cont'd.

✓ Spoke on Alberta Energy Company to Seminar, Northern Alberta Institute of Technology, February 3, 1976.

Was respondent in Conference on Anti-Combines Legislation sponsored by Department of Consumer and Corporate Affairs at the University of Alberta, May 12, 1976.

Spoke at Conference on Alberta Heritage Trust Fund sponsored by Alberta NDP at University of Alberta, Jan. 30, 1976.

Spoke on "Multinationals in Today's World" to Cross Cultural Center, Edmonton, February 5, 1976.

Spoke on "Multinationals in Today's World" to National Convention, AIESEC, held at University of Alberta, February 6, 1976.

Spoke at Public Conference on Imperial Oil held by Public Petroleum Association of Canada at Chateau Laurier Hotel, Ottawa, May 8, 1976.

Spoke before English Language Class, Paris Bourse (Stock Exchange) on "Problems of Energy", Paris, France, April 27, 1977.

Invited back for Second Lecture on "Problems of Energy" to English Language Class, Paris Bourse, May 10, 1977.

Chaired session on "Metropolitan Quality of Life" at Conference of Learned Societies held at University of Alberta, May 29, 1975.

Appeared as an expert witness before House Finance Committee, State of Alaska, Juneau, Alaska on April 12, 1977 in hearings on oil tax policies.

15. Radio & TV Broadcasts:

Appeared on MEETA TV Program as panelist, 1972.

Interviewed on "This Country in the Morning", CBC Radio, April 24, 1974.

Interviewed on "Hourglass" CBC-TV, October 23, 1974.

Interviewed on Phil Fraser Show, ITV, October 28, 1974.

Interviewed on CBC-AM Radio Show, November 6, 1975.

Interviewed on CBC-Calgary, Jan. 8, 1976 (Radio).

Interviewed on CBC-Edmonton AM Show, Feb. 12, 1976 (Radio),

APPENDIX

INDICATORS OF OUTSIDE RECOGNITION

Comments on Oil Import Program of the U.S.

"All parties interested in these complex issues should be grateful to find in Professor Shaffer's excellent book a most welcome picture and an analysis in depth of the import regulations and their effects upon the economy of the U.S.A."-Charles A. Heller, World Petroleum, March 1969.

"This is one of the most thorough studies of the subject that I have come across."-unsolicited letter from Edward Symonds, Senior Economist, First National City Bank, New York, October 7, 1969.

"Another study, commissioned by the Cabinet Task Force and broadly reflected in its findings, might be grouped with those reviewed here: The oil import program of the United States: An Evaluation, by EDWARD H. SHAFFER"-Arlon R. Tussing, Journal of Economic Literature, September 1971, p. 858.

Though Dr. Tussing was in error when he claimed that my book was commissioned by the U.S. Cabinet Task Force on Oil Import Control, he was correct that the Task Force's analysis in many ways paralleled my own. I might point out that my book was written and published several years before the Task Force was established. The Task Force was chaired by Professor George P. Schultz, University of Chicago, who was then Secretary of Labor. Apparently Dr. Tussing thought that my book was of a quality that would be commissioned by a Task Force headed by Dr. Schultz.

CITATIONS OF BOOK

Listed below are citations of which I am aware. There may be others of which I am not aware.

C. W. J. M. Corssmit, "The Oil Import Quota System: Time for Reform", Intermountain Economic Review, Fall 1971, pp. 35, 40, 44.

Kaj Areskoug, "U.S. Oil Import Quotas and National Income", Southern Economic Journal, January 1971, pp. 308, 316.

Kenneth Dam, "Implementation of Import Quotas: The Case of Oil", Journal of Law and Economics, April 1971, pp. 6, 8.

James Laxer, The Energy Poker Games, Toronto & Chicago: New Press, 1970, p. 71.

CITATIONS OF BOOK con'td.

James Laxer, Canada's Energy Crisis, Toronto:
James Lewis & Samuel, 1974, p. 20.

Peter R. Odell, Oil and World Power, Middlesex,
England: Penguin 3rd ed., 1974, pp. 232-3.

U.S. Federal Trade Commission, Concentration Levels
and Trends in the Energy Sector of the U.S. Economy.
Washington. 1974, p. 277.

Larry Pratt, The Tar Sands: Syncrude and the Politics
of Oil. Edmonton: Hurtig, 1976, p. 10.

Edgar J. Dosman, The National Interest. Toronto:
McClelland and Stewart, 1975, p. 26.

Comments on Industrial Organization in Canada

Letter from Professor K. Weiermair, York University,
stating that he "would like to use this book for our course,
Industrial Organization in Canada". October 29, 1973.

Letter from Professor Paul G. Bradley, University of
British Columbia, stating that he and Professor Gideon Rosenbluth
have examined the book and would like to use it for their course.
May 6, 1975.

OTHER CITATIONS

My article, "Energy Conservation Boards", was cited by
Dr. Richard Hamilton in his article, "Natural Gas and Canadian
Policy", which appeared in Edward Erickson and Leonard Waverman
(eds.), The Energy Question, Toronto, University of Toronto Press,
1974, Vol. 2, p. 165.

My article, "A Global Perspective on Energy" was cited
by Cy Gonick, Inflation and Depression, Toronto: Lorimer,
pp. 253, 418.

My article, "Canada's Energy Policy" was cited by
Edgar J. Dosman, The National Interest, Toronto: McClelland and
Stewart, 1975, p. 26.

Curriculum Vitae

Edward H. Shaffer

OTHER FORMS OF RECOGNITION

Letters from Peter Newman, author of The Canadian Establishment requesting help in writing chapter on Canadian Oil Industry in Second Volume of The Canadian Establishment (Feb. 4, 1976 and Feb. 23, 1976).

Letter from J. Rosemary Vanderkamp, Assistant Editor, Canadian Public Policy, asking me to appraise a paper submitted for publication (Oct. 29, 1976).

CURRICULUM VITAE

THOMAS E. NUTT-POWELL

Born: August 15, 1944

57 Westbourne Terrace
Brookline, MA 02146
Telephone: (617) 232-2513

EDUCATION:

The Pennsylvania State University
B.A., 1965

Harvard Graduate School of Design
M.C.P., 1970

Harvard Divinity School
M.T.S., 1970

Massachusetts Institute of Technology
Department of Urban Studies and Planning
Ph.D., 1973

PROFESSIONAL EXPERIENCE

Present

- * Research Associate, MIT-Harvard Joint Center for Urban Studies
- * Senior Associate, Massoni Associates, Washington/Boston
- * Principal Investigator, Institutional Analysis element, "Planning and Analysis for Development of Photovoltaic Energy Conversion Systems," MIT Energy Laboratory, funded by US Department of Energy (April 1977 to September 1979)



1971-1979

- * Assistant Professor of Urban and Regional Planning, Massachusetts Institute of Technology

* Other MIT Responsibilities:

Head, MCP Program (1974-1977)
DUSP Graduate Registration Officer (1973-1977)
Faculty, Harvard GSD/MIT Continuing Education
Program (1977, 1978, 1979)
Field Work Coordinator (1976-1977)
Member, MIT Committee on Graduate School Policy
(1973-1977)
Member, MIT IAP Policy Committee (1974-1975)
Coordinator, DUSP Independent Activities Period
(1974, 1975)
Coordinator, Minority Student Recruiting, School
of Architecture and Planning (1972-1974)
Instructor (1971-1973)
Director, Minority Intern Program (1971-1972)

- | | |
|------|---|
| 1978 | * Consultant, Massachusetts Mobile Homes Commission
(to present) |
| 1977 | * Visiting Overseas Professor, Department of Town
and Country Planning, Trent Polytechnic,
Nottingham, England (January)

* Director, Downtown Development study for Massachusetts
Department of Community Affairs contract to MIT
Department of Urban Studies and Planning (to
September, 1978) |
| 1976 | * Consultant, Department of Community Affairs,
Bureau of Urban Renewal, Commonwealth of
Massachusetts

* Consultant, U.S. Department of Housing and Urban
Development |
| 1975 | * Research Associate, MIT Division for Study and
Research in Education, "Knowledge in Practice"
project (to June 1976)

* Consultant, Governor's Office, State of Rhode
Island (to December 1976) |
| 1974 | * Partner, New Community Planning Associates,
Boston (1969-1974)

* Project Director, Rhode Island Development
Strategy Study, MIT Laboratory for Architecture
and Planning (to June, 1975)

* Lecturer, Urban Affairs Program, Metropolitan
College, Boston University |

- 1973 * Consultant, Southwest Corridor Land Development Coalition, Boston
- 1972 * Co-Principal Investigator, "The Characteristics of Trans-Racial Adoptive Parents," a joint research project of Families for Inter-Racial Adoption, Boston, Massachusetts and Michigan State University, funded by NIMH
- 1971 * Consultant, Department of Urban and Regional Planning, University of Wisconsin, Norton Shores, Michigan, Industrial Development Project
- 1970 * Consultant for Regional Analysis, Muskegon County, Michigan, Metropolitan Planning Commission
- * Planning Consultant, Bauer Engineering Co., Chicago
- * Project Supervisor, Urban Field Service, Harvard University
- 1969 * Consultant for Community Services and Facilities, MIT Urban Systems Laboratory, Harbor Islands and New Community Projects
- 1968 * Community Development Worker, Cooper Community Center, Roxbury (to June, 1969)
- * Consultant and Board Member, Lower Roxbury Community Corporation, for Housing, Social Services, Education and Community Development (to 1974)
- * Social Planning Consultant, Cambridge Economic Opportunities Committee
- 1967 * Press Secretary, Alexander/Fox/Rogers for City Council, Baltimore (June-September)
- 1965 * Community Organization Advisor, Baltimore Urban Renewal and Housing Agency (to June, 1967)
- * Psychiatric Social Worker, Hollidaysbury, (Pennsylvania) State Hospital (to September, 1965)

Guest Lecturer at a number of universities in the United States and the United Kingdom including: Brandeis, Suffolk, Harvard, Wisconsin, Illinois, Arizona, Penn State, Sheffield, Birmingham Polytechnic and Oxford Polytechnic

PROFESSIONAL AND HONORARY AFFILIATIONS AND AWARDS:

Chairperson, National Student Steering Committee, Planning/Network.
1969-1971

President, Student Senate, Harvard GSD, 1969-1970

Member, Committee on Governance, Harvard University, 1969-1970

HUD Urban Studies Fellowship, 1969-1970

NDEA Fellowship, 1970-1973

American Society of Planning Officials

American Institute of Planners

Pi Gamma Mu, National Social Science honorary

AIP Ad Hoc Committee on Planning Education, 1972-1973

AIP Confer-In '72 Conference Committee

AIP New England Chapter Executive Committee, 1971-1972

Board of Governors, American Institute of Planners, 1973-1976

Chairperson, AIP Associate Member Status Committee, 1974

Lilly Teaching Fellowship, 1975-1976

Chairperson, AIP-ASPO-ACSP Planning Education Legislative Committee,
1975-1977

AIP Service Award, 1977

PUBLICATIONS AND PRODUCTIONS:

"Residents and Rents: A Study of Cambridge, MA," CONNECTION,
Fall/Winter, 1968-1969 (with Lawrence E. Susskind).

"Prospects for Urban Planning Education," JOURNAL OF THE AMERICAN
INSTITUTE OF PLANNERS, July 1970, (with Lawrence E. Susskind and
Nicholas P. Retsinas).

Planning and Ethics, unpublished, joint MCP/MTS thesis, Harvard
Graduate School of Design and Harvard Divinity School, June, 1970.

"Toward a Logical Justification for Planning Theory," DIALOG, Fall, 1970 (with Ronald S. Laura).

"A Profile of Trans-Racial Adoptive Parents," (with John A. Snyder) in PROCEEDINGS, Second International Conference on Trans-Racial Adoption, November 13-15, 1970, Boston, Massachusetts Open Door Society.

A SAFE PLACE TO LIVE: SECURITY IN MULTI-FAMILY HOUSING, (with Philip Clay and William Allan, et.al.) report by Lower Roxbury Community Corporation, April, 1972).

"A Safe Place to Live: Security in Multi-Family Housing," (with Philip Clay and William Allan), paper presented to AIP Confer-In '72, Boston, October, 1972.

BOSTON: A PRIMER FOR PLANNING, special 32-page supplement, Boston Globe, October 8, 1972.

"The Current State of Planning Education," (with Stefania A. Denbow) JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS, May, 1973.

TRANS-RACIAL ADOPTIONS (with John A. Snyder), report for NIMH, February, 1973.

"Housing in Cambridge: A Case Study of Underlying Problems of Advocacy Planning," PLANNING COMMENT, Spring/Summer, 1973.

