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# JOINT INTERIM GAS PIPELINE FINANCING COMMITTEE'S REPORT TO THE FIRST SESSION OF THE ELEVENTH ALASKA STATE LEGISLATURE, 1979:

## RECOMMENDATIONS REGARDING DIRECT STATE INVESTMENT IN THE ALASKA HIGHWAY PIPELINE PROJECT

JANUARY 31, 1979

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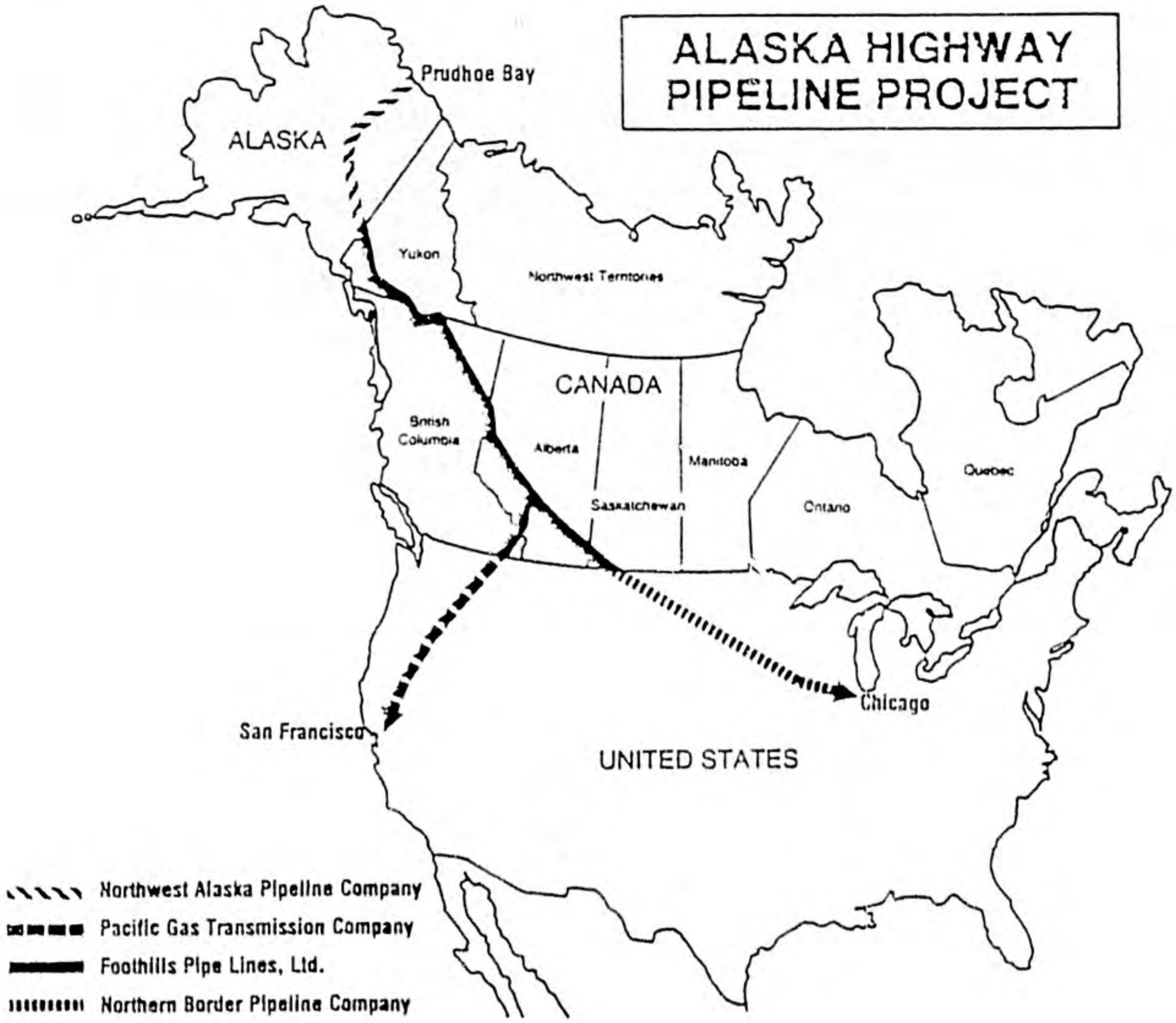
ALASKA HIGHWAY PIPELINE PROJECT
Prudhoe Bay
ALASKA
Yukon
Northwest Territories
CANADA
British Columbia
Alberta
Saskatchewan
Manitoba
Ontario
Quebec
Chicago
San Francisco
UNITED STATES
Northwest Alaska Pipeline Company
Pacific Gas Transmission Company
Foothills Pipe Lines, Ltd.
Northern Border Pipeline Company

AGO 532748

## I. INTRODUCTION

On September 20, 1977, Canada and the United States signed a formal agreement to construct a pipeline to carry Alaskan natural gas through Canada to the lower 48 states. Congressional approval for this project, known as the Alaska Highway Pipeline Project, was given November 2, 1977.

The company chosen to build the pipeline, Northwest Alaskan Pipeline Company, through the Governor's office State of Alaska, called upon the 1978 Alaska State Legislature to study the feasibility of providing state financial aid, both through means of creating an authority with the power to issue tax free bonds for investment in the pipeline and through means of maximum $500 million in direct investment.

As a result, the 1978 State Legislature passed Legislative Resolve No. 43 and HCS SCR 102 (See Appendix A). This legislative resolve recognized that a decision made by the state to participate in the direct financing of project during the First Session of the Eleventh Legislature would materially assist the project's planners. In addition, the resolve noted that a direct investment would be a direct commitment of taxpayer's funds to the project and should only be undertaken after the legislature and administration have had a opportunity to review all economic data pertaining to the pipeline, the final financial plan for construction of the entire transmission system and to determine the effects of early withdrawal of gas from the Prudhoe Bay reservoir.

Therefore, in accordance with the legislative resolve, the legislature established a joint interim committee on gas pipeline financing to review and consider possible direct investment by the State of Alaska.

## II. SUMMARY OF COMMITTEE MEETINGS

### A. Consultants

The Joint Interim Gas Pipeline Financing Committee consists of three members from each house as follows: Senator Mike Colletta and Representative Bill Miles, Co-chairmen: Senator Bill Sumner, Senator Frank Ferguson, Representative Chat Chatterton, and Representative Terry Gardiner. Ex officio members: Mr. Fred Boness of the Dept. of Natural Resources and Mr. Jack Bachman of Northwest Alaskan Pipeline Company, were added by the Committee on September 21, 1978.

The Committee met four times: Sept. 7, 1978 (Anchorage), Sept. 21, 1978 (Anchorage), Nov. 10, 1978 (San Francisco), and Nov. 27, 1978 (Anchorage). Committee meetings were taped and are on file.

With assistance from the Legislative Affairs Agency, the Committee has retained services of six various consultants as follows:

1. The Doscher's Group, Inc.: to be used as an independent technical advisor to the legislature on matters related to oil and gas reservoir management. This group will help determine

the impact of gas extraction on oil recovery from the Prudhoe Bay reservoir.

2. Institute of Social and Economic Research (ISER): ISER of the University of Alaska will analyze the marketability of North Slope gas and the financiability of the project. This study will be headed by Dr. Arlon R. Tussing, who will prepare and deliver a series of interim reports up to June 30, 1979 for the Committee.

3. Merrill, Lynch, White, Weld Capital Markets Group: will provide consulting services for purposes of giving the state insight as to alternative state frameworks that could be used for oil and gas development.

4. Birch, Horton, Bittner, Monroe, Inc.: This Alaska and Washington D.C., law firm will track the federal decisions and perceptions regarding the project.

5. Doug Pope, Esq.: will provide additional specialized legal and consulting services relating to oil and gas pipeline development.

6. Louis Kelso & Co.: is studying the possibility of designing a General Stock Ownership Corporation specifically for financing this project. The Committee wants to know if

such a device may be used as an alternative to direct state investment in the pipeline.

B. Committee Highlights

Committee meeting highlights included comments from Northwest Alaskan Pipeline Company financial advisors regarding the difficulty of putting together financing due to certain governmental delays. Two such delays, the final resolution of the variable rate of return proposal and the IRS exemption for pipeline bonding authority were given careful committee study.

The variable rate of return proposal by the Federal Energy Regulatory Commission (FERC) will determine the amount equity pipeline investors can earn from their investment. The rate of return on invested equity will be relative to the project sponsors cost performance. That is, the lower the estimated cost performance, the higher the rate of return on invested equity.

Congress adjourned last session without approving a change in Section 103 of the Internal Revenue Code. This change will be needed before the state bonding authority can issue 1 billion in tax exempt bonds. The Committee was told by Northwest at its September 21, 1978, meeting that an effort to amend section 103 will be made during the 1979 congressional session.

During the interim period, the President signed into law the Natural Gas Policy Act of 1978. The Committee was told by Dr. Arlon R. Tussing at its Nov. 27, 1978, meeting that he would present an analysis of the Act's impact upon Alaska.

A subcommittee on Alaska hire for the project was created at the Sept. 21, 1978, meeting. The subcommittees purpose is to help insure jobs for Alaskans.

At its Nov. 27, 1978, San Francisco meeting, the Committee met with Mr. Louis Kelso and Co. to discuss the possibility of using a General Stock Ownership Corporation for the gas pipeline project. Such a corporation, if authorized, would give each Alaskan resident shareholder status in the wealth of the project.

Dr. Arlon R. Tussing presented to the committee at its Nov. 27, 1978, meeting a report on what the natural gas industry is, how gas is sold and marketed, how gas projects are financed, and how government regulates the industry. This was the first in a series of reports on marketability and financibility issues.

Also, at its Nov. 27, 1978, meeting Rep. Bill Miles and Mr. Larry Eppenbach of Legislative Affairs Agency gave a travel report concerning their trip to Canada (See Appendix B). After conclusion of their nine- day tour through Calgary, Edmonton, Toronto and Ottawa, the delegation found that the Canadian portion of the Alaska Highway Pipeline Project is ready to proceed and has the support of the Canadian government.

At the Committee's request, Rep. Chat Chatterton, Greg Erickson of Legislative Affairs Agency and Dr. Todd Doscher, the Legislature's reservoir engineer consultant, met in Denver, Colorado, with H.K. Van Pollen and staff to review progress on the three dimensional Prudhoe Bay reservoir modeling program. Rep. Chatterton reports: "Upon completion of the project in mid April 1979, the state will be in a position to use this sophisticated model to run various appropriate reservoir performance productions, utilizing all geologic reservoir pressure and reservoir performance history available." He notes further, "This will enable us to view reservoir management for the next twenty years... Only two world wide government entities, Algeria and Province of Alberta, will have as near as sophisticated model."

## III. BUDGET

For a summary of the Committee's expenditures see Appendix C and Appendix D. As of the end of the fiscal year '79, there exists a remaining balance of $85,977.23.

## IV. STATUS OF PROJECT

### A. Unresolved Issues

In the weeks to come, careful attention should be given several key unresolved issues regarding the pipeline project. Examples of such issues are as follows:

1. Conditioning Costs: Who will pay for them? Will FERC allow certain conditioning costs to be added on to or taken out of the wellhead price of gas?

2. Variable Rate of Return: Financial assessment of any final order issued by FERC.

3. Mexican Gas Sales: Whether the U.S. Government will allow import of Mexican gas, and if so, its effects on marketability of Prudhoe Bay gas.

4. Natural Gas Policy Act '78: How will this impact Alaska? For example, will it give FERC the power to force producers to meet gas- sale obligations despite harm to oil recovery from the reservoir?

5. Section 103 IRC Exemption: Will Congress permit the sale of tax exempt industrial revenue bonds by Alaska for the gas pipeline project?

6. Socio-Economic Impacts: What will be the benefits to Alaska if the line is built?

7. Gas Sales Contracts: Will the Prudhoe Bay gas producers be

willing and able to assure gas sales commitments?

8. Canadian Gas Exports: Will the Canadian National Energy Board allow export of surplus Alberta gas to U.S. markets?

## V. RECOMMENDATIONS

At this time, the Committee cannot give recommendation about direct state investment in the gas pipeline project for critical federal issues remain unresolved, consultant studies are not completed and Northwest has not presented its final financial proposal. More time is needed for careful analysis of the above considerations.

Therefore, it is the Committee's recommendation that it be extended beyond the January 31, 1979, deadline in order to carry out the purpose and intent of Legislative Resolve No. 43, HCS SCR 102.

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| [illegible signature] | B Miles |
| Senator Mike Colletta | Representative Bill Miles |
| Bill Sumner | Terry Gardiner |
| Senator Bill Sumner | Representative Terry Gardiner |
| [illegible signature] | [illegible signature] |
| Senator Frank Ferguson | Representative Chat Chatterton |

Joint Interim Gas Pipeline Financing Committee

January 31, 1979

APPENDIX A

# STATE OF ALASKA

THE LEGISLATURE

1978

| Source | | Legislative Resolve No. |
|---|---|---|
| HCSSCR 102 | | 43 |

Relating to a direct investment by the state in the Alaska natural gas pipeline project.

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BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

WHEREAS Northwest Alaskan Pipeline Company has been selected by the President and the Congress of the United States to construct a pipeline to transport Alaskan natural gas from Prudhoe Bay to markets in the lower 48 states; and

WHEREAS the cost of the project is estimated to be 10.5 billion dollars, 3.7 billion dollars of which will be used to construct over 700 miles of pipeline in Alaska; and

WHEREAS timely completion of the Alaska Highway Natural Gas project to transport North Slope natural gas is a matter of vital concern to the nation's energy future; and

WHEREAS construction of the project may produce important social and economic benefits for the people of Alaska, including new jobs, increased state and local tax revenue, enhanced availability of natural gas for Alaskan communities, and stimulus and expansion of private enterprise, including greater potential for development of in-state manufacturing, refining, and processing facilities; and

WHEREAS Northwest Alaskan Pipeline Company has advised the state that it would be of substantial assistance to the company in constructing the gas line if the state were to provide financial aid, both through the means of creating an authority with the power to issue tax-free bonds for investment in the pipeline and through the means of direct investment in the pipeline; and

WHEREAS Northwest Alaskan Pipeline Company has asserted that a direct investment up to a maximum of $500,000,000 in the pipeline would be beneficial to Alaska and would create a substantial return to Alaskans on the dollars invested; and

WHEREAS, unlike the creation of an authority to issue tax-free bonds, a direct investment would be a direct commitment of taxpayers' funds to the project and should only be undertaken after the legislature and the administration have had an opportunity to completely review all the economic data pertaining to the pipeline, the final financial plan for construction of the entire transmission system and have made a determination as to the effect of early withdrawal of gas from the Prudhoe Bay reservoir; and

WHEREAS, if a decision is made by the state to participate in the direct financing of the project during the First Session of the Eleventh Legislature, this decision will materially assist the project's planners;

BE IT RESOLVED by the Alaska State Legislature that

(1) there is established a joint interim committee on gas pipeline financing to review and consider possible direct investment by the State of Alaska in the pipeline project; the committee consists of three members from each house appointed by the presiding officer of each house; the committee shall elect its chairman;

(2) the committee, in consultation with the governor, shall determine if direct state financial participation in the project appears to be in the best interest of the state;

(3) if it is determined that such participation is desirable, the committee, again in consultation with the governor, shall prepare, and propose to the legislature, legislation to authorize a maximum of $500,000,000 in direct state financial participation;

(4) the committee shall submit a written report to the legislature not later than January 31, 1979.

# THE CANADA REPORT

## Information About Canadian Gas and the Canadian Portion of the Alaska Highway Pipeline

Prepared by:

Legislative Affairs Agency
Research Division

January 23, 1979

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AGO 532761

THE CANADA REPORT

Information About Canadian Gas and the Canadian Portion of the Alaska Highway Pipeline

Last November, members of the Alaska Joint Interim Committee on Gas Pipeline Financing traveled to Canada and visited government officials and representatives of the oil and gas industry. This report presents information of general interest the committee acquired while in Canada.

## GAS RESERVES

Twenty-three million people live in Canada, almost two-thirds of them in the eastern provinces of Ontario and Quebec. Alberta, in the west, produces 80 per cent of Canadian energy requirements and has 57.9 Tcf (trillion cubic feet) of proven natural gas reserves with ultimate recoverable reserves of gas now estimated to be 110 Tcf.

Last year, the Province of Alberta produced 2.8 Tcf of gas and consumed 20 per cent of it. 45 per cent was shipped to other Canadian provinces and the remainder exported to the United States. The largest gas field now in production in Alberta is the Milk River Field with estimated gas reserves of 9 Tcf.

Currently there is much speculation about the "deep basin gas deposit" in northwest Alberta. John Masters, President of Canadian Hunter, reported to members of the Gas Pipeline Committee that potential gas volumes as large as 440 Tcf (Prudhoe Bay has 26 Tcf) may be trapped in mesozoic rock sections over 15,000 feet in depth in front of the Foothills overthrust in northwestern Alberta. It is Mr. Masters' opinion that about 50 Tcf is economically recoverable in the deep basin at today's netback price of $1.00 per mcf. At $2.00 per mcf the amount might increase to 150 Tcf. Because of the speculative character of these deposits, they have not been included in the proved or probable reserve estimates. However, the exploratory wells already drilled in the deep basin area are only forty miles from the major Alberta gas distribution pipeline.

Elsewhere in Canada, there have been significant discoveries of natural gas. Two of the largest have occurred in remote areas away from transportation systems.

- The Arctic Islands

The discovery of natural gas in the Arctic Islands occurred on Melville Island in the summer of 1969. In the following ten years close to $600 million was spent to explore this area, $250 of it by Panarctic Oils Ltd. Panarctic, a consortium of thirty companies, has total proven gas reserves of 13 Tcf in the Arctic Islands and they believe that additional reserves at the rate of 2 Tcf/year may be discovered.

- Mackenzie Delta - Beaufort Sea

Under active exploration since the North Slope oil discovery in the late 1960's, the Mackenzie Delta - Beaufort Sea area has reserves of gas estimated variously from 5.2 to 7.2 Tcf. Exploration is continuing both on land and from an ice-breaking drill ship located in the Canadian Beaufort Sea.

## CANADIAN GAS PRICING

Since the energy shortage of 1973 the price of Canadian gas has been regulated at the city gate - literally the price the local distribution company must pay for the gas it distributes to retail customers. Under the Canadian pricing plan, gas producers receive only what is left after transportation charges are deducted from the city gate price in Toronto and federal regulators can precisely control the price the consumers pay for gas locally. This netback approach is just the opposite of the field price regulatory approach used in the United States.

An agreement between the producing Province of Alberta and the federal government fixed the city gate price of gas at 85% of the BTU value of oil. Today's price is about $2.00/million BTU (each cubic foot of natural gas contains about 1000 BTU). In addition, gas exported to the United States has been priced at 100% parity with oil which results in a $2.16/million BTU Alberta border price.

The disadvantage of the Canadian system is that gas producers must swallow the cost of transporting gas and therefore seek high-priced local markets. Alberta producers naturally support plans that increase their wellhead value and these include the export of gas directly to the United States.

## PAST CANADIAN GOVERNMENT ENERGY POLICY

Between 1971 and 1973 energy industry leaders and ministers were confident that Canada possessed vast reserves of oil and gas. Canada raised her level of oil exports to the United States to 1.3 million barrels per day. The 1973-74 energy crisis, however, illustrated the vulnerability of eastern provinces that depended on foreign sources of crude oil mostly Venezuelan, for their energy. Simultaneously, the Canadian oil industry revised downward their domestic reserve forecasts. The Canadian government thereupon outlined a policy of export restrictions. In January of 1975, the government limited petroleum exports of oil to 800,000 barrels per day and stated that it would favor cutbacks in export of natural gas in case of a domestic shortage even though Canadian producers had contracted to supply gas to the United States until the end of the 1970's.

The Canadian government also tried to reduce Canada's dependence on foreign oil. First, to increase its domestic supply of energy, the government financially supported frontier exploration and new technology to recover energy in deposits such as the Alberta Tar Sands.

More recently, Canadian officials have talked about ways to stimulate the construction of pipelines for moving domestic gas production eastward into Quebec and the Maritimes, beyond the present Montreal terminus of the pipeline system. One approach to induce more eastern users presently buying imported oil to shift to gas would be to relax the price controls of gas. However, this idea is plagued with problems including the prospect that Alberta's gas producers wellhead value and hence revenue would be reduced. Eastern provinces, likewise, fear that a reduction in crude oil imports will not enable the now overbuilt refineries running at partial capacity to meet their heavy fixed costs.

## GOVERNMENT IN CANADA

Canada is a dominion of provinces linked together by the "British North American Act of 1867" which serves as its constitution. Canada also has an unwritten constitution comprising many of the legal rights and procedures employed today. The country is run from Ottawa by a parliament composed of a 265-member elected House of Commons and a far less important 102-member appointed Senate. As in the English parliamentary system, no separate executive exists and the Prime Minister and his cabinet are all members of the majority party of parliament. All measures introduced by the Prime Minister to parliament are passed substantially unamended as the Prime Minister controls the majority. The cabinet has about 16 ministers, each responsible for one or more departments, or portfolios. Cabinet members are required to appear several times a week for the daily question period in parliament. The departments themselves are often run by deputy ministers or civil servants, typically of long standing.

Provincial governments in Canada, more powerful than state governments in the U.S., have generally the same parliamentary structure as the federal level although without an upper house. The Alberta legislature, for example, consists of 75 elected representatives.

There is also a vast array of regulatory agencies in Canada. At the federal level the National Energy Board (NEB) is similar to the Federal Energy Regulatory Commission in the U.S. Created in 1959, the NEB has 9 commissioners, a staff of 325, and is responsible for regulating pipeline tariffs and approving oil and gas exports (subject to cabinet approval).

The Foreign Investment Review Agency reviews major project proposals and mergers to make sure that the high percentage of foreign investment in the Canadian energy industry does not increase.

At the provincial level there are regulatory bodies similar to "public utility commissions" of most U.S. states. In addition, Alberta created the Alberta Energy Resource Conservation Board which appraises reserves and regulates exploration, development, and pipelines within the Province. The Alberta Petroleum Marketing Commission is the single marketer of oil and gas exported from Alberta. The Commission purchases and then resells oil and gas allowing the producer to receive the average mix of domestic sales and export prices.

## GAS PIPELINE COMPANIES IN CANADA

- Trans-Canada Pipeline

A special act of parliament in the late 1950's created the Trans-Canada Pipeline Company which operates the only gas pipeline carrying gas from the Alberta border east across Canada into Ontario Province and Montreal. The Trans-Canada system consists of looped 30" and 36" pipelines for most of the distance from Alberta to Toronto and then 20" and 24" pipelines from Toronto to Montreal. These pipelines are now owned privately and operated as a public utility, although a portion of the system was originally owned by the federal government. Trans-Canada was recently awarded a 22½% increase in its tariffs which will allow it to make a profit and be liable to pay income taxes for the first time. However this increase absorbed most of a gas price increase Alberta gas producers had been anticipating, worsening the already tense relations between western producers and eastern gas purchasers. The pipeline charges 59¢ per mcf to move gas from Alberta Province to Toronto, and has a surplus daily throughput capacity of about 300 mmcf/day.

- The Alberta Gas Trunkline Company Ltd. (AGTL)

Formed by an act of the Alberta government in 1964, AGTL owns and operates a major system of gas pipelines in Alberta Province. The system comprises approximately 6000 miles of major trunklines and laterals ranging in diameter from 3" to 42". The Company enjoys a monopoly position as the only builder and operator of pipelines in Alberta for export of Alberta gas. AGTL, however, is far more than a gas pipeline company. It owns, for example, a small oil and gas producer in western Canada, and is constructing a $350 million ethylene plant in Joffre, Alberta, with a design output of 1.2 billion pounds of chemicals per year.

AGTL recently acquired controlling ownership of Husky Oil Company, a fully integrated oil and gas company. Husky Oil has major heavy crude oil development projects in Lloydminister, Alberta, and extensive oil drilling efforts on the North Slope of Alaska. Husky also operates five refineries and a substantial pipeline network of its own. The acquisition of Husky Oil by Alberta Gas Trunkline makes AGTL one of the major oil and gas companies in Canada.

- Westcoast Transmission Ltd.

Begun in 1949, Westcoast Transmission Company Ltd. is the major owner and operator of natural gas pipelines in British Columbia. Westcoast buys virtually all of the oil and gas produced in British Columbia and also purchases gas directly from Alberta Province. The Company owns 1,376 miles of transmission lines and 962 miles of gathering lines as well as several natural gas processing plants. Westcoast Transmission is 10% owned by the British Columbia government and 34% owned by Pacific Petroleum Limited which in turn was recently acquired by Petro-Canada (see later section on government owned oil companies).

## MAJOR GAS PIPELINE PROPOSALS

- Polar Gas Project

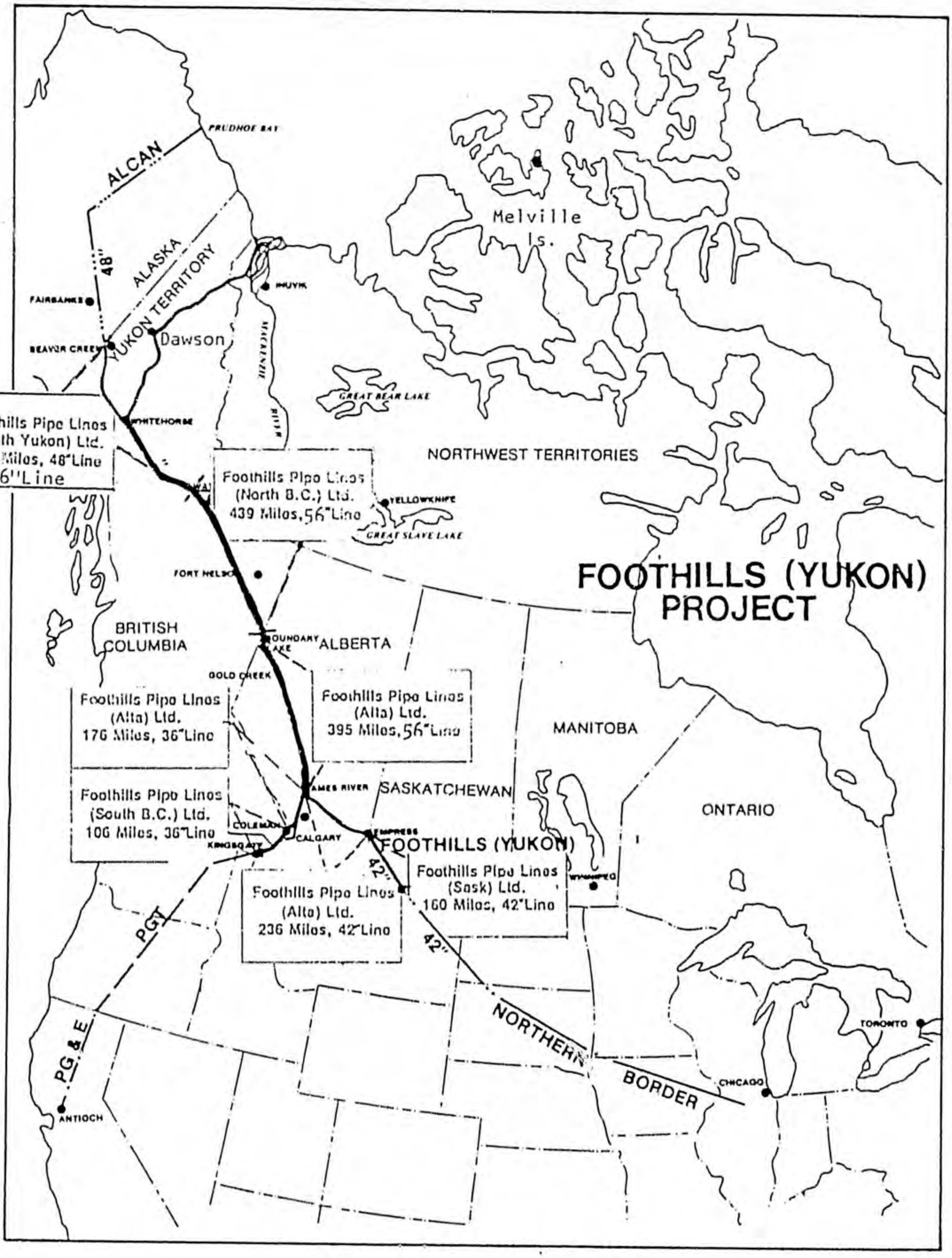
The owners of the Arctic Island gas reserves propose to transport the gas by high pressure (1680 psi) 42" pipe 2,338 miles south along the west coast of Hudson's Bay to connect with the Trans-Canada Pipeline system in Ontario Province. The Polar Gas Pipeline is designed to carry 2.1 bcf/day expandable to 3 bcf. Supported principally by Panarctic Ltd. and Trans-Canada Pipeline, the Polar Gas Project has been postponed due to the lack of sufficient reserves to support the proposed throughput rate. Present estimates of the completion date for this project now fall between 1990 and 1995.

