SCOMM

#13:3

STATE OF ALASKA

JAY S. HAMMOND, Governor

DEPARTMENT OF LAW

OFFICE OF THE ATTORNEY GENERAL

POUCH K— STATE CAPITOL
JUNEAU 99801

January 21, 1975

M E M O R A N D U M

TO: The Honorable Jay S. Hammond
Governor

and the following members of the
Multi-Department Task Force:

Commissioner Brooks	Dept. of Fish & Game
Commissioner Edmondson	Dept. of Econ. Development
Acting Comm. Fackler	Dept. of Nat. Resources
Commissioner Gallagher	Dept. of Revenue
Commissioner McAnerney	Dept. Comm. & Regional Affairs
Commissioner Mueller	Dept. of Env. Conservation
Commissioner Parker	Dept. of Highways
Mr. William H. Race	Director, Division of Bldgs., Dept. of Public Works
Dr. Robert B. Weeden	Director, Policy Development & Planning

FROM: Avrum M. Gross
Attorney General

RE: Outer Continental Shelf and Gas Pipeline Task Force

The December 26, 1974 meeting of the task force on the outer continental shelf and gas pipeline was held in the office of the Attorney General. Present were the following:

Lee McAnerney, Commissioner, Community and Regional Affairs
William Fackler, Acting Commissioner, Department of Natural Resources
Cameron Edmondson, Commissioner, Department of Economic Development
Jim Brooks, Commissioner, Department of Fish and Game
Avrum M. Gross, Attorney General, Department of Law
Kay Allred, Policy Development and Planning
Charles Matlock, Deputy Commissioner, Department of Highways
Kevin Waring, Department of Community and Regional Affairs

Jerry Reinwand, Deputy Commissioner, Department of Environmental Conservation
Fred Boness, Department of Law

The meeting was devoted entirely to discussion of matters relating to the gas pipeline. It was noted that the Department of Interior-FPC Task Force preparing the Environmental Impact Statement for the gas pipeline had scheduled public meetings for the week of January 6 - 10, 1975 in Juneau, Fairbanks and Anchorage. The exact purpose of these hearings was unclear since a draft EIS has not yet been prepared. After some discussion of whether Governor Hammond should make a statement at the January 6 hearing in Juneau or whether someone else from the state government might make a statement, the issue was left pending until additional information on the purpose of the hearing could be obtained.

A second topic of discussion was the ability of each state department to undertake the necessary studies related to the gas pipeline proposals. Several people present noted that doing a good job would require a substantial commitment of time and manpower and that this would have an adverse impact on the day to day activities of their department. It was decided that each department should consider what studies it could handle without seriously neglecting other responsibilities and what studies should best be contracted to outside consultants. This review would be presented at a later task force meeting.

Following this discussion, the meeting was turned over to Mr. Fred Boness, Department of Law, who presented a comprehensive briefing on the gas pipeline proposals. Mr. Boness' discussion presented general background information on both the Arctic Gas and El Paso proposal, outlined a number of topical issues related to the gas pipeline and the status of state studies of these issues, and reviewed various possible courses of action which the task force might ultimately recommend to Governor Hammond.

Arctic Gas has studied several alternative routes for moving Prudhoe Bay gas to the lower 48 states via Canada. The route favored by Arctic Gas, called the prime route, runs through the Arctic Wildlife Range between three and thirty miles inland from the shore and connects with a line in Canada running from the MacKenzie River Delta south to the United States-Canada border. Other routes studied by Arctic Gas include an Offshore Corridor which is similar to the prime corridor but when the pipeline reaches the border of the Arctic Wildlife Range it moves offshore into 10 to 30 feet of water and does not return to land until the Alaska-Canada border is past, at which point

the pipeline follows the same route as the prime corridor. The Interior Corridor moves from Prudhoe Bay down along the western and southern borders of the Arctic Wildlife Range through the Brooks Range and into Canada where it again joins the pipeline from the MacKenzie River Delta, only in this case at a juncture somewhat further south than in the case of the other corridors. Another possible route, called the Fort Yukon Corridor, moves south from Prudhoe Bay along the Alyeska corridor for approximately 100 miles after which the route moves southeast through Fort Yukon and follows the Yukon River to Dawson where it again intersects with a line from the MacKenzie River Delta. The Fairbanks corridor like the Fort Yukon corridor follows the Alyeska pipeline corridor south, this time as far as Delta Junction where the corridor moves southeast across the border to Whitehorse.

The principal corridor studied by El Paso follows the Alyeska Pipeline corridor from Prudhoe Bay almost all the way to Valdez. Just before reaching Valdez, the corridor swings southeast to Gravina Point. Another corridor studied by El Paso follows the Alyeska line as far as Fairbanks and then follows the railroad right-of-way to Cook Inlet. A third corridor examined by El Paso would run from Prudhoe Bay to the vicinity of Nome. This corridor might travel westward either north or south of the Brooks Range depending on its placement. Within each of these corridors several possible variations of actual pipe-placement and terminus are possible. For example, in the case of the Cook Inlet corridor several possible terminus sites exist including some on the east side of Cook Inlet and some on the west side, as well as other sites on Kachemak Bay or western Prince William Sound.

The El Paso proposal calls for construction of approximately 809 miles of 42 inch diameter pipe, 12 compressor stations, and a liquifaction plant and terminal at Gravina Point. At maximum operating capacity the El Paso line would transport 3.5 billion cubic feet per day. The Arctic Gas proposal calls for construction of 195 miles of 48 inch diameter pipe in Alaska. The Arctic Gas proposal calls initially for movement of 2.25 billion cubic feet of gas per day. Movement of additional quantities of gas could be accommodated by construction of compressor stations in Alaska. At maximum capacity, four compressor stations would be built in Alaska (five compressor stations for the Interior Route) and a total quantity of 4.5 billion cubic feet per day would be transported.

Arctic Gas has demonstrated its commitment by

expenditures of approximately $60 million to develop base-line data for the Environmental Impact Statement. However, as Commissioner Brooks pointed out, much of this has been for study in Canada and may not be directly applicable to Alaska. El Paso on the other hand has spent substantially less, but because they followed the Alyeska corridor a large amount of base line data is already available. Some people have questioned El Paso's commitment to the trans-Alaska pipeline proposal. In most cases El Paso's reticence can be explained by their desire to avoid committing substantial money to a risky venture. This is certainly true with regard to El Paso's dispute with Interior over the necessity of filing with Interior for a right-of-way permit before receiving certification by the Federal Power Commission. If El Paso filed with Interior prior to certification by the FPC it is possible El Paso would be obliged to pay $10 million or more for environmental impact studies and still not receive certification.

Of the many issues which bear upon any policy recommendations, two of the most important are utilization of royalty gas and revenues from the gas pipeline. Several potential uses for state royalty gas have been suggested. These include development of a petrochemical industry in Alaska, use of the gas as a source of energy in Fairbanks (either by direct distribution of the gas to homes in the Fairbanks area or indirectly by use of the gas for generating electricity), use of gas in other towns and villages along the pipeline route, use of LNG in southeast (either for direct distribution or as fuel for generating electricity), and use of the gas as an energy source for development of mineral resources near the pipeline corridor. None of these possibilities has been studied comprehensively. A preliminary review of the possible utilization of gas in villages along the pipeline route indicates that this is likely to be noncompetitive with the use of fuel oil. Petrochemical development is a complex subject involving numerous variables, including the size and location of a facility, product output, transportation economics, and spin-off development possibilities. Furthermore, any commitment of state royalty gas must await the approval of the Alaska Royalty Oil and Gas Development Advisory Board created by AS 38.06.

In the case of a Trans-Alaska gas pipeline, the pipeline will be subject to FPC regulations as an inter-state pipeline and it is likely that state royalty gas moving in this pipeline will be subject to FPC regulations even if consumed within Alaska. Furthermore, if the State initially commits its royalty gas to a use outside of Alaska, we may experience difficulty in subsequently withdrawing the gas for use within Alaska as markets develop because such action would require approval by the FPC. One possibility for avoiding this difficulty is inclusion of underlift clause in the

lease agreement. This clause would permit the state to refrain from taking a portion of its royalty gas for a certain period of time, after which the State could take its royalty gas at a rate which in effect would be greater than 12 1/2 per cent.

In the event a Trans-Canada line is built the State might still obtain some royalty gas by trading gas reserves at Prudhoe Bay with existing or to be discovered gas reserves elsewhere in the state. However, this could become a very complicated matter as it may necessitate three and even four or five way trades of gas. It should also be pointed out that Arctic Gas has studied the economic feasibility of a small diameter gas pipe line from Prudhoe Bay to Fairbanks. According to statements made by Bob Ward in public discussions this study indicates that it would be economically feasible to build such a line if a market existed in Fairbanks for the state's royalty gas, assumed to be 218 million cubic feet per day.

State revenues from the pipeline are derived principally from a property tax on the pipeline, severance taxes, and royalty payments. Which pipeline will yield the greater revenues depends upon several factors. First, severance taxes and royalty payments, at present, are determined on the basis of wellhead value of the gas. The FPC after hearings will determine the wellhead value for Prudhoe Bay gas. Under procedures which the FPC is currently employing for valuation of natural gas, the wellhead value of Prudhoe Bay gas would be determined independently of the pipeline. In that case, state severance tax and royalty payments would be the same regardless of which pipeline is constructed. On the other hand, if gas is de-regulated, the market price for Prudhoe Bay gas will be determined in the lower 48 and from that market price it will be necessary to deduct transportation costs in order to determine wellhead value of the gas at Prudhoe Bay. Under these circumstances state severance taxes and royalty payments will be greater for that pipeline which is able to transport gas to markets in the lower 48 for the least cost.

A second aspect of the potential revenue from a gas pipeline relates to secondary development effects of the pipeline. That pipeline which stimulates the greatest degreee of economic activity, for example, in construction, petrochemicals, mining, and support activities, will also likely generate the greatest amount of additional revenue by virtue of income taxation and other lesser taxes. However, this consideration, to be properly evaluated, must include not only the income side of the picture but also the expenditure side. That is, while

this increased level of economic activity may produce additional revenues, it will also produce additional demands for governmental services. Only careful analysis will enable us to estimate whether the benefits outweigh the costs for various possible scenarios of secondary development. This type of analysis has not yet been done for the gas pipeline.

Either gas pipeline will have substantial social and economic effects upon the state. The temporal range of these effects can be subdivided into a construction period and postconstruction period. The social and economic impact during these periods has not been adequately studied either by the State or by Arctic Gas and El Paso. In order to make policy recommendations which incorporate social and economic considerations it will be necessary to develop a general framework for evaluating the kinds of impacts which will result from each potential pipeline route. Additionally, it will be necessary to define a set of variables which may serve as proxies for the underlying social and economic impacts. These variables might include income, per capita income, income distribution, employment statistics, unemployment statistics, employment and unemployment statistics for certain subgroups (such as women or natives), and other similar variables.

After an initial set of policy objectives is developed the State has a number of alternatives which it may pursue in attempting to give affect to the policy decisions. Trade-offs with either Arctic Gas or El Paso or the individual producer companies are possible. The state might agree to support one route or another in exchange for certain agreements by the companies. Such agreements might relate to use of royalty gas, environmental protection, commitments relating to various aspects of the social and economic impact of a pipeline, or possible financial commitments by the companies. The State also has the power to threaten delay through court litigation of the issue of a natural gas company's right to condemn state lands.

The State will also likely have several national forums in which to present its views. As an intervener in the FPC proceedings, the State is entitled to present witnesses of its own and crossexamine witnesses presented by others. We must decide what kind of a role we wish to play in the FPC proceedings. This role could range from a relatively passive one of only submitting written testimony, to a very active one of presenting expert witnesses of our own and crossexamining witnesses of other parties. Furthermore, the State could limit itself to only a few issues which are directly and specifically related to Alaska or it could be prepared to deal with all issues

relevant to Alaska as well as issues of national significance which may have little importance for Alaska (for example, balance of payment problems, shrinkage during transportation, Canadian Native claims problems, and others). The FPC hearings may begin by mid or late April.

Other possible forums at which the state might want to have an input include the probability that Congress itself will consider legislating a pipeline route and the possibility that President Ford will, on recommendation of Secretary Morton, endorse a pipeline route. If these forums develop the State must decide what degree of participation it wishes to make in them.

AMG:jf

STATE OF ALASKA

JAY S. HAMMOND, Governor

DEPARTMENT OF LAW

OFFICE OF THE ATTORNEY GENERAL

POUCH K — STATE CAPITOL
JUNEAU 99801

January 27, 1975

M E M O R A N D U M

TO: The Honorable Jay S. Hammond
Governor

and the following members of the
Multi-Department Task Force:

Commissioner Brooks	Dept. of Fish & Game
Commissioner Edmondson	Dept. of Econ. Development
Acting Comm. Fackler	Dept. of Nat. Resources
Commissioner Gallagher	Dept. of Revenue
Commissioner McAnerney	Dept. Comm. & Regional Affairs
Commissioner Mueller	Dept. of Env. Conservation
Commissioner Parker	Dept. of Highways
Mr. William H. Race	Director, Division of Bldgs., Dept. of Public Works
Dr. Robert B. Weeden	Director, Policy Development & Planning

FROM: Avrum M. Gross
Attorney General

RE: Outer Continental and Gas Pipeline Task Force

The weekly meeting of the outer continental shelf and gas pipeline task force was held on Friday, January 17, in the Governor's Conference Room at which time representatives of El Paso Natural Gas Company explained their proposal to build a Trans-Alaska Gas Pipeline. In attendance at the meeting were the following:

Jay S. Hammond, Governor
Avrum M. Gross, Attorney General
Robert B. Weeden, Director, Policy Development and Planning
James Brooks, Commissioner, Department of Fish & Game
Cameron Edmondson, Commissioner, Department of Economic Development
William Fackler, Acting Commissioner, Department of Natural Resources
Sterling Gallagher, Commissioner, Department of Revenue
Lee McAnerney, Commissioner, Department of Community and Regional Affairs

Ernst Mueller, Commissioner, Department of Environmental Conservation
William H. Race, Department of Public Works
Scott Grundy, Department of Fish & Game
John Becker, Department of Highways
Kevin Waring, Department of Community & Regional Affairs
Fred Boness, Department of Law
Tom Williams, Department of Law
Sandy Sagalkin, Department of Law
Bob Ward, Arctic Gas
Harold Stranburg, Arctic Gas
Representatives of the press
John Bennett, El Paso
George Carameros, El Paso
Mike Holland, El Paso
Dave Rainey, El Paso
Don Maciver, El Paso
George Lipsett, El Paso
Jack Thompson, El Paso
John Craig, El Paso
Ivan Schmidt, El Paso
Bob McCollum, Dames & Moore, representing El Paso
Charles Flynn, Burr, Pease & Kurtz, representing El Paso

Attorney General Gross stated that El Paso would be given as much time as needed to present their position after which the task force would ask questions. Mr. Bennett began the El Paso presentation with a review of certain major points he wished to make. Mr. Bennett stated he believed the FPC would make a "threshold decision" on whether the pipeline should go trans-Alaska or trans-Canada; that with active State support of El Paso he was confident the FPC would endorse the trans-Alaska concept; but that without the State's support El Paso would not continue the fight for a trans-Alaska line and would cut its losses at eight million dollars.

Mr. Bennett next reviewed the importance of North Slope gas to the lower 48 states. He noted that a substantial portion of all energy consumed in the U.S. is natural gas; that last year the U.S. consumed 22 trillion cubic feet and discovered only 6 trillion and that this imbalance has existed for the past six years. Gas from the Alaska North Slope therefore is urgently needed in the lower 48 states, as will be future gas discoveries in Alaska. Therefore, Mr. Bennett contended that which ever gas pipeline is built, Trans-Alaska or Trans-Canada, that line will control future movement of gas from the North Slope for decades.

Mr. Bennett outlined the characteristics of the El Paso proposal, explaining that the proposal was to lay down 809 miles of 42 inch diameter pipe, to build a liquifaction plant at Gravina Point, to move the gas from the liquifaction plant to California by means of 11 tankers 165 cubic meters in size,

and in California to supply approximately 1/2 the gas to Western markets and 1/2 to Midwestern and Eastern markets by displacement. Displacement means that gas which is presently flowing from Texas and Louisiana to California would instead be shipped to the Midwest and East and replaced in California by Alaskan gas. According to El Paso, rerouting of gas using the method of displacement is possible because reports on file with the FPC indicate an expected unused capacity of 11 billion cubic feet by 1980.

Mr. Bennett next outlined several advantages of a trans-Alaska gas pipeline. First, a trans-Alaska pipeline would be completely under U.S. control, there would be no temptation to the Canadians and no possibility for unilateral actions by the Canadians which might be detrimental to United States interests. As an example, Mr. Bennett explained that the British Columbia Government, when it encountered insufficient supplies to meet all obligations, satisfied all Canadian obligations and forced American consumers to bear the entire shortage and at the same time increased prices drastically. The adverse impact on the United States balance of payment was also cited as a disadvantage of the Trans-Canada line.

Second, Mr. Bennett stated that according to FPC procedures for determining wellhead value, the value would be the same under either project. He further contended that transportation costs to California were about the same for El Paso and Arctic Gas or perhaps greater for Arctic gas. He made the assumption that each company could move gas to California for approximately $1.20 per MCF and then divided the $1.20 transportation costs into its component parts. Under the El Paso system, the entire $1.20 would be distributed to American interests in the form of taxes to Alaska, taxes to the United States, wages to American workers and return on investment to American investors. In the case of the trans-Canada line only 36 cents would return to American interests, while 84 cents would be attributable to Canadian interests.

Third, on the question of environmental impact, Mr. Bennett drew several comparisons (length of the line, number of compressor stations and so forth) to indicate that the El Paso line would have less impact on the environment.

Fourth, Mr. Bennett discussed the necessity of early movement of Prudhoe Bay gas citing potential damage to the reservoir as a major reason. He contended that El Paso can build its line quicker than can Arctic Gas because the El Paso line is shorter, procurement of supplies will be easier, and Arctic Gas will encounter delays in obtaining approval by the Canadian government.

Fifth, Mr. Bennett outlined several benefits to the State of Alaska. These benefits included 2.4 billion dollars in taxes over the life of the project, employment of 600 persons, and the availability of royalty gas for residential heating,

generation of electricity, processing of ore on-site and development of a petrochemical industry.

Following Mr. Bennett's presentation, Mr. George Carameros discussed certain aspects of the El Paso proposal. He indicated that El Paso was indeed committed to the trans-Alaska project; that El Paso had spent 7 million dollars and by comparison the most money spent by any one company in the Arctic Gas consortium was 2 million dollars. Mr. Carameros again stressed the point that State support of the El Paso proposal was vital and that without State support El Paso would not stand a chance of obtaining FPC certification. Mr. Carameros stated environmental studies of great detail are not necessary for the FPC to make a threshold decision on whether to certify a trans-Canada or trans-Alaska line and therefore El Paso did not intend to undertake additional detailed studies until after conditional certification by the FPC.

Mr. Carameros indicated that the project cost was estimated to be approximately 6 billion dollars and that El Paso's net worth was approximately 336 million dollars. In spite of this disparity, the project could be financed using the concept of "project financing." He explained that El Paso's Algerian project cost approximately 2 billion dollars and was financed on this basis. Mr. Carameros concluded by outlining the special interest in the trans-Canada project of each member of the Arctic Gas consortium. He explained that several of the producer companies had interests in the MacKenzie River delta area and that these discoveries could only be brought to market in the near future by a trans-Canada pipeline also carrying Prudhoe Bay gas, since the reserves in the MacKenzie are not, at this time, large enough to justify construction of a separate line.

Several questions were then asked by members of the task force and in response to those questions the following points of clarification or additional information were elicited from El Paso:

1. El Paso's assertion that gas could be reinjected for only a limited time without causing damage to the reservoir was based on the State's intervention petition. El Paso was not aware of more recent analysis by the State which indicates reinjection is possible for as long as 8 years without damage to the reservoir.

2. El Paso anticipates no problems in constructing the 11 cryogenic tankers within the projected timetable.

3. Little if any Canadian gas will be made available to markets in the United States because Canadian needs for its own Arctic gas are growing rapidly. The Canadians according to Mr. Carameros, would in fact build their own separate pipeline from the MacKenzie River Delta if financing was possible. However, as yet, sufficient reserves have not been proven up to justify construction of a line and in the absence of sufficient reserves, bankers will not lend money.

4. In response to a question whether El Paso was advocating that the FPC first make a decision and then do the environmental studies rather than first doing the studies and then making a decision. Mr. Carameros stated that he believed sufficient data is available for the FPC to make a decision in favor of either the trans-Canada or the trans-Alaska concept; and that once this conceptual decision was made, El Paso would be more than happy to spend the 750 million dollars or whatever amount was necessary to do the detailed environmental statement.

5. Site selection was done using a matrix analysis which included variables for engineering, environmental, and economic considerations. Cook Inlet was eliminated because of navigational problems resulting from ice, strong currents and large tides which would create difficult docking problems. Mr. Carameros also indicated that at this time consideration of any trans-Alaska route other than to Gravina Point would cause delays.

6. El Paso has no commitments for gas or for money support from other companies at this time. However, some discussions have taken place.

7. Although some problems have been encountered in LNG plants in Africa, the general record of the LNG industry is good, as evidenced by the few problems encountered by the Phillips plant located at Nikiski. Furthermore, the process selected for the proposed LNG plant at Gravina Point is more reliable than the process used by the African plants.

8. The El Paso projection of 6 billion dollars includes the cost of facilities in California.

9. According to Mr. Carameros and Mr. Bennett, the reason most Midwestern interests support the Arctic gas proposal even though El Paso contends gas can be moved to the Midwest sooner with a trans-Alaska line is twofold:

(1. Exxon, as well as other members of the Arctic consortium has conducted a very strong lobbying effort in Washington and around the country while Alaska has done nothing and El Paso has done very little;

(2. Midwestern interests are eager to see a pipeline physically located in the midwest because they believe gas supplies would be better assured and they will be able to get a larger share of the North Slope gas. However, in fact, who gets what share of Prudhoe Bay gas has not been decided because no contracts have been signed.

10. El Paso does not think Congress will step in prior to an FPC decision but hopes that once the decision is made, Congress will act to prevent extended litigation which otherwise might take two or three years to move through the Court.

11. On the displacement of gas, El Paso stated there would be sufficient excess capacity for additional Alaskan gas (from, for example, Cook Inlet) also to move to the west coast and then by displacement (or by actually reversing the lines) move gas to the Midwest and East. El Paso has not done any specific studies of displacement because gas contracts have not been signed yet and in the absence of such contracts, final allocation and distribution cannot be determined.

12. El Paso vigorously asserted that deregulation would mean bidding in the field without account for transportation costs. Therefore, the wellhead value of state royalty gas would be the same for either pipeline even if one or the other pipeline could move gas to markets in the lower 48 more cheaply.

13. Under careful questioning, El Paso conceded that the State would need FPC approval to take gas off a Trans-Alaska line and that one factor the FPC might consider in granting or withholding its approval was the end use to which the gas would be put.

14. El Paso is assuming that once the FPC certifies the El Paso proposal, even preliminarily, other corporations, such as producers and pipeline companies, will join El Paso and that in this way, financing will be possible.

15. El Paso has not conducted any discussion with Pacific Alaska LNG on the possibility of building and utilizing shared facilities at Cook Inlet. According to Mr. Carameros, there would be little advantage to this since the Pacific Alaska LNG project is less than 1/8 the size of the El Paso project.

AMG:jdg

February 3, 1975

M E M O R A N D U M

TO: The Honorable Jay S. Hammond
Governor

and the following members of the
Multi-Department Task Force:

Commissioner Brooks	Dept. of Fish & Game
Commissioner Edmondson	Dept. of Econ. Development
Acting Comm. Fackler	Dept. of Nat. Resources
Commissioner Gallagher	Dept. of Revenue
Commissioner McAnerney	Dept. Comm. & Regional Affairs
Commissioner Mueller	Dept. of Env. Conservation
Commissioner Parker	Dept. of Highways
Mr. William H. Race	Director, Division of Bldgs., Dept. of Public Works
Dr. Robert B. Weeden	Director, Policy Development & Planning

FROM: Avrum M. Gross
Attorney General

RE: Outer Continental Shelf and Gas Pipeline
Task Force

The Outer Continental Shelf and Gas Pipeline Task Force met Monday, January 27, 1975, in the office of the Attorney General. Present at the meeting were the following:

Lee McAnerney, Commissioner, Department of Community and Regional Affairs
James W. Brooks, Commissioner, Department of Fish and Game
Avrum M. Gross, Attorney General
Ernst W. Mueller, Commissioner, Department of Environmental Conservation
A. Cameron Edmondson, Commissioner, Department of Economic Development
Jon Tillinghast, Department of Law
Sandy Sagalkin, Department of Law
Kevin Waring, Department of Community and Regional Affairs
M. P. Wennekens, Department of Fish and Game

Fred Boness, Department of Law
Kathy Hollier, Department of Revenue
John C. Becker, Department of Highways
William H. Race, Department of Public Works
James Wiedeman, Policy Development and Planning
Robert LeResche, Department of Fish and Game

Attorney General Gross opened the meeting by explaining the contents of the recent FPC order on the gas pipeline. Most importantly, the FPC decision denied the Department of the Interior's request to dismiss El Paso's application. The decision also ordered that the El Paso, Arctic Gas and related proceedings be consolidated for a joint, comparative hearing. The hearing will be conducted in two phases with the first phase dealing with such matters as gas supply, markets, cost of facilities, financing, reserves, expenses, income, tariff, system design, environment reports and other matters of a related nature. The second phase of the hearing will be concerned only with "the issues raised by the final environmental impact statement." The FPC decision also established a very expeditious timetable, with formal hearings commencing on May 5, 1975; a prehearing conference to be convened on April 7, 1975 and the filing of direct testimony by applicants by March 24, 1975. The time for filing testimony by intervenors and rebuttal cases will be set by the presiding law judge.

Attorney General Gross stated that he believes the task force has now received a substantial amount of information regarding the Arctic Gas and El Paso proposals and posed the question of what additional information the task force felt it might need to make a recommendation to the Governor and how such information could be obtained. Commissioner Brooks noted that if Alaska, in fact, has the reserves which the Department of Natural Resources and others predict, then movement of North Slope gas through Canada would not deprive the state of future availability of natural gas for home heating and industrial development. He stated that, given this fact, he would prefer a trans-Canada route, but also indicated he believed it would be political suicide for the governor to endorse a trans-Canada route. Commissioner Brooks indicated he believed the FPC would endorse a trans-Canada route regardless of what the State of Alaska supported, and suggested that therefore the state might continue to support a trans-Alaska pipeline but should take a low profile in the FPC proceedings.

