

S B

449

STATE OF ALASKA
THE LEGISLATURE

POUCH Y STATE CAPITOL
JUNEAU, ALASKA 99811
907 465 3800

LEGISLATIVE AFFAIRS AGENCY

MEMORANDUM

April 28, 1990

SUBJECT: Fiscal note for draft CSSB 449 (L&C)
(Healy cogeneration project)

TO: Senator Dick Eliason
Chair, Senate Labor & Commerce Committee

FROM: Teresa B. Cramer *TBC*
Legislative Counsel

You have asked whether attaching a fiscal note to CSSB 449 (L&C) for the cost of the Healy cogeneration project raises legal questions. Inclusion of the fiscal note is based on sec. 3, directing the Alaska Industrial Development and Export Authority to undertake the construction of the project as soon as possible.

In my opinion, there are no legal prohibitions against addressing the funding of the project in this manner. The money for the project cannot be spent unless it is appropriated by the legislature, so the fiscal note must be included in an appropriation bill, perhaps a section of the capital budget, should the legislature wish to do so. The inclusion should note that the appropriation is for a capital project rather than for operating expenses. If the title of the operating budget is broad enough to include capital expenses, the fiscal note could be the basis for inclusion in the new legislation section of the operating budget. However, the current title to CSHB 500 (Finance) includes operating and loan program expenses but does not include capital expenses, so in its present form it is not broad enough to include this appropriation.

If I may be of further assistance, please advise.

TC:pl
WKP4/088

6-2083E

Cramer
4/24/90

Original sponsor(s): Resources Committee

1 IN THE SENATE BY THE LABOR & COMMERCE COMMITTEE

2 CS FOR SENATE BILL NO. 449 (L&C)

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 SIXTEENTH LEGISLATURE - SECOND SESSION

5 A BILL

6 For an Act entitled: "An Act relating to authorization for the issuance of
7 bonds and procurement for certain research projects;
8 and providing for an effective date."

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

10 * Section 1. The Alaska Industrial Development and Export Authority is
11 authorized, as required by AS 44.88.090 and 44.88.172, to issue bonds for
12 the Healy cogeneration project in a principal amount not to exceed
13 \$85,000,000. Before issuing the bonds, the authority shall comply with
14 AS 44.88.173.

15 * Sec. 2. AS 36.30.850(b) is amended by adding a new paragraph to read:
16 (22) contracts for a clean coal technology demonstration
17 project that

18 (A) is attempting to develop a coal-fired electric
19 generation project;

20 (B) uses technology that is capable of commercializa-
21 tion during the 1990's; and

22 (C) qualifies for federal financial participation
23 under P.L. 99-190 as amended.

24 * Sec. 3. The Alaska Industrial Development and Export Authority shall
25 undertake the construction of the Healy cogeneration project as soon as
26 possible.

27 * Sec. 4. This Act takes effect immediately under AS 01.10.070(c).
28
29

6-2083J
Cramer
5/5/90

Original sponsor(s): Resources Committee

1 IN THE SENATE

BY THE LABOR & COMMERCE COMMITTEE

2 CS FOR SENATE BILL NO. 449 (L&C)

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 SIXTEENTH LEGISLATURE - SECOND SESSION

5 A BILL

6 For an Act entitled: "An Act relating to the Alaska Industrial Development
7 and Export Authority and authorizing the authority to
8 issue bonds; relating to procurement by the authority
9 for certain projects; relating to accounts and proj-
10 ects of the Alaska Industrial Development and Export
11 Authority and to investments by the authority; and
12 providing for an effective date."

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

14 * Section 1. AS 36.30.850(b) is amended by adding a new paragraph to
15 read:

16 (22) contracts of the Alaska Industrial Development and
17 Export Authority for a clean coal technology demonstration project
18 that

19 (A) is attempting to develop a coal-fired electric
20 generation project;

21 (B) uses technology that is capable of commercializa-
22 tion during the 1990's; and

23 (C) qualifies for federal financial participation
24 under P.L. 99-190 as amended.

25 * Sec. 2. AS 44.88.010(c) is amended to read:

26 (c) It is further declared to be the policy of the state, in the
27 interests of promoting the health, security, and general welfare of
28 all the people of the state, and a public purpose of the state, to
29 accomplish the objectives set out in (b) of this section through the

1 provision of financial support to a [IN COOPERATION WITH] federal,
2 state, municipal, or [AND] private entity [INSTITUTIONS FOR THE PUR-
3 POSE OF INCREASING THE EXPORT OF ALASKA GOODS, TALENT, RAW MATERIALS,
4 AND SERVICES].

5 * Sec. 3. AS 44.88.060 is amended to read:

6 Sec. 44.88.060. ALASKA INDUSTRIAL DEVELOPMENT AND EXPORT AU-
7 THORITY REVOLVING FUND. The Alaska Industrial Development and Export
8 Authority revolving fund is established in the authority. The revolv-
9 ing fund consists of appropriations made to the revolving fund by the
10 legislature, money or other assets transferred to the revolving fund
11 by the authority, and unrestricted payments on loans made or purchased
12 by the authority. Unless otherwise expressly stated, the accounts
13 created in this chapter are accounts in the revolving fund. The
14 authority may create additional accounts either in the revolving fund
15 or outside the revolving fund. Subject to agreements made with the
16 holders of the authority's bonds or with other persons, the authority
17 may transfer amounts in an account in the revolving fund to another
18 account in the revolving fund. Amounts deposited in the revolving
19 fund may be pledged to the payment of bonds of the authority or ex-
20 pended for the purposes of the authority under this chapter. The
21 authority has the powers and responsibilities established in AS 37.-
22 10.071 with respect to the investment of amounts held in the revolving
23 fund.

24 * Sec. 4. AS 44.88.155(c) is amended to read:

25 (c) Money and other assets of the enterprise development account
26 may be used to secure bonds of the authority issued to finance the
27 purchase of loans for projects [AND SHALL BE HELD AND INVESTED BY THE
28 AUTHORITY IN ACCORDANCE WITH AS 37.10.071] or shall be used to pur-
29 chase loans for projects.

1 * Sec. 5. AS 44.88.900(9) is amended to read:

2 (9) "project" means

3 (A) a plant or facility used or intended for use

4 [(i)] in connection with making, processing,
5 preparing, transporting, or producing in any manner, goods,
6 products, or substances of any kind or nature or in connec-
7 tion with developing or utilizing a natural resource, or
8 extracting, smelting, transporting, converting, assembling
9 or producing in any manner, minerals, raw materials, chemi-
10 cals, compounds, alloys, fibers, commodities and materials,
11 products, or substances of any kind or nature;

12 [(ii) AS AN INDUSTRIAL PARK; IN CONNECTION WITH
13 TRANSPORTATION; FOR THE PREVENTION, LIMITATION OR CONTROL OF
14 POLLUTION; FOR THE DISPOSAL OF SEWAGE OR SOLID WASTE; FOR
15 THE LOCAL FURNISHING OF GAS; FOR THE FURNISHING OF WATER; AS
16 OR IN CONNECTION WITH MASS COMMUTING VEHICLES; FOR LOCAL
17 DISTRICT HEATING OR COOLING; AS A PARKING FACILITY; OR AS A
18 STORAGE OR TRAINING FACILITY DIRECTLY RELATED TO A PLANT OR
19 FACILITY DESCRIBED IN THIS PARAGRAPH;]

20 (B) a plant or facility used or intended for use in
21 connection with a business enterprise;

22 (C) commercial activity by a small enterprise;

23 (D) a plant or facility demonstrating technological
24 advances of new methods and procedures and prototype commercial
25 applications for the exploration, development, production, trans-
26 portation, conversion, and use of energy resources;

27 * Sec. 6. The Alaska Industrial Development and Export Authority may
28 issue bonds to finance the acquisition, design, and reconstruction of a
29 public use ore terminal in Skagway to be owned by the authority. The

1 principal amount of the bonds may not exceed \$25,000,000. This section
2 grants the legislative approval required by AS 44.88.090 and 44.88.172(c).

3 * Sec. 7. The Alaska Industrial Development and Export Authority may
4 issue bonds to finance the acquisition, design, and construction of im-
5 provements to the Ballyhoo dock in Unalaska to be owned by the authority.
6 The principal amount of the bonds may not exceed \$10,000,000. This section
7 grants the legislative approval required by AS 44.88.090 and 44.88.172(c).

8 * Sec. 8. The Alaska Industrial Development and Export Authority is
9 authorized to issue bonds for the Healy cogeneration project. The princi-
10 pal amount of the bonds may not exceed \$85,000,000. This section grants
11 the legislature approval required by AS 44.88.090 and 44.88.172(c).

12 * Sec. 9. Before bonds authorized in secs. 6 - 8 of this Act are is-
13 sued, the Alaska Industrial Development and Export Authority shall comply
14 with the requirements of AS 44.88.173.

15 * Sec. 10. AS 44.88.172(b) is repealed.

16 * Sec. 11. This Act takes effect immediately under AS 01.10.070(c).

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FISCAL NOTE

REQUEST:

Revision Date: _____ Agency Affected: Commerce & Econ. Dev.
 Title: Act relating to issuance of bonds and procurement for certain development projects ARU: Alaska Industrial Development and Export Authority
 Sponsor: Senate Resources Components: _____
 Requestor: Senate Resources

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 91	FY 92	FY 93	FY 94	FY 95	FY 96
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL	122,000.0	0	0	0	0	0
REVENUE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS	92,000.0					
OTHER	30,000.0					
TOTAL	122,000.0	0	0	0	0	0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : (Attach a separate page if necessary)

Analysis is attached as page 2.

Prepared by: Bertram L. Wagnon, Executive Director Phone: (907) 561-8050
 Division: Alaska Industrial Development & Export Authority Date: 3/12/90

Approved by Commissioner: Larry Merculieff *Larry Merculieff* Date: 3-13-90
 Agency: Department of Commerce & Economic Development

Distribution (by preparer):
 Legislative Finance
 Legislative Sponsor
 Requestor
 Office of Management and Budget
 Impacted Agency(ies)

ANALYSIS - FISCAL NOTE - SB 449

Section 1 of this bill would give AIDEA the authority to issue up to \$85 million in bonds for the Healy cogeneration project.

The estimated construction cost of the project is \$192 million. It is estimated that up to \$70 million in bonded debt will be required. The \$85 million figure contained in the bill provides a cushion for cost overruns that may exceed the current estimate. The actual amount of bonds will most likely be less. In addition to the AIDEA bond authorization, capital appropriations of \$92 million in federal funds and \$30 million in state funds will be required.

The state funds are shown under "other" in the fiscal note as the exact source is undetermined. The fiscal note shows all appropriations for the project in FY 91 since all appropriations will be required before AIDEA can issue bonds for the project. We anticipate that the project will be completed in FY 96 and that the expenditure by fiscal year will be as follows:

FY 91	\$ 8,000.0
FY 92	11,000.0
FY 93	46,000.0
FY 94	52,000.0
FY 95	58,000.0
FY 96	<u>17,000.0</u>
Total	\$192,000.0

SUMMARY OF THE HEALY COGENERATION PROJECT

- ... Construct a state-of-the-art coal-fired power plant at Healy
- ... Provide 50 megawatts of competitively priced electricity for railbelt consumers
- ... Demonstrate innovative coal burning technologies
- ... May provide energy for the future development of a pilot-scale plant to beneficiate high-moisture Alaska coals

BENEFITS OF THE HEALY COGENERATION PROJECT TO ALASKA

- ... Employ approximately 200 workers during a two year construction period
- ... Create about 50 year-round jobs in Healy once the plant is fully operational
- ... Satisfy increasing railbelt energy demands and will help diversify the fuel base of the railbelt power grid
- ... Available for transmitting power to the southern railbelt
- ... Demonstrate a clean-burning technology that can be used to retrofit or repower existing power plants in Alaska, the nation, and the Pacific Rim
- ... Bring national and international attention to Alaska's low-sulfur coal resources
- ... Open new markets for Alaskan coal
- ... Test methods to increase the quality of Alaskan coal by reducing its moisture content

FUNDING FOR THE HEALY COGENERATION PROJECT

... Clean Coal Technology federal grant program	\$ 93,186,000
... State appropriation	30,000,000
... AIDEA bonds	85,000,000



Alaska Environmental Lobby, Inc.

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DOES IT MAKE SENSE TO BUILD A POWER PLANT THAT USES THE MOST ENVIRONMENTALLY DAMAGING FORM OF FUEL JUST TO GET A FEDERAL SUBSIDY?

The Healy "Clean Coal" Project needs closer scrutiny. This proposed project will

* contribute to the problem of CO2 pollution in the upper atmosphere. While there exists some disagreement about the details of the global warming phenomenon, there is consensus that CO2 has become a serious pollutant and that we must reduce the buildup of CO2 generated by the burning of fossil fuels.

* necessitate a major limestone mine in the Cantwell area. Very little information has been available for the public to review this proposed mine.

* add to the present over-capacity of power. A coal-fired plant cannot be switched off and on. The flexibility needed to respond to demand changes will not be available.