- Q & M Pipeline Proposal

This proposal would extend the Trans-Canada Pipeline system east into Quebec, New Brunswick and Nova Scotia - a total of 1,250 miles of various size pipe. Beside bringing natural gas to eastern Quebec and the Maritines for the first time there is also a provision in this proposal to supply Maine and northern New England with up to 250 mmcf/day of gas.

- Foothills Pipeline (Yukon) Limited

This is the Canadian portion of the Alaska Highway gas project. In its present configuration it comprises 2,023 miles of 36", 48" and 56" pipe.



FOOTHILLS (YUKON) PROJECT
PRUDHOE BAY
ALCAN
48"
ALASKA
YUKON TERRITORY
FAIRBANKS
BEAVER CREEK
Dawson
INUVIK
Melville Is.
GREAT BEAR LAKE
WHITEHORSE
Foothills Pipe Lines (South Yukon) Ltd. 517 Miles, 48" Line & 56" Line
Foothills Pipe Lines (North B.C.) Ltd. 439 Miles, 56" Line
NORTHWEST TERRITORIES
YELLOWKNIFE
GREAT SLAVE LAKE
FORT NELSON
BRITISH COLUMBIA
BOUNDARY LAKE
ALBERTA
GOLD CREEK
Foothills Pipe Lines (Alta) Ltd. 176 Miles, 36" Line
Foothills Pipe Lines (Alta) Ltd. 395 Miles, 56" Line
MANITOBA
Foothills Pipe Lines (South B.C.) Ltd. 106 Miles, 36" Line
JAMES RIVER
SASKATCHEWAN
ONTARIO
COLEMAN
CALGARY
KINGSGATE
EMPRESS
FOOTHILLS (YUKON)
Foothills Pipe Lines (Sask) Ltd. 160 Miles, 42" Line
Foothills Pipe Lines (Alta) Ltd. 236 Miles, 42" Line
42"
WINNIPEG
PGT
NORTHERN BORDER
PG & E
TORONTO
CHICAGO
ANTIOCH




AGO 532771

A 48" pipe will receive Alaska gas at the Alaska-Yukon border and proceed along the existing Alcan Highway to Whitehorse in the Yukon Territory. From Whitehorse to St. James River near Calgary, Alberta, the line will increase to 56" in order to accommodate Canada's Mackenzie Delta gas. (The Mackenzie Delta gas if produced will be moved to Whitehorse in the "Dempster Line" designed to move approximately 1.2 bcf/day.) The Foothills line will divide into two legs at St. James River with about two-thirds of the gas flowing east through a new 42" pipeline, and the rest heading west through B.C. and then south into the U.S.

## CHRONOLOGY OF CANADIAN PIPELINE ROUTE DECISION

- In 1972 a number of separate companies formed Canadian-Arctic Gas Limited. In 1974 they proposed to build a 48" pipeline carrying both Canadian and Alaskan gas to southern markets following the Mackenzie Valley.
- In mid 1974 Alberta Gas Trunkline decided to leave this consortium and together with Westcoast Transmission Company of Vancouver formed Foothills Pipeline Limited Company to sponsor the "Maple Leaf Project" - a 42" low pressure pipeline to bring only Mackenzie Delta gas south to link up with their existing systems. The Maple Leaf proposal was filed in the spring of 1975.
- The "Berger Inquiry" which as early as 1974 had begun to assess the environmental and regional impacts of the northern pipelines was

joined by the Canadian National Energy Board (NEB) which began hearings on the two Mackenzie Valley proposals.

-In August of 1976, Foothills and its U.S. partner proposed to build a 42" pipeline to carry gas from Prudhoe Bay to Fairbanks and then by the Alaska highway route to northern B.C. and Alberta, at which point the gas would be moved through existing pipelines.

-In February of 1977, Foothills submitted its "Express Line" proposal which planned a 48" line to convey gas directly from Prudhoe Bay to the U.S. border in a single new "express" line.

-The Berger Inquiry Report was released in April of 1977. It argued against the Mackenzie Valley route proposed by Arctic Gas on environmental and social impact grounds.

-In a report dated July 1977 the NEB selected the revised Alaska highway proposal "the express line" provided that it be rerouted northward to pass through Dawson City, thus reducing by a third the required length of the Dempster line from the Mackenzie Delta. The NEB further required that the applicants file an application by July 1, 1979, to build this Dempster lateral line.

-September of 1977 President Carter selected the Alcan project (including Foothills) to transport Alaskan gas to the U.S.

## U.S. - CANADIAN AGREEMENT

Routing the pipeline through the Yukon south along the Alaska highway rather than north along the Klondike highway as proposed by the

NEB will lower the cost of transporting Alaska gas. The southern routing, however, added to the length of the Dempster lateral required to bring Mackenzie Delta gas into the system. This was one of the reasons an "agreement in principle" was worked out between the government of Canada and the United States. It was agreed that shippers of Prudhoe Bay gas would pay part of the cost of service for shipping Canadian gas from Dawson to Whitehorse to compensate Canadians for the extra distance of pipeline required by the U.S. route preference south along the Klondike highway through Dawson City. Cost overruns for constructing this line exceeding 35% will reduce the U.S. shippers share.

The agreement in principle also provides that a technical study group determine the pipe capacity and pressure. The Canadian government supported a large diameter (56") low pressure (1080 psi) line while the U.S. supported a smaller diameter high pressure pipeline. The second choice of the U.S. technical team, however, was the 56" 1080 psi pipeline.

The Canadian National Energy Board on February 17, 1978, chose the large diameter (56") pipe for the portion of the line from Whitehorse south to where it splits into eastern and western legs. Even though this 56" pipeline will operate at a pressure of 1080 psi, its capacity to carry heavy gas hydrocarbons will probably be as great as the Alaska portion of the line because it will operate at a minimum of 40 degrees Fahrenheit. The Alaska portion will have to be chilled below the freezing point of water to avoid melting the permafrost which extends only 100 miles into Canada.

The selection of a large diameter relatively low pressure pipeline has obligated the Alaska gas producers to build a gas conditioning plant in Prudhoe to remove most of the $CO_2$, water and gas liquids before shipping gas.

<u>Canadian Content Regulations</u>

Interestingly, only two North American companies are capable of rolling the 56" pipe specified for the Canadian portion of the line. They are both Canadian: the Interprovincial Steel and Pipe Corporation Ltd. and the Steel Company of Canada Ltd. In addition, the NEB adopted regulations to be sure that Canadian firms and workers would receive the maximum economic benefit from pipeline projects in Canada. These "Canadian content" regulations were somewhat at odds to the "agreement in principle" between Canada and the United States which committed each government to the principle that goods and services for the pipeline would be supplied on generally competitive terms. Negotiation on this point is still being conducted by federal agencies in Washington and the American Embassy staff in Ottawa. However, it is clear from regulations issued and agreements already reached that the "Canadian Content" (of the goods and labor supplied) for the portion of the pipeline traversing Canada will be not less than 90%. Both an intensely national orientation on this issue as well as the weakness of the Canadian dollar (making their labor and capital more competitive) have contributed to this imbalance in content.

## PREBUILDING AND GAS EXPORT PROPOSALS

Foothills and Northwest hope to "prebuild" the southern Canadian and U.S. sections of line before the Alaskan and Yukon sections are completed. Prebuilding would lengthen the construction period and reduce the competition for available labor and material as well as provide an early cash return to investors in the prebuilt segments if the prebuilt sections were put into immediate use exporting Alberta gas to the U.S.. For prebuilding to commence gas purchase contracts must be signed between Alberta gas producers and U.S. gas distribution companies and contracts to transport the Alberta gas must be negotiated. These contracts, in turn, depend on export permission being granted by the National Energy Board and by the Energy Conservation Board of Alberta Province. In the U.S., the Federal Energy Regulatory Commission has already given "conditional approval" to the Pan Alberta export plan--one of only several proposals pending.

- Pan-Alberta Gas Limited

Pan-Alberta is a company 60% owned by Alberta Gas Trunk and the remainder by Alberta Energy Company Limited. Its export proposal relies on the "prebuilding" the Foothills pipeline and proposes to export 1.04 bcf/day over an initial contract term of six years subject to an extension of an additional six years.

- Pro-Gas

This proposed export plan is sponsored by a group of ten natural gas producers for between 300 and 700 mmcf/day using existing excess capacity of the Trans-Canada Pipeline. This plan is in direct opposition to prebuilding the eastern leg of the Alaska Highway pipeline unless the NEB approves sufficient gas exports for both to go forward. The Alberta gas producers support the Pro-Gas approach because their netback price will be higher using the existing Trans-Canada line rather than new southern portions of the Alaska highway gas pipeline.

- Sulpetro

A third and much smaller export proposal also plans to use the Trans-Canada Pipeline to transport gas for a three year period. Sulpetro has applied to the NEB for export permission utilizing the Trans-Canada line. Trans-Canada, however, has argued that this export proposal is not compatible with the Pro-Gas proposal it supports.

## NEB GAS SUPPLY AND DEMAND HEARINGS

The Canadian National Energy Board on the 11th of September, 1978, completed a major study of "Canadian Oil Supply and Requirements" at the request of the federal minister of Energy, Mines and Resources. They last reported on gas in April of 1975 when they projected insufficient Canadian production of gas to meet U.S. import and Canadian domestic needs by the late 1970's. Since then the supply of Alberta gas has increased due to productive exploratory efforts funded in large part by gas price increases. The existence of this additional gas (called "bubble gas") together with the pending applications for exports caused the National Energy Board to commence In October of 1978 an extensive public inquiry into Canadian gas supply and demand. The Board indicated that it intends to make its recommendations available by February of 1979 with respect to the existence of a gas surplus and the prudence of exports. Should a gas surplus exist, export proposals will then be considered with a final ruling expected by July. The final determination of any export plan, however will rest with the Prime Minister and cabinet. Prime Minister Trudeau is expected to stand for re-election during the summer and the final decision therefore will not likely be made before the fall of 1979.

Although the preponderance of testimony at the hearings has been in favor of exporting Alberta gas, members of the Board were not willing to speculate on their decision when interviewed by the Alaska delegation.

## NORTHERN PIPELINE AGENCY

Following the agreement in principle in the fall of 1977, the Canadian parliament passed bill C-25 establishing the Northern Pipeline Agency to facilitate the planning and construction of the pipeline. The Northern Pipeline Agency was empowered to carry out the requirements of the agreement between Canada and the United States. Heading up this one window regulatory agency in Ottawa is Commissioner Mitchell Sharp, an experienced senior public servant who has held several Canadian cabinet posts. In the Calgary office, Harold Millican serves as the agency administrator along with Bill Scotland who is the delegated representative from the NEB. These members of the Northern Pipeline Agency indicated to the Alaska delegation that substantial progress had already been made on the subjects of Native settlements, local hire, and pipeline procurement.

Native Claims

Detailed discussions are underway with Native groups in the Yukon and the Northwest Territories. The Pipeline Agency believes that a final settlement with the Yukon Indians may not be possible prior to the start of construction of the pipeline. While parliament has established a policy to resolve the Native Claims, the Canadian courts have not recognized their legal basis. Thus Native groups in Canada do not have the power to halt construction of the pipeline via court imposed injunction.

Local Hire

Native northerners who have lived in the Yukon or the Northwest Territory prior to August 1, 1977, are specifically provided a preference for hire. In addition the Northern Pipeline Agency has established regulations requiring non-local construction workers to be hired for the pipeline only in Edmonton and Calgary and not in Whitehorse or Dawson. The Northern Pipeline Agency is continuing to hold hearings on these and related matters throughout the Yukon and Northwest Territories.

## CANADIAN FINANCING PLANS

Before granting approval to the Foothills (Yukon) Pipeline Ltd. proposal the NEB suggested an organizational structure wherein Alberta Gas Trunkline and Westcoast Transmission Ltd. combined to own Foothills Yukon Ltd., which would in turn contract with AGTL, Westcoast and other firms to construct and operate pipelines over the terrain and conditions with which each is experienced. This structure allows Foothills (Yukon) Ltd. to use the liability limiting features of project financing.

Alberta Gas Trunkline Co. and Westcoast Transmission Co. each own half of Foothills Pipeline (Yukon) Ltd. and an additional interest in the five subsidiary companies Foothills formed to build each segment of the line. Ownership of the subsidiary companies varies; AGTL controls the most shares of the companies building in Alberta and Southern B.C. while Westcoast Transmission controls the Northern B.C. subsidiary. The remainder are jointly controlled. The following table displays the ownership composition of the companies:

| | Ownership Interest | | | Net Ownership Interest* | |
|---|---|---|---|---|---|
| | Foothills Pipeline (Yukon) Ltd. | AGTL | Westcoast | AGTL | Westcoast |
| Foothills Pipeline (south Yukon) Ltd. | 100% | | | 50% | 50% |
| Foothills Pipeline (north B.C.) Ltd. | 51% | | 49% | 24.5% | 75.5% |
| Foothills Pipeline (south B.C.) Ltd. | 51% | 49% | | 75.5% | 24.5% |
| Foothills Pipeline (Alberta) Ltd. | 51% | 49% | | 75.5% | 24.5% |
| Foothills Pipeline (Saskatchewan) Ltd. | 100% | | | 50% | 50% |

* Net ownership interest recognizes that AGTL and Westcoast each own half of Foothills Pipeline (Yukon) Ltd.

Investment Cost of Canadian Section of Pipeline

Cost estimates which are now obsolete due to last year's delay in construction were presented to the White House staff on August 2, 1977. No more current estimates are available.

Foothills Pipeline (Yukon) Ltd. (Estimates in millions of Dollars)

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Total |
|---|---|---|---|---|---|---|
| Canadian Banks | - | 117 | 319 | 106 | - | 542 |
| U.S. Long Term Debt | - | 341 | 1,103 | 782 | - | 2,227 |
| Canadian Long Term Debt | 80 | 106 | 106 | - | 153 | 445 |
| Canadian Common Stock | 234 | 183 | 227 | 158 | 7 | 855 |
| | 314 | 747 | 1,800 | 1,046 | 160 | 4,069 |

In 1977 the major part of the debt financing--$2.2 billion or 80%--was planned to be sold in the United States. Since then (principally due to delay in the pipeline project) the total amount of debt to be issued has increased. At a meeting with financial advisors to Foothills (Yukon) Pipeline Ltd. (notably Dominion Securities, First Boston Corps., McCloud Young Weir Company, and Pittfield McKay Company), members of the Alaska delegation were told that a large share of the long term debt would be placed in the United States to take advantage of lower U.S. rates. The long term difference or "spread" in interest rates has averaged 1½% and although the current interest differential is much less than that (½ of 1%) the financial advisors see no reason the traditional spreads would not return. In addition, they see no difficulty in Alberta Gas Pipeline or Westcoast Transmission Company obtaining financing due to the current high interest rates or the strength of their credit.

This was somewhat surprising due to the heavy capital outlay AGTL sustained to purchase control of Husky Oil Company. Meetings with independent advisors (notably the A.E. Ames Company) however, confirmed the view that there are no real impediments to either AGTL or Westcoast Transmission borrowing the equity funds needed to finance their portion of the line--now estimated to be over $400 million apiece. However, they did indicate the need to develop guarantees to ensure that revenues would be forthcoming when the pipeline is completed to the Alaska border even if the Alaska segment has not yet been connected.

Ames also indicated that Alaska financial participation, although not "necessary" to the pipeline, would be "beneficial" to the overall project financing efforts.

## ALBERTA HERITAGE FUND

The Alberta Heritage Savings Trust Fund is Alberta's permanent fund. Thirty percent of the non-renewable resource revenue coming to the province is transferred to the Heritage Fund to be invested and saved for Albertans in the future. The Heritage Fund which held $3.6 billion in assets as of June 30, 1978, has not been asked to invest in either the debt or equity portions of the Foothills (Yukon) Pipeline. When the fund managers were asked by the Alaskan delegation if they would be interested in such an investment they indicated that they expected to receive and would review an investment proposal on the debt portion of the pipeline but that they would not consider an equity investment. Such investment decisions would be made by the Premier and cabinet of Alberta Province in any case, and a minister of the cabinet indicated that the administration would not be interested in an equity investment under any circumstances.

No estimate was available of the amount of funds the Heritage Fund might contribute, if any, to purchase pipeline bonds. The following summary balance sheet describes current assets by major category of the Alberta Trust Fund as of June 30, 1978.

Alberta Heritage Savings Trust Fund

| Assets as of June 30, 1978. | | Millions of Dollars |
|---|---|---|
| Current: | | |
| Deposit in Cash Investment Trust Fund of the Province of Alberta | | 138.7 |
| Marketable Securities including accrued interest | | 2079.0 |
| Short term | 568.3 | |
| Government & Corporate Bonds | 78.9 | |
| Alberta Municipal Financing Corp. | 575.8 | |
| Alberta Government Telephone | 708.4 | |
| Other Provinces | 91.0 | |
| Capital Project Division Investments (research projects, health care, irrigation, etc.) | | 138.3 |
| Canada Investment Division Investments (loans to other provinces) | | 96.3 |
| Alberta Investment Division Investments | | |
| Alberta Housing Corp. debentures | | 267.9 |
| Alberta Home Mortgage Corp. | | 396.7 |
| Other, including equity in Syncrude Project (tar sands) and Alberta Energy Co. | | 486.8 |
| TOTAL | | $3603.7 |

Over the next year the fund is expected to receive $1 billion in contributions of oil revenue and earn an additional $295 million from investments.

## THE NEB'S INCENTIVE RATE OF RETURN

Last fall the NEB adopted an incentive rate of return formula for the Canadian portion of the pipeline that, while patterned after the U.S. version, does have some differences. The sliding scale rates are

1-3% higher on the average than FERC's and suggest returns on the average of 16-24%. However, these rates will apply to cost estimates of the pipeline already filed by Foothills (Yukon) Ltd. and unlike the U.S. agency the NEB does not provide for a major revision to the original estimates. Therefore the actual dollar returns to the companies may not be as high using the Canadian approach than had they followed the U.S.. Godfrey Edge, Vice Chairman of the NEB indicated that the NEB supported the incentive return concept.

## CURRENT GOVERNMENT POLICY TOWARD THE PIPELINE

Discussions between members of the Alaska delegation and officials in the Ministry of Finance and the Ministry of Energy, Mines, and Resources gave us a clear understanding of the attitude of the present administration toward the pipeline across Canada. First they see no need for, nor any desire to provide financial support to the pipeline. Second, they favor and support the pipeline only insofar as it brings Alaska gas to U.S. markets. Although the pipeline would provide a method (the Dempster lateral) to bring Mackenzie Delta gas to markets in the south, most Canadians view this as a long run residual, something that might become important in the 1990's. Further there are some Canadians who suggest that the Dempster lateral is not an economic method to transport Mackenzie gas. They suggest that an eventual Mackenzie Valley pipeline or a northern "Y pipeline" connecting both the

Arctic Islands and the Mackenzie Delta would serve Canadian interests best. It is understandable, therefore that Canadians have argued aggressively that the content of construction of the line in their country be maximized as this is their most tangible present benefit of the line.

There is a growing apprehension in Ottawa that the northern portion of the pipeline will never be completed and that the project will become a means of transporting precious Alberta gas southward to the U.S. rather than eastward into the population centers of Canada. All the government officials at the National Energy Board as well as the Department of Energy, Mines, and Resources stated that only upon satisfactory completion of gas sales contracts and the establishment of financial commitments that assured completion of the entire pipeline would the Canadian government consider allowing prebuilding of the Alaska pipeline to commence.

## SUMMARY OF PIPELINE PROJECT

In summary after extensive consultations with industry and government officials, it became clear to the Alaska delegation that the Canadian portion of the pipeline would be ready to proceed if and when the U.S. portions were ready. The Canadian government has moved swiftly to meet its regulatory responsibilities, and the financial community in Canada appears willing to finance the equity portion of the pipeline in the event suitable gas purchase and transportation contracts can be negotiated.

## PETROCHEMICAL DEVELOPMENT IN CANADA

Because of the interest generated last year during the legislature's consideration of the Alpetco contract, the Alaska delegation inquired about petrochemical developments in Canada.

Petrochemicals are derived from crude oil and natural gas and include ethylene, propylene, benzene and their derivatives. These chemicals are used to build plastic products, fibers, rubber products, and a broad range of other formulated products.

Petrochemical facilities tend to be built in large complexes because of the dependence of one product being used as a raw material for another. The center of petrochemical production in Canada is in Sarnia in southwestern Ontario. Canada's major ethylene plant, Petrosar is located in Sarnia. The plant uses Alberta crude oil as a feedstock to produce ethylene. It is now operating at only one quarter of capacity and losing money due to worldwide marketing problems caused by the oversupply of ethylene and due to additional difficulties in marketing the by-products of ethylene manufactured from a crude oil feedstock. The by-products, called "heavy ends", are in direct competition with products from Canadian refineries which at present have capacities far in excess of market needs. Petrosar was first owned by Dow Chemical, but now Petro-Canada (the government owned oil company) owns a substantial equity position.

A cautionary note was sounded by every government official that the Alaska delegation talked to about petrochemicals and they cited several examples to support their case. One was another "world scale" ethylene plant scheduled to begin operations late this year in Red Deer, Alberta. This will use ethane rather than oil as its feedstock. The plant will be owned by a subsidiary of Alberta Gas Trunkline although the plant was financed by Dow Chemical who is also committed to purchasing the products on a take-or-pay cost of service basis, thereby relieving AGTL of any marketing risk.

The Province of Alberta conditioned an authorization for Dow to purchase and export raw ethane from Alberta with a commitment by Dow to build a plant and process a quantity of ethane within the Province. Nevertheless it is now recognized that while provincial leveraging may have been sufficient to get the plant built, it won't guarantee a thriving operation. On the contrary, severe marketing problems are foreseen when the plant goes on stream until the market price of ethylene increases substantially. In the meantime the capital structure of Dow Chemical will have to support this marginal enterprise. This point - that of having a major chemical company participate in any petrochemical project was made repeatedly by Canadian officials.

A different approach is being developed by the Alberta Energy Company, which is a newly created company 50% owned by the Alberta government. This company is proposing to produce benzene using natural gas liquids as feedstock in a joint venture with Mitsubishi, a Japanese trading company. However it proposes a "gimmick" for its project whereby the by-products of benzene production would be sold for manufacture into synthetic natural gas. The sale of those by-products would yield at a price high enough to offset the losses on the benzene. The company now says that what started off to be a benzene petrochemical project has turned into an SNG export plan, with benzene produced only as a by-product.

## CANADIAN GOVERNMENT OWNED ENERGY COMPANIES

The energy crisis of 1973 caught the Canadians at a particulary bad time. Their vast tar sand deposits required new technology to produce and their frontier oil and gas deposits needed years to develop. Although the rapidly increasing fuel prices made such undertakings feasible there was a lack of leadership and direction. At the same time estimated reserves of oil and gas from conventional fields, once believed reliable, were adruptly scaled down, spawning even greater insecurity about future supplies.

### Petro-Canada

In response to these needs the House of Commons approved creation of the Canadian National Petroleum Company (Petro-Canada) on July 10, 1975. The Company became a crown corporation of Canada completely owned by the federal government and capitalized initially with $500 million and given additional power to borrow $1 billion from the Treasury. The Corporations's mission was to generate new supplies of oil and gas for Canada particularly in areas requiring high technology.

Appointed to run Petro-Canada was Maurice Strong, of U.N. fame as chairman and Wilbert Hopper as president and now chief executive officer. Mr. Hopper worked with Foster and Assoc., a petroleum reporting service in the U.S. and Canada and joined Arthur D. Little in 1965 before becoming Assistant Deputy Minister for Energy Policy in Ottawa. Interestingly, while at Arthur D. Little, Mr. Hopper worked for a time in Juneau for governor Wally Hickel.

Under Hopper's aggressive leadership Petro-Canada moved quickly and acquired Atlantic Richfield Canada for $340 million (ARCO needed cash to develop Prudhoe). This purchase gave Petro-Canada producing as well as exploratory property. The day before the Alaska delegation interviewed Mr. Hopper, Petro-Canada purchased control of Pacific Petroleum Company - a major oil and gas producer and refiner which also owned a 33% equity position in Westcoast Transmission Company.

Such actions by a federal oil company in Canada caused some expression of concern by Petro-Canada's private sector competitors. For the most part, however, Petro-Canada is looked upon as just another well managed oil company. Only some of her unique powers such as the right of first choice in the selection of unleased federal land, or a one quarter working right in unproductive leases - at no payment, upsets her private sector competitors. Petro-Canada however, continues to try to improve its cash flow and looks forward soon to the day when it need no longer depend on the Federal Treasury in Ottawa.

Alberta Energy Company

Government participation in energy development in Canada exists in a variety of forms of company ownership and control. The Alberta Energy Company is 50% owned by the Province of Alberta and 50% owned by small Canadian shareholders. The Company owns oil and gas development leases, a synthetic crude pipeline, a coal mine, and is also proposing the mixed SNG - petrochemical project discussed earlier. This Company is three years old and has 200 employees - not large by petroleum company standards. However, Alberta Energy Company believes in starting slowly in new areas until it has acquired expertise. In its petrochemical project, for example, it intends to take a minority interest while developing both management and technical ability.

Trans-Canada

Trans-Canada Pipeline Company is today a privately owned regulated utility expecting to make a profit and pay taxes. However, in the late 1950's when Trans-Canada was still a project in search of financial backing the federal government was required to step in and own the segment of the system crossing northern Ontario in order to get the rest of the line financed. That action was the successful catalyst for the project which, once in operation, generated sufficient cash flow to pay back the Canadian government for its ownership share and return the system entirely to private hands.