"On Linking 60 Discovered Wheels," ACSP Bulletin, Summer, 1973.

Adopting the Hard-to-Place: System Change in a Public Service Bureaucracy, unpublished Ph.D. Dissertation, MIT Department of Urban Studies and Planning, September, 1973.

"Issues of Supply and Demand in Adoption," paper presented for Fourth North American Conference on Adoptable Children, Washington, DC, March 14-17, 1974.

"Foster Family Care: Myth and Reality," (with Martin Rein and Heather Weiss), in Alvin Shcorr (ed.) CHILDREN AND DECENT PEOPLE, Basic Books, 1974.

"The Department of Urban Studies and Planning at MIT: 1953-63, Ten Years Makes a Lifetime," paper prepared for Planning Education Symposium, Chapel Hill, NC, April, 1974.

"Endemic Turbulence: The Future of Planning Education," (with Donald A. Schon) in David Godschalk (ed.), PLANNING IN AMERICA: LEARNING AMID TURBULENCE, (Washington, DC: American Institute of Planners, 1974).

RHODE ISLAND DEVELOPMENT STRATEGY STUDY, (Cambridge: MIT Laboratory for Architecture and Planning, 1975).

"Development Policy for Rhode Island: Some New Ideas for Land Use Planning," NEWSLETTER: MIT SCHOOL OF ARCHITECTURE AND PLANNING, December, 1976.

THE ECONOMIC DEVELOPMENT POTENTIAL OF 121B, (Boston: Massachusetts Department of Community Affairs, July, 1977).

BUILDING AUDITS FOR ENERGY CONSERVATION, a video-based educational package, (Executive Producer), July, 1977, Distributed by "Center for Advanced Engineering Studies, Video Instruction Program.

"Making Fieldwork Work: A Conceptual Framework for Field Education," (with Bonnie R. Nutt-Powell), paper presented at AIP Conference, Kansas City, October, 1977.

Review of Martin Rein, SOCIAL SCIENCE AND PUBLIC POLICY, (with Bonnie R. Nutt-Powell), JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS, April, 1978.

"Modes of Action: Toward a Theory of Planning Practice," (with Bonnie R. Nutt-Powell), Trent Polytechnic Planning Paper Series (forthcoming).

TOWARD A THEORY OF INSTITUTIONAL ANALYSIS, (with Stewart Landers, Bonnie R. Nutt-Powell, and Levi Sorrell), (Cambridge: MIT Energy Laboratory, May, 1978).

INSTITUTIONAL ANALYSIS OF DAYTIME RADIO: A PRELIMINARY EXPLORATION, (with Ellen G. Hendrickson), (Cambridge: MIT Energy Laboratory, January, 1979).

INSTITUTIONAL ANALYSIS OF GOVERNMENTAL INVOLVEMENT IN HOUSING: A PRELIMINARY EXPLORATION, (with Patricia McDaniel), (Cambridge: MIT Energy Laboratory, January, 1979).

INSTITUTIONAL ANALYSIS OF HOUSING PRODUCTION: A PRELIMINARY EXPLORATION, (with Carole Swetky), (Cambridge: MIT Energy Laboratory, March, 1979).

INSTITUTIONAL ANALYSIS OF RESEARCH AND SOCIALIZATION IN HOUSING: A PRELIMINARY EXPLORATION, (with Michael Furlong), (Cambridge: MIT Energy Laboratory, Marcy, 1979).

INSTITUTIONAL ANALYSIS OF STANDARD SETTING IN THE UNITED STATES: A PRELIMINARY EXPLORATION, (with Barbara Parker), (Cambridge: MIT Energy Laboratory, April, 1979).

INSTITUTIONAL ANALYSIS OF THE NATIONAL PARK SERVICE: A PRELIMINARY EXPLORATION, (with Peter Siczewicz), (Cambridge: MIT Energy Laboratory, April, 1979).

INSTITUTIONAL ANALYSIS OF ENERGY PROVISION IN HOUSING: A PRELIMINARY EXPLORATION, (with Steven Heim and Andrew Reamer), (Cambridge: MIT Energy Laboratory, May, 1979).

PHOTOVOLTAICS AND THE NEBRASKA AGRICULTURAL COMMUNITY, (with several authors), (Cambridge: MIT Energy Laboratory, forthcoming).

CENTER PIVOT IRRIGATION AND THE NEBRASKA AGRICULTURAL COMMUNITY, (with Stewart Landers), (Cambridge: MIT Energy Laboratory, forthcoming).

INSTITUTIONAL ANALYSIS OF THE ACCEPTANCE OF PHOTOVOLTAICS IN DAYTIME RADIO BROADCASTING, (with Judy Wagner), (Cambridge: MIT Energy Laboratory, forthcoming).

RESEARCH DESIGN FOR INSTITUTIONAL ANALYSIS OF HUD'S SOLAR HEATING AND COOLING DEMONSTRATION PROGRAM, (Cambridge: MIT Energy Laboratory, forthcoming).

PHOTOVOLTAICS AND THE NATIONAL PARK SERVICE: AN INSTITUTIONAL ANALYSIS (with Levi Sorrell and Peter Siczewicz), (Cambridge: MIT Energy Laboratory, forthcoming).

SOLAR HEATING AND COOLING OF HOUSING: FIVE INSTITUTIONAL ANALYSIS CASE STUDIES, (with Michael Furlong, Patricia McDaniel, Barbara Parker, and Andrew Reamer), (Cambridge: MIT Energy Laboratory, forthcoming).

DUBIN-BLOOME ASSOCIATES, P.C.

ENERGY CONSERVATION PROJECTS

- DEPARTMENT OF JUSTICE OFFICE BUILDING
- BECTON-DICKINSON, NORTH CANAAN, CT.
- U.S. NAVAL ORDINANCE STATION. INDIAN HEAD, MARYLAND
- CONNECTICUT GENERAL LIFE INSURANCE COMPANY HOME OFFICE, BLOOMFIELD
- GSA FEDERAL OFFICE BUILDING, MANCHESTER, NEW HAMPSHIRE, ENERGY CONSERVATION DEMONSTRATION PROJECT
- ARGONNE NATIONAL LABORATORY, ENERGY CONSERVATION FEASIBILITY STUDY FOR ENVIRONMENTAL EVALUATION LABORATORY AND ENERGY AND ENVIRONMENTAL SYSTEMS, CHICAGO, ILLINOIS
- RESEARCH FACILITIES FOR UPJOHN CO., KALAMAZOO, MICHIGAN
- SUFFOLK COUNTY DEPARTMENT OF ENVIRONMENTAL CONTROL
- UNION CARBIDE TECHNICAL CENTER, SOUTH CHARLESTON, W.V.
- OAKRIDGE NATIONAL LABORATORIES, TENNESSEE
- PENNSYLVANIA AVENUE DEVELOPMENT PROJECT, WASHINGTON, D.C.
- ENERGY CONSERVATION STUDY FOR THE U.S. MERCHANT MARINE ACADEMY, KINGS POINT, N. Y.
- ENERGY CONSERVATION ANALYSIS FOR ARGONNE NATIONAL LABORATORY, ARGONNE, ILLINOIS (DOE PROJECT)
- OAKRIDGE NATIONAL LABORATORIES, TENNESSEE
- BROOKHAVEN NATIONAL LABORATORIES, BROOKHAVEN, N. Y. (CHEMISTRY BUILDING)
- BROOKHAVEN NATIONAL LABORATORIES, BROOKHAVEN, N.Y. (PROPOSED FIVE-YEAR ENERGY CONSERVATION AND LOAD MANAGEMENT DEVELOPMENT PLAN).
- KERR BUILDING, DENVER, COLORADO
- ENERGY CONSERVATION STUDY FOR THE U.S. MERCHANT MARINE ACADEMY, KINGS POINT, N.Y.
- UPJOHN CO. LABORATORY, KALAMAZOO, MICHIGAN
- ARGONNE NATIONAL LABORATORY
- MYRIAD GARDENS, OKLAHOMA CITY, OKLAHOMA
- PREPARATION OF ENERGY CONSERVATION GUIDELINES FOR THE GENERAL SERVICES ADMINISTRATION FOR ALL NEW FEDERAL BUILDINGS IN THE UNITED STATES

DUBIN-BLOOME ASSOCIATES, P.C.

ENERGY CONSERVATION PROJECTS CONTINUED:

- PREPARATION OF TWO MANUALS FOR ENERGY CONSERVATION IN EXISTING BUILDINGS FOR THE FEDERAL ENERGY ADMINISTRATION.
- FEASIBILITY STUDY AT I.B.M., EAST FISHKILL BUILDING, 300 FACILITIES UPGRADE
- INTERNATIONAL HEADQUARTERS, UN ENVIRONMENTAL PROGRAM, NAIROBI KENYA
- SOLAR ENERGY RESEARCH INSTITUTE (SERI), DENVER, COLORADO.
- GRACIE MANSION (OFFICIEAL RESIDENCE/MAYGR OF NEW YORK)
- RESEARCH TRIANGLE INSTITUTE, ENGINEERING BUILDING INCLUDING OFFICES AND LABORATORIES.
- ASPHALT PLANT converted to COMMUNITY CENTER AND ENVIRONMENTAL EDUCATION FACILITY FOR NY STATE ERDA, NY, NY.
- CATHOLIC MEDICAL CENTER, MANCHESTER, N.H.
- WILLOW LAKES PROJECT, ST. PAUL, MINNESOTA. CORPORATE RESEARCH FACILITY, H.B. FULLER CO.
- SOLAR ENERGY RESEARCH INSTITUTE (SERI), PERMANENT FACILITY, CENVER, COLORADO.



Mark -

Though from a business sense I shouldn't be
trusting competitors, here are some possible sources
for an econometric approach, as we discussed.

Meta Systems,	Cambridge MA
Bechtel Corp	San Francisco, CA
Rand Corp	Santa Monica, CA

The latter two have done modeling work on energy
supply, demand + prices. Meta Systems has done alternative
energy assessments.

We would be working with people on MIT's Energy Lab
staff and/or staff at Technology + Economics. T+E has
a major DOE services contract on policy issues of this
sort, with strong economic capabilities.

Tom



MASSONI ASSOCIATES is a group of experienced, highly skilled consultants offering legislative consultation, policy analysis, and Washington representation to our clients. With over a decade of experience, the ASSOCIATES understand both the formal and informal aspects of processes and institutional arrangements unique to our national government; we are familiar with key officials and executive department staff. With these tools, we feel that we can function as a specialized extension of a client's own resources that will establish for them a personal or organizational presence before executive and legislative bodies as well as provide them with an early warning system and an ability to respond quickly to developing policy trends.

Because MASSONI ASSOCIATES recognizes that each client has different objectives in seeking specialized Washington representation, the ASSOCIATES place particular importance on developing a program uniquely tailored to each client's special needs. Programs may include services such as research, analysis, government liaison, and monitoring of funding, legislation, policy and rule-making. The ASSOCIATES will also design client programs, facilitate negotiations with Federal agencies, and serve as advisors helping the client to identify, develop, and use resources uniquely available to Washington.

MASSONI ASSOCIATES has developed a direct, personalized approach for setting up programs. With the client, we establish short and long range goals. A specialized team of ASSOCIATES is formed to effectively and efficiently handle the client's needs. Subsequently, needs and the specific course of action are outlined. With close ASSOCIATE/client consultation, an effective program can be constantly maintained and, when necessary, adjusted. Programs can be designed on a single project basis or with a full or part time retainer structure.

It is the goal of MASSONI ASSOCIATES to provide a diverse group of clients with flexible, personalized, technical service that will improve their access to, presence before, and understanding of the institutions and personalities affecting them and their business at the national level.

OUTLINE OF POTENTIAL SERVICES AND ACTIVITIES

MASSONI ASSOCIATES can provide the following services:

- Assist the client identify problems of mutual interest and common concern;
- Develop work program to address priority concerns;
- Convene information exchange meetings and provide secretarial and consultant services to such meetings;
- Provide information clearinghouse function for client to access national sources of experiences relevant to particular problems;
- Coordinate wide variety of opportunities for client members to participate in intergovernmental relations processes;
- Afford the client a Washington, D.C. office for briefings and seminars with Federal officials from the myriad of domestic agencies and departments;
- Assist client's individual and collective members' access to Federal resources, information and technical assistance;
- Provide each member of the client group with a copy of a twice monthly national policies and legislation assessment newsletter;
- Plan, organize and conduct annual national/local workshops addressing the administration of Federal grant-in-aid programs and the transfer of example technologies and information sources that will assist client's daily work;
- Inform client of national policy trends and changes concerning administrative rules and regulations as well as major sources of Federal funds tailored to the actual needs of the local jurisdictions;
- Inform client of special demonstration projects which will assist in developing services as well as contribute to the national recognition of the client's leadership;
- Assist in tracking grants submitted by client through the maze of the Federal bureaucracy;
- Provide technical capability to respond to substantive questions on grant and contract applications;
- Schedule meetings with national policy makers on specific programs, issues and "breaking" news;

- Secure potentials for national documentation, conference opportunities and publicity relative to client's special accomplishments;
- Communicate and open professional development opportunities for client's personnel;
- Provide support staff for at least cursory research on specific problems within the priority annual agenda focused on policy analysis and program development on a range of planning and development topics;
- Construct appropriate quantitative and qualitative methodologies to assess substantive, attitudinal, and institutional elements of programs and organizations.