The ensuing discussion revolved principally around two points: (1) the sentiments of most Alaskans with respect to the competing gas pipeline routes; and (2) what additional study might be undertaken to provide the task force with information needed to make a recommendation. On the first point, it was noted that many community leaders across the state have endorsed a trans-Alaska gas pipeline and that these people often guide public

opinion. However, it was also noted that many of these people would be the ones to benefit from construction of a gas pipeline and that many other people in the community would in fact receive few benefits from construction of the gas pipeline but might have to bear many of the burdens. It was suggested that we did not, in fact, really know the attitudes of this latter group of people. Commissioner McAnerney noted that many Alaskans and people in the Lower 48 simply were opposed to having our gas pass through another country.

Several persons commented that if, in fact, the task force should conclude that a trans-Canada gas pipeline had more benefits for Alaska, the governor would be able to make a reasoned statement of his position and it would then be opened for the people to agree or disagree. Others commented, however, that the difficulty with this approach is the fact that many crucial issues simply cannot be pinned down because they depend on speculation about future events in Alaska, Washington, D.C., and the world.

Attorney General Gross noted that the task force had approximately $30,000 which it could use to obtain some type of consultant study if the members believed that such a study would be worthwhile. He suggested that such study might be made of the economic aspects of the pipeline and potential use of royalty gas in Alaska. The task force concurred in this and Attorney General Gross said he would therefore contact Arlon Tussing to see if Dr. Tussing would be able to do such a study. Mr. Gross also suggested that the task force await the "definitive paper" comparing the competing pipeline proposals promised by Arctic Gas during the presentation last week. This paper is expected in about one month.

Discussion turned to the state's participation in the upcoming hearings in Anchorage, February 3-4, on the Department of the Interior's draft Environmental Impact Statement on Outer Continental Shelf oil drilling. Jon Tillinghast stated that he had reserved a block of three hours for state participation. Lee McAnerney, Ernst Mueller and Tom Brooks stated that their departments would like to present oral testimony.

It was agreed that the Department of Law would prepare a draft of the governor's presentation at the hearings and circulate the draft to members of the task force for comments.

Jon Tillinghast stated that February 24 was the deadline for written comments on the EIS. Sandy Sagalkin and Jon Tillinghast stressed the need for completeness in the written comments, to get all documents possible into the administrative record.

It was agreed that February 14 would be the deadline for submission of departmental comments to the Department of Law for review. The Department of Law will prepare comprehensive state comments, attaching the departmental comments as appendices.

AMG:as:PB

bcc: S. Sagalkin, Fred Boness, Jon Tillinghast

STATE OF ALASKA

DEPARTMENT OF LAW

OFFICE OF THE ATTORNEY GENERAL

JAY S. HAMMOND, Governor

POUCH K — STATE CAPITOL
JUNEAU 99801

February 5, 1975

M E M O R A N D U M

TO: The Honorable Jay S. Hammond
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Mr. William H. Race	Director, Division of Bldgs., Dept. of Public Works
Dr. Robert B. Weeden	Director, Policy Development & Planning

FROM: Avrum M. Gross
Attorney General

RE: Outer Continental Shelf and Gas Pipeline
Task Force

The Outer Continental Shelf and Gas Pipeline Task Force met on January 23, 1975, in the Governor's Conference Room for the purpose of hearing Arctic Gas present its proposal to construct a trans-Canada Gas Pipeline. Present were the following:

Jay S. Hammond, Governor
Avrum M. Gross, Attorney General
Tony Motley, Commissioner, Department of Commerce
Ernst Mueller, Commissioner, Department of Environmental Conservation
Dr. Robert Weeden, Director, Policy Development & Planning
William Race, Department of Public Works
Lee McAnerney, Commissioner, Department of Community & Regional Affairs
William Fackler, Acting Commissioner, Department of Natural Resources
Cameron Edmondson, Commissioner, Department of Economic Development
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Fred Boness, Department of Law
Bob Ward, Alaskan Arctic Gas
William Brackett, Alaskan Arctic Gas
Harold Strandberg, Alaskan Arctic Gas
James Harvey, Canadian Arctic Gas
Donald Dickey, State Chamber of Commerce
Representatives of the press

Mr. Ward began the Arctic Gas presentation by reviewing the owner companies of the Arctic Gas consortium. He noted that the owner companies provide policy and general direction for Arctic Gas as well as expertise on specific problems. Several of the companies in the Arctic Gas consortium supported the trans-Alaska oil pipeline but now support a trans-Canada gas pipeline. According to Mr. Ward the companies' differing opinion concerning which pipeline is appropriate for oil and gas is the result of their conclusion that it is more efficient and practical to move gas entirely by pipeline avoiding the necessity of liquifaction.

Mr. Ward contended that movement of North Slope gas along the coastal plain to the MacKenzie River and then down the MacKenzie River corridor was the most direct and efficient means for moving gas from the North Slope. He noted that estimates of Alaskan gas reserves published by the State indicate a potential of 423 trillion cubic feet of which approximatley 100 trillion cubic feet may be located on the North Slope or just offshore. Mr. Ward asked: If other discoveries are likely to be made near tidelands so that liquifaction and transportation by LNG tanker will be the most logical method of transportation to the lower 48 why should Alaska build unnecessary LNG facilities to move gas which can be better moved in a trans-Canada gas pipeline system?

Mr. Ward next described the system Arctic Gas proposes to build. He indicated that large diameter pipe would be layed on the Arctic Coastal plain across the Arctic Wildlife Range and into Canada to the vicinity of the MacKenzie River where the pipe from Alaska would link up with a large diameter pipe from the MacKenzie River delta area. This pipe would move south approximately 1300 miles to Caroline, Alberta where the pipe would branch-- one link going west to Kingsgate and the other branch going east to Monchey. The western branch would link up with pipelines which are proposed for construction to Los Angeles and San Francisco; while the eastern branch would link up with a proposed pipeline which would run through the Dakotas, Minnesota, Iowa, Illinois and on east to central Pennsylvania.

Mr. Ward cited three major advantages to the nation from a trans-Canada gas pipeline. First, Mr. Ward contended that the trans-Canada gas pipeline could move gas cheaper than could a trans-Alaska pipeline which would require liquifaction. He estimated

savings would be in the order of thirty to fifty cents per MCF or at a minimum 200 to 300 million dollars per year. The reason for this savings according to Mr. Ward is the avoidance of the very expensive liquifaction process.

Second, Mr. Ward contended that the Arctic Gas proposal would provide direct access to all market areas of the United States. He stated that displacement as advocated by El Paso, is in reality a very complicated process and that there is no assurance that El Paso will be able to make the deliveries in the manner thay are proposing Furthermore, even if sufficient capacity is available El Paso's system will entail substantial costs because the gas needed to operate the system will be high priced North Slope gas and also because the system when operated at full capacity requires greater quantities of energy to supply the needed compression.

On the subject of shrinkage Mr. Ward stated that the Arctic Gas system will have a total loss of 9% of the gas in transmission to market areas and contended that El Paso's system involves a 16% loss of gas in transmission to California only, and that additional losses would be involved in moving gas to the Midwest and East. Mr. Ward questioned El Paso's ability to recover much of the energy stored in the cold LNG, as El Paso claimed they might be able to. Mr. Ward stated if any energy could be recovered it would be only a very small percentage; he suggested .1%.

The third advantage cited by Mr. Ward is the possibility of incremental expansion of the Arctic Gas line to carry additional volumes of gas as they become available. He explained that the present plans are to have an initial through-put for the Alaskan segement of 2 billion cubic feet per day. That after three years this would be increased to 2 1/4 billion cubic feet. Capacity may be increased beyond 2 1/4 billion cubic feet by the addition of compressor stations along the line; and in this way, a maximum through-put of 4.5 billion cubic feet is possible for the Alaskan segement of the line (with 4 compressor stations). The line can be expanded beyond 4.5 billion cubic feet by looping. According to Mr. Ward, this looping process will enable incremental expansion of the line until the entire line will be looped at which point there is in effect a second gas pipeline.

Mr. Ward contended that for the El Paso proposal such incremental expansion was not possible because it is not possible to build a portion of an LNG processing line or a portion of an LNG tanker.

On the subject of State royalty gas, Mr. Ward contended that the advantages outlined above outweigh the use of royalty gas within the State. He further stated that as other reservoirs are developed, Alaska will have all the royalty gas it could possibly use. Arctic Gas has conducted a study of alternative fuels for Fairbanks and this study indicates it would be economically feasible to construct a small diameter gas line if a satisfactory market existed in Fairbanks.

Mr. Brackett next explained the status of the Arctic Gas project. In addition to the filings which Arctic Gas has already made with the FPC two additional filings are still to be made. One on the available gas supply would be filed on Monday according to Mr. Brackett and a second filing would be made sometime in the near future detailing the economic impact on the United States of the proposed Arctic Gas pipeline. Mr. Brackett stated that he was hopeful hearings would begin sometime in April and that he expected the FPC to expedite the process as much as possible.

Mr. Brackett next discussed the fact that negotiations were currently underway between the United States and Canada with the hopes of reaching agreement on a treaty by late spring or early summer. It was expected that this treaty would cover three areas: 1) It would involve an agreement that there would be no interference with through-put; 2) that the product moving through the line would not be taxed; and 3) that there would be no discrimination in the regulation of the trans-Canada gas pipeline.

Mr. Brackett indicated that Arctic Gas' analysis of the British-North American Act (Canada's constitution) indicates that the Provinces have the power to tax gas pipeline property located within the province, but that the tax can not discriminate against any particular pipeline.

On the subject of Canadian issues, Mr. Brackett termed the Canadian Native claims problem a "red herring" because, he contended, the Federal Government has the power to authorize construction of the pipeline and negotiate a settlement to any valid native claims at a later date. Mr. Brackett asserted that the Canadian regulatory process can move faster than the process in the United States because there is a limited right of appeal and because the NEB panel hears the evidence directly.

Mr. Brackett left with the task force copies of a socio-economic report done for Arctic Gas by outside consultants, answers to questions which the task force had submitted to Arctic Gas, and indicated that Arctic Gas was in the process of preparing a comprehensive document which compared side-by-side the El Paso and Arctic Gas proposal. He stated that this document was expected to be complete in approximately one month.

Following Mr. Brackett's presentation the task force asked several questions eliciting additional information and clarification of points already made. These points are enumerated below:

1. The expected tariff from the Alaska-Canada border to the Canada-U.S. border is about 83 cents per MCF. This tariff was filed with the Canadian regulatory authorities. Arctic Gas agreed to supply a copy to the State of their submition to the Canadian authorities.

2. The estimated operating costs would be approximately

five million dollars per year and Arctic Gas anticipated paying between three and four million dollars per year in income taxes to the State of Alaska.

3. Financing of the project will be done primarily in the United States and Canada but foreign markets such as the Eurodollar market also will be tapped.

4. Arctic Gas suggested the possibility that the FPC in determining wellhead value for North Slope gas may take into account the cost of gas at the final market. If this is done, Arctic Gas contends that their pipeline would mean greater royalty and severance taxes for Alaska because they can move gas to the markets cheaper than can El Paso.

5. Arctic Gas has examined, and is continuing to examine the alternative corridors. The difficulty with the Offshore corridor is the high potential for problems during operation if the pipeline should become damaged from ice scour or for any other reason during break-up or freeze-up. At this time of year repairs may be impossible with the result that the line would be shut down for a month or more. The Interior route is possible but more costly and, according to Mr. Brackett, entails as much or more environmental damage than does the prime route. The Fairbanks and Fort Yukon corridors are so much more costly that they are uneconomical. This greater cost is due to the longer length of the MacKenzie lateral.

6. Mr. Brackett stated that he believed that the predicted reserves in the MacKenzie River delta area will eventually be found but that the discovery of substantial reserves is a slow process. Prudhoe Bay is atypical.

7. Arctic Gas is not asking for State support, although it of course would be delighted to have such support. Mr. Ward indicated that his personal belief was that the State should hold off supporting either pipeline route until it had an opportunity to evaluate the facts developed at the FPC proceedings.

8. According to Mr. Brackett, Alberta Gas Trunk is not owned by Alberta although the Province does have the right to appoint directors. The antidiscrimination provision in the Canadian taxing laws would not be hollow. Furthermore, excessively high taxation would have to be borne by the Eastern, consuming Provinces and would bring about retaliatory measures, according to Mr. Brackett.

9. Arctic Gas has surveyed the world scene for large diameter pipe and believes there should be no problem in obtaining such pipe. If U.S. Steel converts one of its plants, it will be able to roll 48 inch diameter pipe and a substantial portion of the pipe will then be purchased in the United States.

10. Construction of compressor stations within the Wildlife Range could be avoided if the pipe were looped but this would involve higher costs.

11. Arctic Gas will supply us with a copy of the alternative fuels for Fairbanks study.

12. The pipeline would be self-sustaining at a through-put level of 3 1/4 billion cubic feet per day. With a through-put beyond that level, reductions in tariffs would be possible.

13. Arctic Gas will supply us with copies of the Offshore corridor studies.

14. According to Mr. Brackett the FPC does not normally make a conceptual decision as advocated by El Paso, however under the circumstances he thought it possible that the FPC might make such a decision in this case. If the FPC made a conceptual decision in favor of trans-Alaska, Mr. Brackett did not know what the owner companies would do; specifically he was not aware of any contingency plans by the various members of the consortium to file for a trans-Alaska route.

15. On the subject of reinjection of gas, Bob Ward indicated that he was not aware of any reservoir engineer who was claiming that reinjection beyond three or four years would damage the reservoir. However, he noted that reinjection entails an economic costs because it is necessary to maintain crews and equipment to operate the reinjection facilities.

16. The current supply and demand hearings being conducted by the NEB of Canada are developing information which indicates that Canada will face a shortage of gas by the early 1980's and that the only alternatives available to Canada for meeting the shortage will be cutting exports or bringing frontier sources of gas on line. This shortage constitutes the pressure on Canada to bring MacKenzie River delta gas on line.

17. The FPC has on occasion authorized a conditional certificate without specific financing arrangements and may do so in this case.

18. Mr. Brackett indicated he was uncertain whether Arctic Gas would still be interested in building a pipeline along the Interior corridor because the cost differential has accelerated since the time of their original studies and he was therefore uncertain whether the Interior route was still economically feasible.

19. Arctic Gas has not made any studies of the expected

wellhead value of Prudhoe Bay gas and would not speculate on the matter.

20. Mr. Brackett insisted there would be no allocation problems between Canadian and Alaskan gas, as the time honored method is to build-in capacity before excess gas is ready for movement.

21. Arctic Gas expects some type of Congressional involvement but would not speculate on the nature or timing of such involvement.

22. If gas were discovered in the Selawik Basin, movement by the proposed trans-Canada pipeline would be possible, but whether it would be the most feasible way depends on several factors. Arctic Gas has not at this time made any study of the matter.

STATE OF ALASKA

JAY S. HAMMOND, Governor

DEPARTMENT OF LAW

OFFICE OF THE ATTORNEY GENERAL / *POUCH K— STATE CAPITOL JUNEAU 99801*

February 11, 1975

M E M O R A N D U M

TO: The Honorable Jay S. Hammond
Governor

FROM: Avrum M. Gross
Attorney General

RE: Status of Gas Pipeline Task Force

In the event you are asked by the press concerning the State's position on the gas pipeline and the status of the task force analysis, you will want to be aware of the following dates:

(1) On March 24 El Paso and Arctic Gas will be required to submit their opening case in writing to the FPC.

(2) An Environmental Impact Statement prepared by Interior should be completed by April 1.

(3) On April 7 there will be a prehearing conference in Washington concerning the format of the hearings to follow.

(4) On May 5 the formal presentation of evidence will occur on Phase One of the pipeline hearing, the phase relating primarily to economic analysis. Phase Two will follow at a later date not yet set.

No date has been set yet for the response of the intervenors in the case, of which we are one. Intervenors will be permitted to participate in the May 5 hearing but only to cross-examine those witnesses of the parties who testify. The intervenors will not be presenting their case or position until a later date, probably August.

It appears, therefore, that there is no necessity to take a formal position in this proceeding until late in the summer. We may participate in the May 5 hearing without the necessity or, for that matter, the opportunity, to advocate a particular route or position.

In formulating the State's position, we are waiting for the results of a comparative study done by Arctic Gas on the two routes. That will be completed by the end of February, along with certain other studies which Arctic Gas is furnishing to the State at our request. We have also retained, as consultant to the task force, Arlon Tussing, who is preparing for us an analysis of the various economic and other benefits to the State existent under the two proposals. Dr. Tussing's analysis will include a critique of the Arctic Gas comparative study.

What I am implying here is that there is no necessity for the State to take a position in this matter for some time. Clearly it would help to have our position formulated by May 5 so that our cross-examination may take the posture of exposing the strengths and weaknesses of a particular position desired by the State. Even then, though, there would be no necessity for the State to do that. The only necessary date for the formulation of a State position has not yet been set (the date the intervenors present their case), but I would anticipate it will not be earlier than August.

We hope to have a position formulated at least a month prior to the May 5 date of formal presentation. The position, whatever it is, will be fully documented. We are attempting directly and through Dr. Tussing to analyze all possible alternatives for the State including, incidentally, routes which have been as yet proposed by neither party. In essence we are considering which route or routes will bring the greatest financial, economic and social benefit to the State, at the least environmental and social cost. We have done a substantial amount of work, but a substantial amount still remains.

AMG:as

cc: Members of OCS Task Force

STATE OF ALASKA

JAY S. HAMMOND, Governor

DEPARTMENT OF LAW

OFFICE OF THE ATTORNEY GENERAL

POUCH K — STATE CAPITOL
JUNEAU 99801

March 14, 1975

M E M O R A N D U M

TO: The Honorable Jay S. Hammond
Governor

and the following members of the
Multi-Department Task Force:

Commissioner Brooks	Dept. of Fish & Game
Commissioner Edmondson	Dept. of Econ. Development
Commissioner Martin	Dept. of Nat. Resources
Commissioner Gallagher	Dept. of Revenue
Commissioner McAnerney	Dept. Comm. & Regional Affairs
Commissioner Mueller	Dept. of Env. Conservation
Commissioner Parker	Dept. of Highways
Mr. William H. Race	Director, Division of Bldgs., Dept. of Public Works
Dr. Robert B. Weeden	Director, Policy Development & Planning

FROM: Avrum M. Gross
Attorney General

RE: Outer Continental Shelf and Gas Pipeline
Task Force

The Outer Continental Shelf and Gas Pipeline Task force met in the Governor's Conference room on Thursday, March 6, 1975 at 10:00 A.M. In attendance were the following:

Jay S. Hammond	Governor
Avrum Gross	Attorney General
Walter Parker	Commissioner, Dept. of Highways
Robert S. Weeden	Director, Div. of Policy Development and Planning
James Brooks	Commissioner, Dept. of Fish & Game
Lee McAnerney	Commissioner, Dept. Community and Regional Affairs

Cameron Edmondson	Commissioner, Dept. of Economic Development
Guy Martin	Commissioner, Dept. of Natural Resources
Tony Motley	Commissioner, Dept of Commerce
William Race	Dept. of Public Works
Kevin Waring	Dept. of Community & Regional Affairs
Larry Eppenbach	Dept. of Revenue
Kathy Hollier	Dept. of Revenue
Bob LeResche	Dept. of Fish & Game
John Palms	Dept. of Fish & Game
John Becker	Dept. of Highways
Jon Tillinghast	Dept. of Law
Sandy Sagalkin	Dept. of Law
Gerry Hol:	Dept. of Environmental Conservation
Jerry Reinwand	Dept. of Environmental Conservation
Fred Boness	Dept. of Law

At this meeting matters relating to both the gas pipeline and outer continental shelf were discussed.

GAS PIPELINE

The merits of an alternative pipeline route from the MacKenzie River to Prudhoe Bay and then down the existing TAPS corridor as far as Delta Junction and out the AlCan highway were discussed. It was noted that this route would have the advantage of following existing corridors most of the way. In addition, the MacKenzie River-Prudhoe Bay lateral hopefully could be laid offshore. Commissioner Parker stated that the costs involved with this route would be substantially greater and that therefore the advantages would likewise have to be substantial.

The question was raised what consequences would follow if the State endorses any alternative route and the FPC does not certify that route. Attorney General Gross noted the importance of supplying gas to Fairbanks and asked if it would be possible to have a study done by the Department of Natural Resources on the alternatives available. Fred Boness reported that a study of alternative fuels for Fairbanks done by a consulting firm for Arctic Gas showed that gas could be economically marketed in Fairbanks, but that certain assumptions had to be made in the study relating to the price of crude oil and the demand for gas. If these assumptions are changed the economic feasibility of the project may disappear.

Commissioner Martin reported Covington & Burling's opinion on the course of the FPC proceedings. He noted that a very key event is the April 7 pre-conference hearing since many of the unresolved procedural questions will be decided at that time. Among those questions to be decided will be the scope

of cross examination, the order of presentation of cases, and the degree to which a party will be bound by his opening statement. Commissioner Martin stressed the importance of the State attempting to formulate the best opening statement it can by April 7 and the necessity for reviewing the prefiled testimony between March 24 and April 7.

OCS

Commissioner Martin gave a report on OCS developments in Washington, D.C. He reported that the Senate Commerce and Interior and Insular Affairs Committees were scheduling hearings on several OCS bills, beginning March 14, and continuing on the 17th and 18th. He indicated that it was important that the State prepare persuasive testimony on the various bills, as this would be the best opportunity for the State to make its position known to Congress. Sandy Sagalkin and Jon Tillinghast will prepare the testimony, circulate it for review on March 12th, and finalize it by March 13th. Commissioner Martin will give the testimony in the Governor's absence. The task force felt that either Bob Weeden or a technical person should accompany Commissioner Martin to the hearings for backup support.

Sandy Sagalkin offered to keep a list of agenda items so that agendas could be prepared in advance of meetings of the task force and members were advised to furnish topics to Sagalkin at least 1 day before a meeting.

AG:jw

STATE OF ALASKA

JAY S. HAMMOND, Governor

DEPARTMENT OF LAW

OFFICE OF THE ATTORNEY GENERAL

POUCH K — STATE CAPITOL
JUNEAU 99801

March 21, 1975

M E M O R A N D U M

TO: The Honorable Jay S. Hammond
Governor

and the following members of the
Multi-Department Task Force:

Commissioner Brooks	Dept. of Fish & Game
Commissioner Edmondson	Dept. of Econ. Development
Commissioner Martin	Dept. of Nat. Resources
Commissioner Gallagher	Dept. of Revenue
Commissioner McAnerney	Dept. Comm. & Regional Affairs
Commissioner Mueller	Dept. of Env. Conservation
Commissioner Parker	Dept. of Highways
Mr. William H. Race	Director, Division of Bldgs., Dept. of Public Works
Dr. Robert B. Weeden	Director, Policy Development & Planning

FROM: Avrum M. Gross
Attorney General

BY: Frederick Boness
Assistant Attorney General

RE: Outer Continental Shelf and Gas Pipeline
Task Force

This is a brief summary of The Arctic Gas alternative fuels for Fairbanks study.

The question of the "feasibility" of building a 16" gas pipeline to Fairbanks needs a context. Apparently, there is no engineering reason why the line could not be built. Economic feasibility is a more involved issue. In simplified terms there are two variables, one is the rate of return on equity and the other is the cost of gas to the consumer. Since capital costs are fixed and operating costs are only marginally variable, the rate of return on equity is directly related to the cost of gas to the consumer. That is, if consumers pay more, income to the gas company will be greater and hence the rate of return on equity will be greater.

In terms of the above framework, the question of economic feasibility becomes: Is there an acceptable price (in the sense that consumers will buy the gas rather than some alternative such as oil) and at the same time generate sufficient income to provide a rate of return on equity adequate to attract the capital needed to build the pipeline?

The Arctic Gas study answers this question affirmatively, but a qualification is necessary. In no case studied is gas transported by a 16" pipeline cheaper per unit of energy (¢/mmbtu) than oil. In fact, gas is more than double the cost of oil if it is not used industrially (471¢/mmbtu for oil versus 1,151¢/mmbtu for gas). If gas is used industrially the cost of gas in Fairbanks drops substantially but it is still more expensive than oil (471¢/mmbtu versus 737¢/mmbtu). Gas is, however, cheaper than electricity. (1,495¢/mmbtu for electricity versus 1,151¢/mmbtu, or 737¢/mmbtu if the gas is used industrially). It is also worthy of note that the price of oil quoted in the study is subject to substantial skepticism since it is a projection of the price of oil which will be sold by the yet-to-be-built Energy Co. of Alaska refinery. Additionally, the estimate of oil price is also subject to variations in the price of crude. The study assumed a crude price of $5.88 at Prudhoe Bay, which is low when compared to Department of Revenue estimates. These two factors taken together may mean oil prices in Fairbanks would be higher than the study projects, in which case gas becomes relatively more attractive.

Attached are the 3 summary tables from the report: The number pencilled in for the Fairbanks 16" pipeline represents the cost of a million btu's if gas is used industrially.

TABLE I-13A

TOTAL DELIVERED COST OF FUEL PER BTU AT END USE
1983
(Based on 35¢/mmbtu Wellhead Price of Natural Gas)

Fuel Alternative	Cost of Heat Delivered from Appliance			
	Industrial		Commercial and Domestic	
	Efficiency (%)	Cost (¢/mmbtu)	Efficiency (%)	Cost (¢/mmbtu)
Coal	80	161	50	330
Light Distillate Oil Energy Co. of Alaska	75	360	70	471
Heavy Heating Oil Energy Co. of Alaska	75	113	-	-
Liquefied Petroleum Gas Energy Co. of Alaska	-	-	-	-
Natural Gas				
1. 16" Prudhoe Bay to Fairbanks pipeline	-	-	75	1,151 (737)
2. Trans-Alaskan Alyeska Route	-	-	75	446
3. Trans-Alaskan Western Route	-	-	75	576
Steam	-	-	100	585
Electricity	-	-	100	1,495

TABLE I-13B

TOTAL DELIVERED COST OF FUEL PER BTU AT END USE
1983
(Based on 60¢/mmbtu Wellhead Price of Natural Gas)

Fuel Alternative	Cost of Heat Delivered from Appliance			
	Industrial		Commercial & Domestic	
	Efficiency (%)	Cost (¢/mmbtu)	Efficiency (%)	Cost (¢/mmbtu)
Coal	80	161	50	330
Light Distillate Oil Energy Co. of Alaska	75	360	70	471
Heavy Heating Oil Energy Co. of Alaska	75	113	-	-
Liquefied Petroleum Gas Energy Co. of Alaska	-	-	75	440
Natural Gas				
1. 16" Prudhoe Bay to Fairbanks pipeline	-	-	75	1,185 (771)
2. Trans-Alaskan Alyeska Route	-	-	75	480
3. Trans-Alaskan Western Route	-	-	75	610
Steam	-	-	100	585
Electricity	-	-	100	1,495

TABLE I-13C

TOTAL DELIVERED COST OF FUEL PER BTU AT END USE
1983
(Based on 98¢/mmbtu Wellhead Price of Natural Gas)

Fuel Alternative	Cost of Heat Delivered from Appliance			
	Industrial		Commercial & Domestic	
	Efficiency (%)	Cost (¢/mmbtu)	Efficiency (%)	Cost (¢/mmbtu)
Coal	80	161	50	330
Light Distillate Oil Energy Co. of Alaska	75	360	70	471
Heavy Heating Oil Energy Co. of Alaska	75	113	-	-
Liquefied Petroleum Gas Energy Co. of Alaska	-	-	75	440
Natural Gas				
1. 16" Prudhoe Bay to Fairbanks pipeline	-	-	75	1,235 (81)
2. Trans-Alaskan Alyeska Route	-	-	75	530
3. Trans-Alaskan Western Route	-	-	75	660
Steam	-	-	100	585
Electricity	-	-	100	1,495

STATE OF ALASKA

JAY S. HAMMOND, Governor

DEPARTMENT OF LAW

OFFICE OF THE ATTORNEY GENERAL

POUCH K — STATE CAPITOL
JUNEAU 99801

April 2, 1975

M E M O R A N D U M

TO: The Honorable Jay S. Hammond
Governor

FROM: Avrum M. Gross
Attorney General

RE: Recommendation of Gas Pipeline
Task Force

On December 2, immediately after assuming office, you appointed me to chair a task force to review the State's posture concerning alternative transportation systems for North Slope gas. The task force was composed of the Commissioners of Environmental Conservation, Fish and Game, Revenue, Economic Development, Community and Regional Affairs, Commerce, Natural Resources and Highways, as well as the Director of the Division of Policy Development and Planning. At times Lieutenant Governor Thomas has participated with us in our deliberations and, of course, you have from time to time sat in on the sessions as we evaluated information made available to us.