* divert money from more responsible efforts to reduce demand and to supply power with minimum pollution and maximum flexibility.

Coal is inherently polluting; there is no "clean coal". The definition of cleanliness that the US Department of Energy (DOE) puts forth uses criteria to reduce emissions that contribute to acid rain. DOE fails to consider CO2 in this analysis. Electricity produced from coal generates more CO2 than does electricity produced from any other source - more than twice as much, for example, as from natural gas. CO2 will also be generated as a by-product in the process of scrubbing, using the limestone.

The Healy "Clean Coal" Project will not be a model energy project. If it is determined that more power is needed, more attractive and less expensive alternatives are available, alternatives that create and maintain jobs as well as reduce utility bills. These alternatives include reducing demand through energy efficiency measures such as weatherization programs and the Alaska Home Craftsman Program; a natural gas plant that provides demand flexibility and far less pollution; wind-generated power with a generator in the 'Healy wind tunnel', for example.

THE ANSWER IS NO.

5/6/90

June Weinstock and Mary Grisco

CLEAN AIR COALITION • PRINCE WILLIAM SOUND CONSERVATION ALLIANCE • ALASKA CENTER FOR THE ENVIRONMENT
ALASKA CHAPTER, SIERRA CLUB • JUNEAU GROUP SIERRA CLUB • KNIK GROUP SIERRA CLUB • DENALI GROUP, SIERRA CLUB
ANCHORAGE AUDUBON SOCIETY • ARCTIC AUDUBON SOCIETY • DENALI CITIZENS' COUNCIL • ALASKA FRIENDS OF THE EARTH
JUNEAU AUDUBON SOCIETY • KACHEMAK BAY CONSERVATION SOCIETY • KENAI PENINSULA AUDUBON SOCIETY • KODIAK AUDUBON SOCIETY
LYNN CANAL CONSERVATION • SITKA CONSERVATION SOCIETY • NORTHERN ALASKA ENVIRONMENTAL CENTER
SOUTHEAST ALASKA CONSERVATION COUNCIL • KNIK CANNERS AND KAYAKERS

**HEALY
COGENERATION
PROJECT**

PROJECT HISTORY

1988

* 150 MEGAWATT CONCEPT
- TECHNICAL EVALUATION

* MARKET ANALYSIS
- POWER & COAL

* 50 MEGAWATT CONCEPT
- PRELIM. FEASIBILITY

1989

* PROJECT RESERVE BY
STATE LEGISLATURE

* PROPOSAL TO DOE

PROJECT PARTICIPANTS HEALY POWER PROJECT

M0290113

- Alaska Industrial Development and Export Authority AIDEA
- Golden Valley Electric Association, Inc. GVEA
- Joy Technologies, Inc. and Niro Atomizer JOY
- Stone & Webster Engineering Corporation SWEC
- TRW Combustion Business Unit TRW
- Usibelli Coal Mine, Inc. UCM

DOE CLEAN COAL III

OBJECTIVES

- * REDUCE ACID RAIN
PRECURSORS (SO_x & NO_x)
- * REDUCE U.S. - CANADA
AIR POLLUTION
- * COMMERCIALIZE CCT'S
 - RETROFIT
 - REPOWER
 - NEW COAL-BASED ELECT.
GENERATION

Clean Coal III - Competition

DOE Received 48 Proposals

\$3.9 billion Total Value

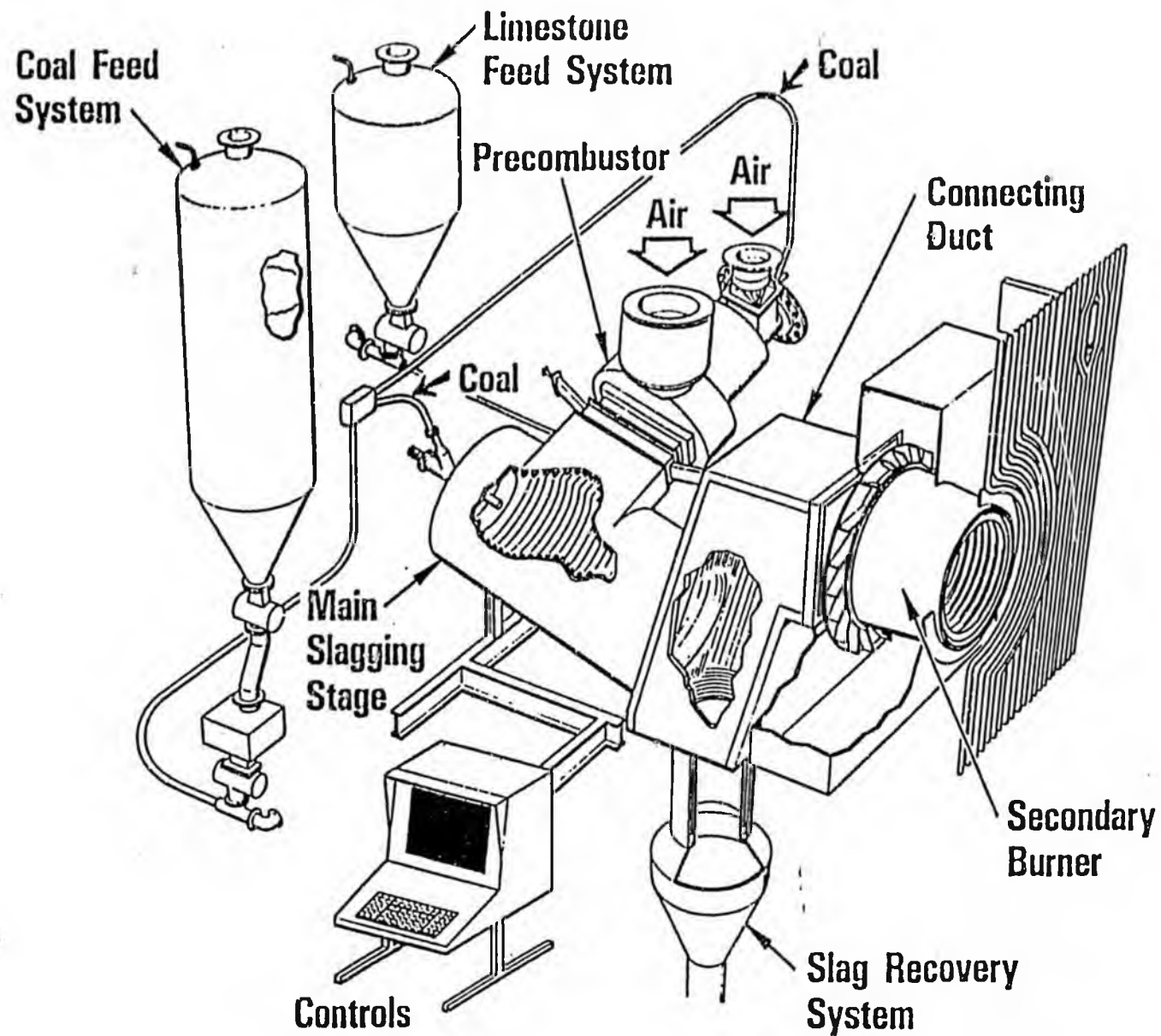
DOE Selected 13 Proposals

\$1.3 billion Total Value

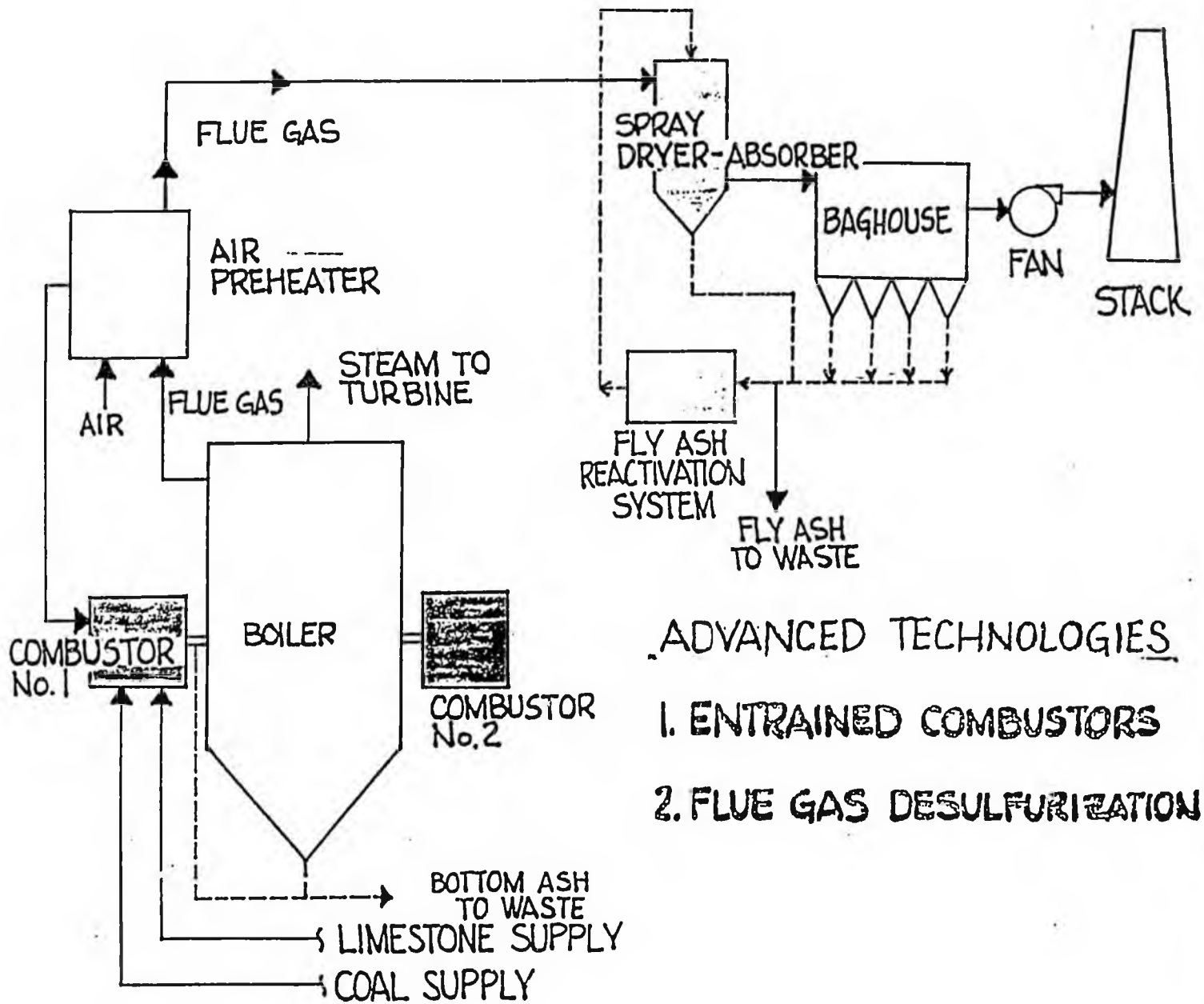
\$540 million DOE

\$770 million Private & State

Pre - Award activities must be completed
by December 22, 1990



TRW ENTRAINED COMBUSTION SYSTEM
 Alaska Industrial Development and Export Authority



ADVANCED TECHNOLOGIES

1. ENTRAINED COMBUSTORS
2. FLUE GAS DESULFURIZATION

HCP BENEFITS

- * LOW COST, COAL-BASED POWER
- * CLEAN COAL TECHNOLOGY - LOW PLANT EMISSIONS
- * FUEL DIVERSIFICATION FOR POWER GENERATION
- * WASTE COAL UTILIZED
- * ENHANCED COAL EXPORT
- * USEFUL BYPRODUCTS

SOURCES OF FUNDS

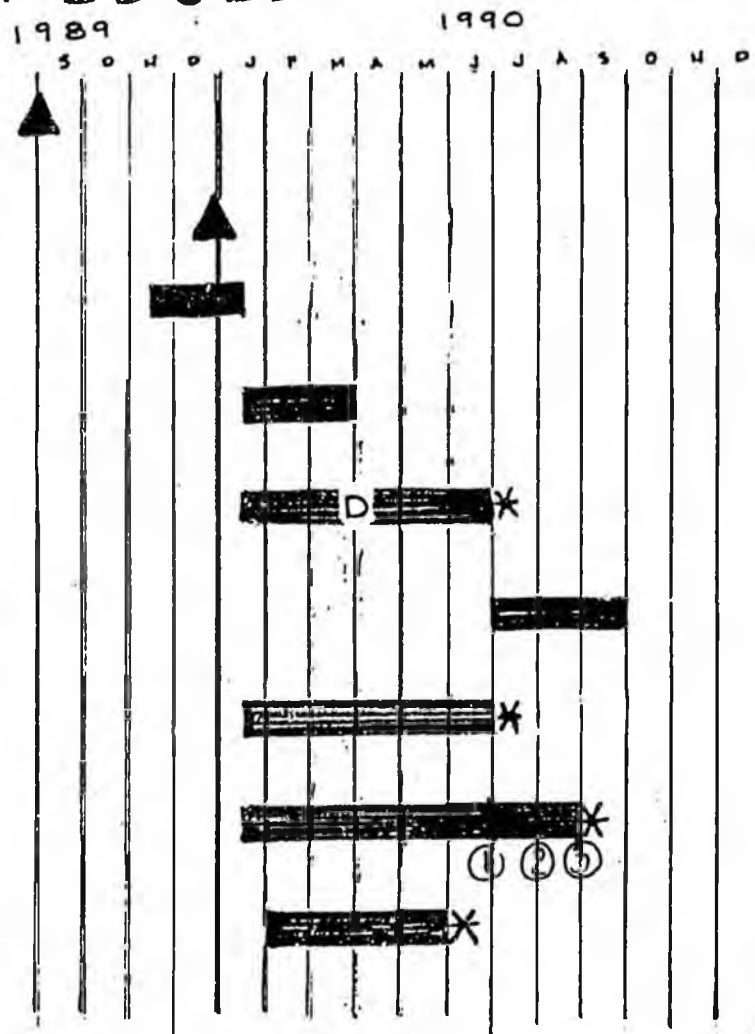
* CCT PROGRAM	\$ 93,186,000
* RAILBELT FUND	30,000,000
* AIDEA BONDS	<u>68,532,000</u>
	\$ 191,718,000

USES OF FUNDS

* DESIGN & PERMITS	\$ 26,721,000
* CONSTRUCTION	134,197,000
* DEMONSTRATION	<u>30,800,000</u>
	\$ 191,718,000

HCP NEAR-TERM SCHEDULE

DOE PROPOSAL
 DOE SELECTION
 FIN. CONSULT. SELECT.
 FINANCIAL PLAN
 POWER SALES AGMT.
 APUC REVIEW P.S. AGMT.
 COAL SALES AGMT.
 DOE COOP. AGMT.
 SECURE LEG. APPRN.