MASSONI ASSOCIATES CLIENT LIST

GOVERNMENT RELATIONS CONSULTANTS TO:

The Knoxville/Knox County Metropolitan Planning Commission
The City of Houston, Texas
American Society of Consulting Planners, Washington, D.C.
Partners for Livable Places, Washington, D.C.
Knoxville International Energy Exposition
Henshaw, Hartt, and VanPetten, Inc., Ohio (community development)
Hall Associates, South Carolinas (housing)

POLICY CONSULTING PROJECTS FOR:

The U.S. Department of Housing and Urban Development:
- State and Regional Strategies, Incentive Program Analysis
The Old West Regional Commission:
- Growth Policy Process Development
The U.S. Department of Commerce:
- Growth Policy Process of the United States, 1977
- Program to Implement Urban Initiatives in the Office of the Secretary, 1978
- Analysis of the Department of Commerce's Urban Growth Programs, 1978-79
The White House Conference on Balanced National Growth and Economic Development, 1977-78
The National Endowment for the Arts:
- Through the Partners for Livable Places, two projects on the national built environment programs, 1978-79
The Department of Energy
- Through the MIT Energy Laboratory, "Planning and Analysis for Development of Photovoltaic Energy Conversion Systems," 1977-78
The New England Staff for Coordinated Air Use Management (NESCAUM):
- Series of Reports on the Planning Process and Pollution, 1977-78
The Massachusetts Department of Community Affairs:
- Downtown Development Study, 1977-78
Massachusetts Mobile Home Commission:
- Policy Development, Organization Direction and Implementation Strategies

PUBLISHERS OF:

Planners ROLLCALL, a national, bi-weekly, legislative and policy analysis newsletter.

FRED S. DUBIN, P.E.

EDUCATION

Bachelor of Science Mechanical Engineering,
1935, Carnegie Institute of Technology,
Pittsburgh, Pa.

Master of Architecture, 1978, Pratt Institute of Technology, New York.

PROFESSIONAL ENGINEER REGISTRATIONS

24 States plus Five Foreign Countries

MILITARY DUTY

1942-1946 Active Duty, US Navy (retired
Lt. Commander)

EXPERIENCE

Fred Dubin is President of Dubin-Bloome Associates, PC founded in 1946 and a partner in Fred S. Dubin International, Rome, Italy.



COLLEGE OF FELLOWS

Fellow American Consulting Engineers Council - National Chairman Energy Conservation Committee
Fellow American Society of Heating, Refrigeration & Air Conditioning Engineers
Fellow Scientists Institute for Public Information

PROFESSIONAL AFFILIATIONS

National Academy of Engineering & Science Modular Integrated Utilities Board
National Academy of Engineering & Science Solar Heating & Cooling Board
Federal Energy Administration-Environmental Committee Advisory Board
Alliance to Save Energy Advisory Board
State of Florida Solar Energy Centre Advisory Board
American Section of ICES Advisory Board of Directors--Passive Division
Consulting Engineers Association of Connecticut Inc Director and Past President
Citizens Action Now, Board of Directors
Energy EXPO '82, Knoxville, Tennessee-National Advisory Committee
Mid-Atlantic Solar Energy Association, Director 1977
Solar Energy Institute of America, Board of Directors
National Society of Professional Engineers-member
Building Research Institute-member
Institute of Environmental Sciences-member
American Society of Mechanical Engineers-member
New England Solar Energy Association Board of Directors
American Wind Energy Association-member

CONSULTANT TO GOVERNMENTAL AGENCIES

Federal Energy Administration, Department of Energy, General Services Administration,
National Science Foundation, National Bureau of Standards, American Institute of Architects,
California State Energy Commission, Member President Carter's Committee on Energy, Housing
and Urban Development Administration, Energy Research & Development Administration
Solar Energy Research Institute

ACADEMIC ACTIVITIES

Adjunct Professor of Architecture, Columbia Univ. 1969-1974
Visiting Professor of Architecture Univ. of Southern California 1966-1968
Member of the Univ. of Southern Calif. Building Research Institute-Doctoral Program
Visiting lecturer at the Massachusetts Institute of Technology, Yale, Cornell, Pratt
Institute, Rice Institute, University of Miami, Univ. of California-Berkeley, North
Carolina State University, Washington University in St. Louis, University of Oregon,
University of Minnesota, Calgary University, Carnegie-Mellon University, University
of Patras and University of Thessaloniki in Greece, Technical Univ. of Copenhagen,
Denmark, University of Technology in the Netherlands, University of Trondheim in Nor-
way, Tehran University, Faculty of Fine Arts and ARYA MEHR University of Iran, and
other institutions of higher education.

PUBLICATIONS

Books- "Energy Conservation Standards for Building Design, Construction and Operation", by Fred S. Dubin and Chalmers G. Long Jr., McGraw Hill, New York, 1978

"The Energy Efficient Home", by Steven Robinson and Fred S. Dubin, Plume Books, New York, 1978

ECM 1 and ECM 2 "Energy Conservation for Existing Buildings" for the Federal Energy Administration, 1975

Total Energy TR2 Ford Foundation, NY

"Energy Conservation Guidelines for New Buildings" for the General Services Administration, Washington, D.C.

Editorial Boards-

Solar Age magazine

Environment magazine

Specifying Engineer magazine

Presented papers and has been guest speaker at more than 200 seminars and conferences including the Roundtable on Energy Conservation in Public Buildings jointly sponsored by the General Services Administration (GSA) and the National Bureau of Standards (NBS) 1972.

"Energy Conservation Studies" - Guest Speaker. I.H.V.E. Energy Conference - Westminster Abbey, London - 1977

Guest Editor- "Available Now, Systems that Save Energy", "Which Waste Disposal System", Progressive Architecture, October 1971

HONORS

- Named by "Engineering News Record" as "Engineer Who Has Made His Mark in 1975", for work in energy conservation.
- 1974 & 1975 selected "American Specialist" by the US State Department, travel grant to deliver lectures on energy conservation and solar energy. 1974--visited Greece, France, Holland, Norway, Denmark & Sweden. In 1975 visited Spain, Portugal, England, Iran and Israel.

JURIES

1979 Annual Progressive Architecture Awards

1978 California State Energy Agency Headquarters

1978 AIA-EXXON Student Awards-Energy Buildings

1971-74 Actual Specifier Engineer magazine awards

MAJOR DESIGN PROJECTS

Master utilities engineering plans and design of the central 50,000 ton Refrigeration Plant at the State University of New York of Buffalo (Amherst Campus)

Salk Institute for Biological Studies. La Jolla, California

Energy Conservation consultant and solar energy systems designer, Energy Conservation Demonstration Building. Manchester New Hampshire General Services Administration, Washington, D.C.

3,000 ton refrigeration plant, National Institute of Health, Bethesda, Maryland for HEW

Energy conservation and solar energy systems, Cary Arboretum, Millbrook, NY

Solar-assisted heat pump studies for United States Air Force housing.

Management Consulting Contract for HUD's Solar Energy Demonstration project.

Solar energy heating and cooling system for the George A Towns Elementary School, Atlanta.

Phytotrons at Duke University, Durham, and North Carolina State Univ., Raleigh

Biology Laboratory at the Univ. of Pennsylvania, Philadelphia

Standards and design guidelines for all existing Veterans Administration Hospitals for the Veterans Administration, Washington, D.C.

United Nations Environmental Headquarters, Nairobi, Kenya

Mechanical, Electrical, Solar, Wind and Energy Management services, Solar Energy Research Institute, Golden, Colorado

Fred S. Dubin, curriculum vitae, p.3

Justice Dept. Building, Sacramento, California

School of Engineering, Univ. of Tel Aviv

Master engineering and energy plan, Minnesota Mining and Manufacturing, Minneapolis
10,000,000 sq. ft. of space

MAJOR ADDRESSES

"New Energy Conservation Ideas for Existing and New Buildings"
delivered at energy symposium sponsored by U.S. Department of Energy
Research & Development Agency, Albuquerque, N.M. 1976

"Passive Solar Heating and Cooling - the Role in New Community Design"
and "An Energy Efficient Community on Crete International Corporation",
delivered at First International Conference on Energy and Community
Development - Athens, Greece, July 10-15, 1978, sponsored by the
National Energy Council of Greece and the U.S. Department of Energy

"Sharing the Sun '76" A joint conference of the American Section of the
International Solar Energy Society and the Solar Energy Society of Canada,
Inc. at the Winnipeg Convention Center, Winnipeg, Manitoba, Canada,
August 15, 1976

"Energy, Technology, Buildings and Policy", Keynote speaker at Solar II
Conference at the Technological Institute at Northwestern University,
Evanston, Illinois - April 10, 1976

"Energy Alternatives for Alaskan Building Design" Alaska Chapter A.I.A.
- Fairbanks, Alaska, October 17, 1977

"Energy Conservation in Buildings", Duke University, Durham, North Carolina -
US/Australia Seminar, June 8, 1975

"World Competition in Engineering and Construction", 1st and 2nd Institutes
of International Engineering, Boulder, Colorado, January 1963 and September,
1964, Guest Panelist

"Anatomy of Architecture", 48th Annual AIA Convention, St. Petersburg,
Florida, November, 1962, Guest Speaker

"Controlled Environment, Gould Lecture Series, Pratt Institute, Brooklyn,
New York, April, 1965, Guest Lecturer

"Architectura/Engineer Relationship", Yale University Department of Engineering
and School of Architecture, New Haven, Connecticut, February 1959, Guest Speaker

SELWYN BLOOME, P.E.
EXECUTIVE VICE PRESIDENT, DBA

Education:

BSME, Pratt Institute, 1948
Advanced Engineering, Cornell University
Advanced Engineering, Ohio State University
Photovoltaic Solar Energy, Uni. of New Mexico
Thermal Solar Energy, Trinity University
Continuing Education

Experience:

Selwyn Bloome joined Fred Dubin & Associates in 1956, previously having been a designer of mechanical systems in other consulting engineering offices and for power plant constructors in New York City. He became an Associate in 1958, and is currently Executive Vice-President and Secretary of Dubin-Bloome Associates, P.C. and Partner, Fred S. Dubin Associates International. He is responsible for management of mechanical and electrical projects in the New York and Hartford, Connecticut offices.

He has been a consulting engineer since 1948. He has served as guest lecturer and acted as Design Critic at the Schools of Architecture at Pratt Institute. Mr. Bloome is a member of Connecticut Building Congress, New York Building Congress, New York Association of Consulting Engineers, National Council of Engineering Examiners, American Consulting Engineers Council, Association of Energy Engineers, American Arbitration Association, and the Technical Advisory Committee of "Citizens for a Quieter New York City." He has directed and participated in over 50 Energy Conservation and Solar Energy Seminars and is the author of several articles on mechanical engineering, a contributing author on Solar Energy and Energy Conservation Text Books; prepared and was featured in a HUD film on Solar Energy Techniques.

Professional License:

Registered Professional Engineer
in 10 states.



Mr. Bloome's major construction projects and studies include:

- Technical manager of the HUD Solar Heating and Cooling Demonstration Program and energy auditor of the HUD Passive Solar Energy Program.
- Concept, investigation and application of energy saving fume hood exhaust systems for Upjohn Co., 3M co., and Brookhaven National Laboratory. The concept provides safety to the operator while eliminating the use of 100% air conditioned outside air systems resulting in major reductions in operating costs and fuel consumption. Additional provisions include recovery of waste heat from the exhaust air stream.
- Project Manager for multiple laboratory and hospital projects including Long Island Jewish Medical Center Research Laboratory Building, Beckley Memorial Research Building, University of Connecticut Biological Sciences Building, Kessler Institute of Rehabilitation, Helen Hayes Hospital, Carnegie-Mellon University Research and Computer Center, N.I.H. Research Facility Puerto Rico Medical Center, and Total Energy Plant-Medical Hygiene Facility, Fresh Creek.