The problem as you stated it was to make an unbiased, comparative evaluation of the TransAlaskan and Canadian routes for transportation of North Slope gas so as to determine what route would best serve the interests of the State of Alaska. Prior to the formation of the task force, you had publicly stated

that you favored a Trans-Alaskan route on the basis of information available to you. Upon assuming office, a great deal more information became available, as well as the machinery to do a comprehensive review of the competing projects. You asked that we consider whether or not your support of a Trans-Alaskan pipeline was justified in light of detailed information developed by the task force.

Your prior support of the Trans-Alaskan pipeline was consistent with the position of the previous administration. Upon undertaking a review of the competing projects, we found that a substantial amount of work remained to be done in evaluating the two proposals. The State had intervened in the legal proceedings before the Federal Power Commission and retained counsel in Washington, D.C. to present the State's position, but until this task force embarked upon its efforts the State's position consisted more of enthusiastic support for an Alaskan route for a pipeline than of careful analysis. You advised the task force that whatever position was ultimately adopted by the State, you wanted to be able to rationally support it and defend it before the Federal Power Commission or Congress should that body ultimately take jurisdiction over the matter. Faced with that mandate, the task force has met regularly since December and has increased its work substantially in the last two months so as to be able to make a recommendation to you prior to initiation of the FPC hearings. The prehearing conference for that proceeding will be April 7, so we are pleased to have met the deadline.

Our efforts have been directed to a comprehensive review of material developed in connection with both projects.

That material was made available primarily from the participants, Alaskan Arctic Gas and El Paso Alaska, who were required to develop the data for submission to the FPC. Representatives of both Arctic Gas and El Paso have appeared before the task force and made extensive presentations concerning their plans. The task force has also utilized consultant studies as a source of knowledge.

As a result of our review, it is the recommendation of the task force that you reaffirm support of a Trans-Alaskan transportation system for natural gas from the North Slope. We will in this report outline the basis for our conclusions. We will not include here the backup data on which our conclusions are based, but we have that data compiled for your review when you wish to make such a review.

A. The Nature of the Projects.

There are basically two competing systems for the transportation of North Slope gas to the continental United States. The first is the so-called Canadian route. Under this proposal, which has been made by the Arctic Gas consortium, gas from Prudhoe Bay would be transported by means of a large-diameter pipeline from Prudhoe Bay east across the Canadian border to a point somewhat south of the Mackenzie River Delta. At that point the pipeline carrying Alaskan gas would join with a lateral from the Mackenzie Delta region which would carry Canadian gas. The main line formed by the convergence of these two laterals follows the Mackenzie River Valley south through the Northwest Territories. After leaving the river valley,

this line continues south to Caroline Junction, Alberta. At Caroline Junction, the main 48-inch pipeline diverges into two pipelines; one heads southwest to the Canadian-Idaho border and the other heads southeast to the Canadian-Montana border. New pipelines which are proposed for construction in the Lower 48 would receive the gas at these border points and transport it to markets in Washington, Oregon and California in the case of the western pipeline and to markets in the midwest and east in the case of the eastern lateral. Theoretically, any surplus Canadian gas from the Mackenzie Delta would also be available for distribution in the United States, though the existence of that surplus is somewhat speculative.

The estimated cost of this transportation system is estimated by the consortium to be 8.3 billion dollars, not all of which is allocable to the Alaskan transportation network. The portion of the price which is allocable to the Canadian lateral should not affect the price of the American gas transported by the line.

The alternative to the Trans-Canadian system is a Trans-Alaskan route which handles the gas in a more complicated manner. This proposal, presently advanced by El Paso Alaska, would take the gas by means of a large-diameter 42-inch pipeline from Prudhoe Bay down the existing corridor of the Alyeska Pipeline. On approaching the southern terminus, the line would leave the pipeline corridor and go to Gravina Point on Prince William Sound. The applicant for the Trans-Alaska line intends to build

at Gravina Point an LNG plant which would reduce the gas to liquefied form. El Paso also proposes to construct a fleet of cryogenic tankers which would then take the liquefied gas to California, where the LNG would be reconverted to its gaseous state. At least initially, all of the North Slope gas delivered to California would be physically consumed on the west coast. This in turn would free gas presently being transported from Texas and New Mexico to the west coast, which could then be made available to markets in the midwest and east via existing distribution systems. If gas deliveries from Alaska increase to the extent that not all of the gas can be consumed in the west, it will be possible to reverse the direction of existing lines. These lines can then be used to transport gas from California eastward to Texas and Louisiana where the gas could be flowed into existing transportation systems and moved to the east and midwest. Although this transportation system is complex, a review of the system by Arctic Gas concludes (somewhat reluctantly) that this system is feasible and, of course, El Paso always has maintained the workability of this approach. This transportation system, including the pipeline, the cryogenic tankers, the LNG plant, the regasification plant, and facilities needed to effectuate displacement is estimated by El Paso in 1973 dollars to be 6.7 billion dollars. An analysis prepared by Arctic Gas critiquing the El Paso project indicates the more realistic figure on the basis of today's dollars would be 8.3 billion dollars, and while that figure may be inaccurate, there is no question but that

the cost of the El Paso proposal is substantially higher than set out in its application. Assuming the El Paso project costs approximately the same as the Arctic Gas project, it will nonetheless be more expensive for the delivery of American gas alone, as the Arctic Gas project will cover transportation of both American and Canadian gas.

Both projects involve the loss of some of the gas in the transportation system itself. The best estimate we have is that the Arctic Gas proposal will involve utilization of approximately nine to ten per cent of the gas for energy in transit. The El Paso loss will be considerably higher--approximately 16 per cent.

B. Criteria for Assessment.

The basic standard we have used in evaluating these two projects is what is best for the interests of the State of Alaska. We have sought to evaluate which route would produce the greatest benefits for the State in the long run. In evaluating those benefits, we have attempted to categorize them in two basic groups, which incidentally is the same basic grouping the FPC will make in its hearing procedure. The first is environmental. We have tried to evaluate the environmental effects of each line so as to consider the impact each will have on the State. Second, we have tried to consider the long-term economic impact of the line. That investigation has involved a study of the alternative effects of the two lines upon such things as royalty payments which would be made to the State, severance taxes, and property taxes. We will outline our general findings in these two areas.

I. ENVIRONMENTAL IMPACT. Unlike the quantitative measurements which can be applied to revenue comparisons, evaluation of environmental impact is a highly subjective process. There was no clear sentiment in the task force that one route or the other was better from an environmental standpoint. Rather, the conclusion was that each proposal had both benefits and detriments. It was the feeling of the group that, while the choice was not clearcut on the basis of a purely environmental comparison, it should be the State's obligation in the forthcoming FPC proceedings to insure that the detriments we have identified be minimized insofar as possible. We will outline the primary benefits and detriments of each route here, though as I have noted, they were not in themselves the basis for the group's recommendation.

(a) Trans-Alaskan Route.

Advantages

1. Without doubt, the most important environmental asset of a Trans-Alaska route is the fact that the gas pipeline could be constructed in an existing transportation corridor, a corridor which has been studied intensively and about which a tremendous amount of environmental information has been gathered. As construction of the Trans-Alaska oil pipeline proceeds, more information regarding construction practices, revegetation, protection of stream crossings, and other important techniques will be developed.

2. Existing facilities, such as the TAPS haul road, construction camps, access roads, existing highway system, spoil disposal sites, material sites and other critically important ancillary needs could be made available for use to

construct the gas pipeline.

3. A Trans-Alaska gas pipeline would parallel many streams along the corridor in the Arctic, instead of transecting them, which means that the total number of stream crossings on the ecologically sensitive North Slope is reduced along this route.

4. There is a dearth of knowledge about the fishery resources of the Arctic, particularly the offshore fisheries. However, the Alaska gas pipeline route parallels the Sagavanirktok River; our knowledge of its fishery resources is much more detailed than any other river on the North Slope. This greater base of knowledge can be drawn on to minimize the adverse impact on the North Slope fishery, if a Trans-Alaska gas pipeline is built.

5. Natural gas is the cleanest available fossil fuel. For this reason, it is in great demand in those areas of the nation which suffer from air pollution problems. An Alaskan route would insure that some day, if the need should arise, Alaskans could use their royalty gas as a low pollution source of energy. An Alaskan route would preserve that option; a Canadian route would not.

Disadvantages

1. An Alaskan route will mean substantial additional development in the State, particularly along an already heavily impacted pipeline route. With this development will

come the accompanying stresses of "boom growth", inflation, more people and possibly a large tidewater development to liquefy the gas for shipment to the Lower 48 states. This latter development could be sizable and may lead to extensive development in an area which is presently pristine.

2. There may be physical, biological and chemical effects from construction and operation of an LNG plant at tidewater. Excess heat from this process would be discharged from the plant and could have an adverse environmental impact. However, we estimate that this impact may be minimal.

3. Secondary development, spurred by the existence of an LNG facility and the availability of natural gas for industrial uses may cause greater environmental problems than the LNG development itself. An associated large petrochemical industry at tidewater would create its own environmental and socio-economic problems.

4. Any new development inevitably means more people and a new LNG facility built in a presently undeveloped area will mean that a new community may have to be constructed, or that existing communities will have to wrestle with significant new growth. Providing the basic services, such as water, sewer, health facilities, schools, etc., may place a severe burden on both State and affected community resources.

5. The environmental hazards of shipping LNG in cryogenic tankers are probably not of sufficient magnitude to be worrisome (especially when compared to shipping crude

oil by tanker), but the safety hazards to the ships and personnel may be substantial.

6. The energy loss, in the liquefication process, is an environmental liability, especially in an era when energy conservation is needed.

(b) Trans-Canada Route

Advantages

1. Development within Alaska would be minimal if an Alaska-Canada gas pipeline were constructed. The tidewater development of LNG facilities, and tanker movement of the LNG would be eliminated by an overland route from Prudhoe Bay to the midwest. Also, development activity along the Trans-Alaska pipeline corridor would be eliminated.

2. The Alaska-Canada route will cause less problems in Alaska because of the relatively short distance that the pipeline would be within Alaska's borders (from Prudhoe Bay east to the Canadian border). In this sense, however, we are "trading off" Alaskan environmental problems to Canada.

Disadvantages

1. Any viable Alaska-Canada route will undoubtedly breach the ecologically fragile Arctic National Wildlife Range. This range, which is under consideration as a wilderness area, is the last remaining area of the Arctic Coastal Plain in Alaska and perhaps in the North American Continent which is not presently committed to development. An Alaska-Canada pipeline through this area would undoubtedly be the first in a long line of petroleum-related developments in the Range.

Therefore, a decision to route the gas pipeline through the Range may, in effect, be a decision to commit the last untouched wilderness area on Alaska's North Slope to full-scale oil and gas development.

2. A gas pipeline running east to the Canadian border from Prudhoe Bay transects many north-south Arctic streams and may have a serious environmental impact on the North Slope's fish resources. As the pipeline is refrigerated below the freezing point of water, its presence under streams and rivers may impact on natural freezing and thawing processes. Winter survival of fish populations, which in the Arctic is directly tied to adequate supplies of water, may be jeopardized by localized and downstream effects that would be created by a pipeline buried under streams and rivers. In addition, siltation caused by the construction process and stream bed disturbances could have major impact on aquatic habitat.

3. Advocates of an Alaska-Canada pipeline state that snow and ice roads would be used to support construction activities, which would avoid the need to build a permanent access-haul road network. However, there are substantial environmental problems associated with ice road construction. Heavy construction vehicles, rumbling over ice and snow roads, can cause damage to the tundra which may lead to serious subsidence, solufluction and erosion problems. As mute testimony to this fact, swaths of dead vegetation remain today in Naval Petroleum Reserve Number 4 more than 20 years after exploration crews

traveled on ice roads searching for oil and gas. Also, there appears to be a very real question regarding the availability of sufficient snow and water to construct snow and ice roads. Precipitation on the Arctic Slope is light, averaging four to eight inches annually. Therefore, snow availability--coupled with the lack of adequate sources of water for artificial snow manufacture--could be a serious factor in limiting construction of snow and ice roads along an Alaska-Canada pipeline route. In any event, maintenance of the line would utilize all-terrain vehicles at any time of year, with subsequent permafrost and tundra degradation.

4. Wildlife along an Alaska-Canada route will undoubtedly be adversely impacted by construction of the gas pipeline. A route which knifes through the coastal plain of the Arctic National Wildlife Range would breach untouched caribou calving grounds, would traverse and possibly interfere with the denning area and normal movements of a distinct polar bear population, and encroach upon significant resting and feeding grounds utilized by snow geese in preparation for their nonstop migratory flight to the contiguous United States.

5. The Canadian segment of an Alaska-Canada gas pipeline route would carry a very high environmental price tag, as it would traverse a very fragile area which has been touched only lightly by the machines and hands of man. Environmental impact of an Alaska-Canada gas pipeline does not end at the Yukon border; we Alaskans cannot close our eyes to the very

real environmental problems that would be associated with the Canadian leg of the pipeline route. The route traverses some of the most severe permafrost problem areas on the North American continent. Therefore, when writing the equation for determining the true environmental costs of an Alaska-Canada route, the serious problems in Canada must also be considered.

II. ECONOMIC IMPACT. One factor which has substantially affected our analysis in the economic sphere is concern for the possibility that neither the El Paso nor the Arctic Gas proposals may be completely economically viable. Of course, neither the Arctic Gas consortium nor El Paso have indicated in their applications to the Federal Power Commission that there is any real economic risk in the project. Both applicants have submitted cost data which, on the surface, seems to show that gas can be delivered to United States markets at competitive prices. The difficulty is that we find it hard to accept these estimates as completely reliable in light of both general and Alaskan experience with major construction projects of this magnitude. More than two years before the Trans-Alaska oil pipeline is expected to go on stream, its final system cost is now estimated at more than five times the initially announced figure. Overruns of 50 to 400 per cent are the rule, rather than the exception, in large custom designed and built engineering projects such as electrical generating plants, manufacturing plants pioneering new technology (G. M.-Lordsville), sports stadiums and coliseums (New Orleans, Seattle), airports,

urban transit systems (BART, Washington Metro), etc. Accordingly it is reasonable to regard the applicants' pro forma cost figures as establishing only an order of magnitude and a base for escalation far in excess of the rate of general inflation.

Our review of the information available indicates to us that both projects can be projected at an initial cost of 8-8.5 billion dollars, and taking into account the certainty of continual inflation, the near certainty of delays and other difficulties that will occur before either project can be completed, a more realistic estimate for either project would be at least 10 billion dollars. This last figure might well be qualified by the expression "plus 50 per cent or minus 20 per cent".

The significance of this initial cost is that it will necessarily require that tariffs for the transportation of this gas be high--so high in fact as to make the gas possibly noncompetitive with alternate fuel sources. A detailed accounting analysis of the necessary cash flows would be as futile and misleading as detailed cost estimates in judging the overall project viability. Because of engineering, cost and timing uncertainties, a very general procedure is probably as adequate for our purpose as an intensive critique of the applicants' pro forma income statements. Supposing the $10 billion investment were to be depreciated at five per cent per year and that the entire investment had to produce a rate of return of 10 per cent, the initial annualized capital costs would be 1.5 billion dollars. Assuming further

that either system would be capable of delivering into the existing natural gas distribution system of the Lower 48 states one quadrillion BTU (quad) per year, the average capital costs at this level of throughput would be $1.50 per million BTU delivered. Assuming operating costs other than fuel to amount to 10 per cent of the capital costs, a wellhead price of only 25 cents per million BTU would bring the delivered costs at the U.S.-Canadian border or out of a regasification plant on the west coast of the United States, to $1.90 per million BTU.

The assumptions going into this order of magnitude estimate are, we believe, conservative to moderate, so that $1.90 probably represents the minimum price at which Alaskan natural gas could conceivably be delivered into the gas distribution system of the Lower 48 states. An informal survey of the opinions of energy specialists not affiliated with the applicants produced a range of cost estimates for transportation alone running from $1.75 to $2.50 for gas transported by an overland pipeline through Canada and $2.00 to $3.00 for a system that combined a pipeline across Alaska with LNG tankers to the west coast. The implications of these possible economic forecasts are enormous for the State. If the market price of the gas delivered in United States markets is nearly equivalent to the transportation cost alone, the State's royalty and share from severance taxes will be minimal. This is because both royalty and severance tax are based on a percentage of wellhead value, and wellhead value will roughly equal the difference between the market value of the gas and its transportation

cost. If gas is "deregulated", the equality will be precise. If wellhead price is set by the FPC (as is the current practice), the difference will be minimal since we cannot conceive of the FPC setting a wellhead price that would require the gas to be sold at a loss. If the gas can only be sold at a price of, say, $2.50/Mcf, and it costs $2.50/Mcf to get that gas to the market, there is simply going to be no wellhead value left upon which to assess royalties and taxes.

I am sure that our conclusions concerning possible lack of wellhead value must seem confusing, in light of the publicly expressed concerns of a national gas shortage, but if an evaluation is done of the nature of that "shortage", the problem becomes fairly clear. Gas has two basic markets in the United States, a "premium" market and a "nonpremium" market. The premium use of gas is for residential, commercial, and special industrial uses. While the price of premium gas is presently low because it is regulated by the FPC, there is no question but that on a free market the gas could be sold for high prices, perhaps in the neighborhood of $3.00 per Mcf. The nonpremium use of gas is industrial and as boiler fuel. In this market, the maximum price which is paid for gas is about $2.00 per Mcf. The significance of these two markets is that there are different competing products in each. In the premium market, gas competes with middle-distillate fuel oil. In the nonpremium market, gas competes with heavy fuel oil or coal.

The regulatory practices of the U. S. Government have created an unusual situation in regard to the prices at which

"premium" and "nonpremium" gas are sold. Interstate sales of gas are regulated by the FPC, while intrastate sales are not. Since interstate regulation has been on the basis of artificially low wellhead prices, much gas in the United States is used in the same state in which it is produced. There is a shortage in the "premium" market because companies cannot sell gas there advantageously--they can derive higher prices for nonpremium industrial use in the state of production.

If transportation costs for Alaskan gas are excessive, that gas is not going to be able to compete adequately with alternative sources of industrial fuel. The gas could compete on the premium market if conditions stay as they are today, since there is a real shortage in the premium market, and customers will buy the gas at even a high market price. The shortage in the premium market, however, is limited, and in and by itself could not justify the construction of a transportation system of the magnitude proposed. Moreover, if gas is deregulated or if end-use restrictions are placed on the use of natural gas, we can expect to see gas supplies quickly reallocated, with the result that the "shortage" in the premium market will rapidly dissipate. Companies will then direct their gas supplies to those markets where gas could be sold for higher rates than in nonpremium sales, leaving the nonpremium market to use heavy oil and coal. We have some doubts that Alaskan gas would be able to compete against gas from other sources in the premium

market if such a reallocation occurs. The primary competitor in the nonpremium market is oil and coal and the indications to the task force are that in the future Alaska gas will not be able to be delivered to the continental United States for prices competitive with those fuel options.

This issue is, of course, more complex than I have set out here, but suffice it to say that the task force has some concerns about the ability of either project to deliver gas competitively without government subsidy and with the result of a positive wellhead value. If the wellhead value is zero or very small, our royalties from the gas will be very slight and our severance taxes, which are based on wellhead value, will also be minimized. We find this to be a significant feature in our analysis since it has led us to conclude that if we are to derive any significant economic benefit from this developed Alaskan resource, it may well have to be through direct use of the gas ourselves.

That direct use can come in several ways. First, the gas may be made available in Alaska for the "premium" uses I previously discussed, though such a use will only involve a small percentage of the State's royalty share. For instance, the State's royalty share will be approximately 280 MMcf/d from production of 2.25 bcf/d. Even if we developed a natural gas market in the state equal to that which presently exists in Anchorage, it would only use approximately an additional 55.7 MMcf/d.

The real possible benefits for Alaska's gas seem to lie in the development of cheap sources of fuel for possible

industrial use in the state. That industrial use can occur either in the interior or along the coast, where the gas is delivered. The cost of the transportation of such gas in Alaska will be substantially less than the cost of delivering the gas to the continental United States, meaning that we will have a source of cheap fuel here for industries that seek to use it. There are several possibilities which need not be discussed in detail here. Petrochemicals is one form of industrial use which has been discussed previously, and other possibilities exist, such as the Klukwan Iron Ore project in Southeastern Alaska.

Unless we have a Trans-Alaska line, there is no satisfactory way to transport Alaskan gas for Alaskan use. We have considered the possibility of constructing pipelines from Prudhoe Bay to points in Alaska, assuming that a Trans-Canadian route were used to transport most of the gas to continental United States markets. Our conclusion has been that a transportation system just for Alaska's royalty share is not economically feasible. The cost of construction of such a system simply cannot be amortized without resulting in an extremely high cost of gas. Accordingly, it is clearly in the State's best interest in obtaining a maximum return from its North Slope gas to keep that gas in the state for use here, and since we can only do that with a Trans-Alaskan line, it is in the State's interest to support such a route.

To this point our analysis has been based on economic projections which indicate a minimal wellhead value for Alaskan

gas from Prudhoe Bay. It is, of course, entirely possible that our predictions are overly pessimistic and that in the end we will see a reasonable or even substantial wellhead value for the gas. If that is the case, the direct use of Alaska's royalty gas in the state will not be the only benefit derived from the resource, but it will still be a prime benefit. If the wellhead price turns out to be more than we have anticipated, the State will derive royalty and severance taxes based on the wellhead price from both the Arctic Gas and the El Paso proposed systems. The task force does not anticipate that, if the project turns out to be successful, there would be a substantial differenc in wellhead price between the Arctic Gas and the El Paso proposals, though there is some indication that a higher wellhead price might be derived under the Arctic Gas proposal. That possibility derives from the fact that the Arctic Gas and El Paso proposals are about the same cost, but the Arctic Gas system would carry a somewhat greater volume of gas, reducing unit transportation cost. However, as we note below, other direct taxes imposed by the State of Alaska on a Trans-Alaskan project would more than compensate for the difference between the two proposals. Moreover, the benefits which would accrue from Alaskan use of Prudhoe Bay gas are sufficiently substantial in and by themselves to outweigh what we anticipate to be a small difference in possible wellhead value, and local use has the added benefit of providing real value to the gas in the event that the economic model we have described is proven correct.

A Trans-Alaska line will also result in revenue from a number of other sources than the gas itself. The property

tax on the Trans-Alaska project would, in the view of the Department of Revenue, produce $68 million more per year than a route through Canada. Under our current gas severance tax law, the wellhead price with a Trans-Canada pipeline would have to be 58.21 cents higher than the Trans-Alaska project to offset in royalty and severance tax payments this substantial difference in property tax. As previously noted, we have concern about the existence of <u>any</u> significant wellhead value after deduction of transportation costs and, accordingly, this comparison is important in evaluating the projects. If the current proposed law was passed providing for a 10 per cent severance tax on wellhead value, then the wellhead differential necessary to make the total revenues from both projects equal is 43.8 cents.

Adding to the direct revenue benefits of a Trans-Alaska line would be the corporate and personal income tax revenues that would accrue to the State. Although difficult to estimate, approximately $42 million more tax revenue is expected during construction of the Trans-Alaska line.

These tax revenues are not, of course, without corresponding burden. Both projects will create substantial demands on State services. It is going to be crucial that we insure a source of revenue to meet those burdens. Property and income taxes provide such a source, even if the economic concerns expressed earlier are valid.

C. <u>A Recommended State Position</u>.

The task force believes that the State in its own best interest should advocate the construction of a Trans-Alaskan

route for the transportation of North Slope gas. This support, however, should be given in full recognition of the fact that it is the State's interest which is being promoted rather than that of a particular company or consortium building a route. We do not recommend that the State necessarily support El Paso Alaska in the construction of a Trans-Alaskan route. To do that would be to wed ourselves to the El Paso proposal and it is not necessarily to our benefit to do so.

We believe it is in the State's interest to support the Trans-Alaskan route but to insist that if that route is approved by the FPC stipulations be contained to insure the promotion of Alaska's interest. First, we must work to insure that the pipeline is certified as a common carrier. Without a detailed discussion of this point, legal doctrines require that common carrier status be obtained in order to insure that Alaska's gas be available at the terminus of the pipeline for Alaskan use. There is some authority that suggests that once gas is commingled in an interstate pipeline it may not be removed without FPC consent. We should make it a prime point in our position to insure that that consent is obtained.