DOE COOP. AGMT.

① FINAL REPAYMENT PLAN

② HOST SITE AGREEMENT

③ DEMONSTRATE FINANCIAL CAPABILITY

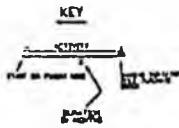
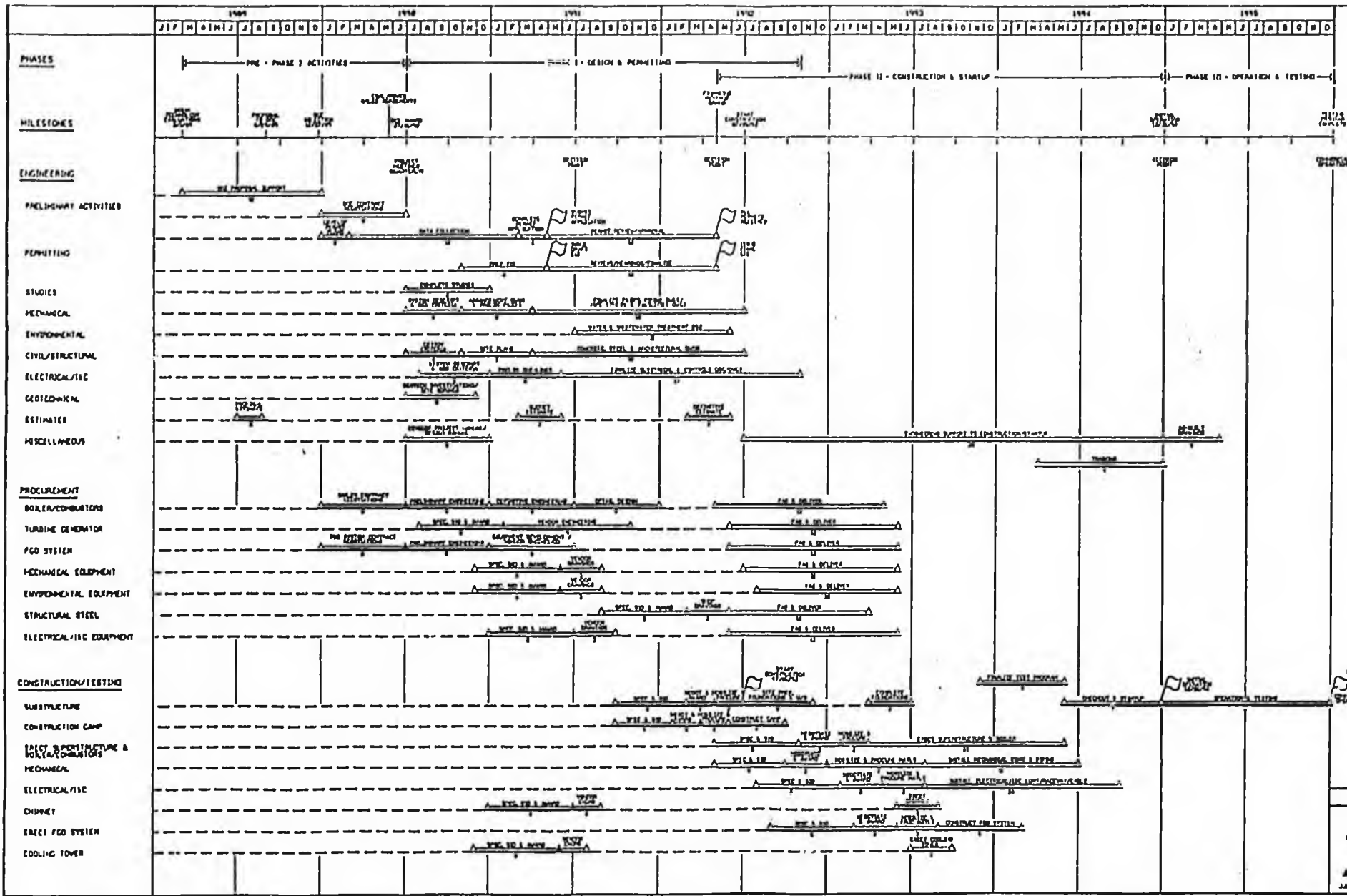
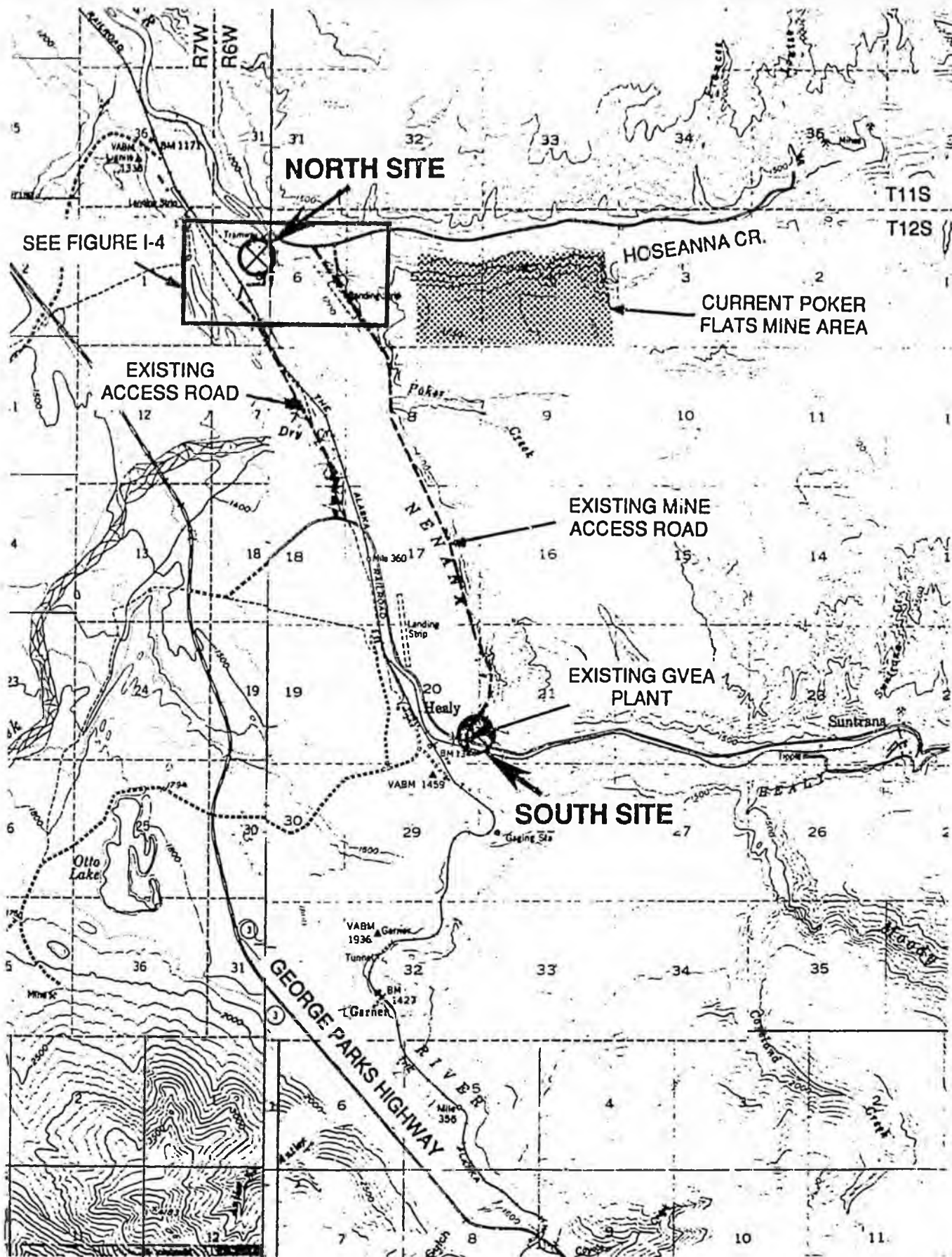


FIGURE II-2-1

MILESTONE SCHEDULE
 HEALY COGENERATION PROJECT
 ALASKA INDUSTRIAL DEVELOPMENT & EXPORT AUTHORITY
 1990-1995
 JANUARY 1994



PROJECT AREA
HEALY POWER PROJECT
 Alaska Industrial Development and Export Authority