## Summary

The experiences of Canada with government participation in energy development are not necessarily transferrable. After all, Canada has a long history of government participation in major projects. Nevertheless, the government energy companies in Canada do seem to be making reasonable progress toward their objectives and may provide real benefits in the future.

[1] We have entered into agreement with Dr. Todd Doscher for him to continue his reservoir consulting services to the Legislature. Currently Dr. Doscher is working about three days a month with the state's reservoir modeling contractor, H.K. Poolen & Associates Inc., on the three dimensional reservoir engineering model. The results of this modeling study will be extremely important since they will resolve many of the uncertainties surrounding the possible loss of oil as a consequence of gas production, and the arguments over whether or not water injection should be initiated at an early date. We have been following the development of this model very closely, and believe that it is currently on schedule with the first runs to be available in early February. While additional studies will be required after that date, and possible later rearrangements made in the reservoir model, the February results should be definitive enough to provide the essential policy guidance to the Legislature, and to the Alaska Oil and Gas Conservation Commission as it sets reservoir management policy.

[2] One of the largest benefits from the completion of the natural gas pipeline facility will almost certainly be the royalty and tax revenues that will be generated by sale of the gas. However, it is particularly impossible to quantify these benefits until the natural gas pricing situation is resolved, and producers' sales contracts have been agreed upon. We are continuing to follow the pricing proposals, and FERC deliberations on these points. When the necessary input information is available we will be prepared to almost immediately produce the necessary revenue estimates with our oil and gas severence tax and royalty income model.

[3] Because of the many uncertainties surrounding the gas pipeline issues, it is almost certain that this matter will be before the legislature for some time. We would propose that $46,000 be reserved for further consulting studies and other work or travel which may be required during the 1979 legislative session.

Appendix C

PROPOSED BUDGET ALLOCATIONS

In mid May of this year, the free conference committee on the budget requested an analysis of the funds and work that would be necessary to deal with the natural gas pipeline issues. A May 18th memo to the free conference committee (Attachment C) recommended that $345,000 be appropriated for this purpose. This sum was subsequently appropriated to the Research Division, Legislative Affairs Agency, for the purpose of studying the costs associated with "direct financial participation by the state and (sic) Northwest Alaska Pipeline Project" (FCC Report - General Government Operating, p. 190).

In addition to this amount, Ch. 163 SLA 1978 (FCCS SCS CSHB 920, p. 24) made an additional special appropriation of $130,000 to the Research Division "for studies related to direct financial participation for (sic) the natural gas pipeline project."

The proposed budget is as follows:

Studies and Activities Related to Direct State
Participation In The Northwest Pipeline Project
(see Attachment B for description of studies)

Funds Available:

| | |
|---|---|
| Budget Appropriation to LAA, Research | $345,000 |
| Special Appropriation to LAA, Research | $130,000 |
| Total Funds Available- | $475,000 |

Proposed Expenditures:

| | |
|---|---|
| Gas Marketability/Pipeline Financing Study | $ 85,000 |
| Equity Options Analysis | $ 22,000 |
| Portfolio Concentration Analysis | $ 50,000 |
| Study of Gas Reinjection Economics | $ 29,000 |
| Economic and Fiscal Impact of Project (Economic Modeling $38,000; Technical Symposium $5,000) | $ 43,000 |
| Proprietary/Regulatory Conflict of Interest Study | $ 20,000 |
| National Political Impacts | $ 20,000 |
| Reservoir Engineering Consulting Services (already contracted)1 | $ 20,000 |
| Production Revenue Study2 | -0- |
| Travel, Per Diem, Meeting Expenses | $ 10,000 |
| Reserves for Contingencies and Expenditures During 1979 Legislative Session[3] | $ 46,000 |
| Total Proposed Expenditures | $345,000 |
| Funds Not Allocated Under This Budget | $130,000 |

Fiscal Year 1979

NORTHWEST PIPELINE - 203

PERSONAL SERVICES

| | Salary | | |
|---|---|---|---|
| Randall Moen | $8,404.82 | July-December Total | $8,404.82 |

TRAVEL

| | Travel | Per Diem | Encumbrances |
|---|---|---|---|
| Gregg Erickson | $2,115.88 | $848.57 | |
| Larry Eppenbach | 1,677.79 | 1,355.33 | |
| Alexander Hoke | 171.16 | 226.87 | |
| Rep. Gardiner | 1,748.53 | 825.00 | |
| Rep. Chatterton | 1,137.89 | 508.67 | |
| Rep. Miles | 964.76 | 835.00 | |
| Sen. Colletta | 372.28 | 70.00 | |
| Sen. Sumner | 543.44 | 35.00 | |
| Sen. Ferguson | 372.28 | | $ 372.28 |
| Rep. Cotten | 964.76 | 715.00 | |
| Kay Brown | 213.06 | 213.95 | |
| Avis Rent-z-Car | 104.70 | | |
| Rep. Bennett | 102.12 | | |
| Cheryl Frasca | 171.16 | | |
| Judy Dillard | 171.16 | | |
| Sen. Sackett | 373.22 | | |

July-December Total $16,465.20

CONTRACTUAL

| | Expenditures | Encumbrances |
|---|---|---|
| Doschers Group | $ 1,994.52 | $ 18,005.48 |
| ISER (Gas Marketing) | 27,261.03 | 57,738.97 |
| Fosters Associates | 520.00 | |
| Postage | .45 | |
| Juneau & Douglas Telephone | 481.23 | |
| Print Shop | 498.00 | |
| Birch, Horton, Bittner, Monroe | 4,865.74 | 30,134.26 |
| ISER (Symposium) | 4,283.00 | |

(Continued)

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NORTHWEST PIPELINE - 203

Fiscal Year 1979

CONTRACTUAL (Cont)

| | Expenditures | Encumbrances | | |
|---|---|---|---|---|
| Mason Gaffney | $ 832.16 | $ | | |
| Matthew Berman | 706.48 | | | |
| David Kresge | 1,403.56 | | | |
| Alaska Airlines | 36.27 | | | |
| The Golden Lion | 226.05 | | | |
| Miner Publishing | 23.00 | | | |
| Color Art Printing | 136.40 | | | |
| Douglas Pope | 1,654.40 | 3,345.60 | | |
| Proposed (White Weld) | | 125,000.00 | | |
| Proposed (Reservoir Study) | | 60,000.00 | | |
| Kelso Associates | | 25,000.00 | July-December Total | $364,146.60 |

COMMODITIES

| | Expenditures | | |
|---|---|---|---|
| Arctic Office Machines | $ 6.15 | July-December Total | $ 6.15 |

| | |
|---|---|
| BUDGET | $475,000.00 |
| Total Expenditures and Encumbrances | (389,022.77) |
| BALANCE 12/31/78 | $ 85,977.23 |

A60 532796 B.

Joint Gas Pipeline Committee
Alaska State Legislature

SEN. MIKE COLLETTA, CO-CHAIRMAN
REP. BILL MILES, CO-CHAIRMAN
SEN. FRANK FERGUSON
REP. C.V. CHATTERTON
SEN. BILL SUMNER
REP. TERRY GARDINER
REP. JOE HAYES
REP. CHARLES PARR

EX-OFFICIO MEMBERS
MR. ROBERT LERESCHE
MR. JACK BACHMAN

727 N ST., SUITE 2
ANCHORAGE, ALASKA 99501
(907) 276-4340

To: George Hohman, Chairman
Legislative Council

From: Bill Miles, Co-chairman
Mike Colletta, Co-chairman
Joint Gas Pipeline Committee

Date: January 30, 1980

Re: Interim Report

Attached is the Interim Report for the Joint Gas Pipeline Committee. If you have any questions, we will be happy to answer them.

The Committee would like to recognize the outstanding work of Research Assistant, Mary Halloran, in compilation of this report and in interim service to the Committee.

Joint Gas Pipeline Committee
Alaska State Legislature

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# INTERIM REPORT

Joint Gas Pipeline Committee
Alaska State Legislature

January 30, 1980

Through passage of SCR 33, the Joint Gas Pipeline Committee was charged with monitoring the progress of the Northwest Alaska gas pipeline project, and continuing its study of possible financial participation by the state. This report reviews the activities of the Committee through the interim, reports received by the Committee, and the status of issues affecting the progress of the pipeline project.

## COMMITTEE ACTIVITIES

### June 4 Meeting

At its first formal meeting June 4, the Committee organized the work for the interim. The Committee asked for a report on the sufficiency of state general revenues for a possible direct cash investment in the project. It also agreed to work with the Department of Revenue to obtain bond counsel opinion on the legality of using state general obligation bonds to finance state equity participation in the project.

The Committee requested a report on the possibility of federal participation in the project financing, and approved a $15,000 contract with the Arctic Environmental Information and Data Center (AEIDC). AEIDC was to investigate the unresolved technical issues affecting pipeline construction. The Committee agreed to work with the state administration and Northwest Alaska Pipeline Company to study the conditioning and processing issues related to the pipeline (See Appendix A for more information on interim activities through October 10, 1979).

November 21 Meeting

At its second formal meeting the Committee took the following actions:

1) Approved a resolution concerning Alaska's securing gas liquids for use in an Alaska petrochemical industry (see Appendix D);

2) Endorsed a proposed schedule for administration action for acquisiton and delivery of gas liquids, and development of a related industry (See Appendix E);

3) Endorsed a proposal for study of instate use of natural gas for residential and commercial needs, and expansion of existing industry, and for identification of new instate markets. The Committee has requested that the Legislative Council release funds appropriated for this purpose;

4) Ratified an extension of the existing contract between the Committee and the Doschers Group. The contract is

extended until June 30, 1980;

5) Ratified a contract between the Committee and the law firm of Birch, Horton, Bittner and Monroe. The $25,000 contract is for legal and consulting services.

Merger with the Governor's Blue Ribbon Working Group on Gas Conditioning

The Committee co-chairmen, Sen. Mike Colletta and Rep. Bill Miles, served on the Governor's Blue Ribbon Working Group on the Gas Conditioning Plant. After a series of meetings focused on the gas conditioning plant and the viability of future instate use of Prudhoe Bay natural gas and/or gas liquids, the Governor's Working Group resolved the following:

1) the subcommittee's reports, as approved by the full Working Group, be transmitted to the Governor as the preliminary report;

2) the Governor be requested to determine the present-day feasibility of an instate petrochemical industry, particularly by actively contacting and soliciting the interest of major petrochemical companies with regard to the feasibility of such development; and

3) the Governor be requested to preserve the State's options by requesting the Federal Energy Regulatory Commission to re-open for hearing the project's size and pressure issue and, failing that, filing an appeal of the FERC size and pressure order in federal court no later than October 5, 1979. The Working Group's September 21 resolution was by another asking the Governor to continue the Working Group,

by allowing its members to serve as ex officio members of the Legislature's Joint Interim Gas Pipeline Committee.

Other Activities

Committee members have had informal discussions about the project with the Federal Inspector for the Pipeline, John Rhett; Canadian Pipeline Commissioner, Mitchell Sharp; and Northwest Energy president John McMillian.

Rep. Miles and House members, Speaker Terry Gardiner and Rep. Sam Cotten, traveled to New York and Washington D.C. to discuss the project with major Wall Street investment firms, members of the Federal Energy Regulatory Commission, and White House and Congressional staff in May. Sen. Colletta and Don Wold of the Alaska Royalty Oil and Gas Development Advisory Board traveled to Tulsa, Oklahoma, and Houston, Texas, to investigate the interest of petrochemical firms in gasline-connected petrochemical development in Alaska.

In November, Rep. Miles, Sen. Colletta, Sen. John Sackett and members of the administration met with North Slope gas producers, petrochemical firms, Northwest's investment advisors, and the federal government concerning the gas pipeline project. Rep. Miles presented a report on this fact-finding trip at the November 21 meeting of the Committee (See Appendix C).

REPORTS RECEIVED

The Committee has received much informal and formal information about the many aspects of the gas pipeline project. The

Committee's "Mid-Interim Report" (see Appendix A) reviewed many of those reports, including the IROR order; constitutionality of using state general obligation bonds for project equity participation; bonding authority status; availability of state funds for investment in the project; federal assistance to the gas pipeline; Northwest's stance toward state participation in the gas pipeline; West Coast oil surplus; producer benefits and policy evaluation model; and progress reports by the Doschers Group, H. K. Van Poollen and Associates, and the Arctic Environmental Information and Data Center.

An October 26 "Gasline Update" (see Appendix B) reviewed other material, including reports on the bonding authority; status of technology; instate use of North Slope natural gas; and gas sales. The November 21 Committee report (see Appendix C) reviewed the following: gas pipeline fact-finding trip; administration plans for promotion of petrochemical options; alternatives for state participation in gas pipeline financing; state-initiated law suit status and current FERC proceedings; federal perspective on the project; activities of the State Pipeline Coordinator's Office; and an update on the Prudhoe Bay reservoir model studies.

UNRESOLVED ISSUES

National and international perspectives

On the national and international level a number of still unresolved issues are affecting the progress of the gas pipeline project. They include both regulatory and financial aspects of the project, such as Canadian gas exports and prebuilding; responsibility for conditioning costs; preliminary financing for the necessary engineering design; project financing, especially overrrun guarantees and federal backstopping; marketability; expansion of the Northwest partnership; producer participation in the project; and resolution of proximity and liability problems. That national interest is focused on these problems is evident both through the statements and actions of President Jimmy Carter and the federal government; and the activities of the congressional committees.

State perspective

From the state perspective a number of still unresolved issues remain. They include possible affects of the project on the state and its residents, and possible state actions affecting the project. Among these are the effect of gas withdrawals on ultimate oil recovery; provisions for resident hire; options for petrochemical development, including the availability of gas liquids; instate use of natural gas for community and industrial needs; possible state participation in financing; state right-of-way stipulations; and expected revenues to the state.

RECOMMENDATIONS

Given the number of unresolved state and federal issues critical to the success of the gas pipeline project, the Committee can not at this time make a judicious recommendation about the advisability and feasibility of state financial investment in the project. The Committee expects to continue its task of monitoring the project with the aim of protecting and promoting the State's interests. Therefore, it is the co-chairmen's recommendation that it be extended as a formal joint committee for a period to be determined to carry out the purpose and intent of Legislative Resolve No. 33.

Mike Colletta

Senator Mike Colletta
Co-Chairman

Bill Miles

Representative Bill Miles
Co-Chairman

Joint Gas Pipeline Committee
January 30, 1980

## APPENDICES

APPENDIX A - "Mid-Interim Report: Joint Gas Pipeline Committee, Alaska State Legislature: October 10, 1979"

APPENDIX B - "Gas Pipeline Update; October 26, 1979"

APPENDIX C - "Report on Joint Gas Pipeline Committee Meeting; November 21, 1979"

APPENDIX D - "Resolution"

APPENDIX E - "Proposed Gas Liquids Program Schedule"

Joint Gas Pipeline Committee
Alaska State Legislature



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November 21, 1979

RESOLUTION

WHEREAS, development of an economic and environmentally sound petrochemical industry in Alaska would be in the State's best interest through provision of longterm jobs, a stable tax base, and related benefits;

WHEREAS, gas liquids, including ethane, are the most viable feedstock for a petrochemical industry;

WHEREAS, Alaskans wish to receive "add-on" value from development of the State's natural resources, avoiding repetition of "boom and bust" economic cycles created by shortterm, large scale construction projects;

WHEREAS, petrochemical development in Alaska is not tied to State financial participation in the gas pipeline project, but such participation could assist the gas transmission system;

BE IT RESOLVED that the Joint Gas Pipeline Committee and the Governor's Task Force urge the Governor, the Legislature, Northwest Alaska Pipeline Company, the Federal Government, and the petroleum industry to vigorously work towards securing gas liquids for use in an Alaska petrochemical industry; and

FURTHER RESOLVED that the Governor, in cooperation with the Legislature and local governments, contact and solicit the interest of major petrochemical companies with regard to such an industry being located in the State; and

FURTHER RESOLVED that unless gas liquids, including ethane, are guaranteed to be available for maximum instate use and processing, the State should not participate in financing the gas transmission system.

Endorsed by the Governor's Task Force on Gas Conditioning
November 21, 1979

# PROPOSED GAS LIQUIDS PROGRAM SCHEDULE

Date

11-26-79 Gas Liquids Committee - formation
Committee prepare State Policy for Economic Development

11-26-79 Acquisition of Gas Liquids - State and Federal governments negotiate with producers to acquire 2 year option on gas liquids available to justify system.

Conditioning Plant-Liquids Extraction - Coincide with acquisition of liquids - work with producers, pipeline company, and federal government regarding design and location.

1. Program for Gas Liquids Delivery System - Arrange for delivery of gas liquids from conditioning and/or extraction plant to potential industrial sites.

| | |
|---|---|
| 12-3-79 | Solicitation letters to companies. |
| 1-15-80 | Deadline for "Letters of Interest". Adoption of Criteria for proceeding. |
| 2-1-80 | Selection of successful company(s). |
| 6-1-80 | Completion of feasibility study. |

2. Program for Development of Industry - Development of those projects that can be created utilizing gas liquids as resources - i.e. petrochemical industry.

| | |
|---|---|
| 12-3-79 | Solicitation to companies. |
| 1-15-80 | Deadline for "Letters of Interest". |
| 2-1-80 | Adoption of Criteria for proceeding. Selection of "Qualified Companies". |
| 11-1-80 | Completion of feasibility work. |
| 12-1-80 | Selection of developing company. |

3. Preparation of Necessary Contracts - Those contracts necessary to execute the entire program.

1-1-80 Agreement between State, producers, and gas pipeline company for two year option to acquire necessary gas liquids.
Contract for Sale of Prudhoe Bay royalty gas to a developing company.

2-1-80 Agreement between State, producers, and developing company to exchange royalty share of methane for additional producer's liquids.

3-1-80 Agreement between State, producers, and developing company to acquire additional gas liquids from producers sufficient to justify delivery system.

12-1-80 Finalize all contracts.

4. <u>Special Programs</u>

1-1-80 Identify need for and draft special legislation which may be required - Tax programs and/or various incentives.

3-1-80 Deliver reports to Legislature.

Joint Gas Pipeline Committee
Alaska State Legislature

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# ACTIONS OF THE JOINT GAS PIPELINE COMMITTEE
November 21, 1979

A page detailing Committee actions at the Joint Gas Pipeline Committee meeting November 21, 1979, was inadvertently left off the original Committee report. The following actions were taken by the Joint Gas Pipeline Committee:

(1) A resolution concerning Alaska's securing gas liquids for use in an Alaska petrochemical industry was adopted (copy attached).

(2) A proposed schedule for acquisition and delivery of gas liquids, and development of a related industry was endorsed as a suggested timetable for Administrative action.

(3) A proposal for study of instate use of natural gas for residential and commercial needs, and expansion of existing industry, and identification of new instate markets was endorsed. The Committee will request that the Legislative Council release funds appropriated for this purpose.

(4) An extension of the existing contract between the Committee and the Doschers Group was okayed. The Contract will be extended to June 30, 1980; the contractual amount, however, remains the same.

(5) A contract between the Committee and the law firm of Birch, Horton, Bittner and Monroe was ratified. The $25,000 contract is for legal and consulting services.

participation in the gas pipeline project. One, they support maximum instate use of gas liquids. Two, they believe acquisition of liquids is the only basis for state financing of the gas pipeline. And, third, they urge the State to take the lead in purchase negotiations of the producers' liquids, not to rely on the federal government to broker the deal.

Resolution

The following resolution was endorsed by the Governor's Task Force on Gas Conditioning November 21, and later approved by a majority of the Joint Gas Pipeline Committee.

RESOLUTION

Charles Behlke, State Pipeline Coordinator

Behlke expressed his concern that politics and federal pressure may lead to bad technical decisions on the project. He added, however, that the State and the federal agencies are working well together in technical groups, and that the State is working pretty well with Northwest. Behlke discussed some of the technical problems, such as frost heave, proximity, and overlapping state regulations. He urged legislators to examine the past legislation calling for local hire. The State right-of-way lease will probably consider the resident hire issue; its provisions will have to be congruent with the U.S. Supreme Court decision on the issue.

Behlke also drew the committee's attention to the fact that construction of a liquids line along side the gas pipeline presents many problems. To construct a liquids line in addition to the main gas line makes enough difference that it could delay the Northwest main line.

Hoyle Hamilton, Alaska Oil & Gas Conservation Commission

Hamilton reported on the ongoing Prudhoe Bay reservoir model studies. The study results, expected in December, will form the basis for the Conservation Commission continuing or revising its Order 145 setting the gas and oil offtake rates.

OTHER ACTIONS

Mayors' Position

The four Alaska mayors on the Governor's Task Force stated their position on potential petrochemical development and State involved in the project, trying "to move everyone along together." The main emphasis of the recent discussions has been the Exxon financing proposal.

Exxon proposes that the producers furnish 40% of the debt and 40% of the equity financing to completion of the project. The conditioning plant is to be considered as a part of the transmission system under the Exxon proposal. Exxon also wants a change in the Northwest partnership so that issues are decided by a two thirds (2/3) vote, not a simple majority, effectively giving the producers a veto over all management decisions.

The federal government's response has been to discuss the Exxon proposal with the Department of Justice and other participants. Justice finds the proposal "unacceptable," because of the issues of producer control and competition. However, Justice did say that producer participation in the project is likely. Haas says DOE is developing an alternative proposal which will be available for discussion in a couple of weeks.

Discussion between Committee members and Haas covered a number of points: definition of an "all events" tariff, tracking, the Federal viewpoint on the State's role in the project, and the importance of gas liquids to the State. Haas said that the Dept. of Energy would help the State obtain access to the gas liquids. In the discussion of potential state investment in the gas pipeline system, Haas listed three possibilities: conditioning plant ownership; equity investment; and overruns guarantees "where many people believe it's needed most."

the CO2 standard issue and completion of the Environmental Impact Statement. If FERC loses the law suit, the Commission will have to take a comprehensive look at the interrelated issues of pipeline pressure, CO2 standard, liquids carrying capacity, and conditioning plant location. However, Loeffler said, the limited judicial review process available under the Alaska Natural Gas Transportation System.Act may hinder the State's chances to overturn the prior FERC order.

Loeffler also commented on other issues under FERC consideration, including conditioning costs and prebuilding. FERC is staying its order on conditioning costs until December 5, at the request of U.S. Energy Secretary Duncan. The stay on the order has kept the producers and the State from filing suit on Order 45 which would place the entire responsibility for paying conditioning costs on the gas producers. On the prebuilding issue, FERC is waiting on a decision by the Canadian National Energy Board on export applications for Canadian gas. The export decisions are expected by early December; FERC may decide on the prebuilding applications for the gas pipeline's Western leg by January.

Jerry Haas, U.S. Department of Energy

The Federal Government wants conditional commitments for financing in place soon so that the engineering design can be completed and assurances provided to Canada that will move the prebuilding ahead. The Department of Energy has initiated discussions with the many parties

Arlon Tussing, Economic Consultant

Tussing reported on another financing alternative open to the State: underwriting the sale of public stock in the project to individual Alaskans. The State would underwrite and finance sales of shares in the pipeline directly to Alaskan citizens. The rate of return to equity investors will be 30% after taxes, said Tussing (17.5% centerpoint rate of return, plus 10% investment tax credit). Those benefits could be passed directly to Alaska citizens in a "supremely secure" investment if the pipeline is built. The State would advance funds to a public partnership in the form of a loan, later converted to shares in the pipeline itself. The State would sell $100 warrants, later convertible to stocks, to individuals. This financing approach would give the State a voice in pipeline management during construction, although the State would not hold a permanent equity share. The proposal applies only to the equity portion of the Alaska segment, that is, to 25% of $5-7 billion, or $1.25-1.75 billion.
The approach could also be used to finance the conditioning plant, provided it has a rate of return similar to the pipeline itself.

Bob Loeffler, State's Counsel in D.C.

Loeffler reported on the status of the State's suit appealing the FERC order on pipeline size and pressure. The U.S. District Court of Appeals has to decide by January 3 whether to overturn the August 6 FERC order. In the meantime, FERC has stopped consideration of on instate use of royalty gas; those companies which submit proposals will have the right to compete for the royalty gas. At the end of six months, a selection of the best company will be made, with that company to get the State's options (if any) on liquids. (For more information, see the Proposed Gas Liquids Program Schedule attached to this report).

Peter Lewes, Lazard Freres

Lewes, a consultant to the Gas Pipeline Committee, reported on four alternatives for state financial participation in the gas pipeline project: (1) state ownership of the conditioning plant; (2) tax exempt bonds up to $1 billion; (3) insurance fund for overruns; and (4) equity participation in the pipeline itself. Lazard Freres prefers the option of state ownership of the conditioning plant. This option gives the State leverage as the conditioning plant is essential to the entire project. The State does not have to run the plant, but should hold title.

The conditioning plant could probably be financed by tax-exempt bonds; the debt would be non-recourse financing in which the State would not be liable for the debt. The rate of return, estimated Lewes, should be about 17.5%, the same as the pipeline incentive rate of return. This option is low risk, with high rewards, yielding more to Alaska than the other financing options. (Lazard Freres' comments were presented in greater detail in a written statement to Attorney General Av Gross November 20, 1979.)

business from that demonstrated during the Alpetco contract negotiations.

Discussions with investment firms representing Northwest covered financing and instate use of liquids. The Northwest group opposes federal financial participation, but calls Alaska participation both necessary and desirable.

Northwest approves of the Exxon proposal for financing, but wants the emphasis shifted from equity participation to overrun guarantees. Northwest now wants both the producers and Alaska to guarantee cost overruns. The group will support Alaska's bid for gas liquids.

Federal government representatives were firm in their opposition to federal financial participation in the gas pipeline project, but said that Alaska participation is needed. The Exxon proposal was regarded as a first step, but one which needs changes. The federal representatives focused on cost overruns as one of the biggest problems facing the project. They strongly support and would help the State to acquire gas liquids.

Av Gross, Attorney General

Attorney General Gross spoke of the Administration's plans for promotion of petrochemical options and sale of Alaska's royalty gas. The Department of Natural Resources will "presubmit" a royalty gas sales contract for tentative approval by the Legislature this session; the contract will include a State option to purchase the liquids. At the same time, Gross said, the State will ask for formal proposals

## PRESENTATIONS

Rep. Miles, Sen. Colletta, Sen. Sackett, Attorney General Av Gross, and Revenue Commissioner Tom Williams recently met with North Slope gas producers, petrochemical firms, Northwest's investment advisors, and the federal government concerning the gas pipeline project. Miles reviewed the information gathered on that trip.

Talks with producers (Exxon, Arco and Sohio) centered on six points: (1) Producer attitudes toward federal participation in gas pipeline financing are mixed; some feel that such participation will be necessary, others feel that it will not be necessary if certain other items fall into place; (2) Alaska participation, say the producers, is not necessary, although it may be helpful from a "psychological" point of view; (3) $200-300 million is needed to complete the project engineering design; (4) Producers are willing to negotiate to make gas liquids available to the State of Alaska; (5) Producers generally support the recently announced Exxon proposal concerning producer participation in the project; and (6) The Exxon financing proposal does include provisions for cost overruns during project construction.