El Paso has not spent the time or the money to evaluate the environmental impact of its line in the same manner as has been forthcoming from Arctic Gas. Relying primarily on the pipeline corridor studies already completed, El Paso suggests that in essence the problem has already been resolved by those studies. That, unfortunately, is an oversimplification. First,

it is unclear whether or not the gas and oil pipelines can in all instances be laid side by side within the same corridor, and it is possible that in certain instances the pipeline will have to be laid outside the existing corridor, creating environmental problems which have not been studied by El Paso. The State should be in a position to press for a route which most efficiently establishes a system compatible with the surrounding environment. Very little review has been done by El Paso of the environmental problems created when its proposed pipeline route leaves the corridor and goes to the Alaskan coast. Again, the State should not feel itself wedded to any position or presentation made by El Paso but should be in a position in the FPC proceedings to vigorously criticize and, if necessary, advocate alternatives. Finally, the financial capacity of El Paso to construct the proposed project is limited. El Paso frankly concedes that if it is granted a certificate, it expects to be joined by other companies and what we may well see is a new consortium created, composed of many of the same parties that presently are in the Arctic Gas consortium. The State should do everything to insure that adequate financial backing is obtained for this project and that the project is, insofar as it can be made so, economically feasible. It is in the State's interests to do so because if the project ultimately becomes subsidized we can reasonably expect that the State will be forced to bear a portion of that subsidy, either through pre-emption of its taxing power or through imposition of other federal controls.

While we have recommended to you that the State support a Trans-Alaskan route, we believe that we must also advise you that there is a great deal of impetus and political pressure tending toward an adoption of the Canadian route by either the FPC or the Congress. Midwestern and eastern states see it in their interest to have North Slope gas come directly to their markets through a pipeline, and when the decision is made we can expect that this large segment of the United States populace will not be ignored. Moreover, there is evidence that the Arctic Gas proposal will use less of the gas itself in the transportation system, which will recommend the system to a national constituency. Finally, as we have noted earlier, the Arctic Gas proposal appears to be cheaper in terms of the construction necessary for the transportation of Alaskan gas. Faced with two marginal economic proposals, the FPC or the Congress may well opt for the one which at least is cheaper on its face, since that would reduce costs to consumers.

We mention these factors because we believe that, while Alaska should promote a Trans-Alaskan route, it should never lose sight of the fact that the Arctic Gas proposal has a substantial chance of ultimately prevailing. Accordingly we believe our position should be not only to promote the Trans-Alaskan route, but actively to criticize the Arctic Gas proposal in an effort to insure that if it is ultimately adopted it will be the best route possible for Alaska. For instance, the Arctic Gas proposal right now is for a line through the Arctic Wildlife

Range. It is the feeling of the task force that it is not in the State's interest to promote intrusion and development of that Range and that the State should attempt to insure that routes are developed for the Arctic Gas proposal (if it is accepted) which will avoid incursions into the Range. Arctic Gas has indicated that if they obtain the certificate which, in their view, will give them eminent domain powers for a pipeline across State lands, they will nonetheless negotiate with the State for such a route. We would expect to do so, but at the same time we should make every effort before the FPC or the Congress to insure that the basic corridor for the route is sound.

We will be meeting with our attorneys in Washington, D.C. over the weekend to discuss how we best can present Alaska's case before the FPC. On April 7 I will participate in the prehearing conference, at which point we will indicate to the hearing officer what basic alignment we will take in the proceeding. I will, of course, await your instruction before advising Washington counsel of that course of action.

AMG:as

GAS PIPELINE IMPACT COMMITTEE

Meeting of July 21, 1975, 9:30 a.m.
Kenai Room, Anchorage Westward Hotel

Meeting came to order about 10:20 a.m.
A motion was made by Sen. Terry Miller to make Willard Bowman permanent chairman.

Sen. John Huber seconded the motion.

Roll Call was taken: 10 present, 6 absent

Present: Senators Poland, Miller, Rader, Huber
Representatives Bowman, Bradner, Kelley, Hackney, Cowper, Anderson

Absent: Senators Ferguson, Rodey, Tillion, Croft
Representatives Gruening, Specking

BOWMAN: To set tone of this committee, President Croft and Speaker Bradner are going to lay out what purposes we should be addressing ourselves to.

BRADNER: I think the Gas Committee was an outgrowth, to a certain extent, out of our experience with the General Petroleum Impact Committee that we had in '71 and '72 which got us in our proper share of trouble. At the same time, I think most of us feel good from it being a very positive thing.

In general, a function of the committee is to try in some way to equate the problem of the richest energy producing energy state in the nation, yet we have the highest energy costs in the nation and some how in dealing with the energy resource closing that gap so that either to financial renumeration or to other types of renumeration to the citizens--the fact that we are the prime energy producer--becomes meaningful.

A little more precisely, I think the purposes of the committee is to develop an informational and legal framework from which we can deal with that resource which as yet we haven't really dealt with which is natural gas.

The problem most of us feel with the gas pipeline development will probably be the oil pipeline. With that action, we'll probably be plunged into somewhat of a policy battle between the State and Federal Government...not only in terms of regulating and managing private gas but even our own royalty share which we may have to fight to defend for that regulatory agency. I think that simple legal base of knowing where we are and where we have to fight--that's the most important kind of framework that this committee should deal with.

I think that our action, if we get into this, will create a wide awareness within the administration--they'll begin much of their own work on an independent basis. At a certain point we'll find the two functions of the legislative effort and administrative effort hopefully working somewhat in concert.

I think we can think of many goals that the committee might meet. I think the obvious one is somehow reducing the cost of

energy for Alaskans in terms of electrical energy and home heating energy. Some of our cities like Anchorage have been aired of the benefit of those things to a certain degree.

I think we also have to meet the question of insuring the security of our gas so that it's available to critical areas, not just now, but perhaps in 10, 15 and 25 years. I think there are various ways in which that can be accomplished.

The really difficult thing the committee will have to deal with is the balance of insuring we get the greatest financial renumerations out of the resource and at the same time balancing out with how Alaskans across the board get the best use out of it: either through domestic use or secondarily through translation of the petrochemical therefore reinforcing the economic structure and having the use of biproducts in Alaska or for resale out of Alaska, but after the primary process. That area is going to be very difficult to analyze. It will require a lot of judgement, perhaps, the judgement we start and the administration is going to have to complete.

I think on a more immediate basis, the committee will have to look at new tax legislation on gas; look to local needs; restrictions being placed on certain kinds of gas development.

It's entirely possible, we can lease a set of leases for oil and gas development but restrict the production of those leases if they should strike pure gas fields as a matter of contract with the owners, therefore, avoiding the FPC question by simply saying, "Fine, if you have an oil and gas in solution, we have a hard time, but if we happen by happenstance to strike a pure gas field, then as a matter of contract you'd have to meet state restrictions in producing it...because it was an ownership committment in the first place.

I think we're going to have to do a study of potential uses of gas, within the state, what the needs and utilities are, what the needs of the domestic market is; the possible potentials of petrochemical use. We'll also be needing to review a possible state-owned gas authority possibly dealing in the petrochemical area and perhaps also a state-owned authority dealing in the area of the pipeline transportation, for no other reason than to maintain control over the gas. These are just a few of the things the committee can look at.

I think the primary ones we started dealing with in oil in 1972 which perhaps will be more successful in the gas area, is the use of contract stipulation initialing the leases in the first place, as a matter of maintaining a policy hold on the gas. I'm sure Willard and perhaps others have an expanded reference of what they think this committee should do. These were things which many of us discussed during the session as the committee was formed which probably represents a scope of more than the committee can do in the immediate future. I think that leads to somewhat of a mandate that the committee is going to have to divide it's work into two parts: those things they think they can produce as a matter ofpolicy study and as a matter of legislation for the next session. Those things which are more important with a longer range program, they'll have to leave as a legacy, to begin work fora new committee in the next legislature or through another organization to take it up after this one. I think that division of work is something that's going to have to be considered by this committee in the next couple of months.

BOWMAN: Thank you, Mike. Any member of the committee wish to expand on that?

MILLER: I think that Mike has done an excellent job in capitalizing the total scope of the statuatory mandate for the committee. He also said we'll have to set up a categorization of priorities--particularly those things which are immediately conceivable. The first thing we have to recognize, Mr. Chairman, before we have some of the goals the Speaker mentioned, we first have to have a gas line. It seems to me from what I read and from what I'm told by those who should know, the question of whether or not there will be an Alaskan gas pipeline, is still very much in doubt. Unless we have an Alaskan gas line, some of these problems that the Speaker mentioned may be more theoretical than real or the opportunities may be more theoretical than real.

Now we have a legislative statement passed by joint resolution to the FPC favoring an Alaska gas line. We have a statement by the Administration favoring an Alaska gas line. I think we have a clear mandate there. Maybe, one of the first things, if not the highest priorities, is to do what we can do to work with other, within and without the government, entities who are working for a gas line to make a concerted effort to get a favorable decision from the Federal government. I would hope that we would do that first, at least talk about it first in support of an Alaska gas pipeline utilizing some of our resources, certainly not all of them but some of them in that endeavor and perhaps working with the administration and private groups to stretch those dollars...I would hope that at this meeting that would be one of the most important things we can do.

BOWMAN: Thank you, Senator Miller. Others have comments?

HUBER: Mr. Chairman, I would hope that even though we don't have a gas pipeline as yet, that we don't fail to look into the possibility of conversion of north coast methane, CH_4 into methynol CH_3OH for shipment by the current pipeline. It has the advantage of being removed at any point along the pipeline because it boils off at 160 or 165°F. When you blend it with gasoline, it has a blending octane number of 131 and when you burn it alone, as gasoline, it has an octane number of 107. The chemistry is quite simple. As I understand it, it takes a catylitic plant to do it, and could be put on the North Slope. Everything it does to the oil pipeline is beneficial, because it thins the fluid that is going through the line. I think we should be looking into that end, too...We may not have to ship gas as gas; gas may be shipped as methynol from the North Slope as liquid. The normal amount, as I understand, is an indication... is enough to make it so that the pipeline could be operated at 0°, meaning you don't have to have a second line. These are some of the things we ought to look at.

BOWMAN: In other words, Senator, you're saying I ought to go in my chemistry set to find out what you're talking about.

HUBER: Well, it's simple. All the items are there. You notice that CH_4 is the methane, that's what the gas is. CH_3OH, if you remember your highschool chemistry, adds one atom of oxygen.

BOWMAN: Are there others?

ANDERSON: Mr. Chairman, my concern is, as always has been, the development area of natural resources is going around the ears of residential people and the oil pipeline is a classic example to the resident Alaskans involved in the development of a mineral resource, a non-renewable resource. One of the subsections by page two are in active legislation.

In which case,
We do things considered advisable from that light in developing Alaska's natural gas consistent in the public's interest and adherent to Alaska's resident hiring laws. I think, you and I put in that amendment to make absolutely sure there would be no question, that we would not just popularize resident hiring but do something about it. If we're going to talk about owning or partial ownership of the natural gas pipeline system, that we should not allow outsiders or non-residents to be the majority in the development of that system. I want it to be put on record that I'm not very happy with what's going on, on the North Slope.and I think we should have done something about it before now. I think the pattern has been established long before we even became a state. I think we've got enough money employed for resident people--to put to work and train and get them going in this area.

BOWMAN: Thank you, Rep. Anderson. Are there others?

HUBER: In regard to what Rep. Anderson was just talking about, the communications sent to both of us and this committee which you have so thoughtfully supplied, from Prof. Witherspoon along with a copy of the Texas law that was recently passed which has also been supplied to the committee on Taxation and Revenue. It might be helpful that that particular route that Texas took and Witherspoon mentioned using the contractual powers the state had. It's the strongest single thing we have working for us when it comes to such items as mandatory residential hire. You might keep that in mind. Certainly from the items that Rep. Anderson mentioned. It might be the best tool to accomplish that.

BOWMAN: Thank you, Sen. Huber.

BRADNER: I'd like to add one thing. Our job is perhaps made more complex because of the precarious question of the initial gas line which could be trans-Canada or trans-Alaska I would simply like to point out that should that decision go against the majority wishes of Alaskans to go trans-Canada, it would perhaps make the function of what we do even more important..as that would be a clear indication that our gas would be locked away in the transportation system very remote from the rest of the state. I think it would make the function of state policyeven more critical for what gas remains elsewhere. Gas discovered elsewhere, perhaps closer to the urban areas, would even be more super critial than otherwise would be the case. Regardless of how that decision goes, the function of this committee perhaps is even more enhanced should it go against it.

BOWMAN: Senator Miller

MILLER: Mr. Chairman, I think the Speaker has hit it right on the head again. Development has to continue to be planned. I think that it may well be, that whatever we do, that the configuration of our laws with respect to oil and gas, would be considerably different if there's a Canadian line and an Alaskan line. Obviously, the best route of the committee is to do whatever it can to insure first and Alaskan line--since that decision is still pending. I think that makes a lot of things much easier-- alot better if you will in terms of state opportunities if there is an Alaska line. It seems to me logic would dictate that that is where we would put our first push.

BOWMAN: Thank you, Senator Miller. It seems to me that one of the things we have to establish is the fact that the committee and the legislature itself has stated in unequivocable terms that we wanted the line to go through Alaska. But, it also seems to me that unlike the oil pipeline, when we had everyone and his brother and sister pushing nationwide, where Alaskans were concerned for that oil pipeline. There's quite a bit of apathy amongst our citizenry as to the gas pipeline. Maybe it's because we are all busy, but I think the Legislature has to take the lead in trying to assure in whatever manner we can that our

full imput as to our desires should be made in Congress or FPC and others who have the ability to make those decisions. I would think this would be one of first priorites of this committee--that is to push in every way we know how and I hope that we will develop the means to bring forth this policy by this committee. Are there other statements you want to make before we go on to the Public Hearing? I thought it would be proper to have those who would like to testify before the committee before we get into the mundane facts of how we're going to organize.

BEV ISENSON, EXEC. DIRECTOR OF OMAR

Mr. Chairman, ladies and gentlemen, I appreciate the opportunity to talk to you all on behalf of OMAR. Our organization represents hundreds of Alaskans who joined together to pursue every avenue possible for a trans-Alaska gas line. We share with some of you on the committee the feeling that many of the other things you are going to look into will be shortened if there is no Alaska gas line. We've monitored very closely the political situation in Washington and we are,every day, developing better sources of contacts... in the political situation in Ottawa and other parts of Canada. We feel the gas line route would be critical to the whole economic future of our state in terms of jobs and general economic prosperity. We would be glad to share with you and your staff the information we've compiled in the last few months. I should say that OMAR stands for Organization for the Management of Alaska's Resources. While this project is a dedication to all Alaskans for the gas line. We anticipate every citizen's group will be able to reflect the thought and widespread feeling for other natural resources. Although we back the concept of the trans-Alaska line...we are striving as much as possible as a citizen's group. Our funding comes from private citizens, from GAAB, from the city of Anchorage, and a lot of one dollar contributions. Because we take the priority of pursuing the trans-Alaska natural gas line. I'd like to suggest a number of areas we would explore: Some of them seem like extreme measures and we hope we'll never come to any.

One area in which we would like some work on is contacting members of other state legislatures around the country. You will discover that many have never heard of a trans-Alaska gas pipeline. So with the thought that there is a way for Alaska gas to be routed other than through Canada has never been thought of til now. And once we contact people and hear the various alternatives

Another area we want to see, is possible legislation of primary processing of gas,,so it doesn't just run out of here regardless of the route.

A third area we understand some ground work has been done is in Texas. This has been on strict control of export of gas from the state. I would be willing to explore any possibilities of strict control of gas that will be coming from Prudhoe.

Some other possibly significant points regarding the control of a gas route would be things sounding relatively petty: control of the road along the pipeline (state control); disposition of royalty gas --maximizing the return to Alaskans. We also want to review an area that most Alaskans have regarded with dismay over the past few years. We think there may be a precedent for action.and that is having to consider research of past environmental suits which have blocked development here or there. through wildlife ranges. It seems now that our primary proposal in our gas consortium is to lay the gas line right through the range.

Environmental suits, which we have also researched, which have blocked far more development through wildlife ranges.

I will be glad to share our information. As a start, I would like to leave with you an article from the Sat. (July 19,1975) Anchorage Daily News. It's a graph showing Alaska's jobless rate - which has dropped to the lowest degree ever in the last five years. It has one critical paragraph in it. The figures feature unemployment, vary depending on the proposed natural gas pipeline is routed through Alaska or Canada --and we think that is awfully important.

The other piece of information I'd like to show you is a chart which has been prepared using figures from Alyeska and the State Department of Labor study of the Natural Resources Planning Institute and El Paso Natural Gas Co. It deals with employment in construction only.... So what we're looking at is continued employment for many of our people as well as people who come from outside. Although many of us are chagrined at the large influx of visitors from outside, one of the ways in which we can best improve this state, is to provide opportunities to those who want to work permanently--so that two or three years from now we don't have neighborhoods that have become ghost towns. At any rate, we'll leave this information with you and will be glad to share our initial information with the committee on events in other parts of the U.S. and Canada. We hope we will be able to work with you and make contacts around the country.

By working with you, we cannot overlook the fact that we are in need of money. Because an organization supported by Alaskans, notwithstanding the fact of receiving one dollar contributions. It doesn't go very far when we talk about sending people around the country. Some of the speakers for this group in other parts of the state and nation, we anticipate people that are prominent in the Labor movement will be speaking where labor is concerned...We hope that if we combine our efforts, we can awaken the rest of the nation as to the potential of a trans-Alaska gas line.

BOWMAN: Thank you, Bev. Are there questions from the committee?

RADER: How big is your staff?

BEV: Two.

RADER: Have you hired any Washington consel or any other counsel to advise you?

BEV: Well, our counsel is one of our Board of Directors, Bob Hart We have applied also to the FPC to be allowed to intervene. ...Right now, hearings have been adjourned til September 30 and we want to take this period of limbo of the FPC and turn it toward our advantage...

RADER: What are your budget projections, how much money have you taken in and how do you intend to spend it?

BEV: Right now most of our activities have been to devoted to gathering information and making contacts around the country, and giving those Alaskans going outside our literature and asking them to take every opportunity to present it. When people go to conventions, we give them our literature. In the past, we've found that ordinary Alaskans talking to other citizens around the country are very persuasive: they listen to us. We also find when this route is taken that Labor people talking to Labor people, and businessmen talking to businessmen generates alot of very professional insight.

Over the next year, we hope to acquire enough money to pursue a budget of $ 245,000.00. The bulk of this would go toward printing literature and airplane tickets. We feel that sending qualified speakers around the

country is far more effective and economical than hiring an ad agency...

RADAR: There are possibly three or four more positions that could be taken before the FPC or taken by the Canadians and EL Paso. Perhaps that taken by our own State Administration should be combined. Are you satisfied with the position taken by the State Administration? Is there a need for independent counsel which this committee might choose to carve out it's own position?

BEV: I think it deserves consideration.

Miller: In the days ahead, our staff should have the opportunity to get together with Bev and others to explore possible areas of assistance--one of which might parallel that of the oil pipeline--that being a grant or something on a controlled basis. The other would be similarities between the gas and oil pipeline. John touched on one: of specific quasi-proceedings going on right now.

If there are any holes in terms of the story we want to tell, that need to be developed that have to go before the FPC, we ought to develop that rather quickly. Maybe the best thing, would be doing that independent of any public relations effort. Because they're the first line of the decision-making process and perhaps the most important one as they may set the precedent from now on especially once Congress gets involved later on.

It seems we ought to be working on the technical information that needs to be developed. If we find there are areas that we think the Administration position needs to be briefed on, we should first try to work through them rather than coming with fragments of the legislative position, state position, OMAR position or whatever. I think the more unified we are, the better.

BEV: I'd like to add one more thing. We want to pursue the gas line and we feel more should be done on it than has been...We recognize that no matter what the FPC does, Congress will get involved... Oil legislation in 1973 had made the provision in that legislation that before the Secretary of Interior can grant a permit for construct ion the pipe cannot be more than 24" in diameter, he has to give notice of his intention to Congress...

We feel this to be a great opportunity for ordinary citizens to make their voices heard and talk about what the long range interests of the nation are. We've got to make our voices heard.

RADER: Has your committee gone into the possibilities mentioned by Senator Huber?

BEV: No, we haven't, though we've talked about them.

RADER: Have you settled then, on the standard garden variety gas pipeline?

BEV: Technically, the changing of gas techniques is something we really haven't gone into, as we're not equipped to handle it. We have all types of people of different backgrounds in our membership: from fishermen, marine biologists to economists. I don't think we have any Chemists. We would be glad if this committee can develop the information needed, to incorporate those kinds of people.

RADAR: Have you approached the State Division of Economic Development?

BEV: No, we have not.

RADAR: Have you made any direct political contacts? Have you started any contacts with any congressmen?

BEV: No, we have not. Frankly, we're not set up that way. We felt that before we started any contact with congressmen themselves, we would have to be talking with people in the various districts--as many of

them have only heard of a Canadian gas line and know nothing of an Alaskan gas line. And, we find from experience with the oil pipeline, that constituents are more responsive.

RADAR: What is your understanding on when the FPC will make a decision?
(end of tape)

BEV: ...on the other hand, the Gas Arctic Consortium is working very, very hard. They were working through their individual members holding seminars and parties for Congressmen and Senators and doing this for quite a while.

RADAR: Thank you, Mr. Chairman.

HUBER: I think there's more to it than that. I'm not trying to get all of our gas changed into methynol. There also could be a method used to present before the FPC. Because if we have a method of bringing our gas to market, and enact a law like that mentioned in Witherspoon's letter in Alaska for export and getting the maximum use out of it. If we changed the gas into a liquid before it left the North Slope, I believe we would get out from under the FPC. In other words we would use this as a legal tool in fighting it, using it as a lever to get the gas pipeline through Alaska. We could convert into other petroleum products other than gas and ship it through an oil pipeline which will already go through Alaska.

BEV: The FPC made a decision a couple of weeks ago on their jurisdiction regarding liquifying natural gas from Kenai. They're proposing to build a liquefaction plant in Kenai to Oregon. The FPC ruled that if that gas is shipped through international waters, it would no longer be under FPC jurisdiction. I have a very brief article on it which I will copy and make available to you.

HUBER: It's my belief that if we can work the gas into methynol, it would become a part of the liquid petroleum rather than a part of the gas. In this way it would be readily available as gasoline. This is the product of petroleum we're interested in than anything else...converting our gas to gasoline and making it readily salable and of course gets us from under the FPC and makes use of other authorities we already have--then we may have a leverage there. I don't care how we use the leverage as long as we get the maximum use for Alaskans.

HACKNEY: Just to clarify the position of OMAR as far as running the line through Alaska...Are you saying running the line entirely through Alaska or perhaps to the Canadian border paralleling the Alaska highway? Has that been presented as a possibility?

BEV: We are aware of that possibility...We have not designated whether or not the line should go through Prince William Sound, although it is our feeling that certain money should be realized in using this corridor. We're aware of the other project.

BOWMAN: Would you clarify the point that you made,"all through Alaska" Do you mean all the way through to Southeastern including the Haines pipeline already there?

BEV: We would rather see it go entirely through Alaska. Basically the same as the oil pipeline although it could conceivably branch off to Canada. Our reservations about it going through Canada would be the dame as the Gas Consortium route...

RADER: Do you assume the cost and delivery of gas to the market, whether to the West coast or the Mid-west, be approximately the same no matter which route the gas line follows or do you assume that one route is cheaper than the other or do you assume the cost of transportation is unimportant?

BEV: We realize the cost of transportation is important and what it finally costs in the Mid-west or West coast is important--as it is important to the entire economy. We are affected by what happens to the rest of the country. We have relied to a considerable extent on the Governor's Special Gas Policy Committee...The information revealed indicated that either project through Alaska or Canada...the projections could

be considerable smaller than the cost of either project. Attn. Gen.' Gross' report indicated the magnitude of the cost of either line traditionally runs between 50% and 400% over the projected cost. So we should not talk of one line being cheaper than the other.

RADER: FPC is charged with a different responsibility just as much as we are. We have the responsibility to develope a governmental policy that appears to be advantageous to Alaska. We hope that that policy will be advantageous to the national interests. There could be a difference between Alaskan and national interests. For example: if it costs twice as much to get the gas from Alaska to market by going one route or the other. Those appear in question in the national interests are not going to take the cheaper route. The last time I had dealings in this subject, I was unable to get a handle on the costs. FPC has to get a handle on the costs...won't that be part of the decision and if it is, should we not perhaps develope our position dependent upon the economics of it?

BEV: Judging from what Mr. Gross' report turned out, it's pretty' difficult to get an accurate handle on the cost, because the problem of inflation for one thing. They concluded that the cost might be so great that the well head costs might be zero so that the only benefit Alaska could get from the line would be whatever Alaskans could get working on the line...

They pretty well established that it's possible to get a handle on the costs. One of the problems, we feel, is that some of the figures presented to the FPC look like figures that were developed several years ago. At any rate, we should develope a firm set of figures.

RADER: Thank you, Mr. Chairman

ANDERSON: Bev, you're obviously a strong advocate of the trans-Alaska gas pipeline...I'd like to know what OMAR's position is on resident hire. The reason I ask is that you advocate strongly the trans-Alaska pipeline and you're going to have to have to get the ' support of non-resident people. It is inconsistent with being a strong advocate of resident hire...in other words, you're inviting people into our state to develope a non-renewable resource.

BEV: I share your feelings about this. Our feelings have not specifically started out in support of resident hire. However, I think I can safely speak for every member of our committee that we would like to see Alaskans hired first...I'm sure we can come up with some legal way to insure the line to Alaska and that Alaskans have the first chance at jobs.

...One of the potential areas of industry that we haven't touched upon is the maritime industry. Here, we're talking about liquified gas shipped to other parts of the U.S...so it would bring jobs. So while we're concerned about local hire as it affects our whole economy, we don't feel unsympathetic toward citizens wanting jobs.

ANDERSON: To proceed a little further...Why doesn't OMAR get into the job situation?

BEV: We'll look into it.

ANDERSON: ...You won't get any support from me unless we establish resident hire.

BEV: We'll pursue it.

BOWMAN: Thank you, Bev. Are there other questions for Mrs. Isenson? We'll be in touch with you and let you know how we will dovetail our interests....Would Pat O'Malley come before the committe?

O'MALLEY: My name is Pat O'Malley and I'm president of the Human... Resources Institute of Manpower under AFL-CIO.

I'm not authorized to speak for Western Alaska Building Construction Trades of Alaska though I was rather closely associated with them.

I'd like to report on a meeting of last Tuesday morning about a resolution unanimously passed concerning the trans-Alaska gas pipeline. I'm amazed at the apathy concerned with a gas line...

One important factor brought out that there was quite a difference of opinion as to where the line should go... Those favoring the line, should be united in a firm front when the real battle developes with Congress and the United States...

BOWMAN: Mr. O'Malley did you say that was the Anchorage Central Council or State?

O'Malley: Western Alaska...Council...

BOWMAN: Does any member of the committee have questions?

RADER: Where is the 63rd parallel?

O'MALLEY: About where McGrath is located, about a hundred miles south of Fairbanks.

COWPER: Have the internationals taken any position on that or do they plan to?

O'MALLEY: I would hope that they would. I'm sure the Building Trades Department technically of AFL-CIO will take a position.

COWPER: Do you think the position will be favorable to an Alaskan line?

O'MALLEY: I would hope they would.

COWPER: What about the mid-western? Do you think there will be pressure from the mid-western people to build the line through Canada?