CONSTRUCTION EMPLOYMENT

Mid - 1992 through 1994

\$134,197,000 Budget

Construction Employment - 200 Workers

OPERATIONAL EMPLOYMENT

GVEA/UCM - Power Generation
50 to 60 workers

UCM - Coal Beneficiation (Potential)
Additional Workers

Financial Feasibility - Major Factors

Federal & State Financial Contributions

Tax - Exempt Financing

Construction Costs

Conservative to Test Feasibility

Estimates Reviewed

Contingency Reserved

Operating Costs

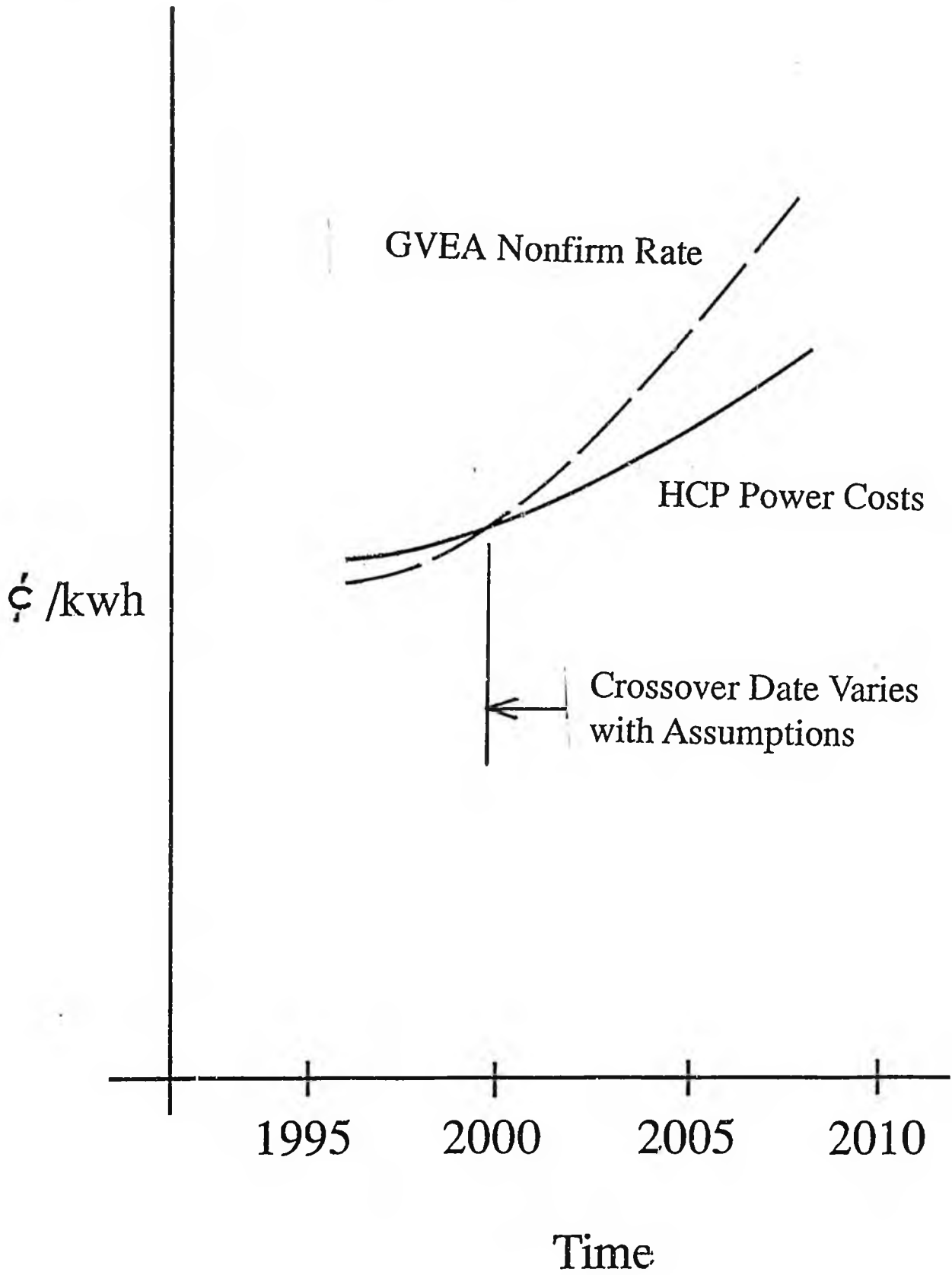
2 Alternative Sites

Fixed & Variable Costs

Comparison Power Prices

Other Generating Sources

Based on Model of GVEA System



Alaska State Legislature

REPRESENTATIVE
MARK BOYER

VICE-CHAIRMAN, HOUSE
HEALTH, EDUCATION AND
SOCIAL SERVICES COMMITTEE

MEMBER, HOUSE LABOR AND
COMMERCE COMMITTEE

CHAIR, CHILDREN'S CAUCUS



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House of Representatives

TO: Senator Bettye Fahrenkamp

FROM: Representative Mark Boyer *MB*

RE: HB 520, providing AIDEA authority to bond for the construction of the Healy Cogeneration Project, and HB 237, providing for an appropriation of \$30 million from the Railbelt Energy Fund for the Healy Project.

DATE: March 6, 1990

As you will recall, during the last legislative session we segregated \$30 million within the Railbelt Energy Fund as a contingent appropriation for the construction of a coal cogeneration power plant at Healy.

The contingencies to that appropriation were: that draft power sales agreements be in place before the effective date of the actual appropriation; that other funds, especially federal funds would be available to the project of at least \$30 million; and that a financial plan for the project be available to the legislature.

Since that time, the federal Department of Energy priorities have refocused on clean coal burning and power generating processes which resulted in a revised Healy project and the allocation of \$92.3 million for that project from the Clean Coal Technology grant program. The federal allocation would go to the Alaska Industrial Development and Export Authority which is currently developing a full financial plan to be presented to the legislature early next week. Additionally, AIDEA and the Alaska Energy Authority are working with the Golden Valley Electric Association and the Usibelli Coal Company to develop draft power sales agreements.

Attached are two important information pieces pertaining to the new Healy project. Some supporters of last year's \$30 million contingent appropriation have expressed concern that the project they supported has changed and is no longer supportable. It is my hope that you will review the attached information and come to the same conclusion as I; the Healy Cogeneration Project has changed its initial focus in favor of a greater and more specific federal interest but maintains its

FAIRBANKS 20B

original coal beneficiation (coal drying) thrust and continues to be the premier RBEF energy project. As envisioned, the demonstration project will move ahead and the coal drying technology will be pursued without state funds after construction of the project and its federal demonstration period.

Because of the importance of this project to the Railbelt and potentially to the United States, the Senate and House Resources Committee will meet in joint session to review the AIDEA authorization and the new technology and its potential application on Tuesday, March 13.

I remain steadfast in my commitment to the project. It remains the only project which once on-line will result in stable electric rates for railbelt consumers and is the only project being considered for construction from the Railbelt Energy Fund which leverages federal and other funds with such a small state commitment.

The federal government is committed and the rate payers in the Northern railbelt remain committed. It is my hope that the legislative commitment is equally firm.

The following questions and answers are from a state-wide poll that was conducted for the Usibelli Coal Mine. I think that you will agree the consensus is overwhelming public support for this project.

"Under its clean coal technology program, the U.S. Department of Energy has offered to pay approximately half the total cost of building a new, coal-fired power plant at Healy, Alaska, which is about halfway between Anchorage and Fairbanks. The Healy project was selected because it will use clean-burning technology and low sulphur coal, and may become the cleanest coal-burning plant in the world.

Do you basically support or oppose the idea of developing a high-technology, clean-burning, coal-fired power plant?"

Support.....	81%
Oppose.....	11%
Unsure.....	8%

"If constructed, the Healy project could bring world-wide attention to clean-burning coal technology and Alaska's large reserves of clean coal. How important is this to Alaska?"

Very important.....	61%
Somewhat important.....	28%
Not too important.....	5%
or Not at all important...	3%
Unsure.....	3%

"While electricity generated by the proposed Healy plant will be mainly used in the northern railbelt region, the plant

could also provide power to the Anchorage area and Kenai Peninsula communities during power outages and other emergencies. How important is this to you?"

Very important.....	33%
Somewhat important.....	32%
Not too important.....	21%
Not at all important...	11%
Unsure.....	3%

"The 230 million dollar Railbelt Energy Fund was created by the Alaska Legislature to help provide low-cost power to railbelt communities from Kenai to Fairbanks. Last year the state legislature reserved 30 million dollars from the Railbelt Energy Fund for the Healy project if it was selected for the clean coal program. Now that Healy has been selected, do you feel the legislature should or should not grant the 30 million dollars that was set aside for the project?"

Should.....	79%
Should not.....	9%
Unsure.....	12%

enclosure (2)

Healy Cogeneration Project



The combination of new coal-burning technologies and low-sulfur Alaska coal will result in one of the cleanest coal-burning power plants in the world

Healy Cogeneration Project Selected

In August 1989 the Alaska Industrial Development and Export Authority (AIDEA) submitted a proposal for the Healy Cogeneration Project (HCP) to the U.S. Department of Energy (DoE) under the DoE's Clean Coal Technology Program. In December 1989, the HCP proposal was selected from among 48 other projects for grant funding of up to \$93.2 million. The grant will finance nearly half of the design, capital and initial operating costs of the HCP plant. The project schedule calls for plant construction to be complete in 1995 with a one-year start-up and test program to follow.

The HCP project will construct a state-of-the-art coal-fired power plant at Healy, Alaska. The power plant will provide 50 megawatts of competitively priced electricity to satisfy increasing railbelt demand; will demonstrate innovative coal burning technologies; and may provide energy for the future development of a pilot-scale plant to benefit high-moisture Alaska coals. The combination of new coal-burning technologies and low-sulfur Alaska coal will result in one of the cleanest coal-burning plants in the world.

Alaska Benefits

The Healy Cogeneration Project will draw national and interna-

tional attention to the demonstration of leading-edge technologies and provide a variety of benefits to the state's economy. The project will employ approximately 200 workers during a two year construction period and create about 50 year-round jobs in Healy once the plant is fully operational. In addition to employment, several other long-term economic benefits will contribute to the future well-being of Alaska's railbelt.

Satisfying Growing Railbelt Energy Needs

The addition of a new, efficient 50 megawatt power plant will provide power to satisfy increasing railbelt energy demands and will help diversify the fuel base of the railbelt power grid. Between 1984 and 1989, kilowatt-hour sales by GVEA increased nearly 24 percent. By the mid to late 1990's, additional base load generating capacity will be needed. While primarily serving northern railbelt customers, the strategically located generating plant would also be available for transmitting power to the southern railbelt.

Technology for New and Existing Power Plants

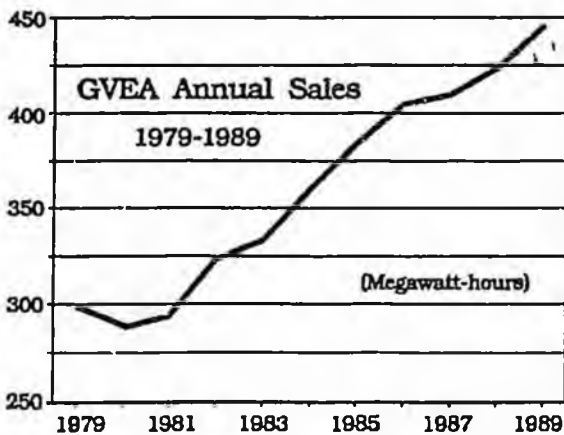
The HCP will demonstrate a clean-burning technology that can be used to retrofit or repower existing power plants in Alaska, the nation, and the Pacific Rim.

Most coal-fired power plants in Alaska and other states will require life extension work within the next 10 to 15 years. EPA's stringent New

The addition of a new, efficient 50 megawatt power plant will provide competitively priced power to satisfy increasing railbelt energy demands.

Source Performance Standards will be applied to these plants and HCP technology may be the lowest-cost solution for meeting these standards.

In addition to environmental advantages, the use of HCP technology to retrofit coal-fired power plants in the Pacific Rim will open new markets for Alaskan coal. Currently, few Pacific Rim plants are designed to use Alaska's high-mois-



ture low-energy coal. HCP technology will allow Alaskan coal to be burned in these plants without the need for extensive boiler modifications.

The project may also demonstrate the feasibility of new power plants in other areas of Alaska. The reduced size of HCP technology relative to conventional coal plants will make the use of modular construction possible. This may result in lower construction costs for small sized plants which heretofore have not been economically feasible.

Beneficiation of Alaska Coal

A future component of the project may be the use of energy from HCP in a proposed pilot plant which will test methods to increase the quality of Alaskan subbituminous coal by reducing its moisture content or by producing entirely new fuel products. Alaska subbituminous coal has superior environmental qualities compared to coal from virtually all other states and countries. However, its low energy value -- due primarily to its high-moisture content -- makes the coal costly to transport and puts it at an economic disadvantage in international markets. The value and competitiveness of Alaska coal could be increased through drying, gasification, liquefaction or a combination of these processes. The excellent environmental

qualities and high energy value of beneficiated Alaska coal would result in a premium fuel for export markets.

Focus on Alaska's Coal Resources

Alaska has enormous resources of coal and could become a major energy supplier to the Pacific Rim. The HCP project will be a showcase for leading-edge coal-burning technology and will bring national and international attention to Alaska's low-sulfur coal resources. The proj-

ect will also send a clear signal to industry that Alaska is serious about using new and environmentally superior technologies to utilize the state's enormous natural resources.

Clean Coal Technology Program

The Clean Coal Technology program (CCT) was created by the U.S. Congress in response to concerns about acid rain. The program is administered by the DoE and focuses on the reduction of air pollutants considered to be precursors of acid rain. Five rounds of funding totaling over \$2.5 billion have been planned. The first two rounds made \$973 million available while the third and current round has \$540 million available to support qualifying projects. The \$93.2 million granted to HCP represented over 17 percent of the total funding available in round three.

The objectives of the current round of CCT funding are to promote, through demonstration projects, the commercialization of innovative technologies which are capable of significantly reducing emissions of sulfur dioxide and nitrogen oxides in existing coal burning facilities and/or providing for future energy needs in an environmentally acceptable manner.

The DoE may match up to 50 percent of the costs for the design, construction and initial operation of selected projects. Project owners are responsible for financing the re-

The project will employ approximately 200 workers during a two year construction period and create about 50 year-round jobs when complete

mainder of the cost. Under the terms of the program, AIDEA and DoE must negotiate an agreement during 1990 for the design, construction, demonstration and financing of the HCP project before federal funding may be awarded.

Project Description

The Healy Cogeneration Project involves six participants. These include the Alaska Industrial Development and Export Authority (AIDEA), which will own the project and be assisted by the Alaska Energy Authority; Golden Valley Electric Association (GVEA) which will operate, maintain and purchase power from the project; Usibelli Coal Mine, Inc. (UCM) which will supply coal and has offered a project location site; Stone & Webster Engineering Corporation, which will act as project design and management engineer; TRW Combustion Business Unit, which will provide proprietary combustion technology; and Joy Technologies Inc. which will provide proprietary emission control technology.

The HCP power plant will use an innovative design integrating advanced combustion, heat recovery, and emission control technologies. The environmental emissions from the HCP plant, including sulfur dioxide and nitrogen oxides, may be lower than any other coal-based power system in the world.

The HCP plant will use approximately 300,000 tons per year of low-sulfur subbituminous coal and will

produce 50 megawatts of competitively priced electrical power. The plant will contribute to energy resource conservation by burning both run-of-mine coal and high-ash waste coal that could not be normally utilized. In the project's demonstration phase, various Alaska coals will be tested and the plant will be made available for testing coals from other states.