Selwyn Bloome, P.E.
Executive Vice President, DBA

- Partner in charge of energy conservation study for 140,000 square feet Chemistry Building at Brookhaven National Laboratories, Upton, N.Y.
- Principal investigator for heat recovery study for High Flux Beam Reactor at Brookhaven National Laboratories, Upton, N.Y.
- Partner-in-charge for master utilities engineering plans and the design of the central 50,000 ton Refrigeration Plant at the State University of New York of Buffalo (Amherst Campus)
- Developed building systems for laboratory use and flexibility, at National Institute of Health Research Facility, San Juan, Puerto Rico. Service shaft developed for off-site fabrication. Individual treatment of exhaust gases with dilution of exhaust into atmosphere and/or air washing or filtration before discharge into atmosphere.
- Developed method and staging of construction for major expansion and addition of Long Island Jewish Medical Center, New Hyde Park, N.Y., while hospital was occupied; evolved a mechanical system and coordinated different existing systems into one entity; maintained clean areas by air pressure flows.
- Preparation of support data for the Federal Energy Administration Manuals ECM-1 and ECM-2 Guidelines for Saving Energy in Existing Buildings.
- Life cycle cost benefits analyses for projects including the study for air conditioning of existing Veterans' Administration Hospitals, comparing owning and operating costs of applicable mechanical systems.
- Mechanical concept applications and economic analyses for the 3M Company Research Laboratory Facilities, Minneapolis, Minnesota. Preparation of design vocabulary for master mechanical planning and energy conservation. On-site investigation of existing facilities for waste heat recovery opportunities.
- Development of a prototype mobile refrigeration unit for on-the-road or at-sea operation for Sea Land Corporation, Port Newark, N.J. Determination of refrigerant characteristic for minimal energy consumption at low temperatures. Preparation of guidelines for insulation retrofit to minimize cooling requirements for trailers.
- Partner-in-charge of Energy Conservation Study for the U.S. Merchant Marine Academy, Kings Point, N.Y. Application and concept of energy conservation guidelines and economic analyses for total campus including cost benefits analysis.
- Project Manager and Concept Analyst for the Cheney School District, Spokane, Washington. This project involved energy conservation measures in building envelope, orientation, application of solar collector array for space heating and domestic hot water, and a 100-ton, water-to-water heat pump. Conservation efforts predicted reduced heat loss and heat gain energy of 50%.
- Hydronic Analyst of a solar heating and cooling system for the George A. Towns Elementary School, Atlanta, Georgia. Application of flow and control measures for 10,000 square feet of solar collector retrofit to existing system.

Selwyn Bloome, P.E.
Executive Vice President, DBA

-Project Manager for Helen Hayes Hospital, West Haverstraw, New York a combination of existing and new construction totalling 300,000 square feet, mechanical and electrical systems, including: central steam plant, central emergency power generating plant. Project was staged on a "fast track" basis. Developed mechanical design concept and energy audit, planning for future waste heat recovery measures.

-Industrial installations for newspaper plants including: Fort Lauderdale News, Hartford Courant, Newark Star Ledger, Staten Island Advance, Harrisburg Patriot-News, New Brunswick Home News, Youngstown Vindicator and 12 other plants.

-Laboratory building design projects: L.I. Jewish Medical Center Research Building; Beckley Memorial Hospital Research Building; University of Connecticut Biological Sciences building; Upjohn Company Laboratory Building; Salk Institute for Biological Sciences; University of Pennsylvania Biology Building; Agfa Gevaert Photo-Laboratory and Cold Storage Facility; N.I.H. - San Juan Research Building.

-Laboratory and Industrial projects designed prior to joining Dubin-Bloome Associates:

-Bakelite Company, Boundbrook, N.J. \$30,000,000 Laboratory and Office Building, Pilot Plant, Manufacturing Area.

-Esso Research - Linden N.J. Laboratory and Office Building.

-Quaker Oats - Battle Creek, Michigan Laboratory and Office Building.

-Steam Power Plants

-AEC Savannah River, Aiken, S.C.

-Creole Petroleum Company, Maracaibo, Venezuela

-Taiwan Power Company, Taiwan, R.O.C.

-Pennsylvania Railroad, Altoona, P.A.

-West Virginia Pulp and Paper Company, Covington, V.A.

H. Robert Sparkes, PE
Senior Associate, DBA

Project Engineer
Integrated Utilities

Education:

Boston Technical School
Engineering, Northeast University
Engineering, Wentworth Institute

Experience:

H. Robert Sparkes is a Senior Associate and District Manager of the West Hartford office of Dubin-Bloome Associates, P.C. and has acted as Project Manager in many of the energy conservation and solar energy projects. Sparkes has overseen and participated in most of the projects as they relate to energy conservation and solar energy.

Sparkes is a member of the Consulting Engineering Council, Consulting Engineers in Private Practice, and the American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc. Sparkes has thirty years of cost estimating experience while working on engineering and construction projects.

He was advisor on energy conservation opportunities and associated general contracting for the study of the 140,000 SF existing chemistry building at Brookhaven National Laboratories, Upton, New York. Particular attention was devoted to the extensive laboratory hood exhaust systems which were substantial contributors to energy use.

He was mechanical project team captain for Helen Hayes Hospital, West Haverstraw, New York: a combination of existing and new construction totalling 300,000 SF; mechanical and electrical systems, including central steam plant, chilled water plant, and central emergency power generating plant.

He was project manager in the conceptual design, instrumentation and operation of the Solar Energy System, George A. Towns School, Atlanta, Georgia, with interfacing of the existing mechanical and electrical systems, and hydraulic balance as they relate to various modes of operation.

He was project manager for master planning the 3M Company in Minneapolis, Minnesota, for the development of a new facility of 11,000,000 SF on 615 acres of site, with emphasis on evaluation and preparation of energy conservation guidelines. He analyzed by computer the effect of each building component on yearly energy use, and the development and selection of the mechanical and electrical systems to achieve the desired results. In addition, an energy analysis and life cycle costing was developed for the central utility plant evaluating purchase, power, total energy, peak shaving, analysis of fuels and selections of the prime energy source equipment.

In addition, Sparkes has served as project manager on the following significant energy-conscious projects: the addition to the Central Refrigeration Plant, National Institute of Health, Bethesda, Maryland; the solar heating and cooling installation for the GSA Building, Manchester, N.H.; the design studies concerning energy conservation and solar utilization at the Argonne National Laboratories, and the Connecticut General Life Insurance Company energy conservation program. In regard to the latter, he developed and directed a program of maintenance and operation of existing systems to reduce energy consumption of the facilities by 33% without capital expenditure, and conducted budgeting of capital, operating and maintenance expenses.

He participated in the government-sponsored energy and life cycle analysis of the alternative mechanical systems concepts as they relate to energy conservation application. These have been used in the GSA Energy Conservation Guidelines for Office Buildings.

Sparkes surveyed and participated in the energy analysis, site distribution, and life cycle costing of existing facilities for the U.S. Merchant Marine Academy, Kings Point, New York.

Currently he is preparing an energy conservation evaluation for Brookhaven National Laboratory, Upton, New York, including central power plant and distribution systems to be developed for the five year long-range energy conservation program.

Professional License:
Registered Professional Engineer, 1960

SCOMM

#44:33

STATE OF ALASKA

THE LEGISLATURE

BUDGET AND AUDIT COMMITTEE

FINANCE DIVISION
POUCH WF-STATE CAPITOL
JUNEAU, ALASKA 99811
PHONE: (907) 465-3795

April 23, 1980

MEMORANDUM

TO: J. H. Hogan, Director
Legislative Finance Division

FROM: Wallace Miller, President *WLM*
Miller & Associates, Inc.

SUBJECT: Capital Projects Analysis - Hydroelectric Projects

*Brian -
Miller did this to provide
some detail to the APPA +
Div. of B&M on what
the legislature is looking
for in the way of information.*

The FY 1980 Supplemental Capital Budget and the FY 1981 Capital Budget contain requests for several hydroelectric projects. It is also my understanding that the Division of Budget and Management will be assigned the responsibility to evaluate the financial aspects of these proposed projects. In order to have sufficient information to evaluate proposed hydroelectric projects the Division of Budget and Management and, in turn, the Legislature should be provided with the following financial information on hydroelectric projects.

The following financial information is divided into two categories. The first category, which is entitled Cost Benefit Analysis, will provide comparative financial information and an analysis of secondary benefits which could result from the selection of a particular type of energy development.

The second category, entitled Financial Analysis, reflects the need for a different kind of financial information than that contained in the cost benefit analysis section. Whereas the cost benefit analysis section contains cost benefit ratios and economic impact assessments for a realistic array of alternative means for providing energy, the financial analysis section is more sharply focused on return on investment type of considerations.

Cost Benefit Analysis Section

The information contained in this section should include:

1. A time-phased schedule showing the peak demand for power to be satisfied in terms of KWH.

2. A time-phased schedule showing the average demand for power.
3. A description of each selected alternative means which could be used to provide the power.
4. The total project cost, including capital and annual maintenance and operating cost, for the useful life of the project for each alternative. (A common factor for the cost of money should be used at this stage to avoid biasing the comparison and differences can be taken into account in Step 9 below)
5. The amount of installed power (KW) and annual energy (KWH) which each alternative could produce.
6. Direct cost benefit ratios, expressed in both constant and current dollars, for each alternative considered.
7. A description of secondary benefits associated with each alternative considered.
8. Cost benefit ratios which include both direct costs and imputed values for secondary benefits.
9. Cost benefit ratios which include direct costs and secondary benefits and the effect of existing laws or programs which affect the economic choice of one form of energy over another. (For example, the availability of low interest rates for one form of energy production but not for other forms of energy production)
10. A net energy balance reflecting how each alternative would change actual or projected energy consumption patterns.

Financial Analysis Section

The information contained in this section about a specific hydro-electric project should include:

1. A time-phased schedule showing the peak demand for power to be satisfied in terms of KWH.
2. A time-phased schedule showing the average demand for power.

3. The total project capital and annual maintenance and operating costs. Interest rates should be those terms which are anticipated to be available at the time the project would be in construction. The cost of transmission lines, interties and other distribution elements should be explicitly shown.
4. The amount of installed power and annual energy which the hydroelectric facility will produce.
5. A proposed financing plan (i.e., the use of revenue bonds, a proposed rate structure and any subsidies if the proposed rates are not full cost recovery rates.
6. A return on investment analysis expressed in both current and constant dollars.
7. A listing of the potential secondary economic benefits which would result from the proposed project.

Department of the Interior
DEPARTMENTAL MANUAL

Power

Part 730 Power Policy

Chapter 3 Standard Repayment Interest Rate Formula

730.3.1

.1 Purpose. The purpose of this chapter is to establish a standard formula applicable to all Interior power agencies for fixing the interest rates for repayment purposes on new Federal power projects and system transmission facilities for which the administrative discretion to establish such rates is vested in the Secretary of the Interior. The resulting rates will more closely reflect the current interest costs of money borrowed by the Federal Government than the rates which have been utilized in recent years.

.2 Prior Directives. The provisions of this directive were formerly contained in Secretary's Order 2929 dated January 29, 1970.

.3 Authority. This directive is issued pursuant to the authority of the Secretary of the Interior under section 9(c) of the Reclamation Project Act of 1939, 53 Stat. 1194, 43 U.S.C. 485h(c); section 5 of the Flood Control Act of 1944, 58 Stat. 890, 16 U.S.C. 825s; sections 6 and 7 of the Bonneville Project Act, 50 Stat. 734, 735, as amended, 16 U.S.C. 832d, e; Reorganization Plan No. 3 of 1950, 64 Stat. 1262; and Section 2 of the Act of June 14, 1966, Public Law 89-448, 80 Stat. 200, as amended.

.4 Definitions. For the purpose of this directive:

A. The term "Federal power project" means any reservoir project of the Department of the Interior or the Department of the Army which includes the generation of electric power as one of its purposes, or any unit or separable power feature thereof, which is treated as a separate entity for repayment purposes, including transmission, substation and other appurtenant facilities.

B. The term "system transmission facilities" means transmission lines, substations and appurtenant facilities which are treated for repayment purposes as a separate entity not a part of a Federal power project.

C. The terms "new Federal power project" and "new system transmission facilities" mean a Federal power project or system transmission facilities the construction of which is initiated after January 29, 1970.

.5 Interest rate formula.

A. Except as otherwise provided by law, the interest rate to be used for computing interest during construction and interest on the unpaid balance of the costs of new Federal power projects and new system transmission facilities which are properly allocated to commercial power development, shall be the applicable rate, as hereinafter provided, during the fiscal year in which funds are first appropriated to initiate construction of such projects or facilities.