Discussions with petrochemical firms centered on three areas: feasibility, problems and recommendations. Feasibility for petrochemical development in Alaska is good, said the firms.

The problems, however, are fourfold: state and federal government actions and attitudes; environmental concerns; feedstock security; and cost.

The firms recommended that the State secure the liquids, have a detailed feasibility plan developed, and change its way of doing

**Joint Gas Pipeline Committee**
**Alaska State Legislature**

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# REPORT ON

# JOINT GAS PIPELINE COMMITTEE

# MEETING

November 21, 1979

The Joint Gas Pipeline Committee met November 21, 1979, in Anchorage. Meeting with the legislative committee were members of the Governor's Task Force on Gas Conditioning.

Presentations included the following:

| | |
|---|---|
| Rep. Bill Miles, Chairman | Gas Pipeline Fact-finding Trip |
| Av Gross, Attorney General | Administration's preparations for sale of State's royalty gas |
| Peter Lewes, Lazard Freres | Alternatives for State participation in gas pipeline financing |
| Arlon Tussing, Economic Consultant | Alternative for Alaska participation in gas pipeline financing |
| Bob Loeffler, State's Counsel in D.C. | State law suit status and current FERC proceedings |
| Jerry Haas, U.S. Dept. of Energy | Federal perspective on gas pipeline project |
| Chuck Behlke, State Pipeline Coordinator | Activities of State Pipeline Coordinator's Office |
| Hoyle Hamilton, Alaska Oil & Gas Conservation Commission | Prudhoe Bay reservoir model studies update |

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# MID-INTERIM REPORT

Joint Gas Pipeline Committee
Alaska State Legislature

October 10, 1979


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# MID-INTERIM REPORT

Joint Gas Pipeline Committee
Alaska State Legislature

October 10, 1979

The Joint Gas Pipeline Committee met formally June 4, 1979, in Anchorage to organize the Committee's work for the interim. (A report on that meeting is attached). Since that time Committee members have had informal discussions with the new Federal Inspector for the Pipeline, John Rhett; Canadian Pipeline Commissioner, Mitchell Sharp; and, on more than one occasion, Northwest Energy president, John McMillian.

The Committee co-chairmen, Sen. Mike Colletta and Rep. Bill Miles, served on the Governor's Blue Ribbon Working Group on the Gas Conditioning Plant for Prudhoe Bay Gas. In addition, Rep. Miles and House members, Speaker Terry Gardiner and Rep. Sam Cotten, traveled to New York and D.C. to discuss the gas pipeline project with major Wall Street investment firms, members of the Federal Energy Regulatory Commission (FERC), and White House and Congressional staff.

Recently Sen. Colletta and Don Wold of the Alaska Royalty Oil and Gas Development Advisory Board traveled to Tulsa, Oklahoma, and Houston, Texas, to investigate the interest of major petrochemical firms in gasline-connected petrochemical development in Alaska.

Members of the Committee have worked extensively on gasline-related issues through other forums. A two-day hearing on the management of the Prudhoe Bay reservoir was held by the House Resources Committee, under the direction of Co-chairman Miles, during the August Special Session. Several Committee members, as well as other legislators, presented testimony at the September 4-6 FERC hearings on the Draft Environmental Impact Statement for the gas conditioning plant and pipeline pressure issues.

## GAS PIPELINE FINANCING

The Committee has received much informal and formal information on different aspects of the gas pipeline financing, and the State's options for participation in project financing. The following sections will review that information.

1. Regulatory issues:

In a major ruling, the FERC issued a final Incentive Rate of Return (IROR) order September 6. The order sets a 17.5% rate of return as a centerpoint for equity investors in the Alaska and Northern Border segments of the project. The order, however, may be indirectly challenged in other FERC proceedings as it sets the framework for gas producers to pay gas conditioning costs, an item of strong contention. Another still unresolved tariff-related concern is tracking -- how to allocate costs to consumers and gas service companies for Canadian gas flowing in the pipeline system before the full system goes into operation. On the strength of the IROR and other favorable regulatory decisions, Northwest currently plans to have a financial plan in place by the end of this year and to talk with investment markets during the first quarter of next year.

2. Constitutionality of Using State General Obligation Bonds for Equity Participation in the Gas Pipeline

In a July 9, 1979, memorandum, State Bond Counsel Wohlforth and Flint confirmed the earlier conclusions of Billy Berrier, Director, Division of Legal Services, Legislative Affairs

Agency. In brief, Wohlforth and Flint stated that the constitutionality of using State General Obligation bonds for equity participation in the gas pipeline would rest on two points:

> "First, the project so financed must constitute an asset of relatively permanent value; and, second, the issuer of the bonds must retain some legal interest in the project."

That legal interest, suggested Wohlforth and Flint, could be through a "tenancy in common, mortgage, deed of trust, or other security interest in the pipeline."

The memorandum made clear that the spinoff benefits of the pipeline construction and operation are not sufficient legal grounds to render General Obligation bonds constitutional.

> "Mere general improvement of public prosperity and welfare, and even removal of economic insecurity, while viewed as laudable purposes, do not in themselves constitute capital improvements."

After examination of the related court cases, Wohlforth and Flint concluded that investment of State General

Obligation bonds could probably meet the "physical" requisites of the "capital improvements" restriction on such bonds. They added,

> "However, the state must acquire sufficient legal interest in the capital improvement to overcome the constitutional deficiencies set forth in Hixson. An investment by the state of bond proceeds in 'equity related securities' does not meet this test. The financing must be accompanied by some form of interest in the pipeline. Clearly, the interest would have to be equivalent in value to the amount of bond proceeds devoted to its acquisition."

3. Bonding Authority

In 1978, the State Legislature passed AS 44.55, establishing the Alaska Gas Pipeline Financing Authority, commonly referred to as the Bonding Authority. The Authority is a mechanism by which the State may issue up to $1 billion in tax-exempt bonds for construction of the gas pipeline.

Northwest Pipeline Company sought to have consideration of revisions in the Bonding Authority legislation placed on the August Special Session agenda. Although that step was not taken, consideration has been given to technical changes which may be needed to clarify the Authority's legal ability to issue bonds.

In a September 21, 1979, report to Revenue Commissioner Tom Williams, Director of the Bonding Authority, Attorney John Messenger outlined those technical changes. Messenger did not discuss, nor was he asked to review, the policy matters inherent in the financial and Alaska impact plan called for under AS 44.55.

In general, the possible technical changes Messenger reviewed include:

(1) clarification and broadening of the purposes for which bonds of the Authority may be issued;

(2) a. provision that legislative approval of the financing and Alaska impact plan (hereinafter referred to as the Plan) and legislative approval of bonds be contained in separate concurrent resolutions;

b. provision that legislative approval of the bonds may contain such limitations as the Legislature deems appropriate;

c. elimination of the requirement that bonds be issued and sold in accordance with the Plan;

(3) revision of the statute sections dealing with refunding bonds so that confusion over the approval process for such bonds is eliminated;

(4) provision for amendments of the Plan after passage by the Authority of a resolution authorizing sale of the bonds;

(5) provision for approval of the Plan (or a conditional Plan) by concurrent resolution;

(6) addition of language excluding the Authority or its bonds from AS 37.10.085 which prohibits the State from lending its credit or borrowing money for the use of a corporation;

(7) revision of AS 44.55 to include certain requirements which would meet proposed IRS regulations concerning the Authority's ability to act "on behalf of" the State and thus to issue tax-exempt bonds;

(8) modification of the Legislative findings to support the conclusion that gas pipeline financing by the Authority is for a public purpose; and

(9) other minor textual changes.

Messenger is drafting legislation embodying these changes for consideration by the Administration and the Legislature.

4. Availability of State Funds for Investment in the Gas Pipeline Project

In an August 3, 1979, memo, Fiscal Analyst Milt Barker, of the Legislative Finance Division, reviewed whether projected FY 80 State revenues would permit an appropriation of $500 million for a direct investment in the gas pipeline. Barker concluded sufficient funds do exist whether such an appropriation was paid over at once or drawn down over a period of time. He cautioned, however, that FY 80 receipts depend, in substantial part, on the results of pending litigation over the petroleum income tax.

The Legislative Finance Division did not analyze -- nor was it asked to do so -- the financial policy implications of a $500 million direct appropriation to the pipeline project or the economic opportunity costs to the State of taking that action. The Division has been asked to prepare -- and the Committee expects to receive shortly -- an analysis of all projected revenues, both direct and indirect, the State would obtain from the successful construction and operation of the gas pipeline.

5. Federal Assistance to the Gas Pipeline

A July 27, 1979, report by the law firm of Birch, Horton, Bittner and Monroe examined current prospects for federal assistance to the gas pipeline. Prepared by attorney Joseph Chomski, with the assistance of Richard Haggart and Lisa Nelson, the report described possible forms of Federal financial participation as follows:

(1) Direct loans to the project;

(2) Loan guarantees for the project;

(3) Federal guarantee of the prices of the gas supplies;

(4) Federal guarantee of Federal government purchases of such gas supplies.

These forms of federal support could be possible through Congressional passage of President Carter's proposed Energy Security Corporation legislation.

The most likely form, Chomski concluded, is provision of loan guarantees for at least a portion of the pipeline project. The loan guarantees would be structured within the parameters proposed in the Energy Security Corporation legislation, the report suggested.

Another "much more remote" possibility for federal assistance would be provision of purchase guarantees for some or all of the North Slope gas. Such an approach would involve a "subsidy loss to the Treasury," an alternative the report authors find "extremely unlikely."

Regardless of the form, the probability of federal financial assistance "has become quite likely." The report states,

> "Thus, in the event that the project fails to finance privately, as now seems likely based on numerous expressions from the financial and energy community, federal financial support would seem to be very likely in that federal assistance to the project would result in the easiest, least expensive (to the federal government), earliest, largest, and -- most importantly -- surest single increment to the nation's energy supply of any of the options available to the federal government."

Federal participation is unlikely to be forthcoming "until Northwest concedes that it cannot finance the line privately (as promised to Congress) and either directly or via the Administration requests federal assistance." Congressional feeling, the authors found, towards federal backstopping remains negative as does public support for such action. In addition, no evidence was found of a White House initiative to change its stated policy opposing federal financing for the project.

The report analyzed Northwest's reasons for not changing its position with regard to requesting federal assistance. The reasons are twofold:

(1) A Northwest request for federal assistance "will create major political problems for the project and for the existing project management."

> "Consequently, we believe one major motivating factor for Northwest's not throwing in the towel on the private financing approach <u>at this time</u> is the fact that they <u>must</u> appear to have foreclosed every reasonable alternative to federal assistance before they return to Congress."

(2) Northwest wants to establish a clear public record that any failure of private financing is not the fault of project sponsors but rather of the federal regulatory process, and perhaps also of the oil companies (the gas producers) and the State of Alaska.

For a number of reasons, the report authors believe that provision of federal financial assistance to the project will not occur before spring 1980 and more likely in 1981.

In conclusion, the report suggests steps the State may take in support of federal financing and of the project in general:
(1) Provide Congress and senior Energy officials with information of positive State actions taken with respect to the project;
(2) Conduct private and frank discussions with Northwest officials about the need for federal assistance; and
(3) Take steps to protect the State's interests by positive action on Alaska's own program of financial assistance.

The need for eventual federal assistance to the project stated in the Chomski report was, in large part, substantiated by the findings of Rep. Miles from May visits with Wall Street investment firms, federal energy officials and White House and Congressional staff. In a June 18, 1979, memo, Miles reviewed several issues, including federal guarantees, Alaska's role, Canada's role, the Federal role, regulatory activity, conditioning plant, producer participation, expansion of the Northwest partnership, the El Paso proposal and future action. As that memo was distributed to all legislators, only brief mention of its contents will be made in this report.

Miles indicated that Wall Street firms believe that some form of federal financing for the project will probably be needed. In contrast, the federal officials stated that the Federal government's goal is still a "purely privately-financed project." Alaska's financial participation at this time was generally seen by Wall Street as a cosmetic or psychological gesture, but not as an action which would "make or break" the project. Such participation, however, was strongly encouraged by the federal officials.

According to Wall Street, the most necessary components needed by the project at this time are:

(1) producer participation;

(2) a reasonable attitude by regulatory agencies;

(3) Canadian-U.S. interaction, especially on the Eastern leg; and

(4) additional expenditures by the project sponsors for design, engineering and other technical work.

The federal officials, Miles found, felt the four components vital to the project at this time are:

(1) producer participation;

(2) State of Alaska equity participation;

(3) an expanded Northwest partnership; and

(4) more aggressive assistance from the Federal administration.

In addition, federal officials predicted that the major regulatory issues, such as conditioning costs, rate of return, and pipeline pressure, would be both ruled on and litigated by this fall.

6. <u>Northwest's Stance Toward State Participation in the Gas Pipeline</u>

On August 29, 1979, John McMillian, Northwest president, sent letters to both President Jimmy Carter and Governor Jay Hammond about Northwest's "lack of success in obtaining financial commitments from the State of Alaska in a timely manner." To Hammond, McMillian wrote, "Therefore, we hereby withdraw the proposed financing plan and the other arrangements based thereon which we have with the State of Alaska."

McMillian presented, however, two other financing concepts for the Governor's consideration:

(1) State participation in the entire project in relation to its 1/8th royalty gas,

> "The state could provide 1/8th of the debt permanent structure, 1/8th of the construction overrun contingency fund, and some acceptable form of completion guarantee;"

(2) Structure State participation on the basis of participation by the oil companies,

> "Another thought would be to wait and see what the final participation of the oil companies in the project will be and the state could then be expected to have a financing package similar to that of the oil companies."

In the letter to President Carter, McMillian stated that Northwest's original proposal to the State "is, as evidenced by two years of frustrating delays, evidently not acceptable to the State." He went on to say,

> "We have never been able to explain the concept of tax-exempt bonds to the legislative members.

> Therefore, we are now suggesting another plan whereby the State participates in 1/8th of the debt structure, 1/8th of the construction overrun contingency fund, and some form of completion guarantee."

McMillian called the 1/8th concept "a fair and reasonable request," and asked Carter to make a request to Governor Hammond and Alaska for Alaska's participation in project financing. He concluded,

> "If, even after your recommendations, we are not successful in obtaining the State's help and participation in project financing, it may be necessary to consider special federal legislation which will ensure that the State does not retain all of the project benefits, such as intrastate use of Alaska gas for Alaskans, and a very favorable wellhead gas price, without sharing in the debt structure of the project."

In his remarks to an Anchorage gathering October 5, 1979, McMillian reiterated his withdrawal of Northwest's previous financial proposal ($1 billion in tax-exempt bonds and $500 million in equity from the State) and mentioned the 1/8th approach as Northwest's new concept for financing. Everything, said McMillian, is open to renegotiation.

OTHER REPORTS

In addition to the above-mentioned reports on gas pipeline financing, the Committee has received several reports on related issues. Those reports are reviewed in this section.

1. Final Report, West Coast Oil Surplus by Arlon Tussing

In an August 20, 1979, memorandum economist Arlon Tussing submitted his final report on the West Coast oil surplus issue. Tussing was under contract to help develop a strategy to solve the problem of "loss of state royalties and production taxes caused by the high cost of shipping 'surplus' Prudhoe Bay crude oil to Gulf and East Coast markets."

The problem was "solved," so to speak, by the agreement of North Slope oil producers to pay state royalties on the basis of the federal ceiling price, as of July 1, 1979, regardless of the oil's destination or transportation cost. The producers will also pay production taxes at the same rate. "Hence, exports or exchanges can no longer improve the state's immediate royalty and tax position," said Tussing.

The State's effort to negotiate and get federal approval for international exchanges of Prudhoe Bay royalty oil would have been stalled, in any case, by the Congressional adoption of restrictive amendments to the Export Administration Act. The U.S. Senate, for example, adopted the Riegel Amendment which will make any future exchanges of North Slope crude difficult. The "surplus" problem will resurface for the State when federal price ceilings on crude oil prices are removed. The decontrol of crude oil prices, now scheduled for June 30, 1981, will make the Prudhoe Bay wellhead price again a netback price, determined by the oil's market value, less transportation costs. Under those circumstances, the State's fiscal interests would again be served by exports or international exchanges (as long as North Slope crude cannot be delivered to the nearest markets on the West Coast).

Tussing assessed the State's efforts to date to liberalize federal export restrictions as follows:

(1) The efforts resulted in the Department of Energy conducting a formal study of the issue and DOE's ultimate position in favor of exports;

(2) The proposed PEMEX exchange allowed the State to explain its case to a national audience and to receive national editorial endorsement;

(3) Meetings between Alaska and California officials gave Alaskans "better insight into both the economics and the politics of petroleum on the West Coast and nationally;"
(4) Sohio's active cooperation, essential to the PEMEX proposal, was not realized, and Sohio's termination of the PAC-TEX project created Congressional ill-will toward any future exchanges which might benefit Sohio;
(5) The efforts "clearly failed" in Congress and "we may have failed only for lack of trying." Administrative and legislative indecision over whether to launch a serious lobbying effort led to no campaign by default.

Tussing also reviewed related issues, such as the use of North Slope crude in West Coast refineries, refinery modifications and grassroots refineries on the West Coast, and West-to-East oil pipelines.

The California Energy Commission, Tussing indicated, is today concerned about California refineries' high dependence on North Slope crude. The Commission wants to reduce that dependence and have contingency plans to deal with a possible cutoff. A North Slope cutoff would cause California to suffer "noticeable shortages in about seven days, and would result in serious economic disruption within two weeks."

The picture for West Coast refinery modification and grassroots refineries is more complex. The growing scarcity of light crudes calls for major modifications in refineries. But, the fact is that present US and West Coast refineries may "already have as much gasoline capacity as the industry will ever need." Contributing to investor uncertainty are unsteady federal policy with respect to future production standards for gasoline and other regulatory restrictions.

The West-to-East oil pipeline proposals are not economically competitive with expansion of existing midcontinental pipelines without supplies of additional overseas crude oil. Such additional foreign supplies have been ruled out by President Carter with an announced ceiling on imports set at the 1978 levels.

2. Producer Benefits Model; Sadelrochit Formation, Prudhoe Bay Field: A Description of a Policy Evaluation Model, by Lawrence Eppenbach

Through work begun with the Division of Legislative Research and completed under contract to the Department of Natural Resources, Eppenbach has set up a computer program series. The "Producer Benefits Model" evaluates Prudhoe Bay geological information along with the costs of alternative methods of developing the reservoir. Based on data prepared by H.K. Van Poollen and Associates and, to a limited extent, information provided by the field operators, the model can be used to "forecast state revenues and industry cash flows associated with alternative policy options. It also calculates the net present values of these future returns in order to compare the value of one policy option to another."

In addition, the series of computer programs allows the operator to set varying parameters for the analysis:
--whether to use constant dollars or to include the effect of inflation;
--how the producers expect to finance their capital expenditures;
--what future wellhead values are likely to be; and
--what discount rate should be used to calculate the net present values.

The model results should provide useful comparisons between one field development plan and another. It will also clarify any differences in economic incentives between the State and the industry. The scope of the model is limited, however, to the Sadelrochit formation and only to field economics. Also it does not examine the economics of gas liquids production. Although more basic data is needed before the model can begin producing useful results, the model is now operational. It is available through the Division of Minerals and Energy Management, Department of Natural Resources.

Eppenbach's report includes sample outputs and contains program listings.

3. <u>Progress Reports - The Doschers Group</u>

Dr. Todd Doscher provides the Committee with an ongoing written overview of the work of H.K. Van Poollen and Associates on the State's three-dimensional reservoir model of Prudhoe Bay. Based on his work to date, Dr. Doscher's central conclusion is "that gas sales should not be committed until the need for water injection to at least compensate for gas withdrawals is firmly established, and still not then."

Gas withdrawals should not take place, Doscher indicates, until sufficient Prudhoe Bay reservoir performance history can be accumulated so that the effects of such withdrawals can be adequately inferred.

Other areas of concern to Doscher are Prudhoe Bay reservoir pressure maintenance, the "nebulous plans" of the operators with respect to water flooding, and the need for the State to assure the ultimate Prudhoe Bay oil recovery efficiency will be increased from the base 20% level to 40%. These and other concerns prompt Doscher to not only recommend no gas sales at this time, but to "express grave concern about increasing oil withdrawal rates."

Major technical problems in the three-dimensional work thus far have been "the assignment of permeabilities and the positioning of shale barriers in the model of the reservoir."

4. <u>Progress Report - H.K. Van Poollen and Associates and the Alaska Oil and Gas Conservation Commission</u>

H.K. Van Poollen and Associates, under the direction of the Alaska Oil and Gas Conservation Commission, are responsible for a three-dimensional reservoir simulator model of the Prudhoe Bay reservoir and its performance. The purpose of the study is threefold:

(1) should there be gas sales or not, and, if so, how much;

(2) should pressure maintenance be employed, and if so, how much; and

(3) are the field oil and gax maximum production rates allowed under Oil and Gas Conservation Order 145 still valid.

Confirming match runs between the earlier two-dimensional computer model and the three-dimensional model are being run at this time, with comparison runs scheduled soon. These latter runs will look at ultimate oil recovery, with and without gas sales, and with and without water injection. A report is expected to be released by the end of this month on this work. Then, it is planned to do a series of "what if" runs which will explore questions such as the effect of rate of production on ultimate oil recovery. A report on these latter findings is expected by the end of November.

5. Progress Reports - Arctic Environmental Information and Data Center (AEIDC)

The AEIDC is collecting information on the status of technical, environmental and other matters relating to the pipeline project.

Under AEIDC review are the right-of-way and proximity issues affecting the design and construction schedule of the project. The materials submitted with the AEIDC reports to date indicate that many specific technical issues still require resolution prior to a final right-of-way decision by the Department of Interior. One major concern is the risk to the TAPS oil line from building the gas pipeline in close proximity.

Another technical issue is the lack of definitive data on how the project sponsors will handle the problems of pipeline construction and operation in permafrost soils. Other issues include liability of TAPS owners with respect to joint use of the right-of-way, mitigation of impacts to fish and wildlife, and minimization of gas pipeline crossings with the TAPS oil line and the North Slope haul road.

A full report will be prepared by the AEIDC by October 15, 1979.

## CONDITIONING PLANT

An issue which generated considerable discussion has been FERC's August 6, 1979, pipeline pressure order, its impact on the eventual location of the gas conditioning plant for the project and its effects on the viability of future instate use of North Slope natural gas. Also at issue are the conclusions and much of the content of FERC's Draft Environmental Impact Statement released July 27, 1979.

In response to widespread concern, Governor Jay Hammond appointed a Working Group on the Gas Conditioning Plant. The group's members included Sen. Colletta and Rep. Miles as well as administrative officials who are *ex officio* members of the Joint Gas Pipeline Committee. During September subcommittees of the Working Group met in several sessions to review the following:

(1) the State's progress to date in the FERC proceedings;
(2) benefits and costs of locating the conditioning plant in the Interior instead of Prudhoe Bay;
(3) alternatives for instate use of Prudhoe Bay natural gas and/or natural gas liquids;

(4) the likelihood that the State would prevail in an appeal of the FERC size and pressure order; and

(5) the effects on the gas pipeline project -- especially in terms of delay -- if the State were to appeal the FERC size and pressure order.

Based on its review of these items, the Governor's Working Group made several findings and resolved the following:

(1) the subcommittees' reports, approved by the full Working Group, be transmitted to the Governor as the preliminary report of the Working Group;

(2) the Governor be requested to determine the present-day feasibility of an instate petrochemical industry, particularly by actively contacting and soliciting the interest of major petrochemical companies with regard to the feasibility of such development; and

(3) the Governor be requested to preserve the State's options by requesting FERC to re-open for hearing the size and pressure issue for the project and, failing that, filing an appeal of the FERC size and pressure order no later than October 5, 1979.

The Working Group's September 21 resolution was accompanied by another asking the Governor to continue the Working Group, by allowing its members to serve as *ex officio* members of the Legislature's Joint Interim Gas Pipeline Committee.

## CURRENT CONTRACTS

Many of the reports discussed earlier in this document were completed under FY 79 contracts. Currently, the Committee has the following firms and/or individuals under contract:
(1) The law firm of Birch, Horton, Bittner and Monroe - a $25,000 contract to provide written monthly reports on matters affecting approval and effectuation of the proposed gas pipeline. The contract runs September 1, 1979, through June 30, 1980. Project directors are Sen. Colletta and Rep. Miles;
(2) The Doschers Group - completion of an extended FY '79 contract for $20,000 which calls for Doscher to act as an independent technical advisor on matters related to oil and gas reservoir management policy. The contract ends December 31, 1979. Project director is Rep. Miles;

(3) H.K. Van Poollen and Associates - completion of an extended FY '79 contract for $60,000 which calls for Van Poollen to develop a methodology for analyzing the development options of the Prudhoe Bay reservoir, i.e. the three-dimensional reservoir simulator computer model. The contract runs through December 31, 1979. The work is being carried out under the direction of the Alaska Oil and Gas Conservation Commission. Rep. Miles is the project director;

(4) Arctic Environmental Information and Data Center - a $15,000 contract to provide information on technical and environmental issues related to construction and operation of the gas pipeline. The AEIDC final report is due October 15, 1979. Rep. Chat Chatterton is the project director; and

(5) Lazard Freres - a $50,000 contract to provide analysis and examination of a possible State equity investment in the gas pipeline project. The contract ends June 30, 1980.

## A CLOSING NOTE

Copies of many of the documents mentioned in this report are available through the Legislative Library, Legislative Affairs Agency, Pouch Y, Juneau, Ak. 99811. All documents are also on file with the Joint Interim Gas Pipeline Committee, 727 N St., Suite 2, Anchorage, Ak. 99501. This report was prepared by Mary Halloran, Research Analyst, on behalf of the Joint Gas Pipeline Committee.

Joint Gas Pipeline Committee
Alaska State Legislature

APPENDIX B

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October 26, 1979

# GAS PIPELINE UPDATE

The Joint Gas Pipeline Committee continues to receive much informal and formal information about the progress of the gas pipeline project. This paper reviews some of the information received since the publication of the Joint Gas Pipeline Committee's Mid-Interim Report on October 10, 1979.

## GAS PIPELINE FINANCING

### 1. Report to the Bonding Authority by John Nuveen & Co.

In a September 24, 1979, letter to Bonding Authority Director Tom Williams, Nuveen Co. indicated that a $1 billion tax-exempt revenue bond issue could affect the State's general credit <u>if</u> it were accompanied by security features similar to the following:

(1) a full faith and credit guarantee of the State;

(2) a guarantee by the Permanent Fund;

(3) a "make up" provision to restore deficiencies in reserve accounts; or

(4) an obligation to issue or purchase completion bonds.

With no such features and provided the bonds are secured by pipeline revenues and the financial resources of other participants, the revenue bond financing would not significantly affect the State's general credit.

However, Nuveen pointed out that if the State provided such additional security, impact on Alaska's credit would depend on the project's financial strength and "the extend to which other participants have assumed risks associated with the project." Those risks include: completion delays; cost overruns; start-up difficulties and failure to achieve design performance; casuality losses; and adverse political or regulatory decisions. "We understand that project participants have not at this time provided appropriate assurances regarding these risks," concluded Nuveen.

2. <u>Report to the Bonding Authority by Dillon, Read & Co</u>.