The estimated cost of the project is \$192 million. The HCP was selected for up to \$93.2 million of cost-sharing by DoE. Additionally, in the 1989 legislative session, the Alaska legislature reserved \$30 million from the Railbelt Energy Fund for potential appropriation to the HCP project. The appropriation of the reserve was to be contingent upon the selection of the project by DoE, the preparation by AIDEA of an acceptable financial plan, and the drafting of power sales agreements. The HCP participants are requesting that the reserved funds be appropriated to the project during the 1990 legislative session. The balance of the project costs will be secured by AIDEA through the sale of revenue bonds.

Project Participants

Six participants cooperated in the preparation of the HCP proposal and will participate in the performance of the project.

1. The Alaska Industrial Development and Export Authority (AIDEA) supervised the prepara-

tion and submittal of the HCP proposal to DoE and will:

- be the HCP project owner and coordinate the functions of the Alaska Energy Authority;
- prepare a financial plan for submittal to the Alaska legislature; and
- issue revenue bonds to finance project costs not covered by federal or state grants.

2. Golden Valley Electric Association (GVEA) will:

- oversee the project's design and construction;
- operate and maintain the HCP power plant;
- purchase electricity produced by the project;
- manage the training of operator personnel; and
- perform power plant start-up activities.

3. Usibelli Coal Mine, Inc. (UCM) initiated, oversaw and funded the costs of preparing the HCP proposal and will:

- make land owned or leased by UCM available for the siting of the HCP project;
- supply coal to HCP and dispose of plant ash; and
- review project design and construction activities.

4. Stone and Webster Engineering Corporation acted as consulting engineer and prepared the HCP proposal under contract to UCM and will:

- act as design engineer and supply key members to the project management and design team; and
- provide construction and management services to AIDEA.

The project will draw international attention to the demonstration of leading-edge technology and provide a variety of benefits to Alaska's economy.

5. TRW Combustion Business Unit assisted in the preparation of the HCP proposal and will:

- provide proprietary combustion technology to the project;
- participate in the project design; and
- provide warranties and guarantees covering the design and performance of TRW equipment.

6. Joy Technologies Inc. assisted in the preparation of the HCP proposal and will:

- provide proprietary technology for the sulfur and ash removal;
- participate in the project design; and
- provide warranties and guarantees covering the design and performance of Joy Technologies equipment.

New Technologies

The Healy project will integrate entrained coal combustion (ECC) technology developed by TRW Combustion Business Unit and spray dryer absorber (SDA) technology developed by Joy Technologies Inc.

Entrained Coal Combustion

In ECC technology, pulverized coal is injected into a precombustion chamber where it is entrained in swirling air and partially burned. The ash contained in the coal is converted to molten slag which is collected and drained off the chamber walls. The removal of over 80 percent of the ash before reaching

the boiler minimizes conventional maintenance problems and allows the combustion technology to be used with boilers originally designed for other fuels.

Additional air is added in a secondary burner where further combustion of the hot gases takes place before entering the boiler. At the entrance to the boiler, limestone is injected into the combustion gases to react with and provide first-stage removal of sulfur dioxide. The temperatures and oxygen levels throughout the combustion stages are carefully controlled to both minimize the formation of nitrogen oxides and maximize sulfur removal.

Pilot tests of ECC have demonstrated its reliability and high energy efficiencies, while emissions of sulfur dioxide and nitrogen oxides have been shown to be equal to or lower than those from other new technologies. Additionally, the size of ECC combustion units are relatively small compared with other new technologies. Therefore, they can be more easily adapted to existing boilers and may make smaller-scale coal plants feasible.

Spray Dryer Absorber

In addition to sulfur reductions in the ECC combustion system, Joy Technologies' SDA emission control system further reduces sulfur dioxide levels in the flue gases. A recycled ash product, produced by the limestone injected during combustion, is mixed with water and sprayed into the flue gases. Sulfur

dioxide reacts with the spray and is removed along with the remaining ash in filter bags. The second-stage removal of sulfur dioxide and the reduced costs of limestone recycling contribute to the environmental and operational efficiencies of the HCP design.

Project Contacts

For further information on the Healy Cogeneration Project, contact the personnel listed below.

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Usibelli Coal Mine, Inc.

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Steve Denton, Consulting Engineer
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Tel. (907) 452-2625
Fax. (907) 451-6543



A Summary of the Usibelli Coal Beneficiation Project

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III. Overview of coal beneficiation technology	4
IV. Chronology of UCM coal beneficiation efforts	6



I. Summary of Project Investigations

Introduction

The process of upgrading raw coal to increase its quality is referred to as beneficiation. As with other raw materials or products, any process that upgrades the quality of the coal also increases its value in the marketplace.

In addition to simple coal beneficiation methods such as crushing, screening, and washing, there are a variety of processes being developed that use high temperatures and pressures to reduce the moisture content of coal, increase its quality, and, in some cases, transform it into completely different energy forms.

Usibelli Coal Mine, Inc. (UCM) currently beneficiates its coal by crushing to a size of 2 inches or less. But though simple crushing adequately prepares UCM coal for its current markets, the coal contains a high moisture content typical of subbituminous coals. While the ultra-low sulfur content of UCM coal suggests that it could become a premium product in the Pacific Rim, its high moisture content and resulting low heat value presently make it incompatible with most existing coal plants in the Pacific Rim.

Summary of investigations

The goal of the Usibelli coal beneficiation project is to identify a process and develop a commercial scale plant that will upgrade Alaskan subbituminous coal into a product (or products) that will have expanded opportunities in domestic and export markets.

Over the last four years, UCM has committed over \$100,000 investigating thermal drying processes and doing preliminary research into more advanced processes. Thermal drying of UCM coal received the greatest emphasis because the existing coal handling and transportation systems appeared suitable for handling a dried coal product. It was also felt that a thermal drying plant would be an appropriate candidate for funding under the U.S. Department of Energy's Clean Coal Technology program.

While simple thermal drying techniques are

widely used to heat and dry the surface of washed or naturally wet coal, the moisture in subbituminous coal is chemically bound and more intense heating processes are required to drive it out. Testing has shown that subbituminous coal may fragment as it dries, which complicates handling. Furthermore, the dried coal may reabsorb moisture during subsequent storage and transportation.

Between 1986 and Spring 1989, samples of UCM coal were shipped to beneficiation pilot plants in the United States and Canada. The resulting products were tested at the University of Alaska Fairbanks' Mineral Industry Research Laboratory (MIRL). UCM purchased laboratory autoclave equipment for MIRL which was used to test advanced high pressure drying processes. Additionally, consultants were retained to evaluate test results and to advise on project design and scope.

In January 1989, UCM contracted with Stone & Webster Engineering Corporation (Stone & Webster) to analyze test results, to review the economic and technical aspects of the various thermal drying processes, and to make recommendations to UCM for future work.

The Stone & Webster report was completed in June 1989 and found that thermal drying technologies for subbituminous coal had not been sufficiently developed, tested and refined to meet the requirements of the current round of the Clean Coal Technology program. As a result, it was concluded that the inclusion of a coal drying process into the Healy Cogeneration Project (HCP) would significantly weaken the proposal.

Prior to developing a commercially sized drying plant, the report recommended that a pilot scale plant be built and bulk samples of dried coal be produced and shipped to prospective markets. A bulk pilot test would accomplish two things. It would determine moisture reabsorption rates under actual conditions and, equally important, demonstrate the performance of the dried coal product -- a necessary step before a new fuel product can expect to gain market acceptance.

The report also concluded that other processes, including mild gasification and mechanical drying, might provide better market opportunities by producing higher value products. However, while these processes are technically viable, further research would be needed to be sure market economics were favorable.



Future plans

Having largely completed preliminary tests and research into thermal and mechanical coal drying processes, UCM will next investigate the technical performance and economics of mild gasification. This will include analyzing the markets for mild gasification products, reviewing existing mild gasification technologies, and testing the performance of UCM coal in bench scale tests. If the results are positive, a feasibility analysis of mild gasification will be performed and the results compared with analyses for thermal and mechanical drying.

A final review of thermal drying, mechanical drying and mild gasification will be made and the most promising technology selected. If the technology is insufficiently developed, the construction of a pilot-scale test facility will be necessary. If the technology is sufficiently developed, a full scale commercial plant could be built.

It is very probable that future rounds of the Clean Coal Technology program will make cost sharing available for coal beneficiation projects such as UCM's. In fact, it is likely that a well prepared Alaska coal beneficiation project will be as attractive to the objectives of the program as was the HCP project. However, with the exception of possible research funding from the Alaska Science and Technology Foundation, state public funds are not anticipated to be needed for the development of either a pilot scale or commercial size beneficiation plant.

UCM foresees construction of the pilot and/or commercial plant adjacent to the HCP plant which, depending upon existing demand, could provide energy for the a pilot plant in the form of either process heat or electrical power.

II. Potential Markets for Value-Added Products

Potential export markets

There are several export market areas for value-added products created from Alaskan subbituminous coal.

- Power plant fuel: Though this is a highly competitive market, a low-moisture, low-sulfur coal with the high combustion reactivity of UCM coal would command a top price at electrical utility plants.

- Industrial fuel: The same considerations for power plants would apply to industrial processes, such as cement making, which require large amounts of process heat for manufacturing.

- Steel making: Coal char, a high-value product of mild gasification, is receiving increased attention as a substitute for coke in steel making.

- Transportation fuels: Pulverized coal-and-water mixtures and coal liquids both have the potential to replace petroleum products for internal combustion engines, especially for low speed diesels, such as large marine engines.

- Heating fuels: Japanese and Korean homeowners commonly heat with smokeless, high cost, coal briquettes produced from imported and domestic coals.

- Chemicals: Common chemicals that can be produced from coal such as benzene, tar, and pitch have high value and are currently imported by Pacific Rim countries.

Alaska subbituminous coal and products derived from it will enjoy advantages over competing sources.

- Alaska subbituminous coal has an extremely low sulfur content and a low ash content that will result in environmentally superior products and reduced ash handling costs.

- Alaska subbituminous coal has a high combustion reactivity.

- Due to Alaska's proximity to potential customers, Alaska products will enjoy lower ocean-freight costs.

- Alaska products may enjoy an additional market advantage by helping to reduce customer trade imbalances with the U.S.



Potential domestic markets

The potential in-state market for value-added coal products is probably much smaller than the potential export market, but there may be similar needs.

- Power plant fuel: Reduced transportation costs and increased power output possible from a higher energy coal fuel could be attractive.
- Industrial fuel: The availability of high energy solid or liquid fuels derived from in-state coal may become attractive for larger Alaska industrial users.
- Transportation fuel: The production of coal liquids or coal-water-mixtures may be useful for fuel additives or substitutes.
- Chemicals: Coal liquids such as methanol may be useful for oil-field operations, while tar and pitch may be useful for briquetting coal for home heating.

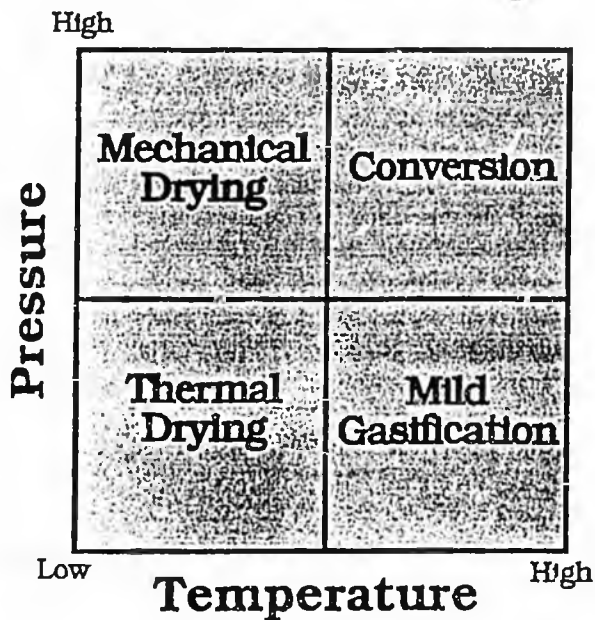


Figure 1. Advanced beneficiation processes classified by operating temperature and pressure.

III. Overview of Advanced Beneficiation Technologies

The beneficiation of coal spans a spectrum of processes. Conventional techniques include crushing, sizing, washing, surface drying and briquetting. There are a variety of advanced beneficiation technologies of which some are still in the early stages of research.

Advanced beneficiation technologies

There are four general types of advanced beneficiation processes and they may be classified by the level of heat and pressure used in each process (figure 1). The type and form of end-products vary with each process. In general, operating and capital costs increase with increasing process temperatures and pressures.

- Thermal drying: Raw coal is heated at relatively low temperature and pressure, which results in a short to moderate term moisture reduction. Thermal drying preserves the reactive nature of the coal (which contributes to its rapid and thorough combustion) and minimizes the loss of volatile gases (which contributes to its total energy content). However, dried coals are subject to fragmentation (breaking into fine particles) and to the reabsorption of moisture during storage and transportation.

- Mechanical drying: Raw coal is heated to moderate temperatures at high pressure to squeeze out moisture. This results in a low moisture product with longer term stability than simple thermal drying. However, there is often significant loss of volatile gases and briquetting is frequently required because of fragmentation.