Department of the Interior
(DEPARTMENTAL MANUAL (

Power

Part 730 Power Policy

Chapter 3 Standard Repayment Interest Rate Formula

730.3.5B

B. Each fiscal year, the Assistant Secretary - Energy and Minerals shall request the Secretary of the Treasury to inform him of the computations made as of July 1 in accordance with 730 DM 3.5C for the preceding fiscal year. If the yield rate so computed does not differ from the applicable interest rate used by Interior for the previous fiscal year by more than 1/2 percent, the applicable rate to be used by Interior shall be equal to the yield rate. If the yield rate differs from the applicable interest rate used by Interior for the previous fiscal year by more than 1/2 percent, the applicable rate to be used by Interior shall be the applicable rate used in the previous fiscal year increased or decreased by 1/2 percent toward the yield rate.

C. For the purposes of this paragraph the yield rate is the average yield during the preceding fiscal year on interest-bearing marketable securities of the United States which, at the time the computation is made, have terms of 15 years or more remaining to maturity. The average yield shall be computed as the average during the fiscal year of the daily bid prices. Where the average rate so computed is not a multiple of one-eighth of 1 percent, the rate of interest shall be the multiple of one-eighth of 1 percent nearest to such average rate.

D. The Assistant Secretary - Energy and Minerals shall annually advise the power agencies of the applicable interest rate for the current fiscal year.



FISCAL ASSISTANT SECRETARY

DEPARTMENT OF THE TREASURY,
WASHINGTON, D.C. 20220

1979 OCT 26 AM 4: 23

OCT 18 1979

Dear Ms. Davenport:

This is in response to your request of July 10, 1978, to inform you of the interest rate determined in accordance with the formula set forth in Part 730 DM 3.5C of the Department of the Interior's Manual, for use during the fiscal year 1980. Part 730 DM 3.5C of the Manual provides as follows:

"C. For the purposes of this paragraph, the yield rate is the average yield during the preceding fiscal year on interest-bearing marketable securities of the United States which, at the time the computation is made, have terms of 15 years or more remaining to maturity. The average yield shall be computed as the average during the fiscal year of the daily bid prices. Where the average rate so computed is not a multiple of one-eighth of 1 percent, the rate of interest shall be the multiple of one-eighth of 1 percent nearest to such average rate."

The interest rate determined in accordance with the above-quoted formula is 8.230% which adjusted to the nearest 1/8th of 1% is 8-1/4%.

This is the same rate certified to the Water Resources Council determined in accordance with a similar formula set forth in Section 704.39(a) of the Council's Rules and Regulations (33 F.R. 19170).

Very truly yours,


Paul H. Taylor

Ms. Joan M. Davenport
Assistant Secretary
of the Interior
United States Department
of the Interior
Washington, D. C. 20240

Original sponsors: Haugen, Anderson,
Barnes, et al

Offered: 4/21/80
Referred: Finance

1 IN THE HOUSE

BY THE RESOURCES COMMITTEE

2 CS FOR HOUSE BILL NO. 754

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 ELEVENTH LEGISLATURE - SECOND SESSION

5 A BILL

6 For an Act entitled: "An Act relating to power projects of the Alaska Power
7 Authority, and repealing the water resources revolving
8 loan fund; and providing for an effective date."

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

10 * Section 1. AS 44.56.080(13) is amended to read:

11 (13) to perform reconnaissance studies, feasibility
12 studies, and engineering and design with respect to power projects;

13 * Sec. 2. AS 44.56.080 is amended by adding a new paragraph to read:

14 (16) to recommend to the legislature

15 (A) the issuance of general obligation bonds of the
16 state to finance the construction of a power project if the autho-
17 rity first determines that the project cannot be financed by reve-
18 nue bonds of the authority at reasonable rates of interest;

19 (B) the pledge of the credit of the state to guarantee
20 repayment of all or any portion of revenue bonds issued to assist
21 in construction of power projects;

22 (C) an appropriation from the general fund

23 (i) for debt service on bonds or other project
24 purposes; or

25 (ii) to reduce the amount of debt financing for the
26 project;

27 (D) an appropriation to the power project fund for a
28 power project;

29 (E) an appropriation of a part of the income of the

1 renewable resources investment fund for a power project;

2 (F) development of a project under financing arrange-
3 ments with other entities using leveraged leases or other financing
4 methods.

5 * Sec. 3. AS 44.56.170(a) is amended to read:

6 (a) There is established as a separate fund the power project
7 [REVOLVING] fund which shall be [ADMINISTERED BY THE AUTHORITY AS A
8 TRUST FUND SEPARATE AND] distinct from any other money or funds of the
9 authority, and which includes only [SHALL BE COMPOSED OF APPROPRIATED]
10 money appropriated by the legislature [FUNDS AND INTEREST EARNED ON
11 LOANS BY THE FUND].

12 * Sec. 4. AS 44.56.170(b) is repealed and re-enacted to read:

13 (b) The authority may make loans from the fund

14 (1) to electric utilities, regional electric authorities,
15 cities, boroughs, regional and village corporations, village councils,
16 and nonprofit marketing cooperatives to pay the costs of

17 (A) reconnaissance studies, feasibility studies, license
18 and permit applications, preconstruction engineering, and design of
19 any power projects;

20 (B) constructing, equipping, modifying, improving, and
21 expanding small-scale power production facilities, conservation
22 facilities, bulk fuel storage facilities, and transmission and
23 distribution facilities, limited to fossil fuel, wind power, tidal,
24 geothermal, hydroelectric, or solar energy production, transmission
25 and distribution, and waste energy conservation facilities; and

26 (C) reconnaissance studies, preconstruction engineering,
27 design, construction, equipping, modification, and expansion of
28 potable water supply including surface storage and groundwater
29 sources and transmission of water from surface storage to existing

1 distribution systems;

2 (2) to a person for a power project if

3 (A) the loan is entered into under a leveraged lease
4 financing arrangement;

5 (B) the party which will be responsible for the project
6 is an electric utility, regional electric authority, city, borough,
7 regional or village corporation, village council, or nonprofit
8 marketing cooperative; and

9 (C) the person demonstrates to the authority that the
10 financing arrangement for the project will reduce project financing
11 costs below costs of comparable public power projects.

12 * Sec. 5. AS 44.56.170(e) is amended to read:

13 (e) Repayment of the loans shall be secured in any [SUCH] manner
14 which [AS] the authority determines is feasible to assure prompt repay-
15 ment under a loan agreement entered into with the borrower. The author-
16 ity may make an unsecured loan to a borrower regulated by the Alaska
17 Public Utilities Commission under AS 42.06 if the borrower has a sub-
18 stantial history of repaying long-term loans and the capacity to repay
19 the loan. [THE AUTHORITY MAY FORGIVE REPAYMENTS OF LOANS MADE FOR
20 RECONNAISSANCE STUDIES IF THE STUDY SHOWS THAT A PROJECT IS NOT FEASI-
21 BLE.] Under a loan agreement, repayment may be deferred for 10 years or
22 until the project for which the loan is made has achieved earnings from
23 its operations sufficient to pay the loan, whichever is earlier.

24 * Sec. 6. AS 44.56.170(f) is repealed and re-enacted to read:

25 (f) Hydroelectric projects are subject to the limitations on
26 interest and specific restrictions set out after each:

27 (1) Projects for which loans are outstanding from the water
28 resources revolving loan fund (AS 45.86) on July 13, 1978, may receive
29 additional financing from the power project fund; the additional financ-

ing

(A) shall be granted for a term not exceeding 50 years;

(B) shall be granted at an interest rate of not less than three or more than five percent a year on the unpaid balance;

(C) shall require repayment of loan principal and interest to begin on the earlier of

(i) the date of the start of commercial operation of the project; or

(ii) 10 years from the date the loan is granted.

(2) Loans for hydroelectric projects

(A) shall be granted for a term not to exceed 50 years; and

(B) shall be granted at an interest rate of three percent.

* Sec. 7. AS 44.56.170 is amended by adding new subsections to read:

(g) Loan repayments and interest earned by loans shall be deposited in the state general fund.

(h) The legislature may forgive the repayment of a loan made for a reconnaissance study when, on the basis of that study or a feasibility study, the authority finds that a project is not feasible.

* Sec. 8. AS 44.56 is amended by adding new sections in article 5 to read:

Sec. 44.56.177. RECONNAISSANCE STUDY. (a) To identify power project alternatives for a community, the authority shall complete a reconnaissance study for each proposed new project.

(b) A reconnaissance study shall

(1) survey all power sources available to the community and adjacent area and evaluate the relative social and economic merits of using alternative sources of power;

1 (2) include an assessment of the effect of the development of
2 alternative sources on the environment so as to assure that there is no
3 adverse effect to the environment of a magnitude which is sufficient to
4 make the project inadvisable;

5 (3) include public comment from residents of the community
6 and adjacent area.

7 (c) The authority shall adopt regulations defining

8 (1) the techniques which it shall apply to determine that the
9 information required by (b) of this section is obtained; and

10 (2) standard criteria and measures to accommodate comparative
11 analysis among alternative power sources.

12 Sec. 44.56.179. REVIEW OF RECONNAISSANCE STUDY BY DIVISION OF
13 BUDGET AND MANAGEMENT. (a) The division of budget and management shall
14 review reconnaissance studies for proposed projects of the authority.

15 (b) The review shall examine the reconnaissance study for compli-
16 ance with the requirements of AS 44.56.177(b) and (c). The division may
17 approve or disapprove the reconnaissance study. If the division of
18 budget and management disapproves of the study, it shall return the
19 reconnaissance study to the authority together with a comprehensive
20 statement of the reasons for its disapproval. The authority may amend
21 the portions of the reconnaissance study which the division of budget
22 and management has identified as deficient to comply with the require-
23 ments of AS 44.56.177(b) and (c), and resubmit the reconnaissance study
24 to the division of budget and management for its reconsideration.

25 (c) For purposes of this section, a project is approved if it has
26 not been disapproved by the division of budget and management within 30
27 days of submission of the reconnaissance study for the project to it by
28 the authority.

29 Sec. 44.56.181. FEASIBILITY STUDY AND FINANCE PLAN. (a) Unless

1 the reconnaissance study has been disapproved by the division of budget
2 and management under AS 44.56.179, the authority shall complete a feasi-
3 bility study and plan of finance for each proposed project.

4 (b) A feasibility study shall include

5 (1) information about the proposed project, including but not
6 limited to total project construction costs, total project operating
7 costs, the timing and amount of anticipated returns from the completed
8 project, a benefit-to-cost ratio, the potential effect of the project on
9 the environment of the area which will be served by the project when
10 completed, and the availability of alternative government financing;

11 (2) a statement of all assumptions which affect the economic
12 feasibility of the project, including but not limited to the discount
13 rate and interest rate of amounts of money used for the project, antici-
14 pated fuel prices, an escalation rate, state and local electric load
15 growth, and estimates of indirect costs and benefits; and

16 (3) a comparative analysis of all reasonable alternatives to
17 construction of the proposed project.

18 (c) The plan of finance shall include recommendations of the most
19 appropriate means to finance a project, including, but not limited to,

20 (1) the issuance of revenue bonds of the authority;

21 (2) the issuance of

22 (A) general obligation bonds of the state; or

23 (B) revenue bonds of the authority which are guaranteed
24 or partially guaranteed by the state;

25 (3) an appropriation from the general fund

26 (A) to pay debt service on bonds or for other project
27 purposes; or

28 (B) to reduce the amount of debt financing for the
29 project;

- 1 (4) a loan from the general fund;
- 2 (5) financing arrangements with other entities using lever-
- 3 aged leases or other financing methods;
- 4 (6) assistance from any federal agency, including, but not
- 5 limited to, the Rural Electrification Administration;
- 6 (7) a loan from the power project fund (AS 44.56.170(a)), or
- 7 from the renewable resources investment fund (AS 37.11.050); or
- 8 (8) any combination of financing arrangements authorized by
- 9 this subsection.

10 (d) The authority shall adopt regulations defining

- 11 (1) the techniques which it shall apply to determine that the
- 12 information required by (b) and (c) of this section is obtained; and
- 13 (2) standard criteria and measures to accommodate comparative
- 14 analysis among alternative financing arrangements.

15 Sec. 44.56.183. REVIEW OF FEASIBILITY STUDIES BY DIVISION OF

16 BUDGET AND MANAGEMENT. (a) The division of budget and management in

17 the Office of the Governor shall review feasibility studies for projects

18 of the authority for compliance with the provisions of AS 44.56.181(b).

19 (b) In its review of a project under this section, the division of

20 budget and management may obtain an independent evaluation of the feasi-

21 bility studies to determine compliance with the provisions of AS 44.56.-

22 181(b).