In a September 19, 1979, letter to Bonding Authority Director Tom Williams, Dillon & Read concluded that so long as the proposed $1 billion tax-exempt revenue bonds are "truly revenue bonds," they will have no adverse effect on the State's credit. "True" revenue bonds have no State sources pledged to repayment of the bonds; and revenues to service the bonds "will come strictly from funds generated from use of the project."

Dillon & Read noted at least four conditions which need to be met to enable the Bonding Authority to issue and market revenue bonds:

(1) Passage of federal legislation providing for tax-exempt status for such bonds;

(2) Financing commitments for all other portions of the project, including the Canadian segment, in place;

(3) Agreement by a creditworthy entity either to pay off the bonds in the event the project is not completed, or, to provide the funds necessary for completion; and

(4) Existence of a reasonable expectation that project revenues would be sufficient to pay all operating costs and debt service, and provide a "reasonable margin" of revenues beyond the operating costs and debt service requirements.

## TECHNICAL AND ENVIRONMENTAL ISSUES

1. "Status of Technology: Alaska Natural Gas Transportation System" by the Arctic Environmental Information and Data Center, October, 1979

In brief, the major technical issues remain unsettled, including the central issue of proximity of the gas pipeline to the TAPS oil pipeline. The lack of resolution will impact both the project's completion date and project sponsors' efforts to obtain financing.

The lack of cooperative effort by the involved parties and the project's "sheer complexity" leave the identification of an alignment for the gas line unresolved, despite the Department of Interior's "provisional approval" last summer. "The potential for physical damage to TAPS during construction " remains a strong concern of TAPS owners.

On September 10, 1979, Northwest released an "Outline-Pipeline Design Process," an "extremely optimistic viewpoint." Upon examination of the proposed Northwest schedule and activities, the Arctic Environmental Information and Data Center (AEIDC) noted,

> "Northwest Alaskan is just now beginning to address some of the real problems that must be resolved before they receive approval on final design and begin construction...."

Thus, the projected 1984-85 completion date is "unrealistic." Instead, AEIDC estimates that the gas deliveries will be at least a year or two later than currently projected.

The lag in resolving technical problems will impact project financing:

> "Cost of the project cannot be determined with any certainty until the proximity question is resolved. Such factors as pipeline thickness, quantities of gravel required, construction schedules, and the question of liability between TAPS and ANGTS must also be resolved."

The lag appears not to stem from disinterest in the technical questions on the part of Arctic scientists. Papers presented at the 30th Alaska Science Conference this fall dealt extensively with building a chilled gas pipeline in an arctic environment. The AEIDC comments,

> "The science and technology of construction and other factors of energy development in an arctic environment are certainly moving forward. The degree to which Northwest Alaskan is participating with the science and government community in this endeavor, however, appears to be minimal, at best."

The report reviews nine areas of current studies and testing: (1) burst tests; (2) blasting tests; (3) frost heave testing; (4) work pad considerations; (5) hydrology; (6) proximity to TAPS; (7) risk analysis; (8) design pressure; and (9) corrosion. Other administrative and political decisions may also impact the project's completion date. Three such upcoming items include: (1) GAO report on the economics and other matters; (2) reimbursement of costs for the permitting process; and (3) industry's planning and other work relating to the gas conditioning plant.

Gas pipeline planning to date "is fragmented and ill-planned, both by government and industry." The establishment of the office of Federal Inspector should improve matters, but many problems may have to be resolved before that office becomes an effective operation. Thus, AEIDC recommends that the State address major issues such as cost reimbursement, gas conditioning plant, and the pipeline design process in the Joint Federal-State Cooperative Agreement or in other ways.

In general, North Slope gas is desirable. The questions are when it will be delivered and at what cost. International scientists apparently believe that a chilled gas line can not be buried except at great cost, although a buried line is what Northwest proposes. In conclusion, AEIDC states,

> "The development of the necessary technology for the design and construction of this project has not kept pace with the rhetoric of the statements by Northwest Alaskan that they can complete the project efficiently and in an acceptable way (both technically and environmentally) with the stated time frames."

<u>INSTATE USE OF NORTH SLOPE NATURAL GAS</u>

1. <u>"Preliminary Analysis of Markets for Gas Distribution to Pipeline Corridor Communities" by Northwest Alaskan Pipeline Company, May, 1979 (released July 27, 1979)</u>

The Northwest Alaskan report concludes from its preliminary analysis of instate markets that use of North Slope natural gas for heating and electrical generation in the Fairbanks area appears economically feasible. Similar use of the gas in other pipeline corridor communities may be only marginally economical. However, the report does not include any analysis of the effects of the recent OPEC oil price increases. Northwest reiterated its support for establishing gas taps along the pipeline corridor, suggesting that the next step is "an economic feasibility analysis by the State." The price of gas depends on three factors: (1) field price; (2) pipeline transportation costs; and (3) distribution costs. The distribution costs are likely to be the major cost for any instate use.

Fairbanks Area Markets: If electrical power generation is part of the Fairbanks area demand, then, the report suggests, an adequate market for natural gas exists in the area. Electrical generation at Ft. Wainwright and Eielson Air Force Base is expected to remain coal-based. Northwest found "a strong interest in the private sector" in natural gas distribution "provided the gas can be competitively priced relative to other fuels."

Delta Area Markets: Northwest identified these possible markets: grain drying complex; space heating for Ft. Greeley, Delta Junction and Big Delta; and electrical generation for the Delta area. Promoters of Delta agricultural growth are interested in using natural gas, and two of the three proposed sites for a grain drying/elevator complex are "only 600 feet from the pipeline right-of-way."

Tok Area Markets: Possible space heating and electrical generation use exists in the Tok area. "The use of natural gas to generate electricity appears more promising than home heating distribution."

The Northwest report briefly discusses the factors affecting the economic feasibility of local gas distribution systems. The "load," the volume of demand and whether it is sufficient to pay for delivery costs, is the key economic factor. The delivered gas price cannot be more than the price of No. 2 home heating oil on a BTU-equivalent basis if it is to be economically attractive.

The high volumes of gas required for Alaskan winter heating would leave the system operating "at much less than capacity for the remainder of the year." Without local industrial customers to take up the offseason load, the corridor gas distribution systems "would face severely low load factors (that) would greatly increase their cost per million Btu delivered."

Another factor in instate gas use would be the timely conversion of existing heating systems to gas usage, and the economics of making the conversions. The report also indicates that additional industrial use, such as electrical generation and grain drying, improves the economics of pipeline corridor gas distribution systems. The report concludes, however, that in communities other than Fairbanks, "economic feasibility is marginal."

In a cover letter accompanying the report, Northwest noted, however, the following:

(1) The report does not include any economic analysis of the effects of the recent OPEC oil price hikes (or projected growth in oil prices over the next few decades);

(2) The report does not anticipate any major new industrial markets, except the Delta grain drying complex;

(3) The report does include the use of gas for electrical generation as it appears that the Federal Energy Regulatory Commission may allow such use for power generation in lieu of heating oil use.

It should also be noted that the report examines only the use of natural gas through direct taps and distribution systems, not the potential uses of such gas-based products as propane for instate heating.

GAS SALES

With Atlantic Richfield's recently announced gas sales, all Prudhoe Bay gas (except the State's royalty share) is now covered by sales contracts, tentative as those contracts may prove to be. The total estimated volume of Prudhoe Bay gas is about 26 Trillion cubic feet, or 2.4 Billion cubic feet/day. Of that total ARCO owns 31.5%; EXXON, 31.5%; SOHIO, 23.5%; and State of Alaska, 12.5%.

As a result of the three producers' tentative sales, the Prudhoe Bay natural gas should go to the following gas transmission companies: *Northern Natural Gas, 18.3%; Columbia Gas Systems, Inc., 15.5%; Michigan Wisconsin, 10.5%; *Pacific Gas & Electric, 10.5%; *Pacific Interstate Transmission, 10.5%; *Panhandle Eastern Pipeline, 6.3%; *United Gas Pipeline Co., 4.73%; Texas Gas Transmission Corp., 3.78%; and Texas Eastern Gas Pipeline Co. and Transwestern Pipeline Co. (both subsidiaries of Texas Eastern Transmission), 3.15% each. The State has not entered into sales contracts for its 12.5% share of the total volume.

Those companies starred with an asterisk (*) above are current partners in the Northwest Natural Gas Transportation Co., sponsors of the Alaska segment. Of the pipeline project partners, only Northwest Energy Co. has not purchased North Slope gas, nor is it expected to. Those companies which have agreed to purchase North Slope gas but which have not become Northwest partners are Columbia, Michigan Wisconsin, Texas Gas, and the two subsidiaries of Texas Eastern Transmission.

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This report was prepared on behalf of the Joint Gas Pipeline Committee by Mary Halloran, Research Analyst.

**Joint Gas Pipeline Committee**
**Alaska State Legislature**

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# MID-INTERIM REPORT

Joint Gas Pipeline Committee
Alaska State Legislature

October 10, 1979


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Joint Gas Pipeline Committee
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# MID-INTERIM REPORT

Joint Gas Pipeline Committee
Alaska State Legislature

October 10, 1979

The Joint Gas Pipeline Committee met formally June 4, 1979, in Anchorage to organize the Committee's work for the interim. (A report on that meeting is attached). Since that time Committee members have had informal discussions with the new Federal Inspector for the Pipeline, John Rhett; Canadian Pipeline Commissioner, Mitchell Sharp; and, on more than one occasion, Northwest Energy president, John McMillian.

The Committee co-chairmen, Sen. Mike Colletta and Rep. Bill Miles, served on the Governor's Blue Ribbon Working Group on the Gas Conditioning Plant for Prudhoe Bay Gas. In addition, Rep. Miles and House members, Speaker Terry Gardiner and Rep. Sam Cotten, traveled to New York and D.C. to discuss the gas pipeline project with major Wall Street investment firms, members of the Federal Energy Regulatory Commission (FERC), and White House and Congressional staff.

Recently Sen. Colletta and Don Wold of the Alaska Royalty Oil and Gas Development Advisory Board traveled to Tulsa, Oklahoma, and Houston, Texas, to investigate the interest of major petrochemical firms in gasline-connected petrochemical development in Alaska.

Members of the Committee have worked extensively on gasline-related issues through other forums. A two-day hearing on the management of the Prudhoe Bay reservoir was held by the House Resources Committee, under the direction of Co-chairman Miles, during the August Special Session. Several Committee members, as well as other legislators, presented testimony at the September 4-6 FERC hearings on the Draft Environmental Impact Statement for the gas conditioning plant and pipeline pressure issues.

## GAS PIPELINE FINANCING

The Committee has received much informal and formal information on different aspects of the gas pipeline financing, and the State's options for participation in project financing. The following sections will review that information.

1. Regulatory issues:

In a major ruling, the FERC issued a final Incentive Rate of Return (IROR) order September 6. The order sets a 17.5% rate of return as a centerpoint for equity investors in the Alaska and Northern Border segments of the project. The order, however, may be indirectly challenged in other FERC proceedings as it sets the framework for gas producers to pay gas conditioning costs, an item of strong contention. Another still unresolved tariff-related concern is tracking -- how to allocate costs to consumers and gas service companies for Canadian gas flowing in the pipeline system before the full system goes into operation. On the strength of the IROR and other favorable regulatory decisions, Northwest currently plans to have a financial plan in place by the end of this year and to talk with investment markets during the first quarter of next year.

2. Constitutionality of Using State General Obligation Bonds for Equity Participation in the Gas Pipeline

In a July 9, 1979, memorandum, State Bond Counsel Wohlforth and Flint confirmed the earlier conclusions of Billy Berrier, Director, Division of Legal Services, Legislative Affairs

Agency. In brief, Wohlforth and Flint stated that the constitutionality of using State General Obligation bonds for equity participation in the gas pipeline would rest on two points:

> "First, the project so financed must constitute an asset of relatively permanent value; and, second, the issuer of the bonds must retain some legal interest in the project."

That legal interest, suggested Wohlforth and Flint, could be through a "tenancy in common, mortgage, deed of trust, or other security interest in the pipeline."

The memorandum made clear that the spinoff benefits of the pipeline construction and operation are not sufficient legal grounds to render General Obligation bonds constitutional.

> "Mere general improvement of public prosperity and welfare, and even removal of economic insecurity, while viewed as laudable purposes, do not in themselves constitute capital improvements."

After examination of the related court cases, Wohlforth and Flint concluded that investment of State General

Obligation bonds could probably meet the "physical" requisites of the "capital improvements" restriction on such bonds. They added,

> "However, the state must acquire sufficient legal interest in the capital improvement to overcome the constitutional deficiencies set forth in Hixson. An investment by the state of bond proceeds in 'equity related securities' does not meet this test. The financing must be accompanied by some form of interest in the pipeline. Clearly, the interest would have to be equivalent in value to the amount of bond proceeds devoted to its acquisition."

3. Bonding Authority

In 1978, the State Legislature passed AS 44.55, establishing the Alaska Gas Pipeline Financing Authority, commonly referred to as the Bonding Authority. The Authority is a mechanism by which the State may issue up to $1 billion in tax-exempt bonds for construction of the gas pipeline.

Northwest Pipeline Company sought to have consideration of revisions in the Bonding Authority legislation placed on the August Special Session agenda. Although that step was not taken, consideration has been given to technical changes which may be needed to clarify the Authority's legal ability to issue bonds.

In a September 21, 1979, report to Revenue Commissioner Tom Williams, Director of the Bonding Authority, Attorney John Messenger outlined those technical changes. Messenger did not discuss, nor was he asked to review, the policy matters inherent in the financial and Alaska impact plan called for under AS 44.55.

In general, the possible technical changes Messenger reviewed include:

(1) clarification and broadening of the purposes for which bonds of the Authority may be issued;

(2) a. provision that legislative approval of the financing and Alaska impact plan (hereinafter referred to as the Plan) and legislative approval of bonds be contained in separate concurrent resolutions;

b. provision that legislative approval of the bonds may contain such limitations as the Legislature deems appropriate;

c. elimination of the requirement that bonds be issued and sold in accordance with the Plan;

(3) revision of the statute sections dealing with refunding bonds so that confusion over the approval process for such bonds is eliminated;

(4) provision for amendments of the Plan after passage by the Authority of a resolution authorizing sale of the bonds;

(5) provision for approval of the Plan (or a conditional Plan) by concurrent resolution;

(6) addition of language excluding the Authority or its bonds from AS 37.10.085 which prohibits the State from lending its credit or borrowing money for the use of a corporation;

(7) revision of AS 44.55 to include certain requirements which would meet proposed IRS regulations concerning the Authority's ability to act "on behalf of" the State and thus to issue tax-exempt bonds;

(8) modification of the Legislative findings to support the conclusion that gas pipeline financing by the Authority is for a public purpose; and

(9) other minor textual changes.

Messenger is drafting legislation embodying these changes for consideration by the Administration and the Legislature.

4. Availability of State Funds for Investment in the Gas Pipeline Project

In an August 3, 1979, memo, Fiscal Analyst Milt Barker, of the Legislative Finance Division, reviewed whether projected FY 80 State revenues would permit an appropriation of $500 million for a direct investment in the gas pipeline. Barker concluded sufficient funds do exist whether such an appropriation was paid over at once or drawn down over a period of time. He cautioned, however, that FY 80 receipts depend, in substantial part, on the results of pending litigation over the petroleum income tax.

The Legislative Finance Division did not analyze -- nor was it asked to do so -- the financial policy implications of a $500 million direct appropriation to the pipeline project or the economic opportunity costs to the State of taking that action. The Division has been asked to prepare -- and the Committee expects to receive shortly -- an analysis of all projected revenues, both direct and indirect, the State would obtain from the successful construction and operation of the gas pipeline.

5. Federal Assistance to the Gas Pipeline

A July 27, 1979, report by the law firm of Birch, Horton, Bittner and Monroe examined current prospects for federal assistance to the gas pipeline. Prepared by attorney Joseph Chomski, with the assistance of Richard Haggart and Lisa Nelson, the report described possible forms of Federal financial participation as follows:

(1) Direct loans to the project;

(2) Loan guarantees for the project;

(3) Federal guarantee of the prices of the gas supplies;

(4) Federal guarantee of Federal government purchases of such gas supplies.

These forms of federal support could be possible through Congressional passage of President Carter's proposed Energy Security Corporation legislation.

The most likely form, Chomski concluded, is provision of loan guarantees for at least a portion of the pipeline project. The loan guarantees would be structured within the parameters proposed in the Energy Security Corporation legislation, the report suggested.

Another "much more remote" possibility for federal assistance would be provision of purchase guarantees for some or all of the North Slope gas. Such an approach would involve a "subsidy loss to the Treasury," an alternative the report authors find "extremely unlikely."

Regardless of the form, the probability of federal financial assistance "has become quite likely." The report states,

> "Thus, in the event that the project fails to finance privately, as now seems likely based on numerous expressions from the financial and energy community, federal financial support would seem to be very likely in that federal assistance to the project would result in the easiest, least expensive (to the federal government), earliest, largest, and -- most importantly -- <u>surest</u> single increment to the nation's energy supply of any of the options available to the federal government."

Federal participation is unlikely to be forthcoming "until Northwest concedes that it cannot finance the line privately (as promised to Congress) and either directly or via the Administration requests federal assistance." Congressional feeling, the authors found, towards federal backstopping remains negative as does public support for such action. In addition, no evidence was found of a White House initiative to change its stated policy opposing federal financing for the project.

The report analyzed Northwest's reasons for not changing its position with regard to requesting federal assistance. The reasons are twofold:

(1) A Northwest request for federal assistance "will create major political problems for the project and for the existing project management."

> "Consequently, we believe one major motivating factor for Northwest's not throwing in the towel on the private financing approach <u>at this time</u> is the fact that they <u>must</u> appear to have foreclosed every reasonable alternative to federal assistance before they return to Congress."

(2) Northwest wants to establish a clear public record that any failure of private financing is not the fault of project sponsors but rather of the federal regulatory process, and perhaps also of the oil companies (the gas producers) and the State of Alaska.

For a number of reasons, the report authors believe that provision of federal financial assistance to the project will not occur before spring 1980 and more likely in 1981.

In conclusion, the report suggests steps the State may take in support of federal financing and of the project in general:
(1) Provide Congress and senior Energy officials with information of positive State actions taken with respect to the project;
(2) Conduct private and frank discussions with Northwest officials about the need for federal assistance; and
(3) Take steps to protect the State's interests by positive action on Alaska's own program of financial assistance.

The need for eventual federal assistance to the project stated in the Chomski report was, in large part, substantiated by the findings of Rep. Miles from May visits with Wall Street investment firms, federal energy officials and White House and Congressional staff. In a June 18, 1979, memo, Miles reviewed several issues, including federal guarantees, Alaska's role, Canada's role, the Federal role, regulatory activity, conditioning plant, producer participation, expansion of the Northwest partnership, the El Paso proposal and future action. As that memo was distributed to all legislators, only brief mention of its contents will be made in this report.

Miles indicated that Wall Street firms believe that some form of federal financing for the project will probably be needed. In contrast, the federal officials stated that the Federal government's goal is still a "purely privately-financed project." Alaska's financial participation at this time was generally seen by Wall Street as a cosmetic or psychological gesture, but not as an action which would "make or break" the project. Such participation, however, was strongly encouraged by the federal officials.

According to Wall Street, the most necessary components needed by the project at this time are:

(1) producer participation;

(2) a reasonable attitude by regulatory agencies;

(3) Canadian-U.S. interaction, especially on the Eastern leg; and

(4) additional expenditures by the project sponsors for design, engineering and other technical work.

The federal officials, Miles found, felt the four components vital to the project at this time are:

(1) producer participation;

(2) State of Alaska equity participation;

(3) an expanded Northwest partnership; and

(4) more aggressive assistance from the Federal administration.

In addition, federal officials predicted that the major regulatory issues, such as conditioning costs, rate of return, and pipeline pressure, would be both ruled on and litigated by this fall.

6. <u>Northwest's Stance Toward State Participation in the Gas Pipeline</u>

On August 29, 1979, John McMillian, Northwest president, sent letters to both President Jimmy Carter and Governor Jay Hammond about Northwest's "lack of success in obtaining financial commitments from the State of Alaska in a timely manner." To Hammond, McMillian wrote, "Therefore, we hereby withdraw the proposed financing plan and the other arrangements based thereon which we have with the State of Alaska."

McMillian presented, however, two other financing concepts for the Governor's consideration:

(1) State participation in the entire project in relation to its 1/8th royalty gas,

> "The state could provide 1/8th of the debt permanent structure, 1/8th of the construction overrun contingency fund, and some acceptable form of completion guarantee;"

(2) Structure State participation on the basis of participation by the oil companies,

> "Another thought would be to wait and see what the final participation of the oil companies in the project will be and the state could then be expected to have a financing package similar to that of the oil companies."

In the letter to President Carter, McMillian stated that Northwest's original proposal to the State "is, as evidenced by two years of frustrating delays, evidently not acceptable to the State." He went on to say,

> "We have never been able to explain the concept of tax-exempt bonds to the legislative members.

> Therefore, we are now suggesting another plan whereby the State participates in 1/8th of the debt structure, 1/8th of the construction overrun contingency fund, and some form of completion guarantee."

McMillian called the 1/8th concept "a fair and reasonable request," and asked Carter to make a request to Governor Hammond and Alaska for Alaska's participation in project financing. He concluded,

> "If, even after your recommendations, we are not successful in obtaining the State's help and participation in project financing, it may be necessary to consider special federal legislation which will ensure that the State does not retain all of the project benefits, such as intrastate use of Alaska gas for Alaskans, and a very favorable wellhead gas price, without sharing in the debt structure of the project."

In his remarks to an Anchorage gathering October 5, 1979, McMillian reiterated his withdrawal of Northwest's previous financial proposal ($1 billion in tax-exempt bonds and $500 million in equity from the State) and mentioned the 1/8th approach as Northwest's new concept for financing. Everything, said McMillian, is open to renegotiation.

## OTHER REPORTS

In addition to the above-mentioned reports on gas pipeline financing, the Committee has received several reports on related issues. Those reports are reviewed in this section.

### 1. Final Report, West Coast Oil Surplus by Arlon Tussing

In an August 20, 1979, memorandum economist Arlon Tussing submitted his final report on the West Coast oil surplus issue. Tussing was under contract to help develop a strategy to solve the problem of "loss of state royalties and production taxes caused by the high cost of shipping 'surplus' Prudhoe Bay crude oil to Gulf and East Coast markets."

The problem was "solved," so to speak, by the agreement of North Slope oil producers to pay state royalties on the basis of the federal ceiling price, as of July 1, 1979, regardless of the oil's destination or transportation cost. The producers will also pay production taxes at the same rate. "Hence, exports or exchanges can no longer improve the state's immediate royalty and tax position," said Tussing.

The State's effort to negotiate and get federal approval for international exchanges of Prudhoe Bay royalty oil would have been stalled, in any case, by the Congressional adoption of restrictive amendments to the Export Administration Act. The U.S. Senate, for example, adopted the Riegel Amendment which will make any future exchanges of North Slope crude difficult. The "surplus" problem will resurface for the State when federal price ceilings on crude oil prices are removed. The decontrol of crude oil prices, now scheduled for June 30, 1981, will make the Prudhoe Bay wellhead price again a netback price, determined by the oil's market value, less transportation costs. Under those circumstances, the State's fiscal interests would again be served by exports or international exchanges (as long as North Slope crude cannot be delivered to the nearest markets on the West Coast).

Tussing assessed the State's efforts to date to liberalize federal export restrictions as follows:

(1) The efforts resulted in the Department of Energy conducting a formal study of the issue and DOE's ultimate position in favor of exports;

(2) The proposed PEMEX exchange allowed the State to explain its case to a national audience and to receive national editorial endorsement;

(3) Meetings between Alaska and California officials gave Alaskans "better insight into both the economics and the politics of petroleum on the West Coast and nationally;"
(4) Sohio's active cooperation, essential to the PEMEX proposal, was not realized, and Sohio's termination of the PAC-TEX project created Congressional ill-will toward any future exchanges which might benefit Sohio;
(5) The efforts "clearly failed" in Congress and "we <u>may</u> have failed only for lack of trying." Administrative and legislative indecision over whether to launch a serious lobbying effort led to no campaign by default.

Tussing also reviewed related issues, such as the use of North Slope crude in West Coast refineries, refinery modifications and grassroots refineries on the West Coast, and West-to-East oil pipelines.

The California Energy Commission, Tussing indicated, is today concerned about California refineries' high dependence on North Slope crude. The Commission wants to reduce that dependence and have contingency plans to deal with a possible cutoff. A North Slope cutoff would cause California to suffer "noticeable shortages in about seven days, and would result in serious economic disruption within two weeks."

The picture for West Coast refinery modification and grassroots refineries is more complex. The growing scarcity of light crudes calls for major modifications in refineries. But, the fact is that present US and West Coast refineries may "already have as much gasoline capacity as the industry will ever need." Contributing to investor uncertainty are unsteady federal policy with respect to future production standards for gasoline and other regulatory restrictions.

The West-to-East oil pipeline proposals are not economically competitive with expansion of existing midcontinental pipelines without supplies of additional overseas crude oil. Such additional foreign supplies have been ruled out by President Carter with an announced ceiling on imports set at the 1978 levels.

2. Producer Benefits Model; Sadelrochit Formation, Prudhoe Bay Field: A Description of a Policy Evaluation Model, by Lawrence Eppenbach

Through work begun with the Division of Legislative Research and completed under contract to the Department of Natural Resources, Eppenbach has set up a computer program series. The "Producer Benefits Model" evaluates Prudhoe Bay geological information along with the costs of alternative methods of developing the reservoir. Based on data prepared by H.K. Van Poollen and Associates and, to a limited extent, information provided by the field operators, the model can be used to "forecast state revenues and industry cash flows associated with alternative policy options. It also calculates the net present values of these future returns in order to compare the value of one policy option to another."

In addition, the series of computer programs allows the operator to set varying parameters for the analysis:
--whether to use constant dollars or to include the effect of inflation;
--how the producers expect to finance their capital expenditures;
--what future wellhead values are likely to be; and
--what discount rate should be used to calculate the net present values.

The model results should provide useful comparisons between one field development plan and another. It will also clarify any differences in economic incentives between the State and the industry. The scope of the model is limited, however, to the Sadelrochit formation and only to field economics. Also it does not examine the economics of gas liquids production. Although more basic data is needed before the model can begin producing useful results, the model is now operational. It is available through the Division of Minerals and Energy Management, Department of Natural Resources.

Eppenbach's report includes sample outputs and contains program listings.

3. Progress Reports - The Doschers Group

Dr. Todd Doscher provides the Committee with an ongoing written overview of the work of H.K. Van Poollen and Associates on the State's three-dimensional reservoir model of Prudhoe Bay. Based on his work to date, Dr. Doscher's central conclusion is "that gas sales should not be committed until the need for water injection to at least compensate for gas withdrawals is firmly established, and still not then."

Gas withdrawals should not take place, Doscher indicates, until sufficient Prudhoe Bay reservoir performance history can be accumulated so that the effects of such withdrawals can be adequately inferred.

Other areas of concern to Doscher are Prudhoe Bay reservoir pressure maintenance, the "nebulous plans" of the operators with respect to water flooding, and the need for the State to assure the ultimate Prudhoe Bay oil recovery efficiency will be increased from the base 20% level to 40%. These and other concerns prompt Doscher to not only recommend no gas sales at this time, but to "express grave concern about increasing oil withdrawal rates."