O'MALLEY: Yes, I think that is a foregone conclusion. They will press for a Canadian line.

I don't know whether it would be cheaper, for instance, to take the gas through California, reverse the flow of gas there and get it back to the mid-west or go the Canadian route. I really don't know.

Certainly if the line goes across Canada, there aren't going to be many Alaskans employed.

COWPER: I would like to know if we can expect support for an Alaskan line at the top levels of the AFL-CIO.

HUBER: One small remark in that regard. I think the blue print of that exists because of the experience with the Haines pipeline which was built a number of years ago. Most of that line, as you know, lays in Canada. The biggest share of the expenditures were in Canada.' The Canadians had such stringent rules on the Canadian people working on the Canadian section that we had such poor rules on the Alaska section that we used Canadians in Alaska. For instance the communications on that line was handled by Canadian technicians--and it wasn't allowable for Americans to work in Canada, though. So that's the experience we had on the Haines pipeline.

BOWMAN: Further questions? Thank you, Pat.
Mr. Homer Burrell.

BURRELL: My name is Homer Burrell and I represent myself. Iwas Director of Oil and Gas for six years. I'm glad to see the Legislature take a look into a gas line as I'm quite experienced with the Administration's rather soft approach to favor, at least I think they

favor a gas line. At times, I'm not sure. The Administration can't do it, and I'd like to see the Legislature do it. That's one phase I wanted to talk about.

Another thing I wanted to mention, is that I',m rather annoyed at some of these oil companies who preach in these big adds about how they are dedicated to Alaska--these are the ones making up the Canadian gas line group. If that be true, then why do they want to run the line 197 mi. out Prudhoe Bay to the point demarcation and out of Alaska depriving us of (1) tax base, (2) employment, (3) access to the gas, (4) depriving the U.S. of the balance of payments, and (5) an all Alaska line and on and on as I'm sure there are other things.

What do we do about that? Of course, we could take our royalty gas in' time. We could commit ourselves to El Paso or whoever, I'm not sure, I haven't worked for El Paso and never expect to. We can commit it to anyone who wants to build an all Alaska line and maybe we should, maybe we ought to just put it up for grabs to anybody who commits to move to Alaska and make any access available to Alaska.

Another thing, the last shot we have in our leases provides we can take the royalty share in time. The last shot we have to amend those leases is the agreement from the Prudhoe Bay fields. That is a legal contractual modification of the oil and gas leases.

I've already notified the oil companies and I would insist on some kind of an underwrit or banking clause in the agreement. Call it what you will. But what it would amount to is this: Is that if the state wasn't ready to take it's royalty gas at this time, it could defer taking it til' a later date. It would have to be a reasonable period of time--for the next twenty years or something. It would have to be a reasonable date so that the oil companies could have time to advertize their investment and transportation facilities and yet it would have to protect the state. Now that should be explored.

Next point: Our future oil and gas leases should perhaps be modified to provide an option in the lease to take some additional portion of the gas or oil assuming we pay for the market value. This would be up to an additional amount equal to 50%--if we have this in our leases today, we could tell them where the damn line could go. If we had control over 50% of it, they wouldn't go anywhere except where we told them. These are things to think about. I'm just throwing them out for your consideration.

MILLER: Assuming the Canadian line does not go through the Arctic Wildlife Range, would it cross any state land on it's way to unleased state land on its' way to the border?

HOMER: I would believe it would stop at Prudhoe Bay--land which is currently in the process or has been in the state southeast of the Prudhoe Bay fields.

MILLER: My question then is, you recommended a couple of possible measures the state might want to look at in terms of an Alaskan line. What about the state taking a position on---We're not going to lease any lands for a Canadian line to trespass on.

HOMER: In response to Senator Miller, the natural gas act of 1935 which controls a provision granting interstate transporters of natural gas around the nation.

MILLER: Even over state property?

HOMER: That is the intent. It's been exercised over private property... ...No one has ever had a stake in it as Alaska has...

MILLER: It's conceivable then, that they do not have the power?

HOMER: It's conceivable they do not; it's conceivable that they do.

MILLER: Do you think that ought to be explored?

HOMER: Definitely.

HUBER: Somewhat along the same lines that Terry brought out. Homer, are you aware of what Terry talked about on something we tried to do on the oil pipeline...We were trying to bring about the use of a common corridor at least as far south as the Yukon river based on the statement refusing to grant right of way over state lands, and keeping in mind the same route of Prudhoe Bay at considerable state lands involved. This was because of the fact that all lakes....belong to the state. So there is a considerable portion of the present pipeline corridor we own by virtue of that particular requirement in the statehood act that gives us these lands. So regardless of what route they're taking, we do have some control whether it will stick in court or not.

HOMER: I agree what you said first, however, the problem is of what was talked about of the oil pipeline roughly paralleling the Alaska highway and putting the gas line there.

RADER: What consideration, if any, this committee should give to the relative costs of the pipeline as it affects well head costs and state interests and to what extent those costs are ascertainable; to what extent those costs will be considered by the FPC..

HOMER: This is one of main issues...under current laws, the 1954 Phillips decision stating that the FPC has the right to set the well-head guide of gas where the state collects royalties and severance tax. Now there is a great deal of pressure, in fact, a bill actually passed Congress on this in 1952 or 53 to take that authority away from the FPC.

There is pressure, again, to enact a bill which would de-control the well-head price of gas--at least take it away from the FPC. Gas-oil works exactly opposite--the FPC sets the well-head value... and then they add on transportation costs and that is what it costs the distributor and then what the additional costs to the consumer. Oil works backwards starting from the refinery then backing out transportation costs. So let's assume Scenario 1, which would be if the law stays as it is and the FPC will set the well-head value...then you have to add on to that transportation. So you have to add on the transportation of the two routes--technically you need an economic analysis...What Arctic Gas does is, one guy takes the other fellows distribution costs...with each coming out with different numbers...for primary distribution...even the splits are forgotten--the three way split they've got above the Canadian border when they come up with these numbers. El Paso doesn't claim a replacement, that is, the reversing of the gas lines--to move some of the gas to the mid-west. Arctic Gas claims El Paso doesn't have this. This will need analysis to see which numbers are open and which ones aren't.

RADER: Do you think we can make the assumption that the costs will be the same...or do you think the FPC will ever make a decision til they have some decision on the analysis of the costs.

HOMER: I think the FPC will have a far better deterrent... I'm more concerned with the decision of the committee(?)....

MILLER: Have you followed fairly closely the proceedings today for the FPC? You mentioned earlier that the State position needs to be better represented. I'm curious on how that ought to be. Do you think there ought to be another state position in the form of perhaps a position by this committee or through private organizations or what. How serious do you think those are?

HOMER: My impression, is that the FPC or the State Administration may not even want the line to go through Alaska... This is my impression. I would like to see a firm position taken.

either by this committee or some private organization. The first action would be to get a hold of this Oil and Gas Royalty Development Board and tell them to shape up and commit their gas to anybody who will use it in Alaska or who will transport it to Alaska and export the excess or use the excess in Alaska. This is the only way Alaska is going to deal with the gas--it's got to go through Alaska and be available here.

MILLER: You're not in a position, for example, to know if the State needs to supply perhaps an addition to a stronger policy position behind the line, a particular technical information or something. Perhaps, the one carrier who has the application for an Alaskan line...

HOMER: I think they have adequate access to technical information...We need an economical analysis and an engineering analsis of the data on both sides.

COWPER: I have a question. Do you have a car?

RADER: Your suggestion to commit the gas to someone who will use it in Alaska, I've been involved in a conversation that ran something like this: Nobody can really firmly commit that they will buy our royalty interest gas unless they know where the pipeline is going to go. Also if we did have this condition committment to use in Alaska and the FPC looks at that condition committment, they've committed the gas if the pipeline goes that way, but if it doesn't go that way, it's uncommitted and therefore, it ought to go through Canada.

HOMER: This goes back to other remarks referring to a banking clause the State ought to look into...to insure the gas in the ground for a reasonable period of time...The only way you're going to get a gas line built is money and the only way you're going to get money is having the gas available for the gas line.

RADER: Do you think we could have theFPC record of the gas line going through Canada--on the basis of the presently known reserves, adding a second line from Prudhoe to Fairbanks or some place...do you think the royalty interests would be feasible?

HOMER: Not in the least at present.

RADER: ...you're saying that we're fortunate that in finding the gas, this would become so.

HOMER: Right.

RADER: If someone were to bid on it today, they'd have to take offers depending on what they know.

HOMER: That is correct. Any bids made available need at least two conditions: one is if there is a line through Alaska and secondly we'll pay the top price...

RADER: Let me ask you about your banking agreement. I understood that the unit agreement is basically one of a conservation matter and also an economic way of assuring the economic use of drilling a number of wells...Do we have the right to alter the royalty gas situation under the guise of a conservation or economical agreement.

HOMER: No sir, we don't. What we have is a little leverage ...I have done this with the largest producing oil field in Alaska...Some three or four years ago, I had been working for the state...in an agreement which provided that a portion of the oil is taken from all the leases which simplifies the handling...I wrote the agreement for the oil companies when I worked for the oil companies for that. They had to send a clause between themselves.....as they were unable to sell their oil in the early days. They literally "underwrit" many, many hundreds of thousands of barrels of oil and later they gave(?)

them up after they had a market for them. This is not a unique scheme at all....

RADER: Then this is not a legal position at all, but a bargaining position, where we bargain certain conservation things away in terms of a banking agreement comes in.

HOMER: You don't have to bargain anything away..

RADER: ...What do we give them in return for their agreement.

HOMER: We give them state approval of the unit agreement which cuts down the number of ...reporting(?) they have to make in the individual production...

RADER: But that's based on environmental concerns, conservation concerns and economic development concerns. That approval would have to be given or with held in an arbitrary matter, then if you're going to bring in extraneous matters.

HOMER: They want the unit agreement so that they can cut down on their operation costs.

RADER: Bargaining, too, in which we give them nothing for their agreement with the bank(?)

HOMER: That's correct.

RADER: That's not much of a bargain.

BOWMAN: It depends on which side of the table you're on.

HUBER: I understand that earlier this year, the Arctic Gas Consortium was making a presentation before the FPC... They indicated that off of Prudhoe Bay, 113-118 trillion cubic feet of gas rather than the original figures..
Can you make any comments as the size has a lot to do with it.

HOMER: Yes, reserves proven amount to 26 trillion...

HUBER: I understood that during that presentation, a little stronger language was used. Do you know anything about this?

HOMER: I'm familiar with their reports...Reserves are a strange word. Instead of proven, it may mean likely to be proven or nearly to be proven. They have not been "discovered" yet.

HUBER: I would question the 113 or 118, the size in which we're dealing with here..is it possible that more could be there than indicated?

HOMER: No. (end of tape)
If Exxon owned 20% of the gas in Prudhoe Bay and a whole bunch across the border--where would you want the gas line to go? through your oil fields, of course.

BOWMAN: Homer would you be able to come back after lunch?
I have a couple of questions. Homer, what is your response... I noticed there has been in the last few months in the paper about oil companies selling their gas. What do you feel is happening there? Is this normal?

HOMER: The oil companies are trying to raise the capital to develop the gas, separate it from the oil, and transport it out and also to finance exploration projects--these are also involved. What they're doing, these distribution companies, if they can get their local public utilities commission to agree to let them pass along to the consumer that advance given to the

oil companies at Prudhoe Bay for exploration, development, or transport of gas, then they'll advance the money. But only if their local community will pass that cost along. Now California says will let you make a loan out of it, but you've got to pay it back...we can't give it to them. Atlantic Richfield Co. said in that case, the heck with you. You're not interested in a loan, we're interested in taking your money to develope the gas at Prudhoe Bay in exchange for a committment of gas to you. Forget this loan, we don't want to pay you back.

BOWMAN: What is your response to the question that may come up in this committee is partial or full ownership by the state of Alaska? in the gas line.

HOMER: Philosophically, I can't think of better disaster than to get the state of Alaska in the oil and gas business. in any way as a regulatory agency. We lack both the expertise and other qualifications.

BOWMAN: You don't even think that partial ownership would be be a way in which the state could get a firm handle on a regulatory and well head costs.

HOMER: No sir. Because there is a conflict between the regulatory owner and the proprietory owner. You would have one agency fighting another.

BOWMAN: Thank you, are there other questions by the committee.

BOWMAN: The meeting is recessed until 1 p.m.

BOWMAN: The meeting will come back to order.
Anyone else wishing to testify before the committee? If not, the Public Hearing is closed. We'll go to the staff. Cathy Barrett has been hired on a temporary basis to get Committee letters out, etc. I have also been in touch with Greg Erikson who is at present working for one of Senator Jackson's committees in Washington. Some of you know that Greg Erikson was staff person for the '71, '72 Oil Pipeline Impact Committee and I thought he did a very commendable job for that committee. It is up to the committee to get into what we feel the staff requirements are on a contractual basis, on a temporary basis or whatever. I think we should hire Greg who has a wealth of background knowledge.

HUBER: What can we get him for?

BOWMAN: He is presently making I think, $35 or 36,000/ yr. Anything above that, he probably would consider.
He did state to me that he would come back. Senator Croft also spoke to him about the possibility of strongly wanting him, in the restructuring of Legislative Affairs, in one of the research slots. What we could possibly do, and he was thinking seriously of it, is pick him up with our committee and if he went with the Legislative Affairs in January, we could still avail ourselves to his services.

HUBER; I entertain a motion to retain Greg Erikson for the Committee at a salary of up to $40,000/yr. for the amount of time needed at the discretion of the chair.

RADER: I second the motion.

BOWMAN: It has been moved and seconded that the Chair contact Greg Erikson for the Committee with a salary of up to $40,000. Any discussion?

HACKNEY; How soon might he be available?

BOWMAN; He'd have to give a couple of weeks notice or more to the present committee. So he'd be available within the month.

I don't like to take any action, any unilateral action without the authority of the committee.

HUBER: Further discussion on the motion. Does the motion have the right figure in it?

BOWMAN; I don't know, I think we can use the figure as a ball park figure. I would like to get the concurrence of our President and Speaker before I make a final decision. I Think within that framework, we could certainly get him.

HUBER: I've talked to the President along this line, and I've had considerable discussion with him regarding to the possibility of Greg coming to work for the Legislative Affairs Agency and that may be something that when this committee is finished with it's task force duties we can get him for a more permanent staff.

BOWMAN: Greg Erikson has unanimously been elected for this Committee.

As far as other staff, I thought as soon as Greg came aboard, we would get other staff as dictated by the needs of the Committee and the work load.

HUBER: Might I make a suggestion, if you have not recently reviwed the large number of applications from the various fields of expertise by people who are graduate students who want to become legislative interns for the Legislative Affairs Agency. If you haven't, I would suggest you contact either....or Stu Hall. I found for my committee, some of the most highly qualified, from a paper work viewpoint, and most highly screened people. I might suggest to you that if you have certain requirements of staff that have certain abilities and be available a very reasonable cost--that you go through their list--people in and outside Alaska. They are taken from all over.

I tried to hire for my committee people from entirely within Alaska, if I could.

MILLER; I move that the Chairman be authorized to hire a secretary with a salary commensurate with the position.

KELLEY: I second it.

BOWMAN: It has been moved and seconded that the Chairman be authorized to hire a secretary with a salary commensurate to the position. Is there discussion? If not, all those in favor raise your right hand. The motion has been carried unanimous. That takes care of the temporary help.

MILLER: I would think that once Greg gets on, we will have an opportunity to assess what our mission is--we may even need another staff member or we may need some work done on a contractual basis. I think the committee is going to have to decide what we're going to do and what our main orientation is going to be before we decide what areas of expertise will be needed.

HUBER: I have a suggestion that you go through that list while it's hot, you may find someone in there who may be a bargain and a big help. I know we did.

BOWMAN: If there are no other comments on the staff requirements, I'd like to go on to office space..of course, we're going to have office space. The Legislative Affairs Office or Information Office is what we're working out of... with the number of interim committees working out there, it is overloaded as of now. We cannot operate out of there, so we'll have to look for a place of our own. I have contacted

John Schwamm and there's a letter in your folders from him, in regards to that space. They do have a 944 sq. ft. space on the fourth floor at a dollar per sq. ft. This committee in my opinion does not need this kind of space. However, I would take this up with Legislative Council at their next meeting...One of the things they may look at because of the interim committees working out of the Legislative Info. Office, is the fact of renting space for hearings which takes out a big chunk in any interim committee's budget. This office space may serve for a meeting place for all of the committees --if funded can share the cost. Now that might be one of the possibilities. Legislative Council would have to decide, but I would hate to spend that kind of money for this committee.

HUBER: Would you consider authorizing such office space as you deem as necessary for this committee?

BOWMAN: With the reservation that at the next Legislative Council Meeting, that this would be brought up on their agenda that the Council would look at a common meeting place for all of the committees here in Anchorage anyway. I feel this would be advantageous for us.

HUBER: I wonder about being on several interim committees, I have some idea of the expense we have and I think that the Council may very well have expense problems in hiring any more space at this time. For instance, my committees' major work isn't here and what is here is adequate... This committee is big and I don't know the answers. I would like to see that you authorize to go ahead. I would move that the Chairman be authorized to obtain such space that would be adequate for the committee or enter into such agreement with Legislative Council and the remainder of the committees.

MILLER: I'll second the motion.

BOWMAN: The motion carries unanimously. Between now and the next Legislative Council meeting, we will discuss with them office space.

HUBER: I hear on the next Legislative Council meeting that it is a bit crowded and may be two days.

BOWMAN: What does the committee wish in wanting a next meeting. I would hope that we keep our committee meetings to a minimum and let staff do the work because this is a large committee and any general meetings will cause us to spend a lot of money out of the budget.

So we should consider this before we go into where and how often we should meet whether we should have public hearings through out the state or on a scheduled basis or whatever you want. Discussion?

MILLER: When do you think Greg will be on board again?

BOWMAN: I would hope by mid-August. I wanted to wait until after this meeting to see what the committee decides what to do before I make him a final offer.

MILLER: One of the areas we want to move into immediately is participation in the Gas Pipeline Hearings in Washington. I would like to have staff develop recommended approaches on it, perhaps, meet with representatives of OMAR to discuss possible areas; meet with the state administration and find out what the're doing and develope an overall comprehensive approach especially in terms of those hearings that will resume in September. I think that is the most important thing, in my view, that we need to do right now.

HUBER: I, too, am interested in not holding a lot of meetings.

unless we find we need to hold meetings in order to get publicity for the work of the committee or something like that. I'm not against that. I think basically in the beginning you have a lot of staff work. I would concur with you in not having a heavy meeting schedule, but I consider this committee one of the most important things going in the state right now and I'll make my schedule fit with whatever you want to do.

BOWMAN: I appreciate your comments, but I have a living to make as I don't intend to be meeting even on a monthly basis as I feel there is enough staff work to be done by the staff and keep our meetings to a minimum regardless of what the papers say about well-paid legislators. I'm starving to death if I don't work.

Do you have any idea on when you want to meet bearing in mind that it would be after August 15 when we could meet and have Greg aboard.

HACKNEY: Middle of September.

BOWMAN: I'm going to contact Greg with the thought of developing things now while he's still in Washington as to background work. How about arourld the first of September or the middle. Could we leave it at the point as soon as things develope to the extent that a committee meeting seems logical that we could call one with a weeks' notice?

ANDERSON: Maybe we could set an approximate date as I am on several other committees.

BOWMAN: Is there a convention here? ...The date is end of August and the first part of September.
Anyone have a firm date that they would like to set?

HUBER: I'd like to see the latter part of September.

MILLER: It's my understanding that those FPC hearings on the Gas line case in early September. If we're going to have an input in that, it may not be enough time. I concur with your view that we ought not meet too frequently. With those hearings, I would consider an earlier meeting date, if that is the kind of thing we want to get involved with.

RADER: Seeing that this is going to have to depend onstaff, I think we're going to have to leave this to your discretion.

ANDERSON; I move that we leave the next meeting at the discretion of the Chair, reluctantly.

BOWMAN: Further discussion? Any opposition. Unanimous consent has been asked for...so ordered.

Any further items to be brought up at this time?

HACKNEY: I thought we had a very good presentation from the OMAR people and I think we all received information from OMAR. I would suggest that this committee work fairly closely with OMAR in effort not to duplicate each others work. It seems we're all heading in the same direction.

BOWMAN: There may be some other areas that have not been explored as Sen. Rader pointed out. We need to look at all of the possibilities of a Canadian or Alaskan gas line and explore them for the committee. We'll try to get all the input we can. There were representatives here from Arctic Gas and assume they came here just to observe.

We want to contact people and at our next meeting we want to look at whether we want to have a public meeting and whether we want to schedule them through out the state...If we were to schedule say three days of hearings, we would want to have specificinvitations going out to specific groups.

We would want to invite the State Administration--environmental conservation or natural resources. I believe they should be invited specifically by the next meeting, to come up with what their proposals are. At least I'll let the committee know what has been proposed along these lines so we will have input before the next meeting. We will have a credit card by then.

Any other comments?

MILLER: I move that we adjourn to the call of the Chair.

BOWMAN: No oppostion, so ordered.

The meeting was adjourned at 1:40 p.m.

NOT FOR QUOTATION

MAP POLICY APPLICATIONS

[Man in the Arctic Program]

Institute of Social, Economic and Government Research
University of Alaska
Fairbanks, Alaska

July 1975

INTRODUCTION

The initial set of projections carried out using the MAP models concentrated on analysis of alternative petroleum development scenarios. There are, of course, a variety of other types of policy actions which can be analyzed through use of the MAP models. The projections presented here provide four illustrative examples of policy applications using the MAP models.

The first policy application considers the implication of placing varying proportions of the state petroleum revenues into an investment trust fund for use in the future. The second application projects the impact of using petroleum revenues to eliminate personal income taxes in Alaska. The third application estimates the economic impact of a proposed state lease sale in the Beaufort Sea. This is an example of how the MAP models can be used to evaluate a very specific policy action or project. The fourth and final policy application is also a type of project analysis. It analyzes the economic impacts of the alternative proposed gas pipelines bringing natural gas from the North Slope. The gas pipeline analysis is carried out using the regional economic models rather than the statewide model which was used in the first three policy applications.

MAP POLICY APPLICATION: ALTERNATIVE FISCAL SAVING POLICIES

It is apparent that the growth of the Alaska economy will be influenced significantly by the fiscal policies of the state government. A key policy decision that must be made concerns the amount of money, if any, that is to be saved out of the massive petroleum revenues accruing to the state. In the projections used to analyze the alternative petroleum development scenarios, it was assumed that the fiscal saving rate was a fixed proportion of petroleum revenues. In particular, it was assumed that 25 percent of recurrent revenues were saved and 50 percent of petroleum bonuses were saved. The saving took the form of deposits into an investment trust fund, the interest from which was then used to finance current expenditures.

The projection presented here will examine the implications of alternative fiscal saving rates. A high saving rate case is considered in which 75 percent of recurrent revenues are saved and 100 percent of bonus are saved; the low (or zero) saving rate case assumes that none of the petroleum revenues are saved; and the medium saving rate case uses the same rate as in the previous projections, namely 25 percent of recurrent revenues and 50 percent of bonuses.

In all, five separate projections are made. All of them assume a wellhead price for oil of $5 a barrel. Three of the projections are based on the accelerated petroleum development scenario used in conjunction with the three alternative fiscal saving rates. The other two projections are extreme cases: the first uses the maximum development scenario in conjunction with the zero fiscal saving rate and the second uses the limited development scenario in conjunction with the high fiscal saving rate.

As would be expected, the high saving rate produces a slower growth in the Alaska economy, and the zero saving produces more rapid growth. Some selected summary measures for the five different projections are shown in the attached table and the population projections are shown in the attached figure. In 1990 under the accelerated development scenario, the high fiscal saving rate produces a projected population which is 64 thousand persons lower than under the medium fiscal saving rate. The zero fiscal saving rate produces a projected population which is 33 thousand persons larger in 1990.

Most measures of aggregate economic activity display very similar patterns of change in response to changes in the fiscal saving policy. Under the accelerated petroleum development scenario, the zero fiscal saving rate produces 1990 increases of 4.6 percent in population, 4.1 percent in employment, 4.0 in personal income, and 3.7 percent in disposable personal income. Since the policy change being studied is centered on the government sector, the impact there is somewhat larger; expenditures of state and local government increase by 7.6 percent in 1990. On the other hand, the increase in real gross state product was relatively modest, only 2.0 percent. This was because the economic expansion induced by the additional state spending tended to be concentrated in those sectors with relatively low labor productivity, namely in trade, finance, services, and state and local government. The induced expansion in total employment in 1990 was 14.7 thousand persons, of this trade, finance, and services accounted for 47 percent and state and local government accounted for another 37 percent.

When one moves from aggregate measures to per capita measures, the impact of the zero fiscal saving appears in a very different light. Real disposable personal income per capita is actually lower with zero fiscal saving than it was with medium fiscal saving. However, public sector expenditures per capita are higher under the zero saving rate. On balance, these two changes very nearly cancel out. As shown in the attached table, real disposable personal income plus real state and local government expenditures per capita are just slightly higher, about 0.7 percent, under the zero fiscal saving than under the medium saving. Thus, for the typical individual living in Alaska, the use of all petroleum revenues for current expenditures produces an insignificant increase in real economic benefits.

A further point which should be stressed is that by the end of the period, the projected rate of growth is actually slower under the assumption of zero fiscal saving than under the medium fiscal saving. This is attributable to the difference in the accumulated general fund balance and in the interest accruing on that balance. As shown in the table, by 1990 the medium fiscal saving produces a general fund balance of $6.8 billion while the zero fiscal saving case produces a general fund balance of only $1.1 billion. (The accumulated general fund balance in the zero fiscal saving case is viewed as a general contingency reserve and is accumulated out of non petroleum revenues. This type of fiscal saving is held at the same level in all the cases considered.) Because of the larger general fund balance, the state interest income in 1990 is nearly $360 million larger under medium fiscal saving than under zero fiscal saving. Furthermore, the difference in interest income is tending to

widen over time. As a result, state government expenditures, though at a lower level, are growing more rapidly in the medium saving case. This, in turn, induces a more rapid growth in general economic activities. Thus, a key impact of fiscal saving is to shift some of Alaska's rapid economic growth from the early years of the period to the later years of the period. Selection of the appropriate set of fiscal saving policies is one way of smoothing out Alaska's petroleum induced "boom-bust" cycle.

The impact of implementing a high fiscal saving policy is roughly the mirror image of the impact of the zero fiscal saving policy. That is, under high fiscal saving the magnitude of the expansion in the Alaska economy is smaller, but in the later years of the period, the growth rate is substantially higher. By 1990, the high fiscal saving policies produce a general fund balance in access of $18 billion and an annual interest income for the state of $1.1 billion.