23 (c) When the division of budget and management has completed a

24 review of the feasibility study for a project under (a) and (b) of this

25 section, it shall submit a report to the governor. The report shall

26 examine the feasibility study for compliance with the requirements of

27 AS 44.56.181(b). The report of the division of budget and management

28 shall include a recommendation for approval or disapproval of the pro-

29 ject based on the division's examination of the feasibility study for

1 compliance with the requirements of AS 44.56.181(b).

2 (d) The report for a proposed project required by (c) of this
3 section shall be prepared and submitted not later than 60 days after the
4 feasibility study and plan of finance for the proposed project have been
5 received by the division of budget and management.

6 Sec. 44.56.185. SUBMISSION TO THE LEGISLATURE. (a) The authority
7 shall submit a feasibility study and plan of finance for a proposed new
8 project to the legislature. When the feasibility study and plan of
9 finance are submitted to the legislature under this section, they shall
10 be accompanied by the report of the division of budget and management
11 prepared under AS 44.56.183.

12 (b) The authority may not proceed with the engineering or design
13 phase of a project for which legislative approval is required until the
14 legislature approves a proposed new project. The legislature may
15 approve a proposed new project only by enacting legislation authorizing
16 that project.

17 Sec. 44.56.187. APPLICABILITY OF SECTIONS. The provisions of
18 AS 44.56.177 - 44.56.185 apply only to a proposed new project which

19 (1) generates more than 1.5 megawatts of power;

20 (2) requires an appropriation of more than \$1,000,000 from
21 the state general fund, from the power project fund, or from the renew-
22 able resources investment fund; or

23 (3) is based on a plan of financing which requires the issu-
24 ance of general obligation bonds or other pledge of the credit of the
25 state.

26 Sec. 44.56.189. PROJECT CONSTRUCTION. (a) If the new project is
27 to be designed, acquired and constructed by the authority, it shall be
28 designed, acquired and constructed as a public work of the state. For
29 the purpose of this section a new project does not include (1) an addi-

1 tion or modification to an existing project if the total cost of the
2 addition or modification does not exceed \$1,000,000; (2) repair or
3 reconstruction of a project; or (3) design, acquisition or construction
4 necessary to complete a project for which bonds have been issued. An
5 addition, modification, repair, reconstruction, design, acquisition or
6 construction for the purpose of completing a project may be undertaken
7 by the authority without any of the approvals necessary for a new pro-
8 ject.

9 (b) The authority may not issue bonds except after 60 days noti-
10 fication of its intent to issue bonds given to the governor and to the
11 legislature, if the legislature is in session, or to the Legislative
12 Budget and Audit Committee, if the legislature is not in session.

13 Sec. 44.56.195. OPERATION OF POWER PROJECTS. When a power project
14 is operated by the authority, revenues earned by the authority which
15 exceed (1) operating and maintenance expenses of the project and (2) the
16 interest on and amortization charges sufficient to retire bonds of the
17 authority issued for the project, and reserves for them, shall be trans-
18 mitted to the commissioner of revenue for deposit in the state general
19 fund.

20 * Sec. 9. AS 44.56.230(7) is repealed and re-enacted to read:

21 (7) "reconnaissance study" means a study conducted for the
22 purpose of assessing the present and future power needs of an area under
23 AS 44.56.177;

24 * Sec. 10. AS 44.56.230 is amended by adding new paragraphs to read:

25 (8) "feasibility study" means a study conducted for the
26 purpose of establishing the economic, environmental, and social prac-
27 ticality of completing a proposed power project under AS 44.56.181;

28 (9) "small-scale power production facility" means a facility
29 which, by design, is to produce less than 25 megawatts of power.

1 * Sec. 11. AS 44.56.180 and AS 45.86 are repealed.

2 * Sec. 12. TRANSITION: CURRENT PROJECTS OF THE AUTHORITY. On the effec-
3 tive date of this Act, unless a proposed project is exempt under AS 44.56.187
4 added by sec. 8 of this Act,

5 (1) if the division of budget and management determines that the
6 Alaska Power Authority has completed a reconnaissance study as that term was
7 defined by AS 44.56.230(7) before re-enactment of AS 44.56.230(7) by sec. 9
8 of this Act, the project for which the reconnaissance study was done is
9 exempt from the provisions of AS 44.56.177 and 44.56.179, added by sec. 8 of
10 this Act; the Alaska Power Authority shall proceed with preparation of a
11 feasibility study and plan of finance under AS 44.56.181 added by sec. 8 of
12 this Act;

13 (2) if the division of budget and management determines that the
14 Alaska Power Authority has completed both a reconnaissance study under
15 AS 44.56.080(13) and a statement under AS 44.56.180(c),

16 (A) and that statement has been approved by the legislature
17 under AS 44.56.180(c), the Alaska Power Authority may proceed with that
18 project under AS 44.56.189 added by sec. 8 of this Act;

19 (B) and that statement has not been approved by the legis-
20 lature under AS 44.56.180(c), the statement which the Alaska Power
21 Authority has prepared constitutes a feasibility study and plan of
22 finance for purposes of AS 44.56.181; the division of budget and manage-
23 ment may not review the statement for compliance with the requirements
24 of AS 44.56.183 added by sec. 8 of this Act before the statement is
25 submitted under AS 44.56.185, added by sec. 8 of this Act, to the gover-
26 nor and legislature.

27 * Sec. 13. (a) The balance of the water resources revolving loan fund
28 lapses into the general fund on the effective date of this Act.

29 (b) The principal and interest due on obligations created by loans made

1 by the water resources revolving loan fund shall be repaid to the commis-
2 sioner of commerce and economic development, and shall be transmitted by him
3 to the commissioner of revenue for deposit in the state general fund.

4 * Sec. 14. This Act takes effect July 1, 1980.
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Department of the Interior
(DEPARTMENTAL MANUAL (

Power

Part 730 Power Policy

Chapter 3 Standard Repayment Interest Rate Formula

730.3.5B

B. Each fiscal year, the Assistant Secretary - Energy and Minerals shall request the Secretary of the Treasury to inform him of the computations made as of July 1 in accordance with 730 DM 3.5C for the preceding fiscal year. If the yield rate so computed does not differ from the applicable interest rate used by Interior for the previous fiscal year by more than 1/2 percent, the applicable rate to be used by Interior shall be equal to the yield rate. If the yield rate differs from the applicable interest rate used by Interior for the previous fiscal year by more than 1/2 percent, the applicable rate to be used by Interior shall be the applicable rate used in the previous fiscal year increased or decreased by 1/2 percent toward the yield rate.

C. For the purposes of this paragraph the yield rate is the average yield during the preceding fiscal year on interest-bearing marketable securities of the United States which, at the time the computation is made, have terms of 15 years or more remaining to maturity. The average yield shall be computed as the average during the fiscal year of the daily bid prices. Where the average rate so computed is not a multiple of one-eighth of 1 percent, the rate of interest shall be the multiple of one-eighth of 1 percent nearest to such average rate.

D. The Assistant Secretary - Energy and Minerals shall annually advise the power agencies of the applicable interest rate for the current fiscal year.

avg of long-term

6/11/74 #1648
NEW

*Some rate as debt in the project
or, if no other debt ~~that rate~~
an long-term rate*

*or 65%/
15% of
PT Cummings*

obligation secured thereby, the title evidence, and all other documents and other papers pertaining to the mortgage loan;

(14) "permitted encumbrances" means liens, encumbrances, reservations and other imperfections of title as shall not materially impair the use or value of the premises or as to which appropriate steps have been taken to secure the interest of the Corporation;

(15) "planned unit development (PUD)" means a real estate development which consists of separately owned lots with contiguous or noncontiguous areas or facilities usually owned by an owner's association in which the owners of the lots have a stock or membership interest which cannot be severed from the ownership of an individual unit. Title to the real estate under the dwelling units is held by the individual lot owners and not by the owner's association. The owner's association usually has title to and administers the common areas, and levies monthly charges against lot owners for common area expenses; and

(16) "remote, underdeveloped or blighted" area, for purposes of AS 18.56.088(c)(1), is defined as all areas of the state situate outside the boundaries of the Municipality of Anchorage, the Fairbanks North Star Borough, the City and Borough of Juneau, and the Ketchikan Gateway Borough. The area within the Municipality of Anchorage may be referred to as category "C," the area within the Fairbanks North Star Borough, the City and Borough of Juneau, and the Ketchikan Gateway Borough may be referred to as category "B," and all other areas of the State may be referred to as category "A." The aforesaid political subdivisions each contain a population of 10,000 or more according to the latest estimate for state revenue sharing prepared by the Department of Community and Regional Affairs. (Eff. 11/29/78, Reg. 68; am 5/31/79, Reg. 70)

Authority: AS 18.56.088
AS 18.56.090
AS 18.56.210

CHAPTER 94. ALASKA POWER AUTHORITY

Article

1. Notice to Public (3 AAC 94.010—3 AAC 94.020)
2. Actions Other Than Loans (3 AAC 94.050)
3. Power Project Revolving Fund (3 AAC 94.070—3 AAC 94.110)
4. General Provisions (3 AAC 94.900)

ARTICLE 1. NOTICE TO PUBLIC

Section

10. Scope of regulations
20. Public notice of meetings

3 AAC 94.010. SCOPE OF REGULATIONS. This chapter applies to actions under the Alaska Power Authority concerning a project, as defined in AS 44.56.230(4), applications for loans from the power revolving fund. (Eff. 4/13/79, Reg. 70)

Authority: AS 44.56.230
AS 44.56.230

3 AAC 94.020. PUBLIC NOTICE OF MEETINGS. Public notice of all meetings must be given by publication in a newspaper of general circulation not less than two weeks and not less than five days before the meeting. The notice must be designed to give public notice of the meeting and of the topics to be discussed and considered at the meeting, and must include a proposed agenda for the meeting. (Eff. 4/13/79, Reg. 70)

Authority: AS 44.56.230
AS 44.56.230

ARTICLE 2. ACTIONS OTHER THAN LOANS

Section

50. Steps preceding certain actions

3 AAC 94.050. STEPS PRECEDING CERTAIN ACTIONS. (a) This section applies to any authority action other than actions covered under secs. 70 — 110 of this chapter which result in construction, acquisition, financing, operation of a power project, including limited to entering into an agreement with

July 1979

in taking final action on a resolution authorizing the issue of bonds.

in taking action covered by this section, the authority will consider whether

the project is an eligible project as defined in AS 44.56.230(3) and (4);

the project conforms with the long-term power development plan;

the project meets the needs of the area to be served by the project and will benefit the area by providing power to the consumer at the lowest reasonable cost;

the project is feasible from an engineering and an economic standpoint; and

an alternative to the project exists which would result in development of power at a lower cost, by a different method or by an authority other than the authority which could reasonably be expected to provide, within a time comparable to the project, comparable amounts of power at a lower cost to the consumer and which meets the criteria set forth in (b) of this subsection.

in taking action covered by this section, the authority will adopt a written resolution which

states that, in the opinion of the authority, the general prosperity and economic welfare of the people of Alaska will be enhanced by the project; and

sets out the findings of the authority with respect to each factor in (b) of this section. (Eff. 10/1/79, Reg. 70)

Authority: AS 44.56.070
AS 44.56.080
AS 44.56.100

ARTICLE 3. POWER PROJECT REVOLVING FUND

- 1. Loan application
- 2. Review by executive director
- 3. Action by authority
- 4. Terms of loans
- 5. Inspection of records and facilities

3 AAC 94.070. LOAN APPLICATION. (a) An application for a loan from the power project revolving fund must at the time of filing

(1) state the legal name of the applicant and the legal authority under which it was created and other information that will demonstrate that the applicant is an eligible borrower under AS 44.56.170;

(2) include a certified copy of the resolution or other official action by the governing body of the applicant authorizing the application for a loan;

(3) state the name, title, and address of the official correspondent or representative of the applicant for purposes of the application;

(4) state the names and titles of the principal officers, including the chief executive officer or general manager, of the applicant;

(5) state the name and address of the engineer, legal counsel, financial advisor or consultant, and any management, engineering, design, economic, or other advisors or consultants which the applicant may have for the project;

(6) state the total amount of loan requested;

(7) provide a general description of the use to which the loan funds will be applied, including but not limited to

(A) location;

(B) a comprehensive statement clearly demonstrating public need for the project and the project's eligibility under AS 44.56.170;

(C) the proposed allocation of loan funds to each purpose or to each phase of a project;

(8) provide information from which the authority may determine

(A) in the case of a construction project, that the project is feasible from an engineering and an economic standpoint; and

(B) that the applicant has the financial ability, including, where necessary, the

authority to charge and collect rates, fees or rentals or, in the case of a municipality, to levy taxes to generate sufficient revenue to repay the loan;

(9) state the status of any proceedings undertaken by the applicant to obtain permits, certificates or other authorizations from any federal, state or legal agency necessary to begin, complete, and operate the project;

(10) provide financial statements of the applicant and any other party or parties acting as guarantor of the loan, unless otherwise required by resolution of the authority; these financial statements must include, where possible, balance sheets and profit and loss statements and must be certified by an independent certified public accountant; and

(11) in the case of an investor-owned electric utility, provide a business history of any person or entity owning or controlling 10 percent or more of the applicant's stock or business.