Major technical problems in the three-dimensional work thus far have been "the assignment of permeabilities and the positioning of shale barriers in the model of the reservoir."

4. <u>Progress Report - H.K. Van Poollen and Associates and the Alaska Oil and Gas Conservation Commission</u>

H.K. Van Poollen and Associates, under the direction of the Alaska Oil and Gas Conservation Commission, are responsible for a three-dimensional reservoir simulator model of the Prudhoe Bay reservoir and its performance. The purpose of the study is threefold:

(1) should there be gas sales or not, and, if so, how much;

(2) should pressure maintenance be employed, and if so, how much; and

(3) are the field oil and gax maximum production rates allowed under Oil and Gas Conservation Order 145 still valid.

Confirming match runs between the earlier two-dimensional computer model and the three-dimensional model are being run at this time, with comparison runs scheduled soon. These latter runs will look at ultimate oil recovery, with and without gas sales, and with and without water injection. A report is expected to be released by the end of this month on this work. Then, it is planned to do a series of "what if" runs which will explore questions such as the effect of rate of production on ultimate oil recovery. A report on these latter findings is expected by the end of November.

5. Progress Reports - Arctic Environmental Information and Data Center (AEIDC)

The AEIDC is collecting information on the status of technical, environmental and other matters relating to the pipeline project.

Under AEIDC review are the right-of-way and proximity issues affecting the design and construction schedule of the project. The materials submitted with the AEIDC reports to date indicate that many specific technical issues still require resolution prior to a final right-of-way decision by the Department of Interior. One major concern is the risk to the TAPS oil line from building the gas pipeline in close proximity.

Another technical issue is the lack of definitive data on how the project sponsors will handle the problems of pipeline construction and operation in permafrost soils. Other issues include liability of TAPS owners with respect to joint use of the right-of-way, mitigation of impacts to fish and wildlife, and minimization of gas pipeline crossings with the TAPS oil line and the North Slope haul road.

A full report will be prepared by the AEIDC by October 15, 1979.

## CONDITIONING PLANT

An issue which generated considerable discussion has been FERC's August 6, 1979, pipeline pressure order, its impact on the eventual location of the gas conditioning plant for the project and its effects on the viability of future instate use of North Slope natural gas. Also at issue are the conclusions and much of the content of FERC's Draft Environmental Impact Statement released July 27, 1979.

In response to widespread concern, Governor Jay Hammond appointed a Working Group on the Gas Conditioning Plant. The group's members included Sen. Colletta and Rep. Miles as well as administrative officials who are *ex officio* members of the Joint Gas Pipeline Committee. During September subcommittees of the Working Group met in several sessions to review the following:

(1) the State's progress to date in the FERC proceedings;
(2) benefits and costs of locating the conditioning plant in the Interior instead of Prudhoe Bay;
(3) alternatives for instate use of Prudhoe Bay natural gas and/or natural gas liquids;

(4) the likelihood that the State would prevail in an appeal of the FERC size and pressure order; and
(5) the effects on the gas pipeline project -- especially in terms of delay -- if the State were to appeal the FERC size and pressure order.

Based on its review of these items, the Governor's Working Group made several findings and resolved the following:
(1) the subcommittees' reports, approved by the full Working Group, be transmitted to the Governor as the preliminary report of the Working Group;
(2) the Governor be requested to determine the present-day feasibility of an instate petrochemical industry, particularly by actively contacting and soliciting the interest of major petrochemical companies with regard to the feasibility of such development; and
(3) the Governor be requested to preserve the State's options by requesting FERC to re-open for hearing the size and pressure issue for the project and, failing that, filing an appeal of the FERC size and pressure order no later than October 5, 1979.

The Working Group's September 21 resolution was accompanied by another asking the Governor to continue the Working Group, by allowing its members to serve as ex officio members of the Legislature's Joint Interim Gas Pipeline Committee.

CURRENT CONTRACTS

Many of the reports discussed earlier in this document were completed under FY 79 contracts. Currently, the Committee has the following firms and/or individuals under contract:
(1) The law firm of Birch, Horton, Bittner and Monroe - a $25,000 contract to provide written monthly reports on matters affecting approval and effectuation of the proposed gas pipeline. The contract runs September 1, 1979, through June 30, 1980. Project directors are Sen. Colletta and Rep. Miles;
(2) The Doschers Group - completion of an extended FY '79 contract for $20,000 which calls for Doscher to act as an independent technical advisor on matters related to oil and gas reservoir management policy. The contract ends December 31, 1979. Project director is Rep. Miles;

(3) H.K. Van Poollen and Associates - completion of an extended FY '79 contract for $60,000 which calls for Van Poollen to develop a methodology for analyzing the development options of the Prudhoe Bay reservoir, i.e. the three-dimensional reservoir simulator computer model. The contract runs through December 31, 1979. The work is being carried out under the direction of the Alaska Oil and Gas Conservation Commission. Rep. Miles is the project director;

(4) Arctic Environmental Information and Data Center - a $15,000 contract to provide information on technical and environmental issues related to construction and operation of the gas pipeline. The AEIDC final report is due October 15, 1979. Rep. Chat Chatterton is the project director; and

(5) Lazard Freres - a $50,000 contract to provide analysis and examination of a possible State equity investment in the gas pipeline project. The contract ends June 30, 1980.

## A CLOSING NOTE

Copies of many of the documents mentioned in this report are available through the Legislative Library, Legislative Affairs Agency, Pouch Y, Juneau, Ak. 99811. All documents are also on file with the Joint Interim Gas Pipeline Committee, 727 N St., Suite 2, Anchorage, Ak. 99501. This report was prepared by Mary Halloran, Research Analyst, on behalf of the Joint Gas Pipeline Committee.

**Joint Gas Pipeline Committee**
**Alaska State Legislature**

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REP. BILL MILES, CO-CHAIRMAN
SEN. FRANK FERGUSON
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May 20, 1980

To: Legislative Reference Librarian
From: Mary Halloran, Research Analyst

Attached are a set of the key memos and reports from the 1979 interim work of the Joint Gas Pipeline Committee.

# Joint Interim Gas Pipeline Committee

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June 15, 1979

REPORT FROM THE JOINT INTERIM GAS PIPELINE COMMITTEE
Alaska State Legislature
727 N St., Suite 2, Anchorage, Ak. 99501
By Mary Halloran, research analyst

The Joint Interim Gas Pipeline Committee met June 4, 1979, in Anchorage, taking the following actions:

COMMITTEE ACTIONS:

1. The Gas Pipeline Committee requested that the Legislative Finance Division, working with Legislative Research, make a formal presentation at the next committee meeting, tentatively scheduled for the beginning of August.
   The report is to follow up on earlier Legislative Finance forecasts that state general fund revenues will be insufficient to support a direct cash investment of $500 million in the Northwest gas pipeline project, even under the most optimistic circumstances.
   Commissioner Tom Williams, Dept. of Revenue, stated that the Dept. of Revenue's next quarterly report will be available by mid-June for the Committee's review.

2. The Gas Pipeline Committee and Commissioner Williams also agreed that $60,000 allocated to the Dept. of Revenue for financial and legal work regarding the gas pipeline could be used, in part, to obtain for the committee:

   (1) a formal opinion of bond counsel on whether general obligation bonds may be legally used to finance state equity participation in the gas pipeline; and

   (2) if bond counsel determines that the use of general obligation bonds would be legal for this purpose, expert financial opinion on how the issuance of bonds would affect the state's ability to finance other needed capital projects.

   The work is to include a consideration of the effect also of tax-exempt bonds on the state's participation in the bonding market. Tax-exempt bonds have been authorized under the Gas Pipeline Financing Bonding Authority, given the fulfillment of several specific conditions.

   The Gas Pipeline Committee committed $5,000 to the work, with the understanding that Reps. Chat Chatterton and Charlie Parr would work with the Dept. of Revenue on the project.

3. Attorney Ron Birch was asked to prepare a tentative report on the possibility of federal participation in the gas pipeline project financing. Birch will prepare the report for the committee's August meeting. Preliminary work on the subject done by consultants to the Dept. of Revenue will be shared by Revenue with Birch.

4. A $15,000 contract with the Alaska Environmental Information and Data Center (AEIDC) was approved by the committee. AEIDC will investigate the current status of unresolved technical issues in relation to construction of the gas pipeline.

   A report by AEIDC will be submitted to the Legislature October 15, 1979. The report will cover areas such as thermal regime effects, hydrology and ground water concerns, proximity to TAPS (criteria and risk analysis problems), work pad criteria, construction issues, design pressure determinations and effects. Rep. Chatterton is the contract project director.

5. The Gas Pipeline Committee will also work with the state administration and Northwest Alaska Pipeline Company to study the conditioning and processing issues of the gas pipeline project. The committee committed $25,000 to the study, with another $25,000 coming from the Dept. of Revenue and another $25,000 from Northwest. Rep. Bill Miles will work with Commissioner Williams and Jack Bachman, Northwest representative, on the study.

   In addition, the Dept. of Revenue also has current contracts to continue work begun earlier by Purvin and Gertz on the concept of a publicly owned conditioning plant.

Committee members at the meeting were Sen. Mike Colletta, Rep. Bill Miles, Rep. Charlie Parr, Rep. Chat Chatterton, Commissioner Robert LeResche (ex officio) and Jack Bachman, Northwest (ex officio).

Also present were Commissioners Tom Williams and Charles Webber; Gregg Erickson and Larry Eppenbach, Legislative Research; John Sund, counsel to the Speaker of the House; Mary Halloran, research analyst; and Ron Birch and Lisa Nelson, legal consultants.

The committee's next meeting is tentatively scheduled for early August.

# UPDATE ON GAS PIPELINE EVENTS

## EXXON SELLS GAS; BUYERS TO PAY CONDITIONING COSTS

Pacific Gas and Electric, Northern Natural and Michigan-Wisconsin Gas Transmission Company have each concluded contracts with EXXON for one-third of its interest in Prudhoe Bay gas production.

PG&E and Northern Natural are partners in the Northwest consortium, while Michigan-Wisconsin, according to Northwest representative Jack Bachman, has approached Northwest about joining the group.

A significant contract stipulation is that the gas purchasers would pay for conditioning costs, contrary to the Federal Energy Regulatory Commission's ruling that producers, not purchasers, would bear the burden of conditioning costs.

EXXON would assume the costs of gathering lines, dehydration equipment, field compression equipment, cooling facilities, and related facilities. It has also, under the contracts, agreed to shoulder any future costs associated with artificial lift and water injection programs. While the gas purchasers would pay for conditioning costs, they would own any liquids collected during the conditioning process.

The contracts indicate, according to legislative consultants Chomski and Haggart, "the willingness of at least one producer to oppose the FERC position directly, by adding treatment costs on top of Section 109 ceilings."

In an April 27, 1979, report to the legislature, Chomski and Haggart further concluded, "Simultaneously, we have seen no signs to date that the FERC is willing to modify its position on treatment conditioning costs to the satisfaction of the producers. While predicting the outcome of any regulatory proceeding is always hazardous, we see little prospect in the current dispute other than extended litigation. To the extent that this is the case, neither gas sales contracts nor financial commitments to the pipeline project can be finalized."

The State of Alaska joined EXXON and other major gas producers in filing comments with FERC earlier in opposition to FERC's conditioning costs proposal.

ALASKA GAS COULD BECOME POOR BUY FOR AMERICAN CONSUMERS

The Alaska gas pipeline "is likely to provide significant economic benefits to the nation," according to a study by ICF Inc. Commissioned by FERC, the study states, however, that benefits to the consumers may hinge on changes in construction costs and the value of gas.

The May report assumed a gas conditioning charge of zero to the consumers, adding that that assumption is "especially critical" to its analysis. "Specifically, imposition of the full costs of gas conditioning on gas purchasers would reduce the consumer share of benefits considerably, with consumers being worse off, relative to using distillate fuel oil by more than $1.9 billion (mid-1979 dollars)."

Besides conditioning costs, the other major factor impacting the benefits of gas consumers is construction costs. The report states, "This conclusion-that the Alaskan gas project should be in the interest of both the nation and the nation's gas consumers- is valid if the ANGTS were constructed at a cost in line with current estimates. Consumers, however, could lose $2.2 billion if construction problems lead to the high cost case for the pipeline construction."

The report goes on to say that other parties - gas producers, the Alaskan and federal governments, and the pipeline owners - would still benefit even if construction costs rise.

ALASKA RATE OF RETURN SET BY FERC

A 17.5 percent center rate of return on investors' money has been set by FERC if project construction costs are 30 percent higher than estimated in March 1977. At that time, the cost was pegged at $10.5 to $13.9 billion by Alcan, Northwest's predecessor.

In earlier comments on FERC's proposal, Northwest objected to tying the incentive rate of return to the March 1977 cost estimates as that approach ignores changes which have taken place since that time.

The rate of return is variable, with the profit rate declining as costs exceed 30 percent. In addition, FERC ruled that money used in cost overruns should yield only 8 percent return, rather than the 12 percent "marginal" rate requested by Northwest.

FERC also ruled that pipeline owners may charge "cost-of-service" transportation rates for gas shipped through the pipeline rather than adhering to a fixed transportation charge.

RHETT NOMINATED AS FEDERAL INSPECTOR; BEHLKE TAKES STATE COORDINATOR SPOT

The long-expected nomination of John T. Rhett as federal inspector for the gas pipeline was made recently by President Carter. An engineer and former colonel in the Army Corps of Engineers, Rhett has worked as the deputy assistant administrator for water programs at the Environmental Protection Agency since 1973. His nomination is still subject to Senate confirmation.

Dr. Charles Behlke, dean of the University of Alaska school of engineering, has been chosen as the state pipeline coordinator. Behlke also serves as chairman of the board of the Alaska Power Authority and chairman of the Capital Site Planning Commission. He begins his latest post as pipeline coordinator July 2.

CANADIAN SEGMENT READY TO GO

The Alberta segment of the gas pipeline may be under construction next year, according to Commissioner Mitchell Sharp of the Northern Pipeline Agency of Canada. Sharp's comments were echoed by British Columbia Sen. Ed Lawson who spoke in Anchorage in early June.

Both Lawson and Sharp indicated that "all systems are go" for pipeline construction in Canada. Lawson stated that some government financial assistance in Canada may be necessary to complete the project. The Alberta segment would initially move surplus Alberta gas, if approved by the Canada National Energy Board.

In the meantime, workers for Foothills, the sponsors of the Canadian segment, may be laid off while the Foothills group reduces its budget for preliminary work on the project. A company spokesperson announced June 7 that as many as 30 of the 225-member staff will be laid off. In an Associated Press report, the official explained, "Foothills was merely recognizing the 22-month delay that has occurred because of regulatory delays in the United States."

NO SPENDING BY NORTHWEST

Northwest partners have withheld action on the Alaska project budget of $38 million for this year, confirmed company representative Jack Bachman at the Joint Gas Pipeline Committee meeting in ANchorage June 4th. Bachman also stated that Northwest needs to know by the end of this year whether Alaska will contribute towards the project's financing. Northwest plans to file its financial plan with FERC in the first quarter of 1980.

# Joint Interim Gas Pipeline Committee

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## MEMO

To: All Legislators
From: Bill Miles
Re: Northwest Gas Pipeline
Date: June 18, 1979

Two weeks ago, Speaker Gardiner, Rep. Cotten and I traveled to New York and Washington, D.C. to work on a number of items. At separate meetings during the trip, we discussed the gas pipeline with the following:

New York

- Loeb Rhodes
- Lazard Freres
- Merrill Lynch White Weld
- Solomon Brothers
- Kidder Peabody

Washington

- Alaska's Counsel before Federal Energy Regulatory Commission (FERC)
- FERC Counsel
- FERC Staff
- FERC Commissioner
- Department of Energy
- White House Aide for Domestic Affairs

The issues we discussed are summarized herein. Not all of the issues were discussed with each entity named above; the brief summaries below are meant to give an impression of the feelings of the majority of the people with whom we met.

1. FEDERAL GUARANTEES

Wall Street indicated that some form of federal financial aid to the line would probably be needed, although a slight chance existed for private financing if a number of things fell into place.

In one case, a cost overrun for the Alaska segment by the federal government was indicated as the most likely form of federal aid. It was unanimously agreed that if the federal government became financially involved in the project, the cost of financing the line would be decreased. And, therefore, the project would be speeded up and the cost to consumers would be reduced.

The Federal Government indicated that its goal was still a purely privately-financed project as this has been the stated policy of the President and Congress. Federal representatives said that, of late, they had aggressively been pursuing various means to make private financing a possibility, and that they would continue to do so, using all the means available to them.

However, they acknowledged the problems facing a purely privately-financed project, noting a reservation to that conclusion by one Federal Energy Regulatory Commissioner. Additionally, in order for private financing to be available, a number of things were necessary: financial participation by the producers and the State of Alaska, and an expanded gasline partnership. Even these components, however, could not guarantee private financing.

2. ALASKA'S ROLE

Wall Street generally indicated that financial participation in the project by the State of Alaska would be helpful from a cosmetic or psychological standpoint, but would not "make or break" the project. Some representatives indicated other financial commitments should be in place prior to Alaska's possible participation. Some said it should come concurrently with other commitments. Some indicated Alaska should not participate in an equity manner. No one suggested Alaska make an equity commitment now.

The Federal Government strongly urged Alaska's financial participation as the State was one of the major beneficiaries of the project. Surprisingly, some federal representatives were unaware of the creation of the Alaska Gas Pipeline Bonding Authority which enables the State to place up to one billion in debt for the project. They also felt that a contribution by the State of Alaska to the project was a private financing tool as opposed to public financing.

3. CANADIAN ROLE

Wall Street felt that there were fewer inherent risks in the Canadian portion of the projects yet indicated a major concern over the length of Canada's National Energy Board (NEB) commitment to the Eastern leg of the project. The current six year commitment may be insufficient to finance the Eastern leg but the NEB has "left the door open" for increasing that term, provided all the other components of the full transportation system (conditioning plant, Alaska segment, Canadian segment and Western leg) fall into place.

4. FEDERAL ROLE

Wall Street indicated federal help will be necessary in a number of areas, including the financing aspects, regulatory aspects and the timing of the project. Wall Street realized the current active role the federal government was beginning to play in the project.

The Federal Government, in both its regulatory and administrative areas, is starting to move quickly on the project, i.e., the nomination of the Federal Inspector, the establishment of the rate of return, etc. However, a number of unresolved issues are still apparent, such as the allocation of conditioning costs (now estimated to be $2.8 billion), resolution of the pipeline routing questions, etc.

Additionally, the Department of Energy appears to be increasing its efforts in many areas to resolve other problems facing the project: the size of the pipeline partnership, the role of the producers, etc.

5. REGULATORY ACTIVITY

Wall Street indicated that the gasline tariff is causing potential lenders concern. Tariffs are set by regulatory agencies, one investment house argued, and they can be modified by regulatory agencies. On smaller projects, lenders are willing to take this risk so long as the record is clear on the importance of maintaining the rate. On this project, the willingness to risk the uncertainty of regulatory changes will be less. Hence, a clear record and possible legislation may be needed.

The Federal Government acknowledged the Wall Street concerns and that regulatory rules can have a re-hearing and be changed.

6. CONDITIONING PLANT

One Wall Street firm suggested that potential Alaskan equity might be better placed in the conditioning plant (now estimated at $2.8 billion) than in the gasline itself as any equity the State might produce would be lost in a multi-billion dollar project. Another firm indicated it had heard of a company that was willing to build the conditioning plant. Negotiations among the various interested parties are presently taking place in a more serious vein than earlier this year.

The Federal Government indicated the conditioning cost allocation question will be expedited in the courts this summer. Further, it confirmed negotiations concerning the conditioning plant are underway.

7. PRODUCER PARTICIPATION

Wall Street indicated a strong need for producer participation. In fact, several people said producer commitments to the project's financing were the next big step necessary toward completion of the line. Only then should the State consider financial participation.

The Federal Government also indicated a strong need for producer participation and further indicated it would do everything possible to see this aspect of project financing fall into place.

8. EXPANSION OF THE PARTNERSHIP

Wall Street indicated several potential new partners were considering joining the gasline partnership. This expansion would greatly assist the project by adding needed capital, markets, etc.

The Federal Government strongly supports adding new partners to the Northwest group. In fact, the government is actively seeking additional partners. One person made the assumption that a number of potential partners have not heretofore joined the partnership because many of the regulatory rules have not been set. As these issues are resolved, an expanded partnership is expected.

9. EL PASO PROPOSAL

The Federal Government indicated there was no possibility of re-opening the All-Alaska (El Paso) gasline proposal. Nor would there be any consideration given to other similar LNG proposals.

10. FUTURE ACTION

Wall Street generally agreed that the most necessary components needed by the project at this time are:

1. Producer participation;
2. A reasonable attitude by regulatory agencies;
3. Canadian/US interaction, especially on the Eastern leg;
4. Additional expenditures (approximately $200 million) for design, engineering and other technical work.

The Federal Government predicted that by the fall of this year conditioning costs, rate of return, pipeline pressure and the like will not only be ruled on but will have been litigated. Additionally, the federal government felt four components are necessary at this time and that it would work toward:

1. Producer participation;
2. State of Alaska equity participation;
3. Expanded partnership;
4. More aggressive assistance from the federal administration.

Joint Gas Pipeline Committee
Alaska State Legislature

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July 3, 1979

GAS PIPELINE UPDATE

ALASKA GAS RESERVES AMPLE BUT INACCESSIBLE

Alaska holds 18.5% of the nation's potential gas supply, but almost 70 percent of the Alaskan reserves probably lie in less accessible offshore areas. The figures were part of testimony offered by Dr. Harry Kent, Director of the Potential Gas Agency, to the House Energy and Power Subcommittee last month.

The Agency estimates that domestic gas supplies are 199 Tcf probable, 399 Tcf possible and 421 Tcf speculative. About 41% of that total potential lies in shallow onshore reservoirs in the lower 48 while Alaska contains some 18.5% or 189 Tcf. Kent noted that the proposed Alaskan land withdrawals would affect some gas development, possibly 10 Tcf of Alaska's potential.

Other witnesses commented on the Alaska gas pipeline situation, with AGA President George H. Lawrence urging speedup of the regulatory process, expedition of the Alaska gas pipeline system, and encouragement of use of Mexican and Canadian gas.

Chaired by Rep. John Dingell, the subcommittee is holding further hearings on natural gas markets, potential oil and gas supplies from Mexico, the Alaska gas pipeline and future Canadian gas exports to the U.S.

JACKSON SAYS "NO" AGAIN TO FEDERAL FINANCING

At a Senate Energy Committee hearing last month, Sen. Henry Jackson reiterated his opposition to federal financing for the Northwest gas pipeline project. Jackson stated, "I am told by the project sponsors that private financing is still possible...I take them at their word and give no encouragement to those who wish that financing will come from the federal Treasury." Jackson also indicated that he may make inquiries into the EXXON gas sales contracts which make gas conditioning costs the buyer's responsibility, contrary to an initial regulatory decision making conditioning costs the gas producers' responsibility.

FERC FAVORS TRADITIONAL 1260 PSIG PRESSURE PIPELINE

Although a final decision is still to come, it appears that an operating pressure of 1260 psig will be authorized for the Northwest gas pipeline by the Federal Energy Regulatory Commission (FERC). The 1260 psig recommendation by FERC's Alaska Delegate concurs with Northwest's preference for a traditional operating pressure.

The State of Alaska is also conditionally supporting 1260 psig operating pressure if provisions are made for instate use of natural gas liquids as feedstock for petrochemical manufacturing.

Arguing for a higher pressure system have been two North Slope gas producers, Exxon and Arco, and the U.S. Dept. of Transportation. A higher pressure line, testified Exxon, would result in a more fuel-efficient system and a higher throughput capacity, thus allowing a lower cost of service. (Initially Exxon proposed a higher pressure line as a way of eliminating the need for a North Slope conditioning facility. A higher pressure line, such as 1680 psig, would have the capability of transporting heavier gas liquids which the 1260 psig line will not be able to do). The Dept. of Transportation argued that technical and economic data support building a 1680 psig system and having more throughput capacity available would encourage further development and exploration in the North Slope.

Northwest's opposition to the higher pressure systems (1440 psig or 1680 psig) was based on the belief that the testing necessary to validate the higher pressure systems could cause a construction delay of up to two years. Northwest estimated additional carry charges of up to $1 billion would result from such a delay.

FERC agreed that the longer the project is delayed, the more significant the probable cost overruns. Also, the Delegate found, the pressure decision will impact Northwest's ability to obtain private financing, with any departure from a traditional pressure system making investors reluctant to participate in financing.

Still unresolved issues include the disposal of produced butanes (a product of gas conditioning) and the level of $CO_2$ permissible in the system. The $CO_2$ level will impact capital costs and operating costs of the conditioning plant and the line itself.

In related testimony, Prudhoe Bay gas producers indicated that the conditioning plant should be located at Prudhoe Bay rather than at an inland location. Sohio and Arco maintained that coastal locations have lower construction costs as they can be served by barges transporting modules for any large facility. ARCO estimated construction costs at 50% higher in Fairbanks or Haines than at the North Slope.

RULING LOWERS COST OF INSTATE USE OF ALASKAN GAS

Future instate use of gas from the Northwest gas pipeline will be less costly because of a federal regulatory decision made recently. The FERC action declares that cost-of-service tariffs for gas taken off inside Alaska will be calculated on a cents per mile basis.

The ruling went against Northwest's proposal for a two-zone tariff, with all charges within one zone to be the same regardless of the distance between the offtake point and the Prudhoe Bay reservoir. Northwest proposed establishing two tariff zones, one from Prudhoe to Delta Junction and the second from Delta Junction to the border. FERC, however, was not satisfied that the proposed zones would "result in equitable distribution of costs."

The cents-per-mile formula lessens the possibility of future struggle between the State and Northwest such as is now occuring over oil pipeline tariffs. Currently Alyeska Pipeline Company wants to charge the same tariff for oil shipped to North Pole as for oil transported to Valdez, another 400 miles south.

The gas tariff formula will also include costs allocated on the heat energy units shipped through the line.

SENATE ENERGY BILL MAY IMPACT GAS PIPELINE PROJECT

Provisions of the Energy Supply Act, a bill under consideration now by the U.S. Senate Energy Committee, may strongly impact the Northwest pipeline project. The bill, testified Northwest President John McMillian at a June 20th hearing, could make the difference between public and private financing of the project.

McMillian's testimony centered on the "regulatory risks" the project is encountering, delays resulting from the federal regulatory process which are creating uncertainty about the project in the financial community. The delays, said McMillian, are adding $3 million a day to project costs or $1.2 billion a year. He took FERC to task for taking 13 months without reaching a final decision on the rate of return for the Alaska segment.

"With the delays we have now, we are looking at '84, '85, a two to three year delay in the project," said McMillian. He affirmed that the financial market could not be approached for project investments until the rate of return and tariff are firmly fixed.

The delay has led to a lower level of sponsor support, McMillian indicated, leaving Northwest facing "some $400 million in development expense before we can start our first stage of construction."