- Mild gasification: Also referred to as pyrolysis, raw coal is heated to high temperatures at low pressure. The process produces low volatile carbon (char), water, liquids (oil), and volatiles (gas). These products may require further refinement to meet market specifications.

- Conversion: Using high pressure and high temperature, the coal is converted into liquids (liquefaction) and/or gas (gasification). As with mild gasification, these products generally require further refinement to meet market specifications.



Products of advanced coal beneficiation

There are five basic products resulting from the four types of advanced coal beneficiation: dried coal, low moisture solid fuel, char, oil, and gas. Figure 2 shows the types and comparative value of products generated from each of the four advanced processes.

-Dried coal: Dried subbituminous coal could be substituted for higher rank bituminous coal in power and industrial plants. The cost per million Btu to transport the dried coal would be lowered and the heat output at the end-user's plant could be maintained or increased. Any reabsorption of moisture during handling, transportation and storage would reduce processing gains.

- Low moisture solid fuel: Like dried coal, this product could be substituted for bituminous coal but would have a higher energy value (Btu/

lb), higher carbon content and lower rate of moisture reabsorption than dried coal.

-Char: Char is primarily carbon with a very low volatile (gas) content. Char is a potential substitute for coke in steel making and could also be used as a clean, smokeless fuel for residential heating in Pacific Rim countries.

- Oil: Liquefaction of coal produces a product similar to crude oil. It can be refined, like crude oil, to yield a variety of high value products that are used as feedstocks for manufacturing a variety of chemicals or liquid fuels.

- Gas: Coal gasification produces a gas, similar to natural gas but with lower heating value, that can be used for generating process heat or electricity.

<p>Mechanical Drying</p> <p>Low Moisture Solid Fuel \$2.40/MMBtu</p> <p>\$30/ton</p>	<p>Conversion</p> <p>Gas \$1.50/MMBtu *Oil \$3.10/MMBtu</p> <p>\$47/ton</p>
<p>Thermal Drying</p> <p>Dried Coal \$2.40/MMBtu</p> <p>\$32/ton</p>	<p>Mild Gasification</p> <p>Char \$4.00/MMBtu Gas \$1.50/MMBtu *Oil \$3.10/MMBtu</p> <p>\$57/ton</p>

* Value of oil assumed at \$18 per barrel

Figure 2. Types of advanced coal beneficiation processes and the comparative value of their products in U.S. per million Btu's (MMBtu) and U.S. per ton of feed coal.



IV. Chronology of UCM Coal Beneficiation Efforts

October 1986: A two ton bulk sample of UCM coal was shipped to Butte, Montana for thermal drying tests at Western Energy Company's pilot plant.

July 1987: UCM, through consultant Brown & Root USA, Inc., began investigating the potential for a cogeneration plant at Healy which would produce 150 megawatts of electricity and 500,000 tons per year of beneficiated coal.

April 1988: Consultants Brown & Root completed a report for the "Usibelli Cogeneration and Beneficiation Project" that provided conceptual designs and estimated costs for a 150 megawatt/500,000 ton per year cogeneration plant.

September 1988: UCM purchased an autoclave for the UAF Mineral Industry Research Laboratory to perform high-pressure beneficiation tests on UCM and other Alaska coals.

November 1988: UCM completed an internal evaluation on the market potential of thermally dried coal. The evaluation found that while potentially large sales at premium prices could be expected due to the low sulfur content of thermally dried Alaska coal, the potential for moisture reabsorption was a key factor in the technical and economic viability of the process.

January 1989: Stone & Webster Engineering Corporation was selected to review work done to date and prepare a report analyzing the technical and economic feasibility of coal beneficiation processes suitable for UCM coal.

January 1989: Coal samples were shipped for

bench testing to several firms developing coal beneficiation technologies including K-Fuels in Gillette, Wyoming; Carbontec in Bismark, North Dakota; Western Energy in Butte, Montana; Coal Mining Research Center in Devon, Alberta; Hazen Research Laboratory in Golden, Colorado; and Synfuels Genesis in La Jolla, California.

May 1989: The products resulting from the January 1989 tests were returned to the UAF Mineral Industry Research Laboratory (MIRL) for analysis. The product quality results of the MIRL analyses were forwarded to Stone & Webster for use in their report.

June 1989: Stone & Webster Engineering Corporation reviewed the thermal drying test work done for UCM and recommended that the inclusion of a thermal drying process into the HCP project would significantly weaken the proposal, and that prior to developing a commercially sized thermal drying plant, a pilot scale plant should be built and a bulk sample of dried coal be produced and shipped to market. The report also found that a combination of thermal drying and mild gasification may prove to be economically attractive. Stone & Webster recommended that further testing and market analyses should be done before UCM selects a beneficiation technology for development.

July 1989: A 2 1/2 ton bulk sample of UCM coal was shipped to the Japanese New Energy Development Organization (NEDO) for gasification testing.

October 1989: A 1 1/2 ton bulk sample of UCM coal was shipped to the Western Research Institute (WRI) in Laramie, Wyoming for testing in a 100 lb/hr pilot plant using an inclined fluid-bed dryer. WRI is currently preparing a proposal to perform work using the inclined fluid-bed dryer to test mild gasification.

Chapter 117

Maintenance Station Land Acquisition/Silver Beach Erosion Control - \$75,000) is repealed and reappropriated to the Department of Administration for payment as a grant under AS 37.05.315 to the Kodiak Island Borough for school pedestrian access and lighting.

* Sec. 215. The sum of \$100,000 is appropriated from the general fund to Department of Commerce and Economic Development for payment as a grant under AS 37.05.316 to the Alaska Division of the United States Ski Association for equipment and supplies for the Eagle Glacier Training Center.

* Sec. 216. The sum of \$25,000 is appropriated from the general fund to Department of Administration for payment as a grant under AS 37.05.316 to the Greater Soldotna Chamber of Commerce for an economic enterprise program.

* Sec. 217. (a) The sum of \$30,000,000 is appropriated from the Railbelt energy fund (AS 37.05.520) to the general fund, contingent upon (b) of this section.

(b) The sum of \$30,000,000 is appropriated from the general fund to the Railbelt energy fund (AS 37.05.520) for the Healy cogeneration project, contingent upon (a) of this section.

(c) Funds may not be expended from the Healy cogeneration project reserve until appropriated by the legislature.

(d) The unappropriated balance of the appropriation made in (b) of this section lapses into the Railbelt energy fund without restrictions June 30, 1990.

(e) It is the intent of the legislature that

(1) this appropriation is for a Railbelt energy need and is not specific to House District 17, or Senate District J, with respect to future reappropriation;

(2) before any legislative appropriation for the Healy cogeneration project, the project sponsors shall provide the legislature with:

SCS CSHB 163(Fin) am S

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(A) a draft power sales agreement for firm energy from the plant;

(B) a financial plan for the Healy cogeneration and

(C) a commitment from the federal Department of Energy Clean Coal Technology Program, to the Healy cogeneration project grant in an amount that at least matches the state contribution

(3) during the interim, the project sponsors shall work with the Alaska Industrial Development and Export Authority to evaluate and financial options.

* Sec. 218. The unexpended and unobligated balance of the appropriation made in sec. 319, ch. 171, SLA 1984, page 66, line 20 (Kotzebue Search and Rescue - \$70,000) is repealed and reappropriated to the Department of Administration for payment as a grant under AS 37.05.520 to the City of Kotzebue for NANA region search and rescue programs.

* Sec. 219. (a) The sum of \$5,000,000 is appropriated from the Railbelt energy fund (AS 37.05.520) to the general fund, contingent upon (b) of this section.

(b) The sum of \$5,000,000 is appropriated from the general fund to the Railbelt energy fund (AS 37.05.520) for the Winter Sports Facilities reserve, contingent upon (a) of this section.

(c) Funds may not be expended from the Winter Sports Facilities reserve until appropriated by the legislature.

(d) The unappropriated balance of the appropriation made in (a) of this section lapses into the Railbelt energy fund without reappropriation June 30, 1990.

* Sec. 220. The sum of \$25,000 is appropriated from the general fund to the Department of Natural Resources to complete an annotated biological data base on water quality, flora, and fauna relating to the

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SCS CSHB 163(Fin)

Chapter 117

(A) a draft power sales agreement for firm energy output from the plant;

(B) a financial plan for the Healy cogeneration project; and

(C) a commitment from the federal Department of Energy, Clean Coal Technology Program, to the Healy cogeneration project for a grant in an amount that at least matches the state contribution; and

(3) during the interim, the project sponsors shall work with the Alaska Industrial Development and Export Authority to evaluate ownership and financial options.

* Sec. 218. The unexpended and unobligated balance of the appropriation made in sec. 319, ch. 171, SLA 1984, page 66, line 20 (Kotzebue-NANA Region Search and Rescue - \$70,000) is repealed and reappropriated to the Department of Administration for payment as a grant under AS 37.05.315 to the City of Kotzebue for NANA region search and rescue programs.

* Sec. 219. (a) The sum of \$5,000,000 is appropriated from the Railbelt energy fund (AS 37.05.520) to the general fund, contingent upon (b) of this section.

(b) The sum of \$5,000,000 is appropriated from the general fund to the Railbelt energy fund (AS 37.05.520) for the Winter Sports Training Facilities reserve, contingent upon (a) of this section.

(c) Funds may not be expended from the Winter Sports Training Facilities reserve until appropriated by the legislature.

(d) The unappropriated balance of the appropriation made in (b) of this section lapses into the Railbelt energy fund without restrictions June 30, 1990.

* Sec. 220. The sum of \$25,000 is appropriated from the general fund to the Department of Natural Resources to complete an annotated bibliographical data base on water quality, flora, and fauna relating to the placer

acquisition/Silver Beach Erosion Control -
appropriated to the Department of Administration
AS 37.05.315 to the Kodiak Island Borough for
lighting.

\$10,000 is appropriated from the general fund
Economic Development for payment as a grant
Division of the United States Ski Associ-
ation for the Eagle Glacier Training Center.

\$100,000 is appropriated from the general fund to
for payment as a grant under AS 37.05.316 to
Department of Commerce for an economic enterprise pro-

\$30,000,000 is appropriated from the Rail-
belt energy fund, contingent upon (b) of

\$10 is appropriated from the general fund to
AS 37.05.520) for the Healy cogeneration project,
contingent upon (a) of this section.

Funds may not be expended from the Healy cogeneration project
until appropriated by the legislature.

The balance of the appropriation made in (b) of
this section lapses into the Railbelt energy fund without restrictions

contingent upon (a) of this section.

The sum of \$5,000,000 is appropriated from the Railbelt energy fund
to the general fund, contingent upon (b) of this section.

The sum of \$25,000 is appropriated from the general fund to
the Department of Natural Resources to complete an annotated bibliographical
data base on water quality, flora, and fauna relating to the placer

FNSB
support
HB 520

By: Hank Hove
Introduced: 03/08/90

ADOPTED MAR 0 0 1990

RESOLUTION NO. 90- 030

A RESOLUTION URGING PASSAGE OF HB 520 AUTHORIZING THE
ISSUANCE OF BONDS AND PROCUREMENT FOR CERTAIN
DEMONSTRATION PROJECTS

WHEREAS, the Federal Government has approved a grant for \$92.3 million for federal funding of the Healy cogeneration project and the state has encumbered but not appropriated \$30 million; and

WHEREAS, approximately \$85 million is required to complete the project; and

WHEREAS, the construction of the plant along with the improvements to the Healy-Fairbanks electrical power line will result in better and less expensive power costs to the residents of Fairbanks.

NOW, THEREFORE, BE IT RESOLVED, that the Fairbanks North Star Borough Assembly urges the passage of HB 520.

BE IT FURTHER RESOLVED, that copies of this resolution shall be sent to the Honorable Steve Cowder, Governor, State of Alaska, Larry Mercurieff, Commissioner, Department of Commerce and Economic Development, the Honorable David Donley, Chairman of the House Labor and Commerce Committee, the Honorable Lyman F. Hoffman and the Honorable Ronald L. "Ron" Larson Co-Chairs of the House Finance Committee and all members of the Interior Delegation.

PASSED AND APPROVED THIS 8th DAY OF MARCH, 1990.

Paul Achy
Presiding Officer

ATTEST:

Mona Lisa Parker
Clerk of the Assembly

Healy

6-2083H
Cramer
5/2/90

Original sponsor(s): Resources Committee

1 IN THE SENATE

BY THE LABOR & COMMERCE COMMITTEE

2 CS FOR SENATE BILL NO. 449 (L&C)

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 SIXTEENTH LEGISLATURE - SECOND SESSION

5 A BILL

6 For an Act entitled: "An Act relating to authorization for the issuance of
7 bonds and procurement for certain research projects;
8 relating to accounts and projects of the Alaska
9 Industrial Development and Export Authority and to
10 investments by the authority; and providing for an
11 effective date."

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

13 * Section 1. The Alaska Industrial Development and Export Authority is
14 authorized, as required by AS 44.88.090 and 44.88.172, to issue bonds for
15 the Healy cogeneration project in a principal amount not to exceed
16 \$85,000,000. Before issuing the bonds, the authority shall comply with
17 AS 44.88.173.