(b) An applicant must, in addition to the application, provide in timely fashion other information which may be requested by the executive director of the authority.

(c) Applications must be submitted to the Executive Director, Alaska Power Authority, 333 West Fourth Avenue, Suite 31, Anchorage, Alaska 99501. (Eff. 4/13/79, Reg. 70)

Authority: AS 44.56.080
AS 44.56.170

3 AAC 94.080. REVIEW BY EXECUTIVE DIRECTOR. (a) Upon receipt of a complete application and other information which has been requested or required, the executive director shall review the application.

(b) The executive director, after reviewing the application, shall make a recommendation which includes

(1) written comments analyzing whether

(A) in the case of a power project, the project conforms with the long-term electrical power development plan;

(B) the project meets the needs of the

area to be served by the project and benefit the area;

(C) in the case of a construction project, the project is feasible from an engineering and an economic standpoint;

(D) in the case of a construction project, any alternative to the project exists which would result in development of power or potable water at a different site, by a different method, or by an entity other than the authority which could reasonably be expected to provide, within a time schedule comparable to the project, comparable volumes of power or potable water at a cost to the consumer and which meets the criteria set forth in (A) - (C) of this subsection; and

(E) the applicant has applied for and has been awarded necessary permits and certificates;

(2) a list of subjects to be analyzed in the final work product of any studies or investigations undertaken by the applicant;

(3) a statement setting out proposed terms and conditions; and

(4) other comments which the executive director, in his discretion, considers appropriate.

(c) The recommendation of the executive director must be transmitted to the authority for action within 90 days after a complete application has been filed. (Eff. 4/13/79, Reg. 70)

Authority: AS 44.56.080
AS 44.56.170

3 AAC 94.090. ACTION BY AUTHORITY

The authority will, in its discretion, request additional information during its consideration of an application and postpone action pending receipt of that information.

(b) The authority will, in its discretion, return a completed application under advisement for a reasonable period of time.

(c) The authority will consider an application which has been transmitted to it in

July 10, 1979

COMMERCE

3 AAC 94.090

3 AAC 94.110

other than applications for loans for reconnaissance or feasibility studies and will determine whether

the project is an eligible project under AS 44.56.170 and the borrower is an eligible borrower under AS 44.56.170;

In the case of a power project, the project conforms with the long-term electrical power development plan;

the project is feasible from an engineering and economic standpoint;

an alternative to the project exists which would result in development of power or public water at a different site, by a different method or by an entity other than the applicant which would reasonably be expected to provide, within a time schedule comparable to the project, comparable volumes of power or public water at a lower cost to the consumer and which meets the criteria set forth in (1) — of the subsection;

the needs of and benefits to the area to be served by the project are greater than the needs of and benefits offered to other areas of the state by a project for which sponsors may obtain loan funds from the authority if that determination can be made based on information then existing; and

the applicant has or will have sufficient assets from all sources to repay the loan.

The authority will consider each application for a loan for reconnaissance or feasibility studies which has been transmitted to the authority and must determine whether the applicant is an eligible borrower under AS 44.56.170 and has or will have sufficient assets from all sources to repay the loan in full.

As the final decision of the authority to approve or disapprove an application for a loan shall be in the form of a written resolution which contains the findings required by this section and which the executive director shall transmit to the applicant.

If the authority approves an application, it

will instruct the executive director to enter into a loan agreement with the applicant under conditions complying with sec. 100 of this chapter and provisions specified in the resolution. (Eff. 4/13/79, Reg. 70)

Authority: AS 44.56.080

AS 44.56.170

3 AAC 94.100. TERMS OF LOANS. The terms of loans made by the authority from the power project revolving fund will be contained in the authority resolution approving the application and will comply with the following conditions:

(1) the loan must bear an interest rate or rates as determined by the authority, but the rate must not be less than three percent;

(2) the loan must mature on the date and pay interest on the dates and in such amounts as determined by the authority, but the final maturity date must not extend beyond the expected and specified productive life of the project being financed; and

(3) the loan must be supported by appropriate documentation which may include, without limitation, a loan agreement, bonds, notes, or other documentation, evidencing to the satisfaction of the authority that the loan is secured by one or more of the following:

(A) a pledge of the revenues of the borrower or the project;

(B) a lien, mortgage, security interest, collateral agreement or other encumbrance on the project or other assets, rights or interests of the borrower; or

(C) a pledge of the taxing power of the borrower. (Eff. 4/13/79, Reg. 70)

Authority: AS 44.56.080

AS 44.56.170

3 AAC 94.110. INSPECTION OF RECORDS AND FACILITIES. (a) An applicant shall make its books and records, facilities, and its real and personal property of any kind, available for inspection at any reasonable time by the authority, its executive director, or its agents, upon receipt by the applicant of a written request to inspect.

(b) The authority, its executive director, or its agents, will, in the discretion of the authority or its executive director, inspect upon reasonable notice the construction of any project which is being financed, in whole or in part, with funds obtained by a loan from the authority. The inspection does not subject the authority, its executive director, or its agents to any action for damages.

(c) An applicant which has obtained a loan from the authority shall permit the authority, its executive director, or its agents to inspect its books, records, facilities, and real and personal property as long as any portion of the loan, including interest, remains outstanding.

(d) The authority will, in its discretion, by written request require an applicant which has obtained a loan from the authority to

(1) submit at reasonable times to audits or examinations of its books and records by an independent firm of certified public accountants selected by the authority to determine whether the provisions of the loan agreement have been complied with and to pay the cost of this audit or examination;

(2) submit a sworn statement by a responsible officer of the applicant as to the purposes to which the proceeds of the loan have been applied. (Eff. 4/13/79, Reg. 70)

Authority: AS 44.56.080
AS 44.56.170

ARTICLE 4. GENERAL PROVISIONS

Section 900. Definitions

3 AAC 94.900. DEFINITIONS. In this chapter, unless the context requires otherwise

(1) the definitions in AS 44.56.230 apply to words used in this chapter;

(2) "city" or "borough" includes a unit of home rule local government which has been unified under AS 29.68.240 *et seq.*;

(3) "executive director" means the executive director of the Alaska Power Authority;

(4) "long-term electrical power plan" means the plan to be prepared by the Department of Commerce and Development under AS 44.56.224 as it exists at the time of consideration or determination;

(5) "nonprofit marketing cooperative" means a cooperative organized under AS 10.25.020, Alaska Cooperative Corporation Act, operated on a nonprofit basis for the benefit of its members and which contains provisions relating to the distribution of revenues and receipts as may be necessary and appropriate to establish and maintain a nonprofit and cooperative character; "electric cooperative" means a cooperative organized under AS 10.25.020, Electric and Telephone Act, which exercises powers granted to an electric cooperative under AS 10.25.020;

(6) "regional corporation" means a Native Regional Corporation established under the laws of the State of Alaska in accordance with the provisions of the Alaska Native Claims Settlement Act (P. L. 92-203);

(7) "small scale" means a power plant with 20 or fewer megawatts installed capacity;

(8) "village corporation" means a Native Village Corporation organized under the laws of the State of Alaska as a nonprofit or nonprofit corporation to hold, manage, and distribute land, property, and other rights and assets for and on behalf of a native village in accordance with the provisions of the Alaska Native Claims Settlement Act (P. L. 92-203);

(9) "village council" means the duly constituted governing body of an unincorporated community which has between 25 and 50 people residing within a two-mile radius. (Eff. 4/13/79, Reg. 70)

Authority: AS 44.56.045
AS 44.56.080
AS 44.56.170

AS 44.56.045
AS 44.56.080



STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

May 6, 1980

The Honorable Brian Rogers
Chairman, House Finance
Subcommittee on CSHB754
Alaska State Legislature
Pouch V
Juneau, Alaska 99811

draft language only

Brian
Dear Representative Rogers:

We have reviewed CS for House Bill 754 (Finance) and offer the following amendments for your serious consideration.

1. p. 5, line 5

add (iii) Resolutions submitted to the Board for loan approvals under this section and requests for appropriations for specific loans in the APA budget shall include a finding, pursuant to Sec. 170(c)(5), of the present value of the difference in the cost of the loan to the borrower between a rate under (ii) of this subsection and a rate under (i) of this subsection.

If it is to remain policy to provide below-market interest rates for power development, one critical piece of information which should be developed and presented is the present value of this subsidy. The APA should be required to compute this figure by comparing the cost to the borrower under subsection (2)(B)(ii) if this option is recommended and (2)(B)(i) of this section.

2. p. 5, line 18

after "(1)" add after consultation with other agencies of state government or other sources of information on alternative sources of power,

proposed
Both the Energy Center and the Division of Energy and Power Development are in the business of developing and disseminating information on alternative power technologies. The APA should be required to work in conjunction with these and other related entities.

May 6, 1980

3. p. 5, line 27

Consultation

after "authority" add , in ~~cooperation~~ with the Division of Budget and Management,

Once promulgated by the APA and approved by the Department of Law (on legal, not policy grounds) these regulations have the weight of law and Budget and Management can only review on the basis of whether or not the APA studies follow the substantive and procedural requirements of the regulations. To strengthen the ability of Budget and Management to perform an adequate review, they should be given the power to work with the APA in establishing the regs defining the substance of APA studies.

4. p. 7, line 8

~~to its next best alternative~~

after "project" change ";" to . and add If the proposed project is not significantly superior, based on established criteria, ~~than~~ its next best alternative, the analysis required under this subsection, shall contain all the information required under (b)(1) of this section for the next best alternative; and

Unless it is reasonably clear that the proposed project is far superior to its alternatives, the APA should be required to develop complete information on at least the top two alternatives so that a detailed comparison is possible.

5. p. 8, line 7

after "required." add The plans of finance shall include an estimate of the present value of state financial assistance, computed as the difference between the market rate determined as either (1) the rate under 170(f)(2)(B)(i) or (2) the estimated interest rate on revenue bonds issued by the Authority for the project, and the effective rate resulting from state financial assistance.

See comment for Recommendation No. 2.

6. p. 8, line 8

Cooperation

after "authority" add , in ~~conjunction~~ with the Division of Budget and Management,

See comment for Recommendation No. 4.

May 6, 1980

7. p. 9, line 25 and 27

delete Sections 187(a)(1)(A) and (B). Line 24 after "fund"
add . and delete rest of sentence.

As presently written, Sec. 187(a) means not only that the Division of Budget and Management may not review APA studies, but it also means the APA is not required to conduct reconnaissance or feasibility studies on any project. Even the reconnaissance study for Susitna cost less than \$3 million and few feasibility studies cost that much.

*Explanation
here*

The timing of funding requirements is fairly loose, and the development of a finance plan comes relatively late in the process (as part of the feasibility study). Thus there is considerable opportunity for the APA to shift both appropriation requests and expected appropriation requests far enough into the process to effectively use this section as written to escape Sections 177-185 entirely. The review of reconnaissance and feasibility studies by the Division of Budget and Management should not be based upon a given level of appropriations in a given year. It should be based on the degree of possible state involvement in a project which cannot be assessed until completion of both studies. Unless no state appropriations will be involved at all from the outset, these sections should apply.

8. p. 10, line 5

delete Sec. 187 (b).

We fail to see how the size of a project per se relates to whether or not Sec. 177-185 should apply to that project. Indeed, under FERC regulations, any project over 1.5MW requires the types of analysis required by Sec. 177-185 for licensing, and, therefore, the APA should be required to perform such studies in preparation for FERC licensing proceedings.

9. p. 12, line 5

add a new section to read:

(c) Upon expiration of a contract entered into by the authority under (a) of this section, any revenues remaining with the authority earned under that contract shall be used to reduce rates or improve services to consumers served by the power project.

*Surpluses
come after
contract
exp. res?*

May 6, 1980

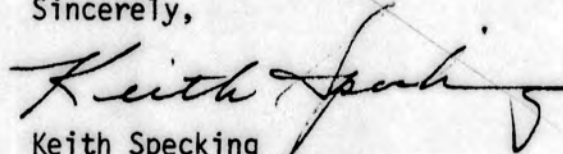
Upon expiration of a contract or of covenants pursuant to a contract, the APA may be in possession of reserve accounts, sinking funds, or other monies pledged to secure that contract. Such surplus revenues should be applied to reducing rates or improving services.