The two extreme cases included in the projections serve to illustrate the degree to which fiscal policies and petroleum policies are interactive. The impacts of the two types of policies are not additive. For example, under the maximum petroleum development scenario, the zero fiscal saving case produces a 1990 population projection of 957 thousand persons. That is 49 thousand persons more than the comparable projections under the medium fiscal saving case. In contrast, under the accelerated petroleum development scenario, shifting from medium to zero fiscal saving produced an increase in projected population of only 33 thousand persons. The change in fiscal policy has a larger impact under the maximum petroleum development scenario because the change is applied to a larger amount of petroleum revenue. Conversely, a given change in the fiscal saving rate has a smaller impact under the limited petroleum development scenario.

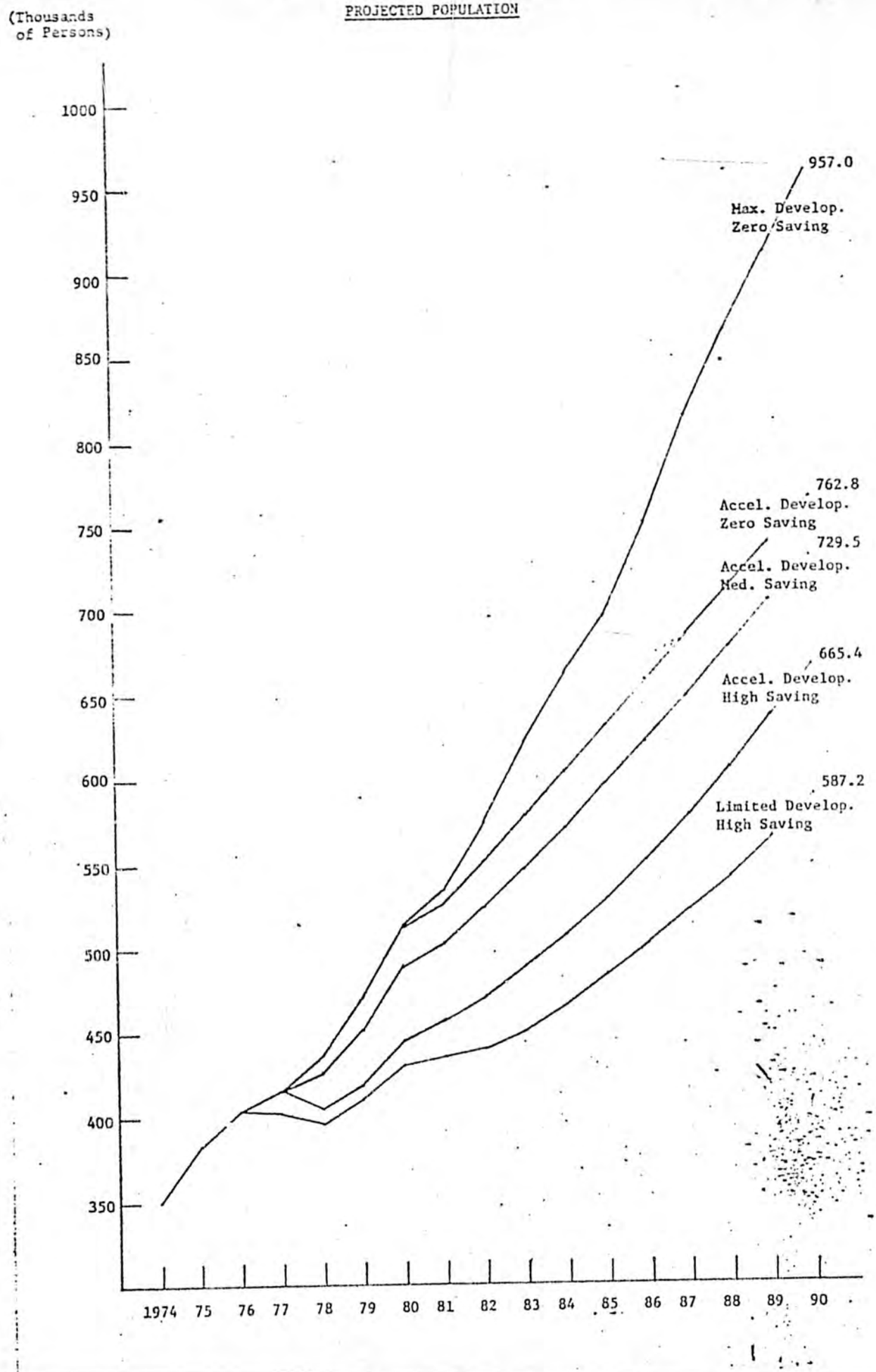
ALTERNATIVE FISCAL SAVING POLICIES

PROJECTED 1990 VALUES FOR SELECTED VARIABLES

		UNITS	Accelerated Development Med. Saving	Accelerated Development High Saving	Accelerated Development Zero Saving	Maximum Development Zero Saving	Limited Development High Saving
X	Total Output	(Millions of 1958 $)	5728.2	5510.8	5843.3	10253.0	4015.2
E	Total Employment	(Thousands of Persons)	356.7	328.7	371.4	490.9	286.7
POP	Total Population	(Thousands of Persons)	729.5	665.4	762.8	757.0	587.2
PI	Personal Income	(Millions of $)	12390.0	11442.4	12887.2	16988.1	9972.4
PIPC	Personal Income Per Capita	($)	16983.3	17195.1	16895.7	17751.0	16983.9
DIRPA	Real Disposable Personal Income Per Capita	(1967 $)	3296.1	3355.5	3270.3	3371.5	3345.6
RP9S	State Government Total Petroleum Sector Revenue	(Millions of $)	2339.0	2339.0	2339.0	2940.0	1685.0
SLGEXP	State-Local Government Expenditures	(Millions of $)	6190.3	5280.9	6662.0	9074.3	4361.4
GFBAL	State Government General Fund Balance	(Millions of $)	6807.5	18136.0	1093.3	1693.3	14896.3
SLGEXP/POP	State-Local Government Expenditures Per Capita	($)	8485.7	7936.4	8733.6	9482.0	7427.4
DIRPA + SLGEXP/POP / RPI	Real Disposable Personal Income plus Real State-Local Government Expenditures Per Capita	(1967 $)	5603.9	5513.9	5645.5	5950.2	5365.6

ALTERNATIVE FISCAL SAVING POLICIES

PROJECTED POPULATION



MAP POLICY APPLICATION: IMPACT OF A REDUCTION IN STATE PERSONAL INCOME TAXES

A reduction in state personal income taxes is frequently suggested as an appropriate use of the petroleum revenues that will be accruing to the state of Alaska. In the projection presented here, it is assumed that state personal income taxes are reduced by 25 percent in 1978, by 50 percent in 1979, and are eliminated completely from 1980 on. It is further assumed that this tax cut is financed through a reduction in state fiscal saving rather than through a reduction in state expenditure. Except for these policy changes, the assumptions are the same as those used in the accelerated petroleum development scenario with the price of oil at $5 a barrel. The attached figures and table show the differences between that scenario and the projection made after implementing the cut in state personal income taxes.

As shown in Figure 1, the 1990 increase in projected employment is 40.4 thousand and the increase in population is 86.7 thousand persons. As would be expected, the increase in personal income has produced an increase in job opportunities in Alaska and has induced a substantial increase in migration into the state. From 1980 on, net migration into the state is from three to eight thousand persons more per year than was the case in the absence of the tax cut.

It is particularly noteworthy that with an increase in total employment of over 40 thousand in 1990, less than 2,800 of this is in state and local government. Thus, the use of petroleum revenues to cut personal income

taxes serves to focus more of Alaska's growth on the private sector rather than on the public sector. Much of the growth induced by the tax cut is concentrated in the support sector and particularly in the trade, finance, and service industries. The projected gain in employment in those three industries in 1990 is over 29 thousand persons or about 72 percent of the total increase in employment. As before, the increase referred to is relative to the employment projected in the absence of the tax cut.

As shown in the attached table, the general fund balance in 1990 is $3.7 billion lower with the tax cut. The lower general fund balance reflects the fact that the tax cut is assumed to be financed out of reduced fiscal saving. The lower general fund balance in turn results in a state interest income which is nearly $220 million lower in 1990. However, because of the induced increase in general economic activity, most other sources of state revenue are higher. This combined with the fact that the cut in personal income taxes is financed through a reduction in fiscal saving means that state expenditures are almost the same as in the absence of a tax cut; state expenditures are less than $20 million lower in 1990. With state expenditures remaining almost the same and with a general expansion in economic activity, local government revenues, and therefore expenditures, are higher with the tax cut. The net effect is to increase state and local government expenditures by $240 million in 1990.

The cut in state personal income taxes naturally has the effect of increasing disposable personal income much more than personal income. Thus, in 1990 real personal income increases by 9.6 percent while real dis-

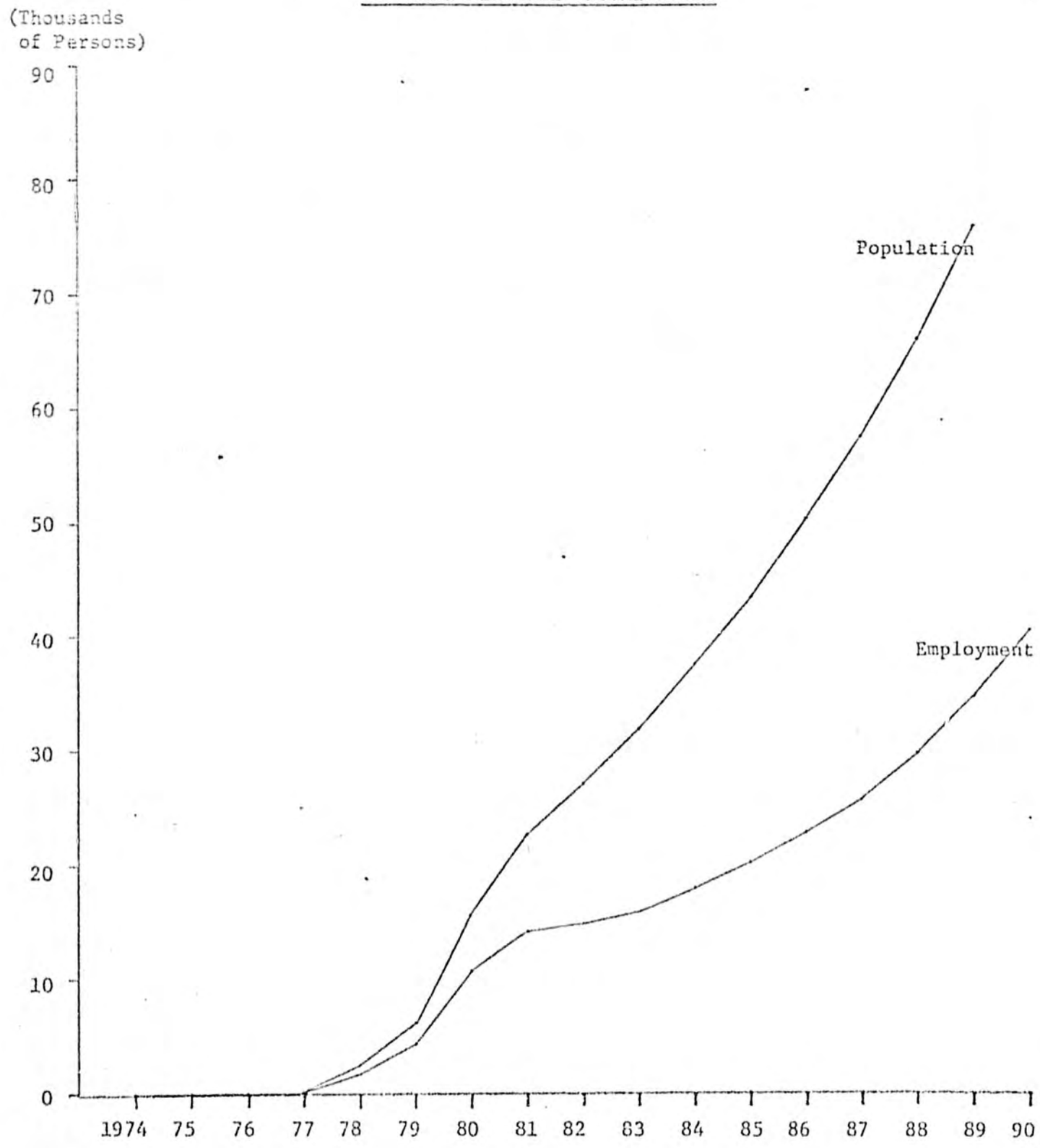
posable personal income increases by 15.4 percent. On a per capita basis, the contrast between the two measures is even sharper. With the tax cut, real personal income per capita is actually lower in 1990 by 2.1 percent, while real disposable personal income per capita is higher by 3.2 percent (see Figure 2.)

The increase in population induced by the gain in disposable personal income is so large that state and local government expenditures per capita declined substantially; they are over 7 percent lower in 1990. Thus, the increase in population more than offsets the increase in total state and local government spending. Furthermore, real disposable personal income plus real state and local government expenditures per capita are lower by 1.1 percent in 1990. This implies that for the typical individual in Alaska, real personal income plus real public services are, on balance, lower after the tax cut than they were before the tax cut. While the analysis is by no means conclusive at this point, it does raise some questions concerning the efficacy of across-the-board tax cuts as a means of distributing the benefits of Alaska's economic growth.

Figure 1

POPULATION AND EMPLOYMENT IMPACT OF A REDUCTION

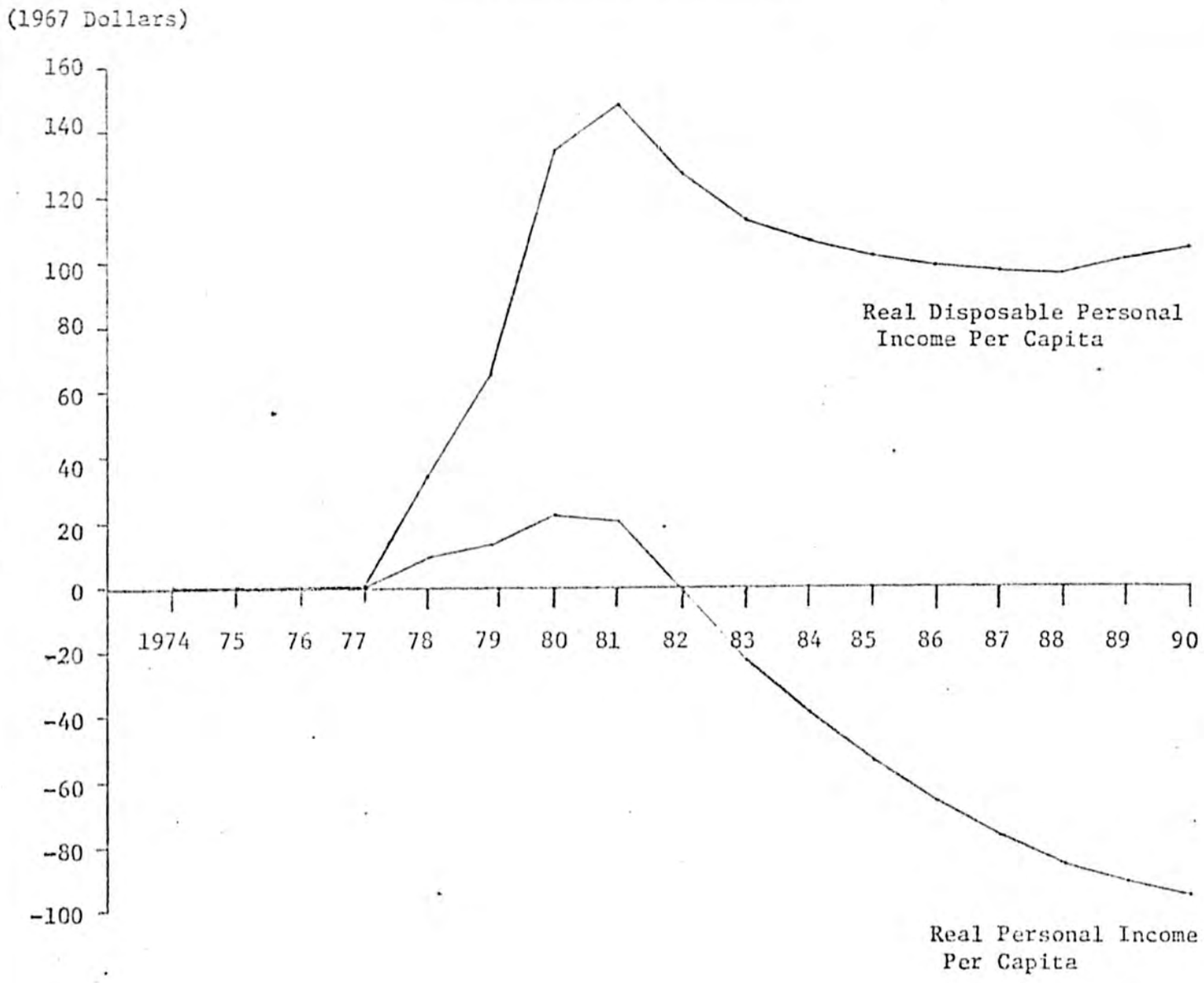
IN STATE PERSONAL INCOME TAXES*



*The impact is measured as the change from the results obtained in the absence of the tax reduction.

Figure 2

PERSONAL INCOME IMPACT OF A REDUCTION IN STATE PERSONAL INCOME TAXES*



*The impact is measured as the change from the results obtained in the absence of the tax reduction.

ARITHMETIC DIFFERENCES FROM BASE CASE 07/09/75 13.13.41
RTX7 COMPARED TO A5

FISCAL SUMMARY MILLIONS OF DOLLARS

	F99S	R99S	RTIS	RP9S	RINS	GFBAL	F99L	R99L	RSIL	SLGEXP
74	-0.001	-0.001	-0.001	0.0	0.0	0.0	-0.000	-0.000	-0.000	-0.001
75	-0.001	-0.001	-0.001	0.0	0.0	0.0	-0.001	-0.000	-0.000	-0.002
76	-0.002	-0.002	-0.002	0.0	0.0	0.0	-0.001	-0.001	-0.000	-0.003
77	-0.003	-0.003	-0.002	0.0	0.0	0.0	-0.001	-0.002	-0.001	-0.004
78	-0.003	-28.968	-28.967	0.0	0.0	-28.965	-0.001	-0.002	-0.001	-0.004
79	2.245	-62.677	-63.592	0.0	-2.028	-93.687	4.840	4.856	0.379	6.707
80	4.457	-153.548	-154.585	0.0	-6.572	-251.892	12.565	12.685	0.718	16.304
81	11.926	-184.091	-186.905	0.0	-17.632	-447.909	34.666	35.181	1.881	44.711
82	10.162	-196.656	-194.038	0.0	-31.354	-654.727	47.806	48.717	1.549	56.499
83	1.235	-227.907	-214.704	0.0	-45.831	-883.868	53.574	54.678	0.184	54.624
84	-6.885	-269.869	-246.204	0.0	-61.871	-1146.853	62.756	64.307	-1.001	56.872
85	-13.249	-312.292	-278.693	0.0	-80.280	-1445.896	77.410	79.615	-1.890	66.050
86	-19.694	-361.739	-317.442	0.0	-101.213	-1787.936	95.732	98.833	-2.755	78.793
87	-24.057	-414.093	-359.710	0.0	-125.155	-2177.971	121.328	125.715	-3.313	100.586
88	-27.404	-472.203	-407.533	0.0	-152.458	-2622.772	153.594	159.731	-3.719	129.914
89	-26.783	-535.167	-461.922	0.0	-183.594	-3131.100	197.683	206.354	-3.582	174.480
90	-19.906	-598.996	-520.546	0.0	-219.177	-3710.191	258.135	270.453	-2.626	240.855

AGGREGATE STATISTICS

	X	F	FC	PI	PIBAR	PIPC	PIRPC	DPI	DPIR	DIRPA	WS	WR	RPI	POP	POPM	POPC	POPN
74	-0.003	-0.000	-0.000	-0.002	-0.001	-0.004	-0.003	-0.005	-0.002	-0.007	-0.004	0.000	0.0	0.0	0.0	0.0	0.0
75	-0.004	-0.000	-0.000	-0.006	-0.003	-0.008	-0.005	-0.008	-0.004	-0.006	-0.005	0.0	0.0	-0.000	0.0	-0.000	0.0
76	-0.004	-0.000	-0.000	-0.009	-0.004	-0.012	-0.005	-0.009	-0.004	-0.006	-0.007	0.0	0.0	-0.000	0.0	-0.000	0.0
77	-0.005	-0.001	-0.001	-0.010	-0.004	-0.008	-0.003	-0.012	-0.005	-0.007	-0.008	0.0	0.0	-0.001	0.0	-0.001	0.0
78	20.106	1.905	1.905	30.862	13.310	21.696	9.486	51.171	22.069	34.927	26.776	-16.609	0.0	2.354	0.0	2.354	0.0
79	45.861	4.443	4.443	75.871	31.493	31.434	13.047	118.977	49.386	65.302	65.960	-37.340	0.0	6.212	0.0	6.212	0.0
80	112.178	10.815	10.815	192.855	77.051	56.785	22.688	293.972	117.426	134.528	168.188	-96.309	0.0	15.511	0.0	15.511	0.0
81	143.408	14.156	14.156	267.684	102.889	52.223	20.072	384.251	147.694	148.403	233.691	-131.445	0.0	22.681	0.0	22.681	0.0
82	149.474	14.841	14.841	295.383	109.255	-4.563	-1.687	413.426	152.916	127.410	258.293	-146.020	0.0	27.004	0.0	27.004	0.0
83	162.680	15.587	15.587	332.621	118.364	-67.297	-23.945	460.113	163.732	112.296	291.355	-169.051	0.0	31.818	0.0	31.818	0.0
84	184.566	17.998	17.998	391.820	134.215	-115.488	-39.563	533.258	182.663	107.403	343.770	-200.156	0.0	37.484	0.0	37.484	0.0
85	206.887	20.125	20.125	459.492	151.454	-166.090	-54.746	613.793	202.313	101.672	403.828	-233.191	0.0	43.360	0.0	43.360	0.0
86	236.508	22.957	22.957	549.895	174.420	-209.555	-66.465	716.188	227.166	99.560	484.078	-274.082	0.0	50.156	0.0	50.156	0.0
87	268.258	26.059	26.059	656.094	200.234	-253.547	-77.379	833.434	254.357	97.982	578.516	-318.730	0.0	57.427	0.0	57.427	0.0
88	308.137	29.958	29.958	792.926	232.894	-293.555	-86.223	977.027	286.968	97.867	700.328	-373.445	0.0	65.841	0.0	65.841	0.0
89	358.055	34.892	34.892	972.027	274.705	-323.961	-91.551	1156.477	326.832	100.683	859.883	-437.078	0.0	75.755	0.0	75.755	0.0
90	412.848	40.413	40.413	1187.219	322.877	-349.934	-95.168	1365.620	371.450	104.863	1051.852	-505.449	0.0	86.724	0.0	86.724	0.0

MAP POLICY APPLICATION: IMPACT OF BEAUFORT SEA LEASE SALE

The state of Alaska has recently proposed making a petroleum lease sale in the Beaufort Sea just north of Prudhoe Bay. Although not required by law to do so, the state has, in preparation for such a sale, prepared a draft environmental assessment of the impacts of the sale. As part of this environmental assessment (EA) the state estimated the economic impact that would be caused by the exploration, development and production in the Beaufort field. In the projection presented here, the MAP models are used to carry out somewhat more comprehensive analysis of the impact of the Beaufort lease sale.

The economic impact of the Beaufort Lease sale can be attributed to three different types of direct effects: (1) the bonus from the lease sale, (2) the recurrent state revenues due to production in the Beaufort field, and (3) the direct employment required to develop and operate the Beaufort field. The method of analysis used here is to make a projection based on a petroleum development scenario which excludes the Beaufort Lease sale. The petroleum development scenario is then expanded to include the Beaufort Lease sale, a second projection is made, and the results of the two projections are compared. Since the only difference in the input data for the two projections is the direct effect of the Beaufort Lease sale, the differences in the results are measures of the total impact of the lease sale.

The base from which the impacts are measured consist of a set of projections derived from the limited petroleum development scenario with two modifications: (1) the Beaufort Lease sale has been excluded from the

scenario and (2) petroleum revenues other than bonuses have been increased by an amount equal to the lease sale. The second modification is designed to reflect the existing situation in Alaska. Until the North Slope oil starts to flow, the state is confronted with a "fiscal gap"; that is state revenues are not sufficient to support current expenditure levels. Since it is unlikely that the state will cut back on spending, additional sources of revenues will have to be found to close the fiscal gap. The Beaufort Lease sale is one possible source of additional revenue. However, if the Beaufort Lease sale is not made, some alternative source of revenue will be necessary. In practice, the recently enacted tax on petroleum reserves is likely to provide the necessary gap-closing revenue. The assumption made here is that if the Beaufort Lease sale is not made, some alternative means of raising an equivalent amount of revenue will be found so that the net revenue impact of the bonus from the lease sale will be negligible.

In adding the Beaufort Lease sale to the petroleum development scenario, two different sets of estimates of employment and revenue impacts are used. The first set is the one that has been included in the MAP scenario and the second set is derived from the state EA. Both sets of estimates are shown in the attached table. In general, the direct impact as estimated by the EA is substantially larger than the direct impact included in the MAP scenario.

The Beaufort Lease sale impacts on employment and population as projected by the MAP model are shown in the attached figures. The figures also show estimates of the total impacts which were included in the EA itself.

The total impact of the Beaufort Lease sale as estimated by the EA is very low despite the fact that the EA includes high estimates of direct employment and revenue. There are two reasons underlying the seemingly contradictory results. First, the analysis in the EA looks only at short-run impacts, it does not take into account the cumulative long-run growth effects of the Beaufort Lease sale. Second, the EA ignores the effects of the revenues generated by production in the Beaufort area. The MAP models do, of course, take into account the long-run growth effects and the effects of the additional revenues.

When the MAP models are used in conjunction with the state's estimates of direct employment and revenue, the Beaufort Lease sale is projected to increase Alaska's 1990 employment by 14 thousand persons and population by 30 thousand persons. In contrast the MAP estimates of direct employment and revenues produce projected impacts of just 8.2 thousand and 16.5 thousand respectively. However, even the lower impacts are several times as large as the total impacts shown in the EA.