18 * Sec. 2. AS 36.30.850(b) is amended by adding a new paragraph to read:

19 (22) contracts of the Alaska Industrial Development and
20 Export Authority for a clean coal technology demonstration project
21 that

22 (A) is attempting to develop a coal-fired electric
23 generation project;

24 (B) uses technology that is capable of commercializa-
25 tion during the 1990's; and

26 (C) qualifies for federal financial participation
27 under P.L. 99-190 as amended.

28 * Sec. 3. AS 44.88.060 is amended to read:

29 Sec. 44.88.060. ALASKA INDUSTRIAL DEVELOPMENT AND EXPORT

1 AUTHORITY REVOLVING FUND. The Alaska Industrial Development and
2 Export Authority revolving fund is established in the authority. The
3 revolving fund consists of appropriations made to the revolving fund
4 by the legislature, money or other assets transferred to the revolving
5 fund by the authority, and unrestricted payments on loans made or
6 purchased by the authority. Unless otherwise expressly stated, the
7 accounts created in this chapter are accounts in the revolving fund.
8 The authority may create additional accounts either in the revolving
9 fund or outside the revolving fund. Subject to agreements made with
10 the holders of the authority's bonds or with other persons, the au-
11 thority may transfer amounts in an account in the revolving fund to
12 another account in the revolving fund. Amounts deposited in the
13 revolving fund may be pledged to the payment of bonds of the authority
14 or expended for the purposes of the authority under this chapter. The
15 authority has the powers and responsibilities established in AS 37.-
16 10.071 with respect to the investment of amounts held in the revolving
17 fund.

18 * Sec. 4. AS 44.88.155(c) is amended to read:

19 (c) Money and other assets of the enterprise development account
20 may be used to secure bonds of the authority issued to finance the
21 purchase of loans for projects [AND SHALL BE HELD AND INVESTED BY THE
22 AUTHORITY IN ACCORDANCE WITH AS 37.10.071] or shall be used to pur-
23 chase loans for projects.

24 * Sec. 5. AS 44.88.900(9) is amended to read:

25 (9) "project" means

26 (A) a plant or facility used or intended for use
27 [(i)] in connection with making, processing,
28 preparing, transporting, or producing in any manner, goods,
29 products, or substances of any kind or nature or in

1 connection with developing or utilizing a natural resource,
2 or extracting, smelting, transporting, converting,
3 assembling or producing in any manner, minerals, raw mate-
4 rials, chemicals, compounds, alloys, fibers, commodities and
5 materials, products, or substances of any kind or nature;

6 [(ii) AS AN INDUSTRIAL PARK; IN CONNECTION WITH
7 TRANSPORTATION; FOR THE PREVENTION, LIMITATION OR CONTROL OF
8 POLLUTION; FOR THE DISPOSAL OF SEWAGE OR SOLID WASTE; FOR
9 THE LOCAL FURNISHING OF GAS; FOR THE FURNISHING OF WATER; AS
10 OR IN CONNECTION WITH MASS COMMUTING VEHICLES; FOR LOCAL
11 DISTRICT HEATING OR COOLING; AS A PARKING FACILITY; OR AS A
12 STORAGE OR TRAINING FACILITY DIRECTLY RELATED TO A PLANT OR
13 FACILITY DESCRIBED IN THIS PARAGRAPH;]

14 (B) a plant or facility used or intended for use in
15 connection with a business enterprise;

16 (C) commercial activity by a small enterprise;

17 (D) a plant or facility demonstrating technological
18 advances of new methods and procedures and prototype commercial
19 applications for the exploration, development, production, trans-
20 portation, conversion, and use of energy resources;

21 * Sec. 6. AS 44.88.172(b) is repealed.

22 * Sec. 7. This Act takes effect immediately under AS 01.10.070(c).

BUSINESS

SUNDAY

SECTION C April 29, 1990

Healy power project sparks energy battle

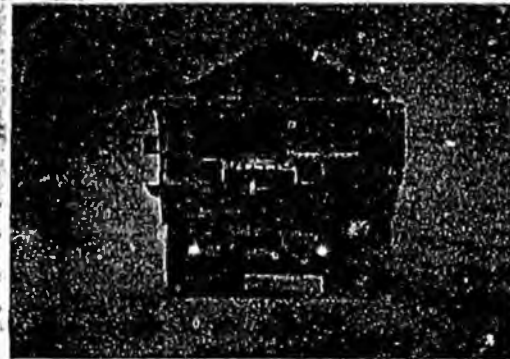
'Clean coal' plan complex, expensive

By GEORGE FROST
Daily News reporter

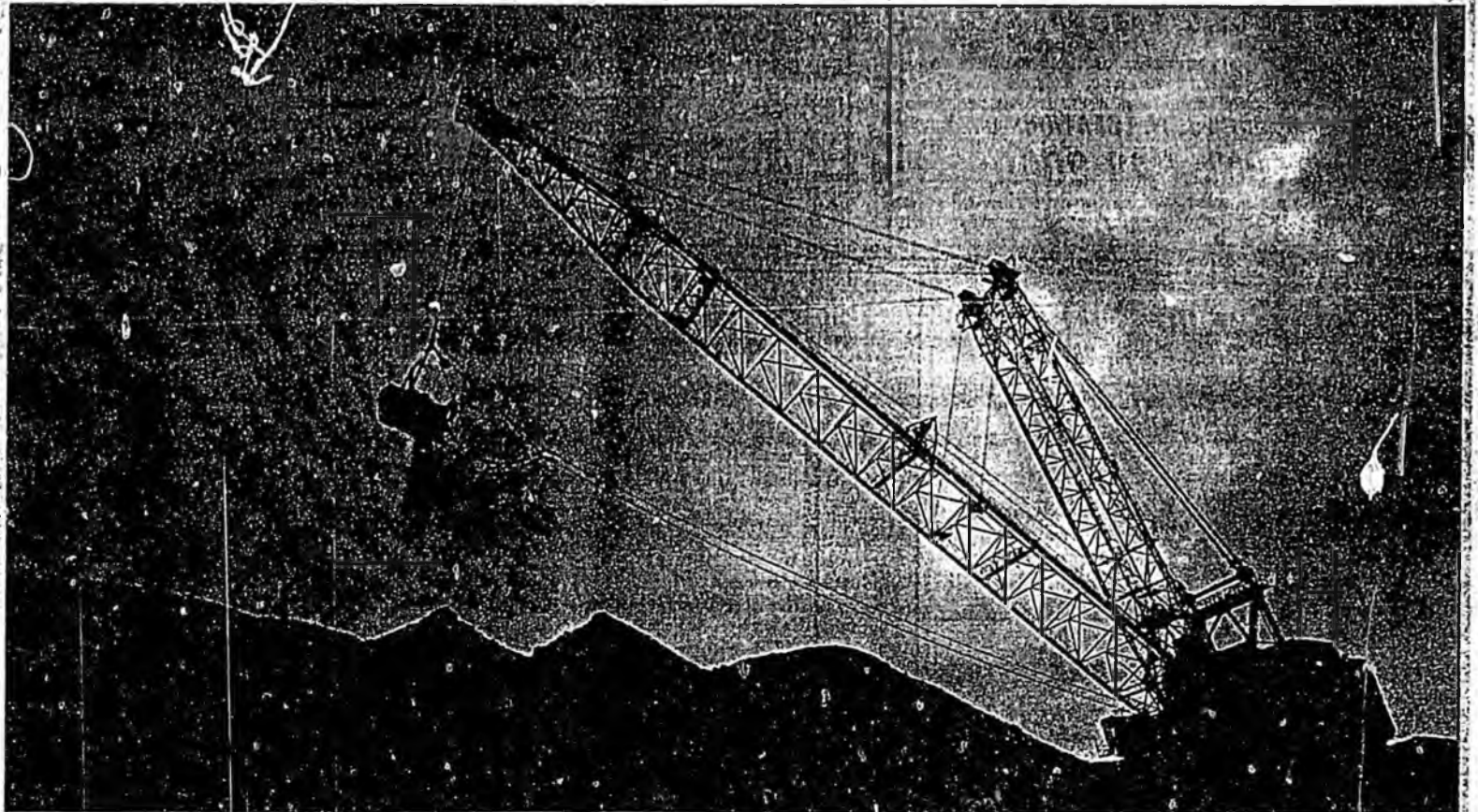
HEALY — A group of politicians, utilities, unions and energy companies wants to build an experimental, \$161 million-plus coal plant here at the confluence of the Healy and Nenana rivers, producing power that won't be needed for five to 10 years after the plant goes on line, replacing cheaper gas power and driving up electric bills elsewhere in the state.

The project has pitted utility against utility, natural gas producers against the state's sole coal mine, and further frazzled politicians attempting to divvy up the \$230 million Railbelt Energy Fund. And it has become another front in the seemingly endless war between Anchorage and Fairbanks over regional dominance.

Supporters of the Healy project say it will diversify the energy base in the Railbelt, grant energy independence to the Interior — which now buys a lot of cheap power from Anchorage — and prove to the world that Alaska can be on the cutting edge of energy development. And, they add, it will bring \$93 million in federal money to the state and trigger one of the state's first mega-construction projects of the 1990s.



A truck carries coal from the mine to storage where it will be loaded onto Alaska Railroad cars.



The drag line "Ace in the Hole" removes earth covering a seam of coal to be mined.

BILL ROTH / Anchorage Daily News photos

But opponents say the project is economically absurd, flooding the Railbelt region of Alaska with expensive power that won't be needed for a decade or more.

Bob LeResche, director of the Alaska Energy Authority, which is trying to put together the state's share of the funding, conceded: "If the feds hadn't come in with \$93 million like Santa Claus, nobody in their right mind would think of doing this."

But the state is hardly playing Scrooge in all this. Lawmakers are proposing the state put up \$30 million cash and sell up to \$88.5 million in bonds, repaid by electric utility customers, to build the plant.

According to LeResche and other supporters, the Healy "clean coal" plant would be used to develop better equipment to burn coal and reduce pollution, while subsidizing a major expansion of electrical capacity for the Interior. After a shakedown period in 1995, the plant would start shipping electricity to the 26,000 customers of Golden Valley

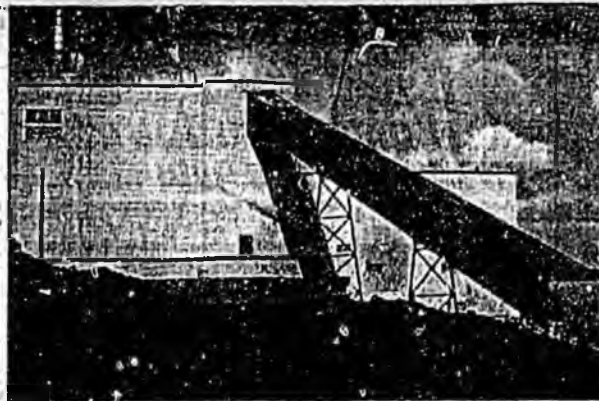
Electric Association living in Fairbanks, Delta, Nenana and other Interior towns.

Although the site is fewer than 10 miles from Denali National Park, it is hardly virgin wilderness. The new plant probably would be built alongside a 21-year-old coal plant on the banks of the Nenana River.

A big pile of coal sits on the site, crackling faintly as it settles and dries under a weak April sun. The coal stockpile good for a month or so, was recently ripped from rich seams buried in sandstone ridges around Healy.

Alaska Railroad coal cars line the spur outside town, waiting for locomotives to haul them off to Seward for export. Guys wearing Usibelli Coal Mine jackets line the counter at the Totem Inn, a 24-hour pit stop 249 miles north of Anchorage on the Parks Highway.

About 100 of Healy's 334 residents work for Usibelli, a family-owned strip mine company that started digging the soft, low-energy coal in 1918. Usibelli provid-



Coal lies outside Golden Valley Electric, to be used in the pulverized-coal plant that produces electricity by burning coal.

ed coal for the now-antique locomotives that chugged along the Railbelt. Today, the state's only commercial coal mine produces about 1.5 million tons a year, half of it exported to South Korea, and the rest to the 25-megawatt plant and other Interior users.

If the new plant is built Usibelli would develop a big new market almost within

sight of the mine. The coal company is the prime mover behind the proposal, but a lot of other players are involved in this complicated deal.

The plant owner would be the Alaska Industrial Development and Export Authority, a financing arm of state government. AIDEA would

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Healy

Population: 334
Coal mining began here in 1918 and has grown to become Alaska's largest coal mining operation. Usibelli Coal Mine, the state's only commercial coal mine, mines about 1.5 million tons of coal a year. Healy's power plant is the largest, coal-fired steam plant in Alaska, as well as the only mine-mouth power plant. It is part of the Golden Valley Electric Assn., which supplies power for Fairbanks and vicinity.



RON ENGBOTM / Anchorage Daily News

Tenants, owners need facts about hazardous waste

Hazardous waste in real estate has become a major issue for both owners and tenants of commercial properties. Potential financial damages from hazardous waste can be devastating, yet many owners and tenants are completely ignorant of their potential liability.