In response to a question from Alaska Senator Ted Stevens about Alaska involvement in the project, McMillian said, "...and we hope to establish a plan to take to the Alaskan people for their referendum type of a vote. What we are asking the State of Alaska for is a billion dollars worth of tax-free bonds. We are also asking the State of Alaska for $500 million of preferred equity in the project."

The Energy Supply Act (S 1308) would expedite non-nuclear energy projects determined to be in the national interest through a speeded-up regulatory process. The bill allows for exemptions from portions of environmental laws and limitations on the rights of environmentalists to challenge the actions in court. Further, it gives the President authority to grant necessary federal permits to a project if any federal agency takes too long to grant the permit.

In a provision which may spark extended comment, the bill also requires the Department of Energy to report to Congress on any state actions which hold up priority projects with recommendations on federal action to override state authorities.

The legislation was co-sponsored by 14 of the 19 members of the Senate Energy Committee. The bill will probably be before the Senate for a vote before the August recess. The House is considering similar legislation.

CANADIAN PREBUILDING PROPOSAL UP FOR HEARINGS

Extensive hearings are underway as Canadian authorities consider the tolls and tariffs to be established for the Canadian portion of the gas pipeline project. An additional series of hearings is to begin at the end of July to consider a Foothills proposal for pre-building portions of the pipeline.

The pre-building proposal depends on the Foothills group gaining Canada's National Energy Board approval to export surplus Alberta gas to the northern U.S. If approved, the exports could begin as early as 1981. Pro-Gas Ltd., a consortium of 26 Alberta gas producers, is supporting the proposal for prebuilding the Canadian and necessary lower 48 portions of the project.

In a separate action the Canadian Northern Pipeline Agency (Canada's equivalent of the Alaska State Pipeline Coordinator's Office) rejected Foothills' environmental studies on the Canadian segment. The Agency called for a second round of hearings, stating that Foothills had not provided adequate information for the Agency to complete its environmental assessment.

# Joint Gas Pipeline Committee
## Alaska State Legislature



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July 5, 1979

To: Members of the Joint Gas Pipeline Committee
From: Mary Halloran, Research Analyst MH

A review of Exxon's gas sales contract with Northern Natural Gas shows the following:

The contract is for one-third of Exxon's natural gas from Prudhoe Bay; it's estimated to be 290,000 Mcf/day of gas with a gross heating value of 1060 Btu/cubic foot.

The contract places the responsibility for arranging the gas transportation system (i.e. the gas pipeline, including the conditioning plant) with the buyer, Northern Natural. Northern Natural and the other gas buyers are to have completed contractural arrangements for the transportation system by January 1, 1980. The sales contract may be terminated by March 1, 1980, if arrangements for the gas transportation system are not in place. Also the contract may be cancelled at any time if FERC makes a ruling on the conditioning costs question which is unsatisfactory to either Exxon or Northern Natural.

In addition, the contract calls for Northern Natural and the other gas buyers to get the official certificate of public convenience and necessity by January 1, 1982; otherwise, again Exxon can cancel its sale. The contract calls for the delivery of gas to Northern Natural "no later than January 1, 1986."

The delivery point is "at or near the inlet of the gas conditioning facility," --that is, before conditioning. As buyer,Northern Natural is to provide all facilities at the delivery point for receipt and measurement of Exxon's gas and all downstream facilities necessary for the transportation of such gas.

Before delivery, Exxon will dehydrate the gas and cool it to 120°F, separating oil, condensate and nonhydrocarbon liquids, and objectionable solids from the gas. All such liquids and solids so separated become Exxon's property.

However, natural gas liquids produced through conditioning (not separation) will belong to Northern Natural (except those removed for "efficient pipeline operation.") With three months' notice, Northern Natural can return undisposed natural gas liquids to Exxon for Exxon's use or transport in an oil pipeline.

Still at issue is the level of $CO_2$ which the conditioned natural gas will contain. The question is important because the $CO_2$ level not only impacts the cost of the conditioning plant but also affects the pipeline's ability to transport heavier gas liquids, such as butanes.

The sale is subject to the State's right, as lessor, to take its royalty share of gas in kind. The price is the maximum ceiling price allowed by FERC. In

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addition, Northern Natural is to reimburse Exxon 100 percent for all the following state and federal taxes: production, gathering, delivery, sales, severance, excise and other taxes of a similar nature. (There's no reimbursement for ad valorem and general property taxes, income taxes, franchise taxes or other similar assessments).

# Joint Gas Pipeline Committee
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July 25, 1979

To: Members of the Joint Gas Pipeline Committee
From: Mary Halloran, MH Research Analyst

On June 8, the Federal Energy Regulatory Commission (FERC) issued Order No. 31 establishing the Incentive Rate of Return (IROR) for the Alaska Gas Pipeline. The order is to become final on August 6, 1979.

At a June 21 meeting, the Northwest board of partners voted to withhold further equity support for the project after August 6 (except money necessary to pay off already-incurred debts) and to hold further work on the project in abeyance if FERC fails to change Order 31. The hold on further work will continue, says Northwest, "until such time as the President, the Congress, or the courts correct the errors of Order No. 31."

On July 9, Northwest submitted a formal motion for rehearing the IROR order. The "errors" of the IROR order, according to Northwest's motion, are as follows:

1. The IROR is tied to the March, 1977 cost estimate. Northwest states that the March 1977 estimate does not consider costs such as the estimated $55 million needed to purchase subsoil and other data from Alyeska, the estimated $150 million needed to purchase the Alyeska camps and $4.2 million needed for field programs/technical studies necessary for the right-of-way.

Governmental indecision, says Northwest, is making a reasonably definite cost estimate impossible. The pipeline's final design, the routing and proximity of the line to the oil pipeline issue, and the terms and conditions of the right-of-way stipulations are matters which affect the cost and which need governmental decisions.

In addition, Northwest states, "It now appears very clear that a reasonable estimate for the Alaskan segment of the project will exceed the March 1977 cost estimate by more than 30 percent." *

Instead of using the March 1977 estimates as the basis for the incentive rate of return, Northwest suggests that FERC use the certification cost estimate to measure cost performance. No certification cost estimate is yet available; once made, it must be approved by FERC before construction may begin.

*The March 1977 costs ranged from $10.5 to $13.9 billion.

2. According to Northwest, the current IROR order will adversely impact project costs and the cost estimation process by not protecting against cost escalations resulting from force majeure, inflation, field conditions discovered during construction and government-ordered changes.

3. The current IROR order permits only a "negative one-time adjusttment to rate base under certain conditions," an unacceptable procedure from Northwest's perspective.

4. Northwest protested the 8% minimum rate of return on equity, requesting instead a minimum rate of 12 percent.

5. Northwest asked for removal of the portion of the ruling which says that all developmental costs are at risk under all circumstances. The company seeks, instead, a ruling which would not jeopardize their seeking amortization of equity funds in the event of project abandonment.

6. A protest was also lodged against FERC's decision not to allow charges to begin until the whole gas pipeline system is complete and tested, and not to allow equity return until gas flow commences.

7. A protest was also lodged against the possible forfeiture of equity during any period of interrupted service of more than 30 days.

8. Finally, Northwest objected that the IROR order does not establish any legal basis to minimize the risks of future changes in tariffs and service agreements.

FERC has not responded to the motion.

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August 2, 1979

REPORT ON INFORMAL MEETING OF THE JOINT GAS PIPELINE COMMITTEE
By Mary Halloran, Research Analyst

On July 31, 1979, newly appointed Federal Inspector John Rhett met with members of the Joint Gas Pipeline Committee in Anchorage. The discussion covered several items:

STATE HELP FOR THE PROJECT -- Rhett stressed that one major thing the State can do is "get the point across that Northwest is the only game in town." An All-Alaska line is not a possibility. Another aid is the State's "one window" permit approach being headed by Chuck Behlke, new State Pipeline Coordinator.

FEDERAL COMMITMENT -- The project is the only energy project specifically mentioned by President Carter in his recent energy speech. The federal government, says Rhett, is moving more quickly on several regulatory decisions still pending. The Incentive Rate of Return issue is to be finally decided August 8. The gas conditioning costs question is to be wrapped up September 1 "except for legal action." And the Carter-requested meeting with producers to discuss debt financing overrun guarantees will take place soon. The State will not be included among the producers in that instance, Rhett indicated.

FINANCING -- Rhett stressed the federal government's continued conviction that the line will be privately financed. "We're not convinced today-- we may be a month from now -- that it cannot be privately financed." Talk of a need for federal guarantees may be a self-fulling prophecy, Rhett suggested, with a need for federal guarantees created by people saying there is a need for federal guarantees.
In regard to possible state financing, Rhett responded, "We'd love to see it." The proposed state revenue bonds are "probably pretty well expected in the financial community." It would, said Rhett, "put a shock through the system" if the bonds are not issued. However, he added, no federal/congressional action has been taken on the change in the IRS Section 103 code change necessary for the state bonds to be issued. The request for a change in the code "has never been asked. It really has not been formally presented within the federal government."
A state equity investment would be a "much tougher" issue, Rhett said, noting that equity investments must be "prudent" and involve major philosophical questions.
"Any financial occurring at this time is a conditional form of financing...You're not dead certain whether you're buying a pig in a poke," said Rhett.

PROJECT TIMELINE --Preliminary financing must be arranged by December 31, 1979, Rhett stated. "I feel that by December 31 this year, it's either going to be positive or we've got real problems and we're going to slip another year." Asked if Alaska financial commitment was also necessary by December 31, Rhett replied, "What we're talking about this fall is not that tight a package." Alaska, he indicated, would not lose out by making a decision about state participation in project financing at a later date.

Other project dates, as outlined by Rhett, are as follows:

Preliminary financing by December 31, 1979.

Northwest application for certification by June, 1980.

Federal Energy Regulatory Commission processing of the certification application will take one year, with an additional five months allowed for litigation, bring completion of the certification process to October, 1981.

Design on the Alaska segment will be seventy percent done in 1982. Until then, Rhett said, no completely good financing estimate for the project will be available. By that time Northwest will have spent an estimated $400 million.

FEDERAL FINANCING -- In response to questions about the federal government's reluctance to participate in project financing, Rhett said that consideration of federal guarantees raises both philosophical and monetary problems. "You start guaranteeing these bonds for natural gas, what does that do -- downgrade every other federal bond for natural gas? Does this mean every major project has to have federal guarantees?"

TECHNICAL ISSUES --The proximity issue (how close the project will be constructed to the existing Alyeska oil pipeline) will ultimately be resolved, Rhett said. "There are some knotty issues there-- technical and legal, particularly liability." By federal law, Alyeska has unlimited liability for the oil pipeline.

OTHER ITEMS -- Rhett regarded as "very controversial" reports indicating that early gas withdrawals may damage ultimate oil recovery at Prudhoe Bay. In regard to the Canadian segment, Rhett reaffirmed the federal support for that project, although he admitted "some stagnation" in Canadian progress. Promising an open exchange of information, Rhett plans to headquarter in D.C. until after the Candaian segment of the line is built.

Present at the meeting were Sen. Mike Colletta, Rep. Bill Miles, Sen. Bill Sumner, Rep. Chat Chatterton, Rep. Joe Hayes, Attorney General Av Gross, and State Pipeline Coordinator Chuck Behlke.

For the Governor's Task
Force on Gas Conditioning
September 20, 1979

# INSTATE OPTIONS FOR USE OF NORTH SLOPE NATURAL GAS

Per the request of Joint Interim Gas Pipeline Committee co-chairmen, Sen. Mike Colletta and Rep. Bill Miles, this paper outlines the instate options for use of North Slope natural gas and the policy questions inherent in those options.

## INSTATE OPTIONS

Several options exist for the possible use of North Slope natural gas instate, including new industrial development, direct residential and commercial use, electrical power generation, and expansion of existing industry. Among the possibilities are the following:

1. New industrial development

A. Gas conditioning plant at Prudhoe Bay, with a gas liquids line from Prudhoe to Fairbanks;

B. Gas conditioning plant at Prudhoe Bay, with a gas liquids line from Prudhoe to tidewater;

C. Gas conditioning plant at Prudhoe Bay, with a gas liquids line from Prudhoe to tidewater, and a petrochemical complex at tidewater;

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D. Gas conditioning plant at Prudhoe Bay, with a gas liquids line from Prudhoe to the Interior, and a petrochemical complex in the Interior;

E. Gas conditioning plant at Prudhoe Bay, straddle plant in the Interior, with a gas liquids line from Interior to tidewater;

F. Gas conditioning plant at Prudhoe Bay, straddle plant in the Interior with a petrochemical complex in the Interior;

G. Minimum conditioning facility at Prudhoe Bay, gas conditioning plant in the Interior, with a petrochemical complex in the Interior. (The current plan is for a gas conditioning plant at Prudhoe Bay with gas liquids transported in vapor stage through the gas pipeline).

2. Direct residential and commercial use

A. Takeoff taps and distribution lines for residential and commercial use for communities along the gas pipeline route;

B. Distribution system for delivery of gas to the entire Railbelt area and to communities along the gas pipeline route;

C. Small scale turbo-expander plants to separate propane and butane from the gas stream for direct instate consumption, primarily for heating.

3. Electrical power generation

A. Generation of electricity from gas on the North Slope for transmittal to the entire Railbelt area;

B. Generation of electricity from gas at specific locations along the gas pipeline route, including Fairbanks;

C. Trade of Prudhoe Bay royalty gas for Cook Inlet gas, which then could be used by existing utilities for electrical generation in Southcentral.

4. Expansion of existing industry

A. Expansion of the existing ammonia and urea industry;

B. Other agriculture-related uses such as grain drying, controlled environment enterprises and greenhouse operations.

## POLICY ISSUES AND RECOMMENDATIONS

Each of the options for instate use of natural gas has inherent policy implications. Choosing to pursue one course of action may, in fact, preclude active consideration of other instate use options, due to a quantitatively limited amount of natural gas.

The first obvious policy consideration, then, and probably the most important, is how to use the resource to benefit the maximum number of residents on a long-term basis. Although there has been considerable discussion about some of the options, an up-to-date analysis comparing the costs and benefits of the different options is not available. Nor is there a current comparative analysis of the economic, legal and political feasibility of the various options.

The option which has captured public attention at the moment is new industrial development, either a gas liquids line or a large-scale petrochemical complex, or some combination of the two. Although the actual industrial activity would presumably be a matter for private enterprise, the choice to help promote new petrochemical industry carries with it both potential benefits and risks to the State.

In recent discussions, the potential benefits to the State or to certain regions of the State have been well defined. Longterm employment, stable tax bases and spinoff business opportunities lead the list. Not so well defined at this time are the possible risks. For example, if the State choose to pursue modification of the Federal Energy Regulatory Commission (FERC) order regarding pipeline pressure, what are the chances of predisposing FERC to act contrary to the State's interest on other issues, such as the State's right to withdraw methane at any time or the $CO_2$ standard for the gas stream? Or, to take another example, could the State be forced to make an equity investment, which it might not consider a prudent business investment, in the gas pipeline project in order to gain the opportunity for instate petrochemical industry? In other words, what tradeoffs would the State have to make to ensure, as much as possible, that a petrochemical industry would have the highest odds for successful operation in Alaska?

In addition to a thorough analysis of the possible legal and political tradeoffs, the State also needs to closely examine the economic benefits and risks in new petrochemical development. A review of the research on the feasibility of such industry in Alaska reveals that most consider it marginal, although it may be more attractive in the future. Given the still inconclusive economics, is there a risk that Alaska could be put in a position where a state subsidy of petrochemical industry is necessary? On the other hand, what incentives could the State offer to promote petrochemical industry on a self-sustaining basis?

The extent to which a petrochemical project is feasible can be measured, of course, by exploring the free market support for such a venture. With the estimated capital investment for an Alaska petrochemical system quite high, only very large scale companies would appear to be able to handle the construction and operation. What interest do the major petrochemical firms, such as Dow, Dupont or Union Carbide, have in industry development in Alaska? Open and direct discussions with the major firms, initiated by the State, could explore whether interest exists and under what conditions the firms would consider investment here.

Another mechanism could also be used to guage commercial interest in instate petrochemical development --- promotional contracts for the sale of State royalty gas. The contracts, as now drafted, propose to sell the State's royalty gas on the condition that the buyer construct and operate processing facilities instate. A further stipulation is that the gas, and any products or liquids derived from the gas, may not be sold outside Alaska unless they are unable to be sold at a reasonable price for use or consumption within the State. Opening the contracts up for consideration by the private market could enable the State to examine commercial interest.

At the same time, direct discussions, also initiated by the State, need to take place with the gas producers on the possibility of trading the State's share of methane for the producers' gas liquids. Analysis to date indicates that Alaska's royalty share of the North Slope natural gas liquids is not sufficient for feasible petrochemical development. These discussions should take place prior to the next legislative session.

The State faces other policy considerations in addition to the direct economic, legal and political feasibility of petrochemical development. The Alaska economy rests solely on an oil and gas basis which a petrochemical complex would fail to diversify. An assessment is needed of whether promotion of petrochemical industry would hinder the State's ability to encourage other more diversified industry. A further consideration is how the development of a gas-based petrochemical complex will impact the Alpetco project. Although the products produced from the two facilities would presumably not conflict in the marketplace, would there be competition for available capital, resources and supplies?

In short, the issue of new petrochemical development is uncertain and cloudy. Although the odds against successful new petrochemical industry appear to be heavy, the potential longterm benefits are substantial enough that decisions must be made on more information than is currently known -- first-hand information that can be made available only through direct discussions with both the gas producers and the major petrochemical firms. The discussions should be initiated by the State immediately.

It is clearly time for the State to get a comprehensive, comparative and realistic picture of the options for instate use of natural gas. Regardless of the choice or choices made for further State action, it is also clear that Alaskans feel strongly that any project which moves all the North Slope natural gas out of the State is not in Alaska's best interests.

# Joint Gas Pipeline Committee
## Alaska State Legislature

SEN. MIKE COLLETTA, CO-CHAIRMAN
REP. BILL MILES, CO-CHAIRMAN
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October 15, 1979

MEMO

TO: Members of Joint Gas Pipeline Committee

MH

FROM: Mary Halloran, Research Analyst

Enclosed are copies of recent reports on the possible effects of the State issuing up to one billion dollars in revenue bonds for the Northwest gas pipeline project.

nuveen
John Nuveen & Co.Incorporated 209 South LaSalle Street, Chicago, Illinois 60604 (312) 621-3000

September 24, 1979

RECEIVED
SEP 28 1979
OFFICE OF THE COMMISSIONER

Thomas K. Williams
Commissioner
Department of Revenue
State of Alaska
Pouch "F"
Juneau, Alaska 99811

Dear Tom:

In our capacity as financial advisor to the State of Alaska, you have asked us to assess the effect on the State's general credit standing of a $1 billion tax-exempt revenue bond issue for the Alaska Natural Gas Pipeline. In responding to this request, we have assumed that Congress will enact the necessary amendments to the Internal Revenue Code to assure that interest on the bonds will be exempt from Federal income tax.

A revenue bond financing of this magnitude would have no significant effect on the general credit of the State, provided the bonds do not create any direct or contingent liability against State revenues and the bonds are adequately secured by a combination of pipeline revenues and the financial resources of the other participants. However, the State's credit standing could be altered to the extent that the bonds benefit from security features similar to the following:

1) A full faith and credit guarantee of the State,

2) A guarantee by the Permanent Fund,

3) A "make up" provision to restore deficiencies in reserve accounts, or

4) An obligation to issue or purchase completion bonds.

If the State were to provide such additional security, the nature and magnitude of any impact on Alaska's credit would be a function both of the economic and financial strength of the pipeline project and of the extent to which other participants have assumed risks associated with the project, including:

1) Completion delays

2) Cost overruns

3) Start-up difficulties and failure to achieve design performance,

4) Casualty losses,

5) Adverse political or regulatory decisions.

We understand that project participants have not at this time provided appropriate assurances regarding these risks. When such assurances are forthcoming we would be pleased to assist your office in evaluating the proposed apportionment of project risks and to advise you of their implications for the State's financing activities.

If we can be of further assistance, please don't hesitate to call upon us.

Sincerely,

Tony Dean

Anthony T. Dean
Asst. Vice President

ATD:Lmc

*Dillon, Read & Co. Inc.* cc

*46 William Street*

*New York 10005*

September 19, 1979

Mr. Thomas K. Williams
Commissioner
Department of Revenue
State of Alaska
Pouch SB
Juneau, Alaska 99811

Dear Tom:

You have asked whether the issuance of $1 billion tax-exempt revenue bonds by an Alaskan state authority for financing a portion of the Alaskan segment of the Alaskan Northwest Natural Gas Transportation System would have an adverse effect on the State's credit.

Based on our knowledge of the tax-exempt bond market, it is our opinion that so long as the bonds are truly revenue bonds, that is, the revenues to service the bonds will come strictly from funds generated from the use of the project, and that no tate sources will be pledged to the repayment of the bonds, such bonds will not have an adverse effect on the State's credit. We would note, however, that the ability of the authority to issue and market such bonds would appear subject to several threshold questions, including, among others, the following:

1. The Congress would have to pass legislation providing for exemption from Federal income taxes of the interest paid on the bonds. Under current law, bonds so structured would not be tax-exempt.

2. Financing commitments for all other portions of the gas pipeline including the Canadian segment, would have to be in place.

AGO 532924

Dillon, Read & Co. Inc.



3. A creditworthy entity would have to agree either to pay off the bonds in the event that the project or any related critical element is not completed or, alternatively, to provide the necessary funds to complete any such uncompleted element.

4. There would have to be a reasonable expectation that revenues from the project would be sufficient to pay all operating costs, scheduled debt service on the revenue bonds and to provide a reasonable margin of revenues in excess of operating costs and debt service requirements.

Needless to say, the above does not represent an exhaustive list of the key requisites to successful financing. However, at a minimum these considerations would have to be dealt with fully before any financing by the authority could be contemplated.

Please let us know if we can be of further assistance.

Very truly yours,

Robert A. Gerard
Senior Vice President

**Joint Gas Pipeline Committee**
**Alaska State Legislature**



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October 16, 1979

TO: Members of the Joint Gas Pipeline Committee

FROM: Mary Halloran, MH Research Analyst

RE: Gas Sales Contracts

With Atlantic Richfield's recently announced gas sales, all Prudhoe Bay gas (except the State's royalty share) is now covered by gas sales contracts, tentative as those contracts may prove to be. This paper reviews which companies have purchased the gas and whether the purchasers are members of the current Northwest partnership.

The total estimated volume of Prudhoe Bay gas is about 26 Tcf, or 2.4 Bcf/day. Of that total, ARCO owns 31.5%; EXXON, 31.5%; SOHIO, 23.5%; and State of Alaska, 12.5%.

<u>ARCO Sales</u>

ARCO has sold its 31.5% to six companies:

1. Pacific Interstate Transmission (a subsidiary of Pacific Lighting) - 33% of ARCO's share;
2. United Gas Pipeline Co. - 15% of ARCO's share;
3. Texas Gas Transmission Corp. - 12% of ARCO's share;
4. Panhandle Eastern Pipeline Co - 20% of ARCO's share;
5. Texas Eastern Gas Pipeline Co. (subsidiary of Texas Eastern Transmission) - 10% of ARCO's share; and
6. Transwestern Pipeline Co. (subsidiary of Texas Eastern Transmission) - 10% of ARCO's share.

<u>EXXON Sales</u>

EXXON has sold its 31.5% to three companies:

1. Pacific Gas and Electric - 33 1/3% of EXXON's share;
2. Michigan Wisconsin Pipeline - 33 1/3% of EXXON's share;
3. Northern Natural Gas - 33 1/3% of EXXON's share.

SOHIO Sales

SOHIO has sold its 23.5% to two companies:

1. Northern Natural Gas - 33 1/3% of SOHIO's share; and
2. Columbia Gas Systems, Inc. - 66 2/3% of SOHIO's share.

The State of Alaska has not entered into sales contracts for its 12.5% share of the total volume.

Who Owns How Much

As a result of the tentative sales, the ownership of Prudhoe Bay natural gas rests with the following gas transmission companies:

| Company | Percentage of total volume (rounded figures) |
|---|---|
| *Northern Natural Gas | 18.3 % |
| Columbia Gas Systems, Inc. | 15.5 % |
| Michigan Wisconsin | 10.5 % |
| *Pacific Gas & Electric | 10.5 % |
| *Pacific Interstate Transmission (a subsididary of Pacific Lighting) | 10.5 % |
| *Panhandle Eastern Pipeline | 6.3 % |
| *United Gas Pipeline Co. | 4.73 % |
| Texas Gas Transmission Corp. | 3.78 % |
| Texas Eastern Gas Pipeline Co. (a subsidiary of Texas Eastern Transmission) | 3.15 % |
| Transwestern Pipeline Co. (a subsidiary of Texas Eastern Transmission) | 3.15 % |

The companies marked with an asterik (*) are current partners in the Northwest Natural Gas Transportation Co., sponsors of the Alaska segment. Five of the six partners have entered into gas purchase contracts for North Slope gas; Northwest Energy Co. has not entered into such a contract nor is it expected to. Those companies which have entered contracts but which have not become partners in the Northwest Transportation Co. are Columbia, Michigan Wisconsin, Texas Gas, and two subsidiaries of Texas Eastern Transmission, Texas Eastern Gas Pipeline Co., and Transwestern Pipeline Co.

**Joint Gas Pipeline Committee**
**Alaska State Legislature**

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October 26, 1979

# GAS PIPELINE UPDATE

The Joint Gas Pipeline Committee continues to receive much informal and formal information about the progress of the gas pipeline project. This paper reviews some of the information received since the publication of the Joint Gas Pipeline Committee's Mid-Interim Report on October 10, 1979.

## GAS PIPELINE FINANCING

### 1. Report to the Bonding Authority by John Nuveen & Co.

In a September 24, 1979, letter to Bonding Authority Director Tom Williams, Nuveen Co. indicated that a $1 billion tax-exempt revenue bond issue could affect the State's general credit *if* it were accompanied by security features similar to the following:

(1) a full faith and credit guarantee of the State;

(2) a guarantee by the Permanent Fund;

(3) a "make up" provision to restore deficiencies in reserve accounts; or

(4) an obligation to issue or purchase completion bonds.

With no such features and provided the bonds are secured by pipeline revenues and the financial resources of other participants, the revenue bond financing would not significantly affect the State's general credit.

However, Nuveen pointed out that if the State provided such additional security, impact on Alaska's credit would depend on the project's financial strength and "the extend to which other participants have assumed risks associated with the project." Those risks include: completion delays; cost overruns; start-up difficulties and failure to achieve design performance; casuality losses; and adverse political or regulatory decisions. "We understand that project participants have not at this time provided appropriate assurances regarding these risks," concluded Nuveen.

2. Report to the Bonding Authority by Dillon, Read & Co.

In a September 19, 1979, letter to Bonding Authority Director Tom Williams, Dillon & Read concluded that so long as the proposed $1 billion tax-exempt revenue bonds are "truly revenue bonds," they will have no adverse effect on the State's credit. "True" revenue bonds have no State sources pledged to repayment of the bonds; and revenues to service the bonds "will come strictly from funds generated from use of the project."