10. p. 5, line 16 and throughout

The meaning of the term "new project" is undefined in Sec. 230 Definitions. In the original statute, the only indication of what a new project is was contained in Sec. 180 (Sec. 180(d) in 1973 amended version) and was anything that was not an "addition, modification or repair," etc. The new Sec. 189 provides no clues as to the meaning of new project, nor the difference between "new" and "old" projects. The original intent was that all projects are "new" projects for purposes of executive and legislative review until bonds have been issued, at which time a project becomes an "old" project. This was to protect bondholders from having projects return to the political arena.

Either the term "new" project should be analyzed in the context of HB754 and defined, or the word "new" should be deleted wherever it appears in conjunction with "project."

Sincerely,



Keith Specking
Legislative Assistant

PROJECTS AUTHORIZED — UNDER STUDY POWER

BRADLEY LAKE

This potential hydropower project is at the mouth of Bradley Lake on the Kenai Peninsula at the head of Kachemak Bay, some 25 air miles northeast of Homer and 110 miles southwest of Anchorage.

Basic project features include two dams to block the outlet of the lake, two small dams with ditch systems to divert flows from the north fork of Bradley River and from Nuka River into the reservoir, and a lake-tap-powerhouse-tailrace complex for power generation. Authority for advanced engineering and design work was contained in the 1962 Flood Control Act.

Congress authorized a restudy of this potential project. By the end of 1978 the Alaska District had selected the final project features. The market analysis was performed by the Alaska Power Administration.

Load growth projections will be re-analyzed and updated commensurate with the greatly increased demand for electrical energy in Alaska generally and in the railbelt area specifically. Substantial growth in population and business on the Kenai Peninsula in the past three years has brought increased local power needs.

Study of this possible power site is a phase of the long-range examination of energy sources being explored in the District's Southcentral Railbelt Area Study. (See Congressional Studies Under Way, Power, pages 44, 46). Objective of that study is the location of sources of power available to the railbelt area, which extends from Fairbanks and

vicinity southward to include the Kenai Peninsula.

It is estimated that the contemplated installation, providing an ultimate installed capacity of 118,000 kW, may cost \$156,000,000.

Physical data on the project, as authorized by the 1962 Flood Control Act, are:

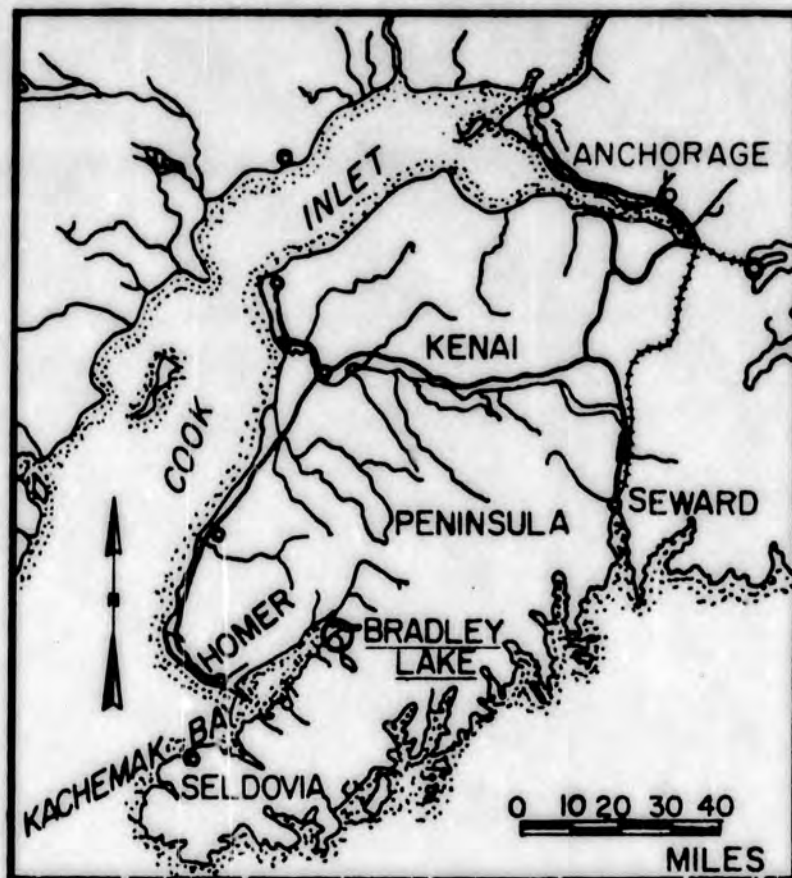
Drainage area damsite: 68 sq. miles.

Main dam:

Type:	Concrete-gravity
Spillway:	Ungated overflow
Height	100 feet
Crest length:	1,215 feet

Reservoir:

Gross capacity:	311,000 acre feet
Dead storage:	100,000 acre feet



MEMORANDUM

May 19, 1980

To: Representative Russ Meekins
Representative Jim Duncan
Representative Joe Montgomery

From: Hugh Malone

Re: Alaska Power Authority Operating Budget, Development Category

As you know, the House approved three new positions for the Alaska Power Authority: two engineers and one economist. I feel that these new positions are vital, given the amount of work the legislature has directed the authority to accomplish. We have directed them to do over fifty million dollars worth of work this next fiscal year, including scores of reconnaissance and feasibility studies for communities in every part of the state. The authority currently has only three professional staff: an executive director, a director of finance and a director of engineering. If we are to expect good work on the projects of the authority, we must provide the proper level of administrative support.

cc; Senator John Sackett

*Thank you for your attention
to this very important
matter.*

H Malone

CH. SLA OR RP	PROJECT TITLE AND LOCATION	AMOUNT AUTHORIZED	ESTIMATED TOTAL EXPENDITURES THROUGH JUNE 1980	PLANNED EXPENDITURES THROUGH COMPLETION	EST. COMPL. DATE	STATUS
SB 63	Susitna Alternative Method	150.0	150.0	150.0	1/80	Alternative Method will be developed according to plan by 10/79.
SB 63	Susitna Feasibility Analysis	8,178.0	4,000.0	26,400.0	3/84	Appropriation was to the Governors Office.
HB 32	Swan Lake Hydroelectric Project	3,165.0	3,165.0	21,165.0	10/81	Funds have been loaned to the Utility. State assistance in financing is necessary.
HB 32	Lake Tyee Hydroelectric Project	2,000.0	2,000.0	12,000.0	10/82	Development of Project has been taken over by the Authority. Clarification on use of funds is necessary. State assistance in financing is necessary.
HB 32	Terror Lake Hydro-electric Project	2,000.0	2,000.0	2,000.0	6/80	Funds have been loaned to the utility and work is proceeding on schedule.
HB 32	Power Creek Hydro-electric Project	250.0	250.0	750.0	6/81	Funds will be loaned to the utility after completion of a Corps of Engineers study. Fully funded by FCCSSB 53. Appropriation in FY'80.
FCCSSB 53	AVEC Fuel Conversion Project	150.0	150.0	275.0	6/81	Project is proceeding on schedule. Funds RSA'd from Dept. of Com. & Reg. Affairs
FCCSSB 53	Cordova Hydro Project	500.0	500.0	750.0	6/81	Fully funded in FY'80.--See Above
FCCSSB 53	Bradley Lake Hydro Project	80.0	80.0	3,580.0	6/82	Work will proceed in cooperation with the Corps of Engineers.
FCCSSB 53	Solomon Creek Hydro Project	200.0	100.0	200.0	6/81	Alaska Electric Light and Power has not as yet applied for loan of the fund.
FCCSSB 53	Anchorage Energy Pooling	120.0	60.0	120.0	6/81	This study has not been initiated as yet.
FCCSSB 53	Mennonite Creek Hydro. Project	90.0	90.0	290.0	6/80	A detailed feasibility study will be initiated in October with a loan to the utility.

CATEGORY Power Development

AGENCY Alaska Power Authority

PROGRAM Economic Development

CH. # SLA # OR RP #	PROJECT TITLE AND LOCATION	AMOUNT AUTHORIZED	ESTIMATED TOTAL EXPENDITURES THROUGH JUNE 1980	PLANNED EXPENDITURES THROUGH COMPLETION	EST. COMPL. DATE	STATUS
FCCSSB 53	Lake Elva Hydroelectric Project	80.0	60.0	480.0	6/82	A Feasibility Study and Stream Gaging have recently been initiated.
FCCSSB 53	Chilkat Hydroelectric Project	50.0	45.0	550.0	6/82	A Reconnaissance Study has recently been initiated for the Haines/Skagway area.
FCCSSB 53	Kisaralik Hydroelectric Project	80.0	80.0	580.0	6/82	A Feasibility Study and Stream Gaging have recently been initiated.
FCCSSB 53	Gartina Creek Hydro. Project	400.0	150.0	400.0	6/82	A preliminary feasibility report is presently being completed on this project.
FCCSSB 53	Gunnuk Creek Hydro. Project	195.0	95.0	195.0	6/82	A preliminary feasibility report is presently being completed on this project.
FCCSSB 53	Thayer Creek Hydro. Project	220.0	100.0	220.0	6/82	A preliminary feasibility report is presently being completed on this project.
FCCSSB 53	Black Bear Lake Project	440.0	150.0	440.0	6/82	A preliminary feasibility report is presently being completed on this report.
FCCSSB 53	Larsen Bay/Old Harbor Hydro. Projects	80.0	80.0	480.0	6/82	Detailed Feasibility Studies will be initiated in the spring of 1980 for both villages.
FCCSSB 53	Nome/Kotzebue Assessment	80.0	80.0	680.0	6/82	A Reconnaissance study of the areas will be initiated in 9/79. One project near Nome has been identified.
FCCSSB 53	Thomas Bay Power Authority-Tyee Phase II	60.0	60.0	60.0	6/80	Funds have been loaned to the Commission for work on the Lake Tyee Project
FCCSSB 53	Seward Hydro. Study	40.0	40.0	1,040.0	6/82	Feasibility Studies are presently being initiated in conjunction with the City of Seward.

CATEGORY Power Development

AGENCY Alaska Power Authority

PROGRAM Economic Development

Impact of State Assistance in
Financing Power Project Construction

(\$ millions in 1979)

CY	1979	1980	1981	1982	1983	1984	Total
# Project Starts	2	1	6	12	4	1	26
Projects	Green Lake Solomon Gulch	Waste Heat Recovery	Swan Lake Lake Tyee Mennonite Creek 3 AVEC Village Projects	Terror Lake Larsen Bay Old Harbor Haines/Skagway Power Creek THREA-Gartina Creek 6 AVEC Village Projects	Bradley Lake Grant Lake Dillingham Kisaralik	Black Bear Lake	
\$ Value	80.2	55.0	138.0	159.0	320.0	16.0	768.2
State Assistance	8.6	0	33.1	15.0	30.0	4.0	90.7 ⁽¹⁾ (2)
# Project Starts w/o State Assist- ance	1	1	1	2	1	0	6
\$ Value	35.0	55.0	1.0	105.0	180.0	0	376.0
Projects	Solomon Gulch	GVEA- Alyeska	Mennonite Creek	Terror Lake Old Harbor	Bradley Lake		
Locations	Valdez	Fairbanks	Kodiak	Kodiak	Railbelt		

(1) Approximately \$17.6 million of state assistance for small power projects has been provided through FY 80.

(2) State assistance in the construction financing through subordinate loans represents \$68.6 million of the total, of which approximately \$60 million could be eliminated with state guarantees of Power Authority bonds.

000113

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March 17, 1980

The Honorable Bill Miles
Co-Chairman, Resources Committee
House of Representatives
Pouch V
Juneau, Alaska 99811

Re: HB 953

Dear Representative Miles:

Along with Alaska Power Authority Executive Director Eric P. Yould, I appreciated the opportunity last Friday to discuss with you and other interested parties, the contents of HB 953 which was introduced March 11.

At that time, we outlined briefly several changes which the Authority suggested should be made in HB 953 and in existing law. Some of those changes were a modification of provisions of HB 953, some were caused by the impact of the Alaska Supreme Court's recent A.L.I.V.E. Voluntary decision (No. 2022, February 19, 1980), and some were an effort to refine and reorganize the existing legislative oversight provisions contained in AS 44.56.180. We left with you a preliminary draft of several of those suggestions.

Attached is a more complete set of Authority recommendations in a form which Dave Rogers and Jack Chenoweth should find fairly easy to adapt to bill form when producing a committee substitute bill. Section references are to HB 953 as introduced.

Very truly yours,



Pete Argetsinger

PA/lw

Attachment

cc: David Rogers, Esq.
Jack Chenoweth, Esq.
Mr. Eric P. Yould, APA
Mr. Ken Wonstolen, NCSL