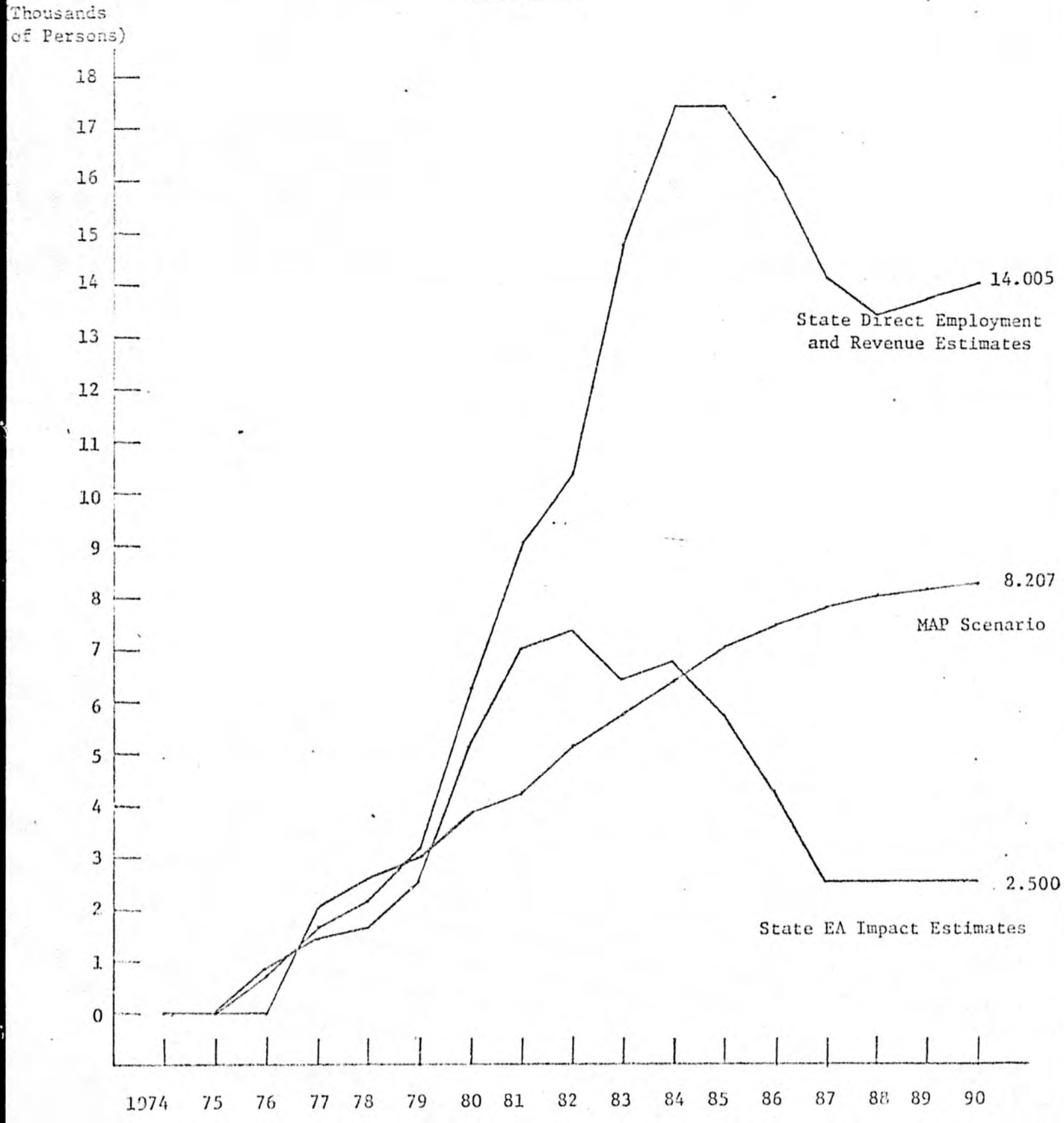
BEAUFORT LEASE SALE:

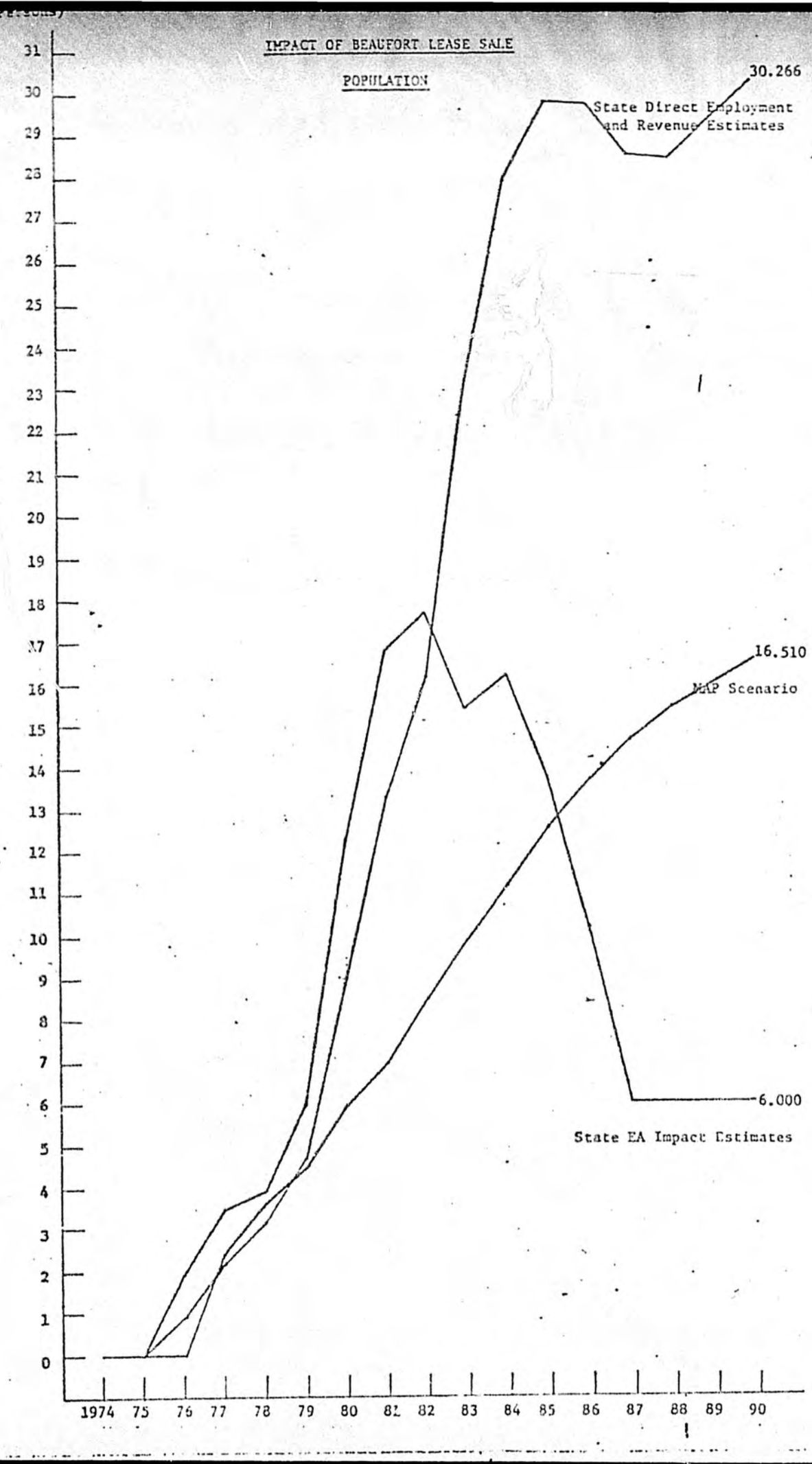
DIRECT EMPLOYMENT AND REVENUE IMPACTS

	Petroleum Construction and Mining Employment		Recurrent Revenues	
	EA	MAP	EA	MAP
1976	0.3	0	----	----
1977	0.6	0.8	----	----
1978	0.7	0.8	----	----
1979	1.0	0.9	----	----
1980	2.1	0.9	1.4	13.0
1981	2.8	0.7	1.6	40.0
1982	3.0	0.6	166.2	77.1
1983	2.6	0.4	175.8	107.9
1984	2.8	0.4	185.0	123.4
1985	2.3	0.4	195.0	138.8
1986	1.7	0.3	205.0	154.2
1987	1.0	0.3	205.0	154.2
1988	1.0	0.3	205.0	154.2
1989	1.0	0.3	205.0	154.2
1990	1.0	0.3	205.0	154.2

IMPACT OF BEAUFORT LEASE SALE

EMPLOYMENT




IMPACT OF BEAUFORT LEASE SALE
POPULATION
30.266
State Direct Employment and Revenue Estimates
16.510
MAP Scenario
6.000
State EA Impact Estimates
31
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MAP POLICY APPLICATION: IMPACTS OF ALTERNATIVE GAS PIPELINE ROUTES ON THE ALASKAN ECONOMY

There are at present two principal proposed systems for transporting natural gas from Alaska's North Slope to the continental United States. The first system, proposed by the Arctic Gas consortium, would be an all-land pipeline leading from Prudhoe Bay through Canada to the midwestern United States. The second system, proposed by the El Paso Alaska Company, would consist of a trans-Alaska pipeline and then shipment by LNG tanker to the U.S. West Coast.

Clearly, the alternative proposed gas transportation systems would have significantly different impacts on the Alaskan economy. The MAP regional economic-demographic model makes it possible to evaluate the economic impact on Alaska in terms of the induced change in total employment, industrial production, population, wages, personal income, and government revenues for each region and the state as a whole. The estimates of the differing impacts can be made in the context of the overall growth and development of the Alaska economy.

Figures 1 and 2, and Table 1 show the differing regional and state impacts of the El Paso and Arctic pipelines for population, employment, and wages and salaries. Because of its much larger mangitude, the impact of the El Paso project is much greater in all regions than is the impact of the Arctic Gas project. Perhaps the most notable feature of the regional projections is that the bulk of the impact occurs in Anchorage, even though neither project passes through Anchorage itself. This emphasizes just how important Anchorage is as the commercial center of Alaska.

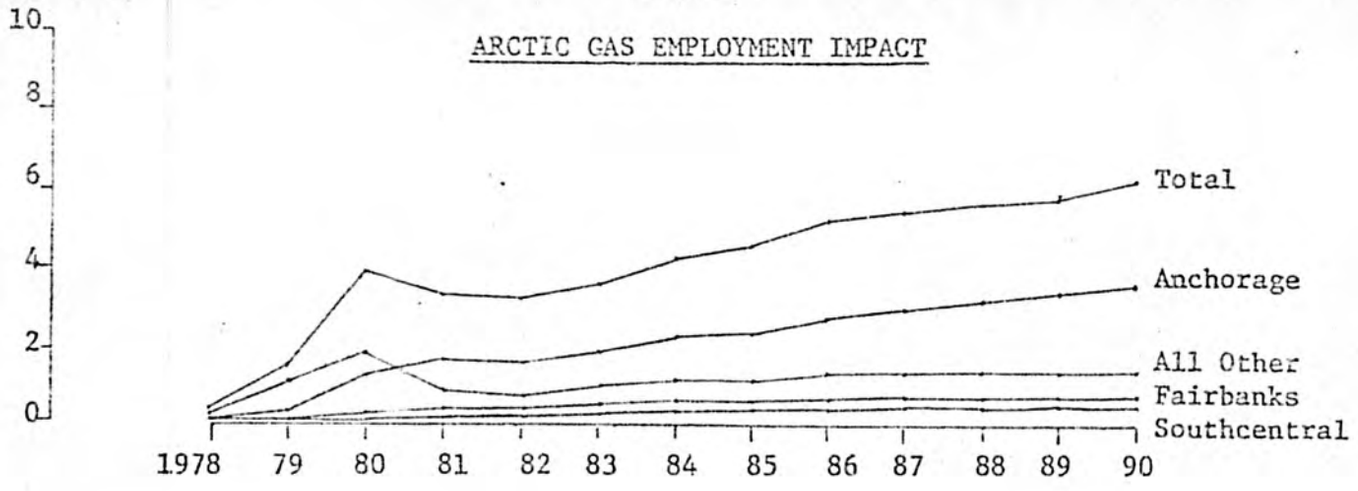
Except during the peak of the El Paso boom, well over half of the total impact is concentrated in the Anchorage region. In terms of population, the El Paso proposal would increase Anchorage's 1990 population by almost 17 thousand persons, and the Arctic Gas proposal would increase the population by 7 thousand persons. As shown in Figure 4-1, the El Paso Anchorage employment impact peaks at 7 thousand persons in 1981, declines to 5 thousand persons in 1984, and then rise gradually as the Alaskan economy grows. Although these changes are not insignificant, they should be measured against projections of Anchorage's early 1980's population of 250,000, and a labor force abqve 100,000.

Both the absolute and relative magnitudes of the differences between the two gas pipeline proposals are much more significant in the Southcentral region. The construction of the El Paso facilities creates a boom-bust cycle in the Southcentral region, while the Arctic Gas project has almost no effect. During the peak construction year of 1980, the Southcentral employment impact of the El Paso project would be 10 thousand persons. This represents an increase of more than one-third in the regional labor force. This impact fall rapidly to just 1.6 thousand persons by 1983.

The projections and analysis presented here are just a few of the results reported in "Impact on the Alaska Economy of Alternative Gas Pipelines" by ISEGR. They demonstrate the applicability and utility of the MAP regional economic-demographic model.

Figure 1

ARCTIC GAS EMPLOYMENT IMPACT



EL PASO GAS EMPLOYMENT IMPACT

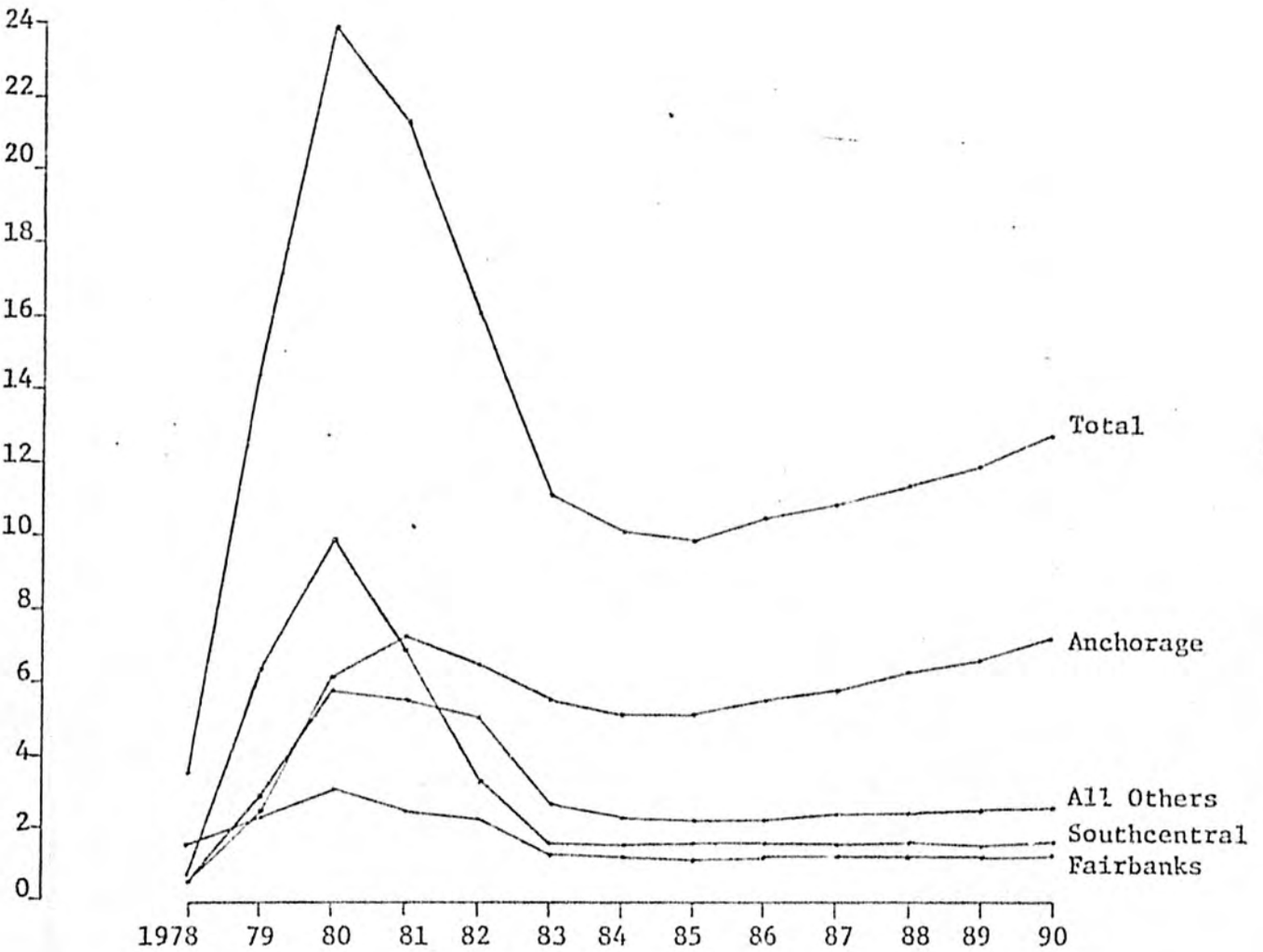
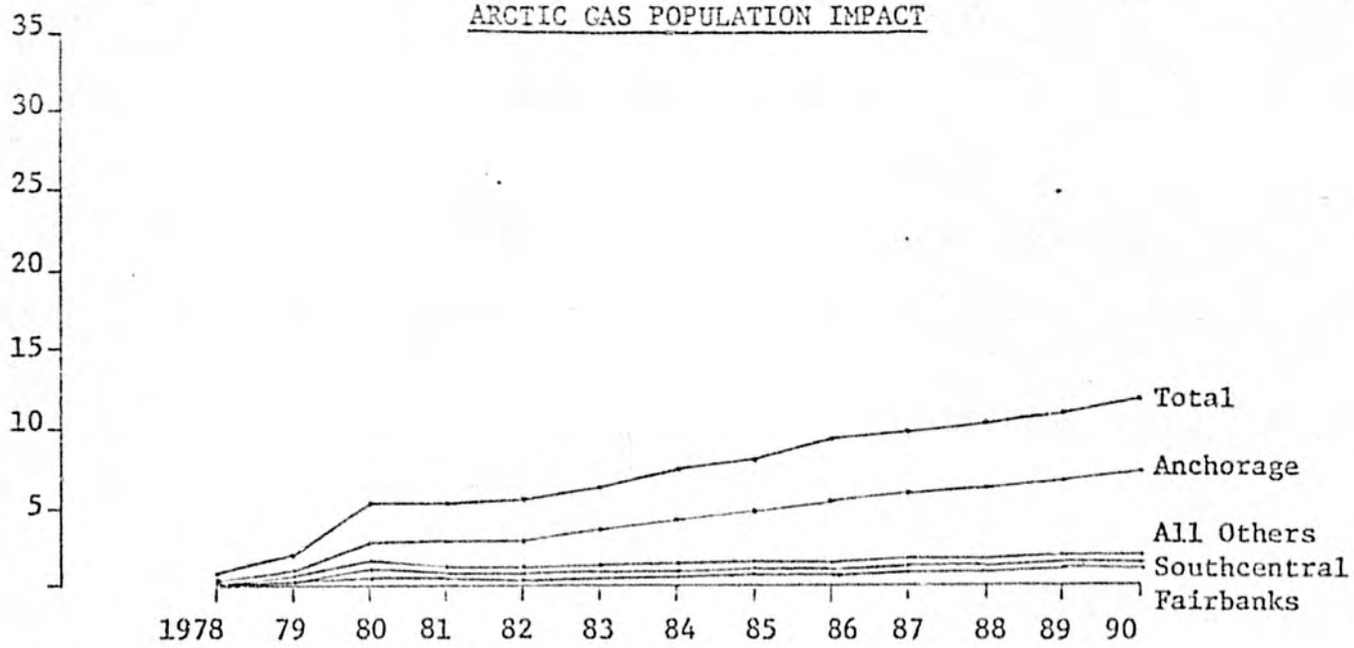


Figure 2

ARCTIC GAS POPULATION IMPACT



EL PASO GAS POPULATION IMPACT

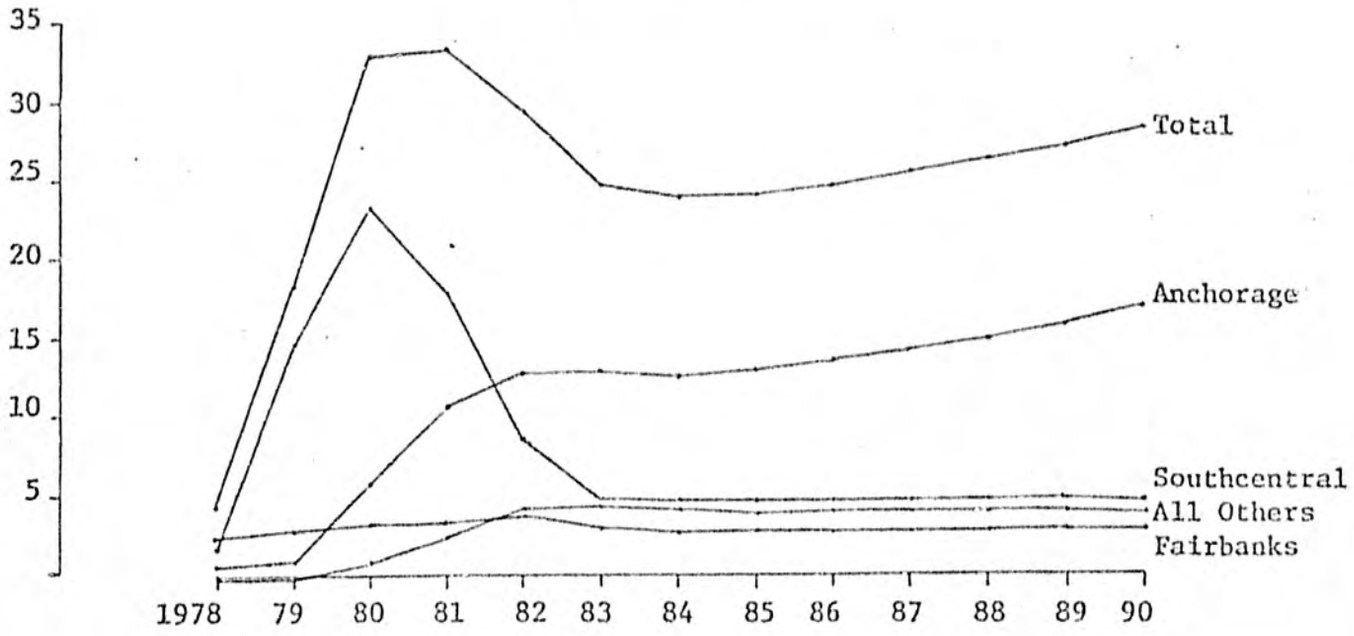


Table 1

REAL WAGES AND SALARIES
(Millions of 1958 Dollars)

	Total	Anchorage	Southcentral	Fairbanks	All Other
			A R C T I C G A S		
1978	3.7	0.7	0.1	0.1	2.8
1979	14.2	2.1	0.3	0.3	11.5
1980	32.0	9.6	1.8	2.2	18.4
1981	23.4	11.3	2.4	3.0	6.7
1982	23.1	11.2	2.4	2.9	6.6
1983	26.9	13.4	2.7	3.4	7.4
1984	31.8	16.1	3.2	3.9	8.6
1985	34.3	17.5	3.4	4.2	9.2
1986	32.9	20.6	3.8	4.7	10.1
1987	41.9	22.2	4.0	5.0	10.8
1988	44.2	23.7	4.2	5.2	11.1
1989	46.6	25.4	4.3	5.4	11.5
1990	49.7	27.6	4.5	5.7	11.9
			E L P A S O		
1978	29.6	4.0	6.5	13.2	5.9
1979	118.5	16.6	53.1	21.0	27.9
1980	194.0	41.7	83.5	26.0	42.8
1981	166.5	51.2	57.9	20.3	37.2
1982	124.2	45.9	26.7	18.8	32.8
1983	83.7	39.7	12.8	11.2	20.0
1984	76.7	36.7	12.1	10.1	17.8
1985	76.7	37.0	12.1	10.1	15.5
1986	82.7	40.9	12.6	10.7	18.5
1987	87.2	43.7	13.0	11.1	19.4
1988	92.1	47.1	13.4	11.5	20.1
1989	98.2	51.1	13.9	12.0	21.2
1990	105.5	56.2	14.4	12.7	22.2

M E M O R A N D U M

TO: Members of the Joint Gas Pipeline Impact Committee

FROM: Gregg Erickson, Special Consultant

SUBJ: Analysis and recommendations resulting from work conducted 18 August through 3 September.

SUMMARY

I review the present status of Alaska Natural Gas Transportation issues and suggest that it is not yet certain that construction on any transportation system to remove natural gas from Alaska will be initiated within the next five years. If such a system is built, the choice of route could be influenced at the margin by the actions of the Alaska Legislature. Judging strictly on the basis of economics, the C.A.A.G.S. Trans-Canada Proposal is probably most cost effective, but the certainty of delay and environmental problems on this route means that a decision to go ahead as soon as possible with construction of a system will favor the Alaska route.

There are a number of circumstances under which Alaska could conceivably benefit from a delay in the production and export of the North Slope natural gas, such as a low price, a route choice that denies the state ancillary economic benefits, and/or collateral loss of oil production. It is important that Alaska establish its natural gas policy in stature at an early date so that that policy can be included in national economic calculations.

The El Paso Proposal lacks credibility but the state might be able to take certain actions to remedy this. The dedication of Alaska's royalty gas is not recommended at this time, however.

A number of recommendations are offered including:

*A suggestion that the committee take testimony from public and private experts on the Prudhoe Bay gas reservoir to determine how much, if any oil will be lost as a consequence of gas production.

*A proposal that the committee to retain outside legal consultants for the purpose of determining the state's options with respect to control over natural gas production and export.

*A suggestion that the committee attend the Congressional Oversight Hearings on Alaska Natural Gas Transportation issues

scheduled for October 9th.

THE FUNDAMENTAL NATIONAL ISSUE:

The appearance within a single month of the Interior Department's Title III Study of Alaskan Natural Gas Transportation Systems (prepared by the Aerospace Corporation), the draft impact statement on the Arctice Gas Project (including an approximately 600 page analysis of alternative Trans- Alaska routes), and the University of Alaska's study of the economic impact of the alternative routes on Alaska, has raised a host of new questions and provided a framework within which these issues can usefully be explored. None of these reports, however, offers any unambiguous indication of which way and/or when the gas will be removed.

The available evidence, however, including representations made by both Arctic Gas and El Paso, strongly support the proposition that a decision to build a system to transport Alaska gas to the south 48 constitutes an implicit decision to substitute relatively high cost Alaska natural gas for relatively less expensive imported oil in the period during which the pipeline is in operation. Delivered costs of Alaska gas to the burner tip in the North Central U.S. are likely to exceed $3.00/MMBTU (approximately equal to one Mcf).

The only plausible rational for such a decision is the Project Independence rational. The question of whether or not to build a system to bring Alaska gas to the south 48 States thus becomes a question of (1) how much capital the nation is willing

to commit to attain a given degree of independence, and (2) whether or not this project is the most cost-effective approach to that goal.