Dillon & Read noted at least four conditions which need to be met to enable the Bonding Authority to issue and market revenue bonds:

(1) Passage of federal legislation providing for tax-exempt status for such bonds;

(2) Financing commitments for all other portions of the project, including the Canadian segment, in place;

(3) Agreement by a creditworthy entity either to pay off the bonds in the event the project is not completed, or, to provide the funds necessary for completion; and

(4) Existence of a reasonable expectation that project revenues would be sufficient to pay all operating costs and debt service, and provide a "reasonable margin" of revenues beyond the operating costs and debt service requirements.

## TECHNICAL AND ENVIRONMENTAL ISSUES

1. "Status of Technology: Alaska Natural Gas Transportation System" by the Arctic Environmental Information and Data Center, October, 1979

In brief, the major technical issues remain unsettled, including the central issue of proximity of the gas pipeline to the TAPS oil pipeline. The lack of resolution will impact both the project's completion date and project sponsors' efforts to obtain financing.

The lack of cooperative effort by the involved parties and the project's "sheer complexity" leave the identification of an alignment for the gas line unresolved, despite the Department of Interior's "provisional approval" last summer. "The potential for physical damage to TAPS during construction " remains a strong concern of TAPS owners.

On September 10, 1979, Northwest released an "Outline-Pipeline Design Process," an "extremely optimistic viewpoint." Upon examination of the proposed Northwest schedule and activities, the Arctic Environmental Information and Data Center (AEIDC) noted,

> "Northwest Alaskan is just now beginning to address some of the real problems that must be resolved before they receive approval on final design and begin construction...."

Thus, the projected 1984-85 completion date is "unrealistic." Instead, AEIDC estimates that the gas deliveries will be at least a year or two later than currently projected.

The lag in resolving technical problems will impact project financing:

> "Cost of the project cannot be determined with any certainty until the proximity question is resolved. Such factors as pipeline thickness, quantities of gravel required, construction schedules, and the question of liability between TAPS and ANGTS must also be resolved."

The lag appears not to stem from disinterest in the technical questions on the part of Arctic scientists. Papers presented at the 30th Alaska Science Conference this fall dealt extensively with building a chilled gas pipeline in an arctic environment. The AEIDC comments,

> "The science and technology of construction and other factors of energy development in an arctic environment are certainly moving forward. The degree to which Northwest Alaskan is participating with the science and government community in this endeavor, however, appears to be minimal, at best."

The report reviews nine areas of current studies and testing: (1) burst tests; (2) blasting tests; (3) frost heave testing; (4) work pad considerations; (5) hydrology; (6) proximity to TAPS; (7) risk analysis; (8) design pressure; and (9) corrosion. Other administrative and political decisions may also impact the project's completion date. Three such upcoming items include: (1) GAO report on the economics and other matters; (2) re-imbursement of costs for the permitting process; and (3) industry's planning and other work relating to the gas conditioning plant.

Gas pipeline planning to date "is fragmented and ill-planned, both by government and industry." The establishment of the office of Federal Inspector should improve matters, but many problems may have to be resolved before that office becomes an effective operation. Thus, AEIDC recommends that the State address major issues such as cost reimbursement, gas conditioning plant, and the pipeline design process in the Joint Federal-State Cooperative Agreement or in other ways.

In general, North Slope gas is desirable. The questions are when it will be delivered and at what cost. International scientists apparently believe that a chilled gas line can not be buried except at great cost, although a buried line is what Northwest proposes. In conclusion, AEIDC states,

> "The development of the necessary technology for the design and construction of this project has not kept pace with the rhetoric of the statements by Northwest Alaskan that they can complete the project efficiently and in an acceptable way ( both technically and environmentally) with the stated time frames."

INSTATE USE OF NORTH SLOPE NATURAL GAS

1. "Preliminary Analysis of Markets for Gas Distribution to Pipeline Corridor Communities" by Northwest Alaskan Pipeline Company, May, 1979 (released July 27, 1979)

The Northwest Alaskan report concludes from its preliminary analysis of instate markets that use of North Slope natural gas for heating and electrical generation in the Fairbanks area appears economically feasible. Similar use of the gas in other pipeline corridor communities may be only marginally economical. However, the report does not include any analysis of the effects of the recent OPEC oil price increases. Northwest reiterated its support for establishing gas taps along the pipeline corridor, suggesting that the next step is "an economic feasibility analysis by the State." The price of gas depends on three factors: (1) field price; (2) pipeline transportation costs; and (3) distribution costs. The distribution costs are likely to be the major cost for any instate use.

Fairbanks Area Markets: If electrical power generation is part of the Fairbanks area demand, then, the report suggests, an adequate market for natural gas exists in the area. Electrical generation at Ft. Wainwright and Eielson Air Force Base is expected to remain coal-based. Northwest found "a strong interest in the private sector" in natural gas distribution "provided the gas can be competitively priced relative to other fuels."

Delta Area Markets: Northwest identified these possible markets: grain drying complex; space heating for Ft. Greeley, Delta Junction and Big Delta; and electrical generation for the Delta area. Promoters of Delta agricultural growth are interested in using natural gas, and two of the three proposed sites for a grain drying/elevator complex are "only 600 feet from the pipeline right-of-way."

Tok Area Markets: Possible space heating and electrical generation use exists in the Tok area. "The use of natural gas to generate electricity appears more promising than home heating distribution."

The Northwest report briefly discusses the factors affecting the economic feasibility of local gas distribution systems. The "load," the volume of demand and whether it is sufficient to pay for delivery costs, is the key economic factor. The delivered gas price cannot be more than the price of No. 2 home heating oil on a BTU-equivalent basis if it is to be economically attractive.
The high volumes of gas required for Alaskan winter heating would leave the system operating "at much less than capacity for the remainder of the year." Without local industrial customers to take up the offseason load, the corridor gas distribution systems "would face severely low load factors (that) would greatly increase their cost per million Btu delivered."
Another factor in instate gas use would be the timely conversion of existing heating systems to gas usage, and the economics of making the conversions. The report also indicates that additional industrial use, such as electrical generation and grain drying, improves the economics of pipeline corridor gas distribution systems. The report concludes, however, that in communities other than Fairbanks, "economic feasibility is marginal."

In a cover letter accompanying the report, Northwest noted, however, the following:

(1) The report does not include any economic analysis of the effects of the recent OPEC oil price hikes (or projected growth in oil prices over the next few decades);

(2) The report does not anticipate any major new industrial markets, except the Delta grain drying complex;

(3) The report does include the use of gas for electrical generation as it appears that the Federal Energy Regulatory Commission may allow such use for power generation in lieu of heating oil use.

It should also be noted that the report examines only the use of natural gas through direct taps and distribution systems, not the potential uses of such gas-based products as propane for instate heating.

## GAS SALES

With Atlantic Richfield's recently announced gas sales, all Prudhoe Bay gas (except the State's royalty share) is now covered by sales contracts, tentative as those contracts may prove to be. The total estimated volume of Prudhoe Bay gas is about 26 Trillion cubic feet, or 2.4 Billion cubic feet/day. Of that total ARCO owns 31.5%; EXXON, 31.5%; SOHIO, 23.5%; and State of Alaska, 12.5%.

As a result of the three producers' tentative sales, the Prudhoe Bay natural gas should go to the following gas transmission companies: *Northern Natural Gas, 18.3%; Columbia Gas Systems, Inc., 15.5%; Michigan Wisconsin, 10.5%; *Pacific Gas & Electric, 10.5%; *Pacific Interstate Transmission, 10.5%; *Panhandle Eastern Pipeline, 6.3%; *United Gas Pipeline Co., 4.73%; Texas Gas Transmission Corp., 3.78%; and Texas Eastern Gas Pipeline Co. and Transwestern Pipeline Co. (both subsidiaries of Texas Eastern Transmission), 3.15% each. The State has not entered into sales contracts for its 12.5% share of the total volume.

Those companies starred with an asterisk (*) above are current partners in the Northwest Natural Gas Transportation Co., sponsors of the Alaska segment. Of the pipeline project partners, only Northwest Energy Co. has not purchased North Slope gas, nor is it expected to. Those companies which have agreed to purchase North Slope gas but which have not become Northwest partners are Columbia, Michigan Wisconsin, Texas Gas, and the two subsidiaries of Texas Eastern Transmission.

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This report was prepared on behalf of the Joint Gas Pipeline Committee by Mary Halloran, Research Analyst.

**Joint Gas Pipeline Committee**
**Alaska State Legislature**

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November 9, 1979

TO: Members of the Joint Gas Pipeline Committee

FROM: Mary Halloran, Research Analyst MH

Enclosed is a copy of a November 6 report by Chomski and Haggart regarding the Canadian segment of the proposed Northwest gas pipeline project. In brief, it appears that the Canadian government will hold up its approval of prebuilding the Eastern Leg (Northern Border) segment of the gas pipeline "until the Board is satisfied that...North Slope gas will actually flow."

Also yet to be resolved in Canada is the Indian land claims. The Indian groups appear ready to exert pressure to have the issue resolved prior to gas pipeline construction, following the often cited example of Alaskan natives and the oil pipeline. The issue is complicated by questions of jurisdiction of the various parties, with possible conflict between the provincial and federal governments over which has the authority to settle with the Indian groups.

Despite the unresolved issues in Canada, Canadian financing "prospects should be fairly solid," as the project has extensive national backing. Rumors of the "fragility" of Canadian financing appear unfounded.

Chomski and Haggart also describe the recent EXXON proposal, remarking that it "does little to clarify the financing outlook for the pipeline." It, in fact, places the Carter administration in a difficult spot as it is designed to pass conditioning costs on to the American consumer. "Seen in the context of an upcoming election, it is difficult to predict what choice the Carter Administration might make between having producer financing available and enduring the wrath of consumer and liberal advocates."

Chomski and Haggart conclude that the critical time for financing the project, and for making a decision about State participation in the project, continues to be this coming spring. However, they also add, "it remains very questionable whether this project will succeed during 1980." Most likely, they conclude, will be renewed activity and a "possible reformulation of the project" after the 1980 elections. Alaska, in the meantime, may find itself the subject of strong Carter administration pressure to participate in the project.

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# MEMORANDUM

To: JOINT INTERIM PIPELINE COMMITTEE    Date: November 6, 1979

Canada

The National Energy Board is continuing its consideration of applications to export surplus Canadian natural gas to the continental United States. This surplus gas will be the basis for the "pre-build" sections of the Alaska Natural Gas Transportation System. All parties to the proposed system agree that early approval of the pre-build segments will provide significant assistance in terms of project financing, both by spreading out construction costs (and hence, capital market effects) over a longer period of time, and by providing early cash flows to project partners.

The NEB, however, has been moving slowly on the approval of gas exports. The Canadians have been frank that their foot-dragging is due to a perceived lack of progress on the U.S. side of the project and that they have no intention of making major commitments of gas sales to the United States as long as the ability of the U.S. side of the gas project to be successfully completed remains in question. There are two basic steps the Energy Board must take before gas can flow to the United States:

1. Approval of gas exports to the United States by selecting among competing company applications for such exports. (The identity of competitors does not seem to be dispositive with respect to the export issue.)

2. Approval of construction of necessary Canadian facilities to transport the export gas.

The approval of facilities construction on the Western Leg involves relatively minor looping operations, while on the Eastern Leg, more extensive pipeline construction is necessary. There are also significant volume differentials between the two systems, with projected throughput of the Western Leg being 200 mcf per day, while that of the Eastern Leg is 800 mcf per day.

The current estimate is that the Energy Board will approve gas exports for both the Eastern and Western Legs of the project by the end of November. However, the requisite facilities approval will not be forthcoming for the Eastern Leg until the Board is satisfied that progress on the American side of the project indicates a high likelihood that North Slope gas will actually flow. Thus, the Canadian strategy appears to be approval of the Western Leg with its relatively small construction requirements and its relatively smaller throughput, while continuing to hold the Eastern Leg facilities hostage until the U.S. side of the project makes further progress. The Canadian's prime concern is the inability of the project to attract financial support. It is illuminating to note that the Energy Board held hearings on the financing difficulties being encountered on the U.S. side on October 29, 1979. The hearings also included discussion of the possibility of the need for U.S. Government guarantees, as well as FERC's authority to enforce purchase requirements upon local utilities.

As Rhett indicated in our meeting, the Canadians are seeking "assurances" with respect to the completion of the Alaska segment of the line before going ahead in any major way with the pre-build segments. However, the Ottawa government is still vague as to what such assurances might entail. In our judgment, the Canadians will remain vague on this issue to appear flexible and to avoid giving U.S. bureaucrats a stationary target. It seems most likely that the Canadians will reach an independent determination with respect to the financing status of the pipeline sometime next spring and will proceed accordingly.

The major potential obstacle to the project on the Canadian side is the unresolved question of Indian land claims along the pipeline right-of-way. This issue has been quiet recently, because the change in Canadian governments resulted in a break-off of talks between the two groups while the Clark government developed its policy with respect to land claims settlement. Reportedly, the Clark position was originally designed to be "tougher" than that pursued by Trudeau. However, recent indications by the Council of Yukon

Indians (among others) are that they are ready and willing to block any pipeline -- oil or gas -- if construction is attempted before the land claims issue is settled. The Indian groups in Canada have been extremely explicit regarding what they view as the parallel between the proposed gas pipeline and the Trans-Alaska Oil Pipeline. Specifically, they note that settlement of Alaska Native land claims was speeded, and possibly was entirely due to the fact that the Alaska Native groups were capable of holding the pipeline hostage to legal action for an unacceptable period of time. The Canadian Indians believe that a similar strategy will serve them well, and according to the Canadians, the CYI is well prepared to go to court (to the extent of having briefs drafted) if the government should attempt to move ahead on the pipeline prior to a land claim settlement. In addition, the Indian groups have threatened (at least informally) to pursue judicial "guerilla action" against Canadian gas transmission companies in Western Canada. Such efforts would consist of attempting to tie up company activities on minor zoning regulations, environmental regulations, etc., to provide added impetus for the government to settle.

Apparently, the level of preparation among the Indian groups and their willingness to take drastic action to halt or delay pipeline construction has impressed Clark's government. There has been a fairly significant change in the attitude in Ottawa toward a settlement and as of the end of last week, after three days of intensive talks between Indian groups and the federal government, the situation appears to be "very much in hand". While this sounds suspiciously like the bland assurances available from Jack Rhett, it is at least encouraging to note the Canadian government's realization of the enormous potential for the land claims issue to imperil project success. A further complication exists in terms of the jurisdiction of the various parties to land claims issues. The basic land claims problem exists in the Yukon Territory and in British Columbia. The Yukon land settlement appears to be purely a federal question, although a delay in the settlement could cause jurisdictional problems since Clark has promised to move the Yukon to provincial status. In British Columbia, there is apparently a jurisdictional dispute between the provincial and federal governments regarding authority to settle the land claims issue. It is possible that a major dispute between Victoria and Ottawa on this issue could involve further delay.

FRAGILITY OF CANADIAN FINANCING

We also were requested to examine the possibility that the Canadian side financing is relatively uncertain, or "fragile", as opposed to the more common belief that Canadian financing will be no problem. It is difficult to come up with a precise response as to how solid Canadian financing is because the consortium has not yet gone to the financial markets with a firm proposal and tried to finance it. However, we find no factual basis for the rumors that financing may be more difficult in Canada than is now supposed. While the final terms and conditions of any financing package cannot be determined as yet, it appears that they should be favorable to Foothills. More importantly, when one examines the financial strength behind the Canadian side of the line, it becomes increasingly clear that their financing prospects should be fairly solid. The Canadian portion of the line is backed by the three largest Canadian pipelines, the State Oil Company of Canada, the largest private oil company of Canada, the British Columbia Government (and its cash-rich Resources Investment Corporation), and the Alberta Government which is seeking desperately to find ways of investing its Heritage Fund. Moreover, there is only significant risk in the Yukon segment of the line which constitutes slightly less than $2 billion of the $5.5 billion Canadian capital cost segment. When one adds to these fundamentals the realization that some of the Canadian line would be financed during the pre-build period, while other parts would be financed afterwards, thus spreading out the burden on the financial markets, we can only conclude that the "fragility rumor" appears unfounded.

U.S. FINANCING DEVELOPMENTS

Exxon's recent proposal to the United States Government does little to clarify the financing outlook for the pipeline. Exxon's proposal, ostensibly made on its own behalf, assumes participation by Arco and Standard Oil of Ohio. Both of these companies have made preliminary comments indicating approval of the general thrust of Exxon's concept. Basically, the Exxon proposal involved:

1. That the three major North Slope natural gas producers jointly provide 40% of the equity and 40% of the debt for the Alaska segment of the line. Exxon's proposed investment levels (as publicly reported) are based on a cost estimate for the Alaska segment of $10 billion (presumably including both the pipeline and conditioning plant).

2. That in return for this investment, the Federal Government allow the treatment and conditioning costs, plus a rate of return to be included in the pipeline tariff, rather than absorbed by the oil companies at the wellhead.

FERC, of course, has been moving strongly in the direction of imposing treatment and conditioning costs upon the oil companies. It has been the FERC view that the approximately \$2.00 per mcf price granted for North Slope natural gas by the Natural Gas Policy Act of 1978 is intended to include such costs. A final FERC rulemaking on this issue was scheduled to be complete this month. However, the Department of Energy has lead federal responsibility on technical issues relating to the treatment and conditioning of the natural gas, since FERC has defined it as essentially a production and gathering related activity. DOE is on the side of the oil companies in this respect, and Energy Secretary Charles Duncan has written a letter to FERC Chairman Charles Curtis requesting that the Commission re-examine its preliminary decision imposing treatment and conditioning costs upon the producers and allow such costs to be added on to the pipeline tariff.

If FERC is to reverse its decision with respect to treatment and conditioning costs at this late date, it seems likely that some relatively clear signal from the White House on the subject will be required. Also, the Exxon proposal seems designed to trigger precisely such White House action, since White House intervention will be required in any event to allow producer investment of the sort proposed by the company. It seems clear that Exxon has preempted the Federal Government on the question of producer financing by getting its demands on the table first. The result is that the White House and the Justice Department must now formulate some device whereby the language of the President's Decision forbidding oil company investment in the project can be sidestepped. Further, Exxon is placing the onus of a refusal to allow treatment and conditioning costs in the pipeline tariff on the Federal Government. They have turned what was previously considered a foregone conclusion into a negotiable point within their proposal, and it would seem that they are virtually forcing the Federal Government to either negotiate or to concede that private financing cannot work. At this juncture, it is difficult to predict whether FERC will stay with its original proposal to impose such costs upon the oil companies. However, one option is to grant some form of extraordinary relief as provided for in the Natural Gas Policy Act. It can, of course, be expected that there will be great opposition to any such proposal from consumer groups and FERC staff. Seen in the context of an upcoming election, it is difficult to predict what choice the Carter Administration might make between having producer financing available and enduring the wrath of consumer and liberal advocates.

The Exxon proposal would seem to be a useful blueprint for the type of policy that could be advant- eous to the State. In short, Exxon's proposal seems to insure that if they finance, they will finance on <u>their</u> terms and that financing will be available for only a discrete portion of the project. If Alaska waits until all other participants have agreed to financing shares and proportions, the State may be pressured to join the cost overrun pool where obligations are theoretically open-ended and where management rights, equity ownership, and rates of return are relatively uncertain or absent. There is, of course, nothing magic about the Exxon proposal; it is something that the Alaska Legislature and the Administration could duplicate with relative ease.

The critical time for financing the project and with respect to Alaska participation continues to be the Spring of 1980. During this period, Northwest will be investigating financing sources with a view to obtaining FERC financing approval by the Summer of 1980. It also coincides with the period that the State Legislature is in session; consequently, great pressure upon the State can be expected from the period January - May 1980. Jack Rhett's rhetoric in our meeting of October 17 regarding his great concern over the State of Alaska's possible obstructionist role, his view that financial participation is required (not only technically but to provide an incentive for the State not to obstruct the project), and his flat-out statement that pressure might be brought upon the State if they do not finance, all tend to support the view that the first half of 1980 will be a critical period.

<u>SUMMARY AND CONCLUSION</u>

While the maneuvering on the pipeline issue remains at a high level, it remains very questionable whether this project will succeed during 1980. A possible alternative scenario could involve the period June 1980 - January 1981, during which it is very possible that Carter will be a "lame duck" President. To the extent that he uses this period to pay off old political friends, it could be a very rough period for the State of Alaska if the President attempts to move the project forward on the financing front by coercive measures against Alaska and the producers. This scenario is, of course, predicated upon the assumption that Alaska does not make progress with respect to financing during the Spring of 1980 (an arguable point) and that Northwest fails to achieve the requisite levels of financing by the Summer of 1980 (a much less arguable point). On balance, however, it still seems most likely that renewed activity and a possible reformulation of the project will occur after the 1980 elections.

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Energy Consultant

JMC/RGH:brk

**Joint Gas Pipeline Committee**
**Alaska State Legislature**

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November 20, 1979

TO: Rep. Sam Cotten

FROM: Mary Halloran MH
Research Analyst

As per your request, this paper reviews the projected national net economic benefits from the gas pipeline project, comparing the expected <u>federal</u> benefits to the estimated <u>state</u> benefits.

Two reports have been published on this subject: a May, 1979 ICF report, commissioned by the Federal Energy Regulatory Commission; and short comments filed on June 22, 1979, by EXXON in response to the ICF report.

<u>ICF REVIEW</u>

The ICF concluded that the National Net Economic Benefit (NNEB) would be $14.9 billion, distributed as follows:

| | | |
|---|---|---|
| Consumers (fuel cost savings) | $2.7 billion | (18%) |
| Producers (extra profits) | 3.7 | (25%) |
| Alaska (taxes and royalties) | 4.7 | (32%) |
| Federal Government (taxes) | 3.5 | (23%) |
| Pipelines (tax credit) | 0.2 | ( 2%) |
| | $14.9 billion | |

The ICF conclusions are based on the following assumptions: the figures are in mid-1979 dollars; field life is 25 years; 6% discount rate applies; conditioning costs are paid by the producers.

If the discount rate used is changed from 6% to 10%, then the benefits would decrease as follows:

| | |
|---|---|
| Consumers | $0.6 billion (mid-79 dollars) |
| Producers | 2.2 |
| Alaska | 2.9 |
| Federal Government | 2.2 |
| Pipelines | 0.3 |
| | $ 8.1 billion |

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Enclosed is a summary page from the ICF report giving various NNEB scenarios under both 6% and 10% discount rates.

EXXON COMMENTS

The basic thrust of the ICF study was to "prove" that conditioning costs had to be shouldered by the gas producers in order for the consumers to receive any benefits from gas pipeline construction. EXXON responded to the ICF study with comments compiled by Foster Associates. They examined the net economic benefits with purchasers, not producers, bearing conditioning costs. The assumptions which differed in the EXXON-Foster work were the following: Alaska gas replaces distillate fuel oil, not residual fuel oil, and must be valued accordingly; thus, the cost of distillate fuel oil and real world escalation trends have to be used to draw comparisons; and purchasers must bear some, if not all, the conditioning costs.

The Foster work concluded that the net national economic benefit is much higher than that projected in the ICF study -- $27.2 billion, in fact. The distribution of that benefit would be as follows:

| | |
|---|---|
| Consumers | $10.6 |
| Producers | 5.6 |
| Alaska | 5.2 |
| Federal Government | 5.4 |
| Pipeline | .4 |

Under the EXXON scenario, the federal government benefits more than the State of Alaska from the gas pipeline project.

Neither the EXXON comments nor the ICF report were meant to be definitive; in fact, both are written largely to back specific stances on who should bear the conditioning costs. Until the question of conditioning costs responsibility is resolved, it will be difficult to determine which, the federal or the state government, will receive the larger share of tax returns from the project. In addition, the state's share will also depend on the final resolution of Amerada Hess v. State. If the producers are responsible for the conditioning costs and if they are allowed to subtract those costs from the wellhead value before calculating state severance taxes, then the monies the state receives could be significantly less from those otherwise projected.

In any case, it is not at all clear that the State's benefits will be significantly greater than the federal government's benefits from the project.

cc: Members of the Joint Gas Pipeline Committee

TABLE V-1

DISTRIBUTION OF NNEB FOR SELECTED SCENARIOS
(mid-1979 dollars)

| Scenario | Net Benefits | | | | | Total NNEB |
|---|---|---|---|---|---|---|
| | Domestic Producer | Alaska | Federal Gov't. | Consumer | Pipeline Owners | |
| **6 Percent Discount Rate** | | | | | | |
| Base Case | 3.7 | 4.7 | 3.5 | 2.7 | 0.2 | 14.9 |
| High Cost | 3.7 | 4.7 | 3.5 | -1.9 | 0.4 | 10.4 |
| Base Costs, Medium Oil Price Escalation | 3.7 | 4.7 | 3.5 | 10.1 | 0.2 | 22.3 |
| Base Costs, Residual Oil Value, Low Escalation | 3.7 | 4.7 | 3.5 | -0.4 | 0.2 | 11.8 |
| Base Costs, 3.2 Bcf/d Flow | 5.2 | 6.4 | 5.1 | 5.4 | 0.2 | 22.3 |
| Base Case With Gas Conditioning Charges | 5.6 | 5.2 | 5.4 | -1.7 | 0.4 | 14.8 |
| **10 Percent Discount Rate** | | | | | | |
| Base Case | 2.2 | 2.9 | 2.2 | 0.6 | 0.3 | 8.1 |
| High Cost | 2.2 | 2.9 | 2.2 | -2.5 | 0.4 | 5.2 |
| Base Costs, Medium Oil Price Escalation | 2.2 | 2.9 | 2.2 | 4.6 | 0.3 | 12.2 |
| Base Costs, Residual Oil Value, Low Escalation | 2.2 | 2.9 | 2.2 | -1.3 | 0.3 | 6.3 |
| Base Costs, 3.2 Bcf/d Flow | 3.1 | 3.9 | 3.1 | 2.0 | 0.3 | 12.5 |
| Base Case With Gas Conditioning Charges | 3.4 | 3.1 | 3.3 | -2.2 | 0.4 | 8.0 |

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November 26, 1979

TO: Rep. Sam Cotten
FROM: Mary Halloran, MH Research Analyst

As per your request, this paper reviews the provisions for protecting the Northwest Alaska gas pipeline from unexpected and discriminatory taxation by Canadian provincial and federal governments. In brief, this issue was raised during the early pipeline proceedings, and the two governments, U.S. and Canadian, acted to prevent the possibility of discriminatory taxation.

First, provisions were made to ensure fair Canadian taxation in the Transit Pipeline Treaty which was ratified by the U.S. Senate. Second, these provisions were reiterated in the U.S.-Canadian Agreement on Principles which became part of the September, 1977, President's Decision, also later ratified by the U.S. Congress. Third, the Canadian Federal Government also obtained public endorsements of the provisions from the three provinces of British Columbia, Alberta, and Saskatchewan. These statements are annexed to the U.S.-Canadian Agreement. Finally, the Canadian House of Commons passed C-25, the Northern Pipeline Act, which includes both the U.S.-Canadian Agreement and the provinces' public endorsements of the taxing provisions of the Pipeline Treaty. Thus, the Canadian taxing procedures have been established through Treaty, International Agreement, and specific legislation.

A special provision was negotiated regarding ad valorum tax in the Yukon Territory, as no similar pipelines exist there. The Yukon Territory taxing structure is similar to Alaska's and will change only if the State of Alaska changes its property tax structure.

cc: Members of the Joint Gas Pipeline Committee