Hazardous waste is not just a problem for chemical companies and toxic dumps. Hazardous waste includes leaky underground storage tanks, crankcase oil spread on yards to keep dust down, trash pits, and any kind of spilled toxic or petroleum products such as hydraulic fluid, gasoline and antifreeze.

It is important that owners and tenants realize that anyone who has ever been an owner or tenant of a contaminated site is potentially responsible for the cost of cleanup, unless they can prove they are an innocent purchaser or tenant. Also, they should know the cost of cleaning up a problem can be extremely expensive.

The regulations do not precisely define an



chris stephens

"innocent purchaser or tenant." Environmental engineers generally agree that as a minimum, a potential buyer or tenant should investigate the historical uses of the property, including aerial photos, talking to former workers and neighbors, and physically investigating the property. Without at least this much effort, a buyer or tenant probably would not be considered innocent. Because the law allows for "joint and

several liability," as a new owner or tenant you may be responsible for all or part of the cleanup cost and punitive damages, whether or not you were responsible. If you don't clean it up, the government will, and you will get the bill.

The cost of cleanup boils down to "whatever it takes." This includes environmental tests; removal of the contaminated soils; future monitoring, and the cost of soil disposal. Surprisingly, soil-disposal costs can be high because soil must be disposed of in an approved method. Depending on the kind and degree of contamination, the soil might be used in asphalt or packed in drums and shipped to Oregon or even Alabama.

Even a seemingly small problem can prove expensive. I know of a relatively small oil storage-tank leak which — to test soils, remove the tank and remove contaminated soil, and continue monitoring — cost the owner more than \$30,000. An even worse case is a storage yard where the owner had

for years used crankcase oil to keep the dust down. Unfortunately, the oil also contained toxic solvents. Cost of the cleanup totaled more than \$300,000.

Because of the potential liability, environmental assessments are now usually done as part of most industrial real estate transactions. The assessment establishes a record of the condition of the property at the time of sale or lease. At the end of a lease another study is done to detect any change in condition.

Hazardous waste considerations also have become a major problem for banks and other lenders. Before making a loan on a commercial property a lender often requires an environmental assessment. Lenders have learned that taking a property back can be a losing proposition, especially when cleanup costs more than the property is worth. In such instances, the lender often declines to

Please see Page C-3, STEPHENS

HEALY: 'Clean coal' project fires up new energy

Continued from Page C-1

sell up to \$68.5 million of bonds that would be repaid by Fairbanks utility customers.

Golden Valley would build and operate the plant. On behalf of its customers, the utility must promise to buy all the electricity produced even if it isn't needed.

The biggest beneficiary of the deal, Usibelli, would sell Golden Valley about 300,000 tons of coal a year to stoke the new plant — but it must agree to sell it cheaply to make the economics work.

Several engineering firms must come through with equipment to outfit the plant for Usibelli's low-grade coal, and burn it as cleanly as any coal plant in the world.

And in Juneau, Rep. Mark Boyer, D-Fairbanks, and other backers must pry loose the state's contribution to the project — \$30 million — from the Railbelt Energy Fund. The fund was established with leftover cash from the never-built Susitna River dams project to pay for energy projects benefiting Kenai to Fairbanks, but politicians have never agreed how to spend it. Lawmakers reserved the \$30 million last year for the Healy plant. Now the cash is tied up in the fight over how to spend almost all the Railbelt Fund.

"I don't think anybody would tell you it's (the coal project) not real marginal now," said LeResche.

Originally the project was supposed to be three times as big and privately financed, and use a new technology that would dry out the wet, low-energy Usibelli coal to make it more valuable, and more marketable in Korea and other Pacific Rim countries. When that collapsed, Usibelli persuaded AIDEA to apply for a grant.

The federal money came through late last year when the Energy Department agreed to pay for half the Healy plant, one of 13 projects favored in phase three of the Clean Coal Technology Program.

That \$5 billion program grew out of an accord with Canada to develop technologies to reduce acid-rain. Coal provides one-quarter of all U.S. power, but is the worst culprit in worsening acid fallout that is killing lakes and wetlands in Canada and the northeastern United States.

Acid rain is caused primarily by industrial emissions of sulphur dioxide and nitrogen oxide, both produced when coal is burned.

At the Healy plant, the Energy Department wants to perfect technologies owned by TRW and Joy Technologies that would cut acid-rain chemicals by 70 percent or more. If it works in Alaska, the companies can sell the technology in the Lower 48.

Steven J. Heintz, Energy Department manager of the Healy project, said defense contractor TRW's combustion process is a refinement of 1930s designs using "ad-

‘If the feds hadn't come in with \$93 million like Santa Claus, nobody in their right mind would think of doing this.’

— Bob LeResche, Alaska Energy Authority

‘There's a lot of actual misconceptions going around right now . . . that this coal-drying thing . . . is just out the window and that's a bunch of hogwash.’

— Joe Usibelli Jr.

vanced technology for rock-ets."

The basic idea for steam plants is to burn coal in a big box called a boiler. The boiler is lined with pipes. Water in the pipes turns to high-pressure steam, which spins a generator that makes electricity.

In TRW's design, coal is vaporized in a tube that leads to the boiler, and only the coal gases go into the boiler itself. Combustion occurs at a lower temperature and with less oxygen present than conventional designs. That reduces the creation of pollutants. Most of the sulphur and nitrogen gas is trapped and carried off in molten slag, a waste product of coal.

If pollution doesn't get into the boiler, it doesn't go up the stacks into the atmosphere.

The Healy plant also would use advanced emissions-control equipment patented by Joy Technologies, scrubbing sulphur from gases that do get into the boiler.

What the plant design lacks is Usibelli's original selling point for the project — a coal-drying facility that would use waste heat to remove ash and water and make low-grade Alaska coal more marketable.

Joe Usibelli Jr., president of the company, said the timing wasn't right to include it in the Energy Department proposal, and politically it would complicate the deal.

"There's a lot of actual misconceptions going around right now, reporting in the press and through politics that this coal-drying thing is just out the window and that's a bunch of hogwash," Usibelli said.

The company is continuing to pursue ways to dry or otherwise improve its coal, and those facilities can be added to the plant after it begins operation, he said.

Even without the coal dryer, Usibelli said the demonstration plant would help Alaska coal compete with higher quality coal from Australia and Canada, the dominant exporters in the Pacific Rim.

"We have a barrier right now in the Far East because the plants over there are not designed to burn our type of coal. This technology could be retrofitted to existing plants over there to let them burn our coal, and at the same time have cleaner plants."

Usibelli coal is wet, averaging 26 percent water, and has a lot of ash in it. Water

won't burn, ash clogs up the boiler pipes and the lower energy values make it less attractive as a fuel source, according to Usibelli, Golden Valley officials and the Energy Department.

Its advantage is a very low sulphur content compared to hotter-burning coal, they said.

During a tour of the mine, Usibelli showed off the "Ace in the Hole," a 4 million-pound drag line that strips off 33-yard chunks of sandstone from a seam of black coal at the bottom of a pit. The \$11 million shovel, suspended on cables from a boom, has a big appetite.

After a seam is exposed, a loader works its way through the pit, scooping coal into huge trucks that haul it off.

Usibelli wants to sell more coal to keep the Ace and his Teamster-organized work force busy. For the new plant, Usibelli would provide a 50-50 mixture of commercial and waste coal that now gets plowed back into the pit.

Rick Mitchell, superintendent at the Healy power plant, said use of waste coal means Golden Valley should be able to negotiate a big reduction from the \$20-a-ton Usibelli now gets for its coal.

According to LeResche, a cheap price is crucial to the success of the deal. "We'll have to get a hell of a coal price from Usibelli," he said. "That's another piece of the puzzle."

Usibelli won't discuss prices while he's dicker with Golden Valley.

"I said that it will be a very fair price and it's been discussed with the owners of the plant and they have been happy enough to proceed to this point," he said.

But does the proposed 50-megawatt plant, which would produce half the power Fairbanks needs, make sense for utility customers?

Usibelli doesn't like the question.

"It's kind of a mystery how all of a sudden every-

thing has to make economic sense," he said. "All the projects to date, they haven't done economic studies. . . . What did the state spend on Bradley Lake? One hundred and fifty, one hundred and sixty million?"

The Bradley Lake hydroelectric plant near Homer will produce a peak of 90 megawatts of power, but some critics say it wasn't needed.

A study by legislative analyst Ginny Fay concluded the entire Railbelt won't need any more electrical capacity until the year 2007, even under the highest growth scenario plotted by University of Alaska economists.

The Healy plant is not only unneeded, it's the only Railbelt project that would actually cause utility rates to increase — not fall, she said.

Rates would go up because Healy coal power would replace natural gas-fired energy shipped north by Anchorage utilities to Fairbanks. Sales of this cheap, surplus energy have subsidized rates for Anchorage customers and shaved a few dollars a month off Fairbanks' customers bills, too.

Most of the energy is generated at the Beluga plant operated by Chugach Electric Association, which has agreements to buy natural gas for power generation well into the next century. Natural gas producers aren't big boosters of a project to develop a competing coal plant.

If and when the Healy plant begins commercial production in 1996, Chugach customers' bills will go up. According to Tom Lovas, Chugach's planning manager, customers will pay a total of between \$18 million and \$29 million more, adjusted for inflation, over the next 15 years.

That works out to \$7 to \$12 more in 1995, depending on a customer's energy use, and up to \$29 a year 15 years later, according to Chugach.

battle over Railbelt funds

Customers of Municipal Light & Power also can expect small increases, said Tom Stahr, general manager.

Golden Valley says the Healy plant would allow it to reduce the operation or shut down costly oil-fired plants that run sporadically during winter months.

John Olson, AIDEA's project manager for the plant, said that after seven years of operation, the cost of Healy power should become cheaper than Chugach power.

Although the Railbelt has an overcapacity of electrical power capacity, ultimately the Healy plant makes sense because of the free federal money, he said.

"You can talk about capacity, philosophize about where and when power is needed, but independent of all that speculation is there is a window open for federal funds, and that window closes Dec. 22, 1990."

Construction of the Healy plant certainly complicates the arguments about electrical needs and capacity, and whether to build a \$149 million system of electrical interties linking Kenai, Anchorage and Fairbanks in a heavy-duty power grid. The interties are the single biggest item on the utility's wish list.

The Senate already passed a bill appropriating \$100 million for the interties despite several studies showing they don't make economic sense. Now it's up to the House.

Chugach, ML&P and other Railbelt utilities pushing for the upgraded power lines say the interties would be more reliable than the current power system and minimize power outages.

Another argument for the interties is they would reduce energy costs because power can be quickly dispatched from the cheapest source, whether it's in Kenai, Anchorage or Fairbanks, as the need arises.

The operating cost for hydro power at Bradley is a lot less than the cost of a gas-fired, oil-fired or coal plant. So when Bradley is running full-out, it's a lot cheaper to ship surplus Bradley electricity north, allowing Golden Valley and Fairbanks Municipal Utility to shut down their costly oil and coal plants.

Anchorage utilities also can ship more cheap gas-generated power to Fairbanks if the interties go in.

But if the Healy plant is built, it will provide most of the power needed in Fairbanks. That lessens the need for interties to ship surplus

power north, and decreases the use of the existing \$125 million power line built to ship cheap Anchorage gas power to the Interior.

Boyer, architect of the House campaign, said that misses the point.

He said it's unfair that Fairbanks utility customers have been subsidizing Anchorage customers, and the Interior needs its own certain source of power.

"When that energy bill comes out each month, it's \$6 or \$7 a month" going to Anchorage, he said.

Boyer is trying to woo Anchorage Democrats opposed to the intertie project to sign off on the coal plant, while trying not to offend other politicians who want the interties or nothing in the Senate-passed bill spending the Railbelt Energy Fund. But his divide-and-conquer strategy is facing a rough go, he said. Quiet opposition from Chugach is the biggest problem.

The Anchorage utility says it could build a comparable gas-fired plant for about \$25 million, and save money on operating costs, too.

"Frankly, Chugach has been willing all along to go ballistic when they don't get what they want on the interties. They are arguing both sides of things," Boyer complained. "So I think it's crazy, the threat is, 'Either we get the intertie or we put out a set of numbers that make it impossible for the Anchorage legislators to support (the coal plant).'"

According to Usibelli, Anchorage utilities and the gas companies already got their share of state funds in the mid-1980s when the state built the original \$125 million power line from Healy to Fairbanks. The utilities are pushing to double the line's capacity.

"Chugach and the gas people, I don't think they have much to complain about," Usibelli said. "They have a huge market in Fairbanks right now that was funded by the state. . . . They're doing all right, aren't they? They have their markets and I have mine. I haven't asked state government to build a coal slurry line to Anchorage, have I? Why are they (Enstar) asking the state to fund a pipeline to Fairbanks?"

Dick Barnes, an Enstar Natural Gas Co. executive, said his company asked the state to build a gas pipeline to Fairbanks because other state studies prove it's the only project that makes "economic sense."

But as Boyer said, "I'm all politics now."