Even if these questions are answered positively, the method by which the massive investment will be subsidized raises important issues of equity and public policy that have not yet been, but must eventually be, addressed at the national level. The Arctic Gas people have told us that in order to obtain financing for their project they will require guarantees from the FPC that the interstate pipeline companies contracting to take gas from the system will be allowed to pass on to their rate payers the costs of the project according to a schedule that commences with the start of construction and continues even if the systems completion should be delayed, and without regard to the actual quantities of natural gas transported or the eventual cost of the project.

The effect of such a guarantee will be to remove the project risk from the investors and place it squarely on the shoulders of the residential and small commercial ratepayers. Moreover, it insures that those same ratepayers will bear the extra costs of providing secure domestic energy for industrial users of gas who would -- absent the Alaska system -- be required to shift to more expensive (and less secure) imported fuel oil.

I don't raise these points for the purpose of arguing that the Arctic gas resource should not be developed expeditiously, but simply to emphasize the stark reality of the situation we face: OUR NATURAL GAS SIMPLY DOESN'T HAVE A VERY SUBSTANTIAL ECONOMIC VALUE AT THE PRESENT TIME. The nation does, however, seem willing

to pay a price for the political benefits of energy independence. If Alaska begins to receive within the next five years substantial direct income from gas exports to the test of the U.S., that income will almost represent a payment for that non-economic benefit.

Maximizing the state's benefits under these circumstances will require a different sort of strategy than was appropriate in the case of our oil development. Legal and political factors must be given much greater weight in the present circumstances, and our ability to obtain substantial benefits for Alaska will depend even more importantly on the perception by others such as the FPC and Congress of Alaska's strength in these areas, the extent of our resolve in making use of those strengths, and our willingness to risk substantial loss inorder to obtain a "better deal".

THE WELL HEAD PRICE:

According to the Aerospace Corporation's cost-benefit analysis of alternative routes, the oil companies owning the North Slope natural gas will not find it economically feasible to sell their gas unless they themselves can receive a net revenue of 47¢ per Mcf. Considering royalties and present tax rates, the well head price would need to be in the neighborhood of 57¢ per Mcf in order to make production for export economically feasible, if the Aerospace Study is to be believed. (The engineering-economic analysis of the Prudhoe Bay Field from which these figures were derived was done by H.J. Gruy and Associates, Inc. of Dallas, Texas, and has not yet been made available for review.)

This figure is far more than most observers had previously suspected, and if accepted, casts further doubt on the economic (but not political) viability of either project. These doubts are emphasized by the fact that sponsors of both projects have admitted that they cannot hope to obtain private financing in the absence of some sort of government guarantee or subsidy. Such a guarantee would most likely take the form of an undertaking by the FPC insuring that the prospective consumers of Alaskan gas would service the debt incurred to finance the project, regardless of the eventual cost of the facilities or any delay in completion.

Since there is an upper limit to what even residential and high value consumers would be willing to pay for gas, the FPC could conceivably find it difficult to fulfill that guarantee. If the difference between the well head price and the maximum the final consumption markets will bear is not sufficent to cover the debt service, or even if the FPC simply perceives that there is a risk of such a shortfall, the commission would have a stronger than usual incentive to reduce the price of Alaska gas.

Since the commission has regulatory authority over the well head price of interstate natural gas, they might be able to reduce that price, down to the point at which the producers no longer find it profitable to produce the gas. After the investment in field development for natural gas production has been made by the producers, the minimum price at which they would be substantially lower than the price they would have to expect inorder to initiate that investment.

The net result of this would be that the oil production would end up subsidizing the gas production, and that the state's revenue from gas royalties and severance taxes would be very low indeed.

Even if the authority of the FPC would have to be stretched pretty far or legislatively expanded to accomplish such price adjustments, it is clear that the push, from a national point of view, will be for a low well head price for Natural gas, even to the extent that this forces the producers to subsidize the gas production.

Clearly the state has an interest in preventing events from unfolding in this manner. If the state were to legislatively establish a minimum well head price, or a cents-per-Mcf tax on natural gas, it could certainly guarantee its revenue.

Unfortunately, these seemingly simple solutions are fraught with problems and uncertainties. Would a cents-per-Mcf tax have to be applied statewide, and if so, how would it affect the production of gas for consumption in Alaska? Does the state have any legal authority to say to the people of the United States and the FPC "we won't allow this gas to be provided unless it's value on production exceeds a certain level?"

What ever course of action Alaska decides to take it is probably important that it move fairly quickly. For example, if the natural gas severance tax is allowed to remain at its present level the FPC and Congress may be expected to make their calculations of the economic and political feasibi lity of Alaska gas transportation systems based on that rate of taxation. Obviously there is a strong impe rative to make a prophesy self-fulfilling

once a policy has been based on it.

The Aerospace Report also states that removal of gas from the North Slope fields will result in a 400 million barrel loss of recoverable oil over the life of the field. At present prices, tax and royalty rates, the income to the state on this production would amount to about $800 million over the life of the field. The compensating direct revenue from the gas (at 16 1/2% of 50¢/Mcf) would be only about $2 billion through 1990, according to the University of Alaska Study on the alternative gas pipeline impacts.

It is not clear from any of the studies now available, whether the postponement of gas production would allow the projected oil loss to be decreased or eliminated, but this is clearly an option that should not be discarded out of hand. If the transportation system most likely to be approved by Federal authorities is not viewed as most beneficial by the state, and if the value of the gas at the well head is expected to rise as time passes, then there may be very strong arguments in favor of reserving the gas, or at least the state's share of it for export at a later date, when economic conditions will presumably be more favorable.

ALASKA VS. CANADA:

In speaking of the implications of the Aerospace Study, Assistant secretary of Interior Carlson indicated that he believed any substantial (1 year or more) increase in the projected time to completion of either project would substantially reduce the "net economic benefits" assigned to that project, and would pro-

portionately increase the relative attractiveness of the other. The economic reasoning behind such a statement is faulty, but it points up the significance assigned, at least in the Interior Department, to the consequences of delay.

The Aerospace Study does indicate the various construction risks inherent in the trans-Canada project are slightly higher than those involved in the trans-Alaska gas system. The study does not assess, however, the political and legal factors that would increase the risk of non-completion or delay. These--it is almost certain--must be greater for the trans-Canada route. Furthermore, the actions of the state, were it so inclined, could easily increase the number of potential political and legal road blocks, though not without risk to the state. The possibility of the state simply re-injecting its royalty share of the gas has already been raised. This, of course, would reduce the attractiveness of either project.

Many of the arguments advanced in favor of an all Alaska gas pipeline, however, are extremely weak and simply don't substantially advance the project by being pushed so hard. Among these are those that focus on the alledged unreliability of Canada as a trans-shipper of American gas. Even without a treaty, the Canadians will be far more dependent on energy crossing U.S. territory than the U.S. will ever be on fuels transiting Canada. The much discussed curtailment of Canadian gas flowing to the Pacific Northwest from British Columbia is certainly not an analogous situation and cannot be compared with the situation that would pertain if the Arctic Gas proposal were to be implemented. Neither does the prospect of possible provincial taxation of the pipeline

or the product itself seem to present much of an argument against the project since the proponderance of informed legal opinion on this complex issue favors the view that any such taxation must be non-discriminatory.

By far the strongest arguments against the trans-Canadian line relate (in no particular order) to the environmental impact on the Arctic National Wildlife Refuge, the potential for delay inherent in the need to settle the Canadian Native Land Claims, the potential for obstructive legal or political action by elements in Canada opposed to the line for economic, environmental or nationalistic reasons and the potentially obstructive legal action that an opposed Alaska State Government might be able to mount. It would seem to me that any attempt to promote the Alaska route should focus on these issues.

One concrete action, that the state could take in this direction would be to push for the inclusion of the Arctic Wildlife Refuge in the national wilderness system, though this would naturily have implications far beyond the pipeline question.

The ability of the state to influence the choice of a gas pipeline route will probably always be marginal. Never the less the decision at the national level may arise out of an interplay of relatively well balanced forces, in a situation where the interjection of Alaska's relatively modest influence or effort could be decisive.

Naturally there are significant hazards in taking an activist role for the state, in that certain types of pressure on national decision-makers could be counter productive. Alaska and

its prospective great wealth have been given prominent play of late in the national media.

As a conservative, it will be very difficult of generate sympathy for the hardship a trans-Canada routing may impose on the state with respect to unemployment or state revenue. By the same token, heavy handed action by the state could produce a significant backlash, especially in Congress.

THE EL PASO PROPOSALS:

The recent statements by the El Paso group with respect to their need for a committment of Alaska's royalty share of the gas (worth billions) are somewhat incredible coming from a Firm that is unwilling to commit the few million dollars necessary to have the Interior Department prepare a draft environmental impact statement. This emphasizes the fact that as yet at least, El Paso has not clearly demonstrated that it is a serious and credible applicant for the right to develop an Alaska gas transportation system. The fact that El Paso has not undertaken to sell its position to national leaders and the public with anywhere near the vigor that has marked the CAAGS efforts contributes to this impression.

In the absence of this kind of committement, and perhaps even it it should be forthcoming, Alaska would certainly, in my view, be taking a great risk to make the kind of dedication of reserves that has been urged upon it by El Paso.

If the state is anxious to see that the all Alaska route is considered on an equal basis with the other proposal, it would

certainly seem worth a relatively small investment to assure that the Interior Department moves forward as fast as possible on the draft environmental impact statement precedent to issuance of right of way permit. How the state might accomplish this may be a subject that the committee will want to explore in some detail. Without necessarily recommending any specific course of action, some of the options that might be considered are the actual contribution by the state of the funds necessary to prepare the impact statement, with some sort of quid-pro-quo on the part of El Paso, an attempt by the state to acquire the right-of-way in its own name, or simply trying to pursuade El Paso to make the committement of funds necessary.

RECOMMENDATIONS:

1. Since it is clear that there may be significant differences of opinion among experts and interested parties with respect to the amount of oil (in any) that will be sacrificed to enable gas to be produced for export, and since this will certainly be an important factor in determining the minimum well head gas price acceptable to the state, I would recommend that the Committee call and question witnesses who may be able to lend some light on this matter. Such witnesses should probably include:

(1) State Oil and Gas Division officials

(2) The specific persons responsible for preparing the reservoir analysis for each of the oil companies owning major shares of the Prudhoe reserves.

(3) The State's outside consultants in Reservoir analysis; and

(4) The Aerospace Subcontractor on gas supply, H.R. Gruy and Associates, Inc. of Dallas, Texas

In the case of the various consultants, I would expect that it would be appropriate for the Committee to cover the usual fees and expenses. If the Committee chooses to do this we would probably want to prepare an issue paper, both for the use of the Committee, and to give the prospective witnesses a clear understanding of the slope of the Committee's interest.

2. The State's authority to use it's proprietary interests in the land needed for pipeline rights of way, and/or its police power with respect to oil and gas conservation, in ways that might directly or indirectly influence the choice of a pipeline route, or the conditions under which gas is removed, are legal questions which should almost certainly be explored. No realistic listing of options is possible without an investigation of these issues. I would strongly recommend that the Committee consider retaining two separate legal consultants to obtain opinions on these matters. I would expect on the basis of the cost of the Consultants' legal services to the Joint Pipeline Impact Committee in 1972, that we might be thinking of an appropriation of between $15,000 and $30,000 for each.

The reason I recommend two independent opinions is simply that in situations where your entire legislative effort is likely to stand or fall on the basis of some unknown Judge's opinion issued at some future date, and where the legal issues are complex, it is false economy to skimp on legal expertise. Also, the knowledge that your statutes are based on sound legal reasoning is likely to stiffin the resolve of a possibly reluctant Administration when the time comes to defend the Legislation in Court.

With respect to the choice of consultants, should the Committee choose to go this route, I have no specific names to put forward. I would note, however, that there are several lawyers in Alaska with specialized knowledge in the area of oil and gas conservation gained either in state service, private practice or both. In addition, there would appear to be some advantage to having the views of both Alaskan and "outside" consultants.

If the Committee decided to follow through on this proposal, I would suggest that you take the opportunity of this meeting to review your budget, and determine at as early a date as possible whether or not a supplemental appropriation request should be considered.

3. The Senate Interior Committee had planned to hold hearings on Alaska natural gas transportation issues, but as yet these have not been scheduled. However, the Public Lands Sub-Committee of the House Interior Committee plans to hold an Oversight Hearing on this same subject on Thursday, October 9. Witnesses are expected to appear representing the Interior Department, the Federal Power Commission, and the State Department. The Hearings will attempt to focus on the procedure issues that surround the current FPC proceedings and the Interior Department's outlook for disposition of the Arctic gas right-of-way application. No attempt will be make to get into the relative merits of the two competing proposals.

A great deal could be gained by the members of the Committee attending this hearing. If some or all of you were able to attend,

I would take the opportunity to arrange briefings with key people at the Interior Department, F.P.C., Congress, possibly the Department of State, the Canadian Embassy, and any other groups you might consider it useful to meet. (We could even try to arrange a meeting with the new Secretary of the Interior designate.)

The advantages of such a visit EN MASS to Washington are not only in terms of the better understanding you will gain of the issues and the climate in which they are being considered; in addition, the presence of a large group of Alaskan Legislators at the Hearing can not help by have some impact on the Congressman, and--perhaps more significantly--on the witnesses.

Should you decide to make this trip I would suggest that as many of you as possible arrive on Tuesday evening (October 7) so that we can meet the prospective witnesses or their staff people and the Congressional delegation on the following day, Friday, the 10th, could be used for other briefings and those who wish to spend some time of their own in D.C. could do so on Saturday and Sunday. Because of the time difference and airline schedule the trip to D.C. usually kills a day, so the trip back could be done in a long evening.

4. I would strongly recommend that the Committee take an indepth look at the economic question raised earlier in this memo. As a full time Consultant to the Committee, I would have hoped to concentrate on these areas and have prepared for you by the middle of December a fairly comprehensive look at the policy issues. With my new responsibilities as Director of Re-

search Services, I naturally won't be able to give the same amount of attention to these issues as I would have otherwise been able. However, there is no other area, in which I would rather wish to remain involved in actual research. I would therefore suggest that for the present I continue to work personally on these matters, but that you not foreclose the possibility of bringing another person on board at some time in the future.

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED AS A UNIT IN THE ORIGINAL DOCUMENT.

GAS PIPELINE IMPACT COMMITTEE

Meeting of September 23, 1975, 10:30 a.m.
425 G Street, Suite 750
Anchorage, AK 99501

Meeting came to order at 10:30 a.m.
Present: Senators Poland, Huber, Miller, Rodey, Tillion
Representatives Anderson, Bowman, Gruening, Kelley, Specking

Absent: Senators Croft, Ferguson, Rader
Representatives Bradner, Cowper, Hackney

Roll Call: 10 present, 6 absent

BOWMAN: Copies of the minutes of the previous meeting are in each of your folders. Are there any changes or corrections that you want to note? If not the minutes will stand approved as read. And the second item on your agenda deals with the office space. We have secured this office for the rental fee of four hundred and fifty five dollars (455.00) a month for four months, until January 1, when we will be moving down to Juneau with the Legislature I presume, unless we have a special session, at which time that would not interfere with the commitee anyway. We have rented the tables and chairs for three or four months which will save us money, rather than having to rent a place to hold our meetings whenever we meet. It cost us at the last meeting at the Westward, One hundred and some dollars. On the basis of that, we have saved money by renting and we will have a space to meet here rather than renting a space whenever we meet. It also gives our staff a space to work.

TILLION: The staff will occupy this space every day of the week during normal working hours, then?

BOWMAN: Oh, yes.

GRUENING: Can we go back to the minutes of last meeting? I want to show myself as present as I came late.

BOWMAN: Let the minutes of the last meeting of July 21, show Clark Gruening as present.
The office is open every day from 8:30 a.m. to 5:00 p.m. Cathy Barrett is the secretary and will be here and Gregg will be here also every day when he comes on board permanently.

And, up to this point, we are running an account of our budget. We will supply that next time because Legislative Council and Legislative Affairs has been in a change over. At this point we haven't been audited. I'm trying to get Jay Hogan to work on it, but haven't finalized that. I would hope that by the next meeting we will be able to bring you up to date as to every penny spent...Are there any questions regarding budget or office space?

Then we will move on to Gregg's Summary: Memorandum of October 18th or rather September 18th on"Renewed Consideration of Alaska Highway Route" We sent it out, but there is also a copy in your folder with a cover slip on it. At this time, Gregg, you can expand on that.

GREGG: I don't think I need to go over the Memorandum in detail and I'd be happy to answer any questions. There are two things I'd like to emphasize: the central thrust of the Memo: that is the situation that Alaska faces as I see it, in Washington, is very different from the one that we face with respect to our oil and that we still face. The oil that Alaska is going to be producing has a very high economic value. The question, in respect to the oil, is how that pie is going to be shared among the oil companies, the Federal Government, the consumers and the people of Alaska. The fact of the economics of gas is that the economic value of the gas is very low. There will be strong incentive on the part of the National government and other states to see that that gas is removed from Alaska without a substantial or perhaps even any payment to the state of Alaska. This is clearly the scenario that the Committe, I would expect, be anxious to examine and see that it doesn't develop that way. The FPC and Congress are looking at a situation in which energy independence is a policy that is being debated. If it is decided that Alaskan gas is going to be part of that policy, there will be difficulty in bringing it down to the U.S. at prices consumers can pay and the easiest way to make that possible is to cut the state's share of the revenue from that gas. I can't emphasize strongly enough the need to know very carefully what the state can do and cannot do to prevent this from happening. This is regardless of which route the gas goes out.

The other point is one I didn't really cover in the Memo which is really developed in the last couple weeks. That is that there has been renewed consideration or I should say discussion in Washington of the possibility of bring the gas south toward or to Fairbanks and down the Alaska highway. I think that this is partially,a result of the enviromentalists increasing concern over penetration of the Arctic Wildlife Refuge and I think it is also recognition of the great problems that are likely to be incountered in, with respect to Canadian and Native land claims, enviromental problems in northern Canada; problems which would be greatly mitigated if the pipeline were to follow the Alaska highway route.

This discussion has been very informal and I am not completely clear as to how far it has gone, but I do know that the people in F.E.A. have discussed it and the Canadians themselves, at the embessy, have been discussing it with increasing frequency. Those are the two points that I really like to make I guess and the first point, I think is the most important. I would be happy to answer any questions you might have on the Memo. I have some specific recomondations and we can cover those at the Chairman's pleasure as we go along on the agenda.

HUBER: Just one small question. The changes in the Memo, I wonder if you would highlight those because I notice that the one that I read didn't have the material on it?

GREGG: The only changes I made were filistic or typographic, I don't think I made any other changes.

HUBER: There isn't any content changes then? So if we read the draft copy wev'e got the jist of this one?

GREGG: Yes.

HUBER: Thank you.

BOWMAN: Are there any questions of Gregg to this point on the two points?

GRUENING: A question on the Memo. There may be a situation with the F.P.C. controls price because there will be a point at which they no longer can pass the cost off to the consumer and there will be a set price which will have a definite impact on the revenue to the state. Isn't that true?

GREGG: Well, whether or not we have the regulation of natural gas in the United States, there is a maximum price at which you can sell natural gas to any given consumer and that price is established by that consumers alternatives. In the short run those alternatives may be very restricted and in the longer run the consumer has more choices that he can make, to shift to oil, coal, electricity or what have you. Oil is being imported to the U.S. at twelve (12.00) dollars a barrel, that is about equivalent to two dollars an Mcf natural gas. Presumably over the long run the consumer will not pay more than two dollars an Mcf for natural gas because he will have twelve dollar oil available. Other things being equal theres certain form value in gas which may make the consumer willing to pay 2.50 for gas, but at some point he's going to say "No" "Its better for me to switch" That puts an upper limit on the price that the F.P.C. can sell that gas for, the companies that are regulated by the F.P.C. Thus the cost of bringing the gas to market are going to have to be met within that level of revenue.

GRUENING: What deals with that projection, has there been any indepth analysis of whether costs do exceed that?

GREGG: There have been a couple of analyses and there are a couple on their way right now. The title three study contains one such analysis. The analysis that Dr. Tussing did for the state of Alaska contains another such analysis. The F.P.C. is conducting in its investigation of the El Paso and Arctic Gas proposals another such investigation and presumably theirs would be the most complete. There is pretty much agreement, I think, that these upper limits on what you can sell that gas for.....its very ironic that if natural gas is deregulated in the U.S. the price at which consumers will be willing to pay will actually decline because they will then be allowed to bid away the supplies of natural gas that are now being diverted to industrial uses or power generation and being sold at relatively artificially low prices to these other low value uses. Another thing that I think is important to understand is that deregulation is going to make the Alaska gas transportation system less economically attractive. As it stands right now, even given the numbers in the Title III study, it's clear that if deregulation goes through, and if the price of oil doesn't climb substantially above what it is at right now, it doesn't seem possible that you could build the system and have it pay for itself and have anything left over for Alaska. It doesn't look like you'd have anything left over for the oil companies either. In such a situation, the oil companies would end up subsidizing the gas production out of their oil production--which means we'd get hit both ways. The oil pie, in effect, would become smaller....not that there isn't any gas pie for us to share.

I don't want to be excessively grim. I think there are other factors on the other side which may make the State come out of this pretty well. I don't think there has been enough emphasis in the press at least, in public discussion of the real problems that we have. Perhaps it is good that these things have not been widely circulated. In a way, it may help our position in being better off, if people aren't aware publicly of how weak our position is economically. This is sort of a rambling answer to your question, Clark.

GRUENING: At what point do we know whether we're actually taking the right course by backing any pipeline? We may be in a position where we can't hold back our gas.

GREGG: The gas doesn't do anybody any good if it stays in the ground forever, obviously. So the question, then, becomes when, and other things being equal, if it's going to produce benefits and if there aren't going to change substantially over a time, you're better off to pro-

duce it sooner rather than later. There's no great crystal ball that will tell us whether we're doing the right thing or not.

SPECKING: It appears to me, that the gas is inexorably tied to the price of oil, an alternate energy source and I think that this is one of the most important things we're going to have to examine in this Committee. It does sound grim. It appears that when faced with the tremendous increase in the price of energy--with people driving their cars with 75¢ gas. It appears that in an energy short nation, these values can change. For example, I know absolutely nothing about the relationship of the small consumer verses the industrial consumer. This might be where the answer lays, I don't know. This sort of data is the thing we're going to have to have in order to understand whether we want to pursue a pipeline. And, of course, we do and want Alaska to come out as a winner.

GREGG: I don't think there is any doubt that Alaska's gas is going to increase in the future. The question is how much are we going to get for it if it goes out, and under what conditions is it going to go out and if we know the conditions and what is its value to us under those conditions given all employment impact, the direct revenue impact and so on. Is it better to take that value now or wait under those circumstances to some future date when we're fairly confident that it will be higher. I think you're right, things will change...no doubt that Alaska's gas will be utilized enventually in my mind. That's why I specifically say in the Memo the question of whether it's going to go out right now, not eventually.

TILLION: I don't think this group prognosis is new, we knew this quite awhile back...that our gas was going to be almost worthless and that we had to make a decision...you have to move the gas that comes up with the oil that's not needed to pressurize the field. What we have to do is to make decisions or do we want to see areas of high gas potential and low oil potential even leased. Things will change, it will be worth more. If it's worthless now, it's bound to be worth more in the future, it can't be worth less.

GRUENING: We don't know that as a fact yet. If it's pretty much what you said, there's strong indications that it may not be all that much benefit, but no one has come to that conclusion. At least the FPC has another year to work on it.

GREGG: I don't think the FPC is going to make the decision for you as to whether it's going to be beneficial for the state of Alaska. The peramiters you work with will be dependent on what the FPC decides. Also the gas that comes up with the oil can and is planned to be reinjected.

SPECKING: Right along with this, I think you touched on the thing. You're facing the dual problem of natural gas that will flow through the gas line and the gas that's going to flow through the oil pipeline. Some where or another the legal determinations of who really has the responsibility for setting the price on the wet gas...and the ownership and the whole gambit of problems relating to those two have to be separated, too. In other words, you're going to have a certain amount of gas flowing through the oil pipeline.

GREGG: I think these are natural gas liquids that are going to be stripped from the gas.

SPECKING: At what point do they lose their identity as gas? I'm not sure yet who has control--whether it's FPC problems.

GREGG: No, they're not.

BOWMAN: If they're in the oil line, that's all part of the oil, isn't it? until they strip it?

GREGG: The FPC doesn't or hasn't asserted regulatory jurisdiction over gas that is not in interstate commerce. In almost all cases they strip those liquids out of the gas before it goes in interstate commerce. I don't know at least in the states, that this has become a problem of defining jurisdiction. Maybe there are circumstances that are different in Alaska.

HUBER: We kind of getting back into the area of my favorite of research. It's obvious to me, if we should convert the natural gas to a product on the North Slope, it would no longer be in interstate commerce by the FPC or the ICC either one as a product as I understand it.

GREGG: Well, that's an option that we could very well explore.

HUBER: There's several questions connected with that. When natural gas is used as a feed stock for fertilizer. Is the fertilizer realized as a by-product of that or is it actually a conversion of a chemical conversion of the natural gas components to fertilizer.

GREGG: It's a chemical conversion of the carbon in fixing the nitrogen in the air, using the energy that is available in the natural gas. So you're using both the molecules and also the energy.

HUBER: So you're using the energy, too, then. That takes care of that one. Now, has anything more been

done on figuring...I noticed you mentioned that the gas is $2.00 Mcf. That's about all it's worth at the market. Therefore the costs of transporting it take away from that to the point where we may not have a very valuable item. How does it stand... what is it's value as feed stock for methynol conversion--considering we're going to use methynol as a gasoline substitute or gasoline additive. I think you and I are both aware of some of the things that can be done in that way. I'd like you to expound a little, maybe where we can get more information. Maybe it's worth more as a feed stock to make gasoline substitute methynol out of then it is any other way--in which case we'd be fools to let it go in to interstate commerce when we can convert it to a product and sell it and ship it as methynol. Some of those various things/

GREGG: I don't know the answer to your question in respect to what the value is, I think we're facing similar economic problems with respect to the utilization for fields that aren't regulated by the government. The economic problem is really independent of government regulation in a sense. The government regulation may actually make it possible for us to circumvent the econmic problem in certain ways. How much the gas is worth, as used as a feed stock or as used to produce another product is a very uncertain area, because, (1) we don't know what the competition of that will be, because we don't know what the situation on deregulation is going to be in the states, (2) We don't know whether we'll be able to export it from this country which is a very important factor.

HUBER: We don't know whether we'll be able to export it do to what?

GREGG: The President has authority to stop exports of just about anything you want at any time.

HUBER: You mean to a foreign country?

GREGG: ...to a foreign country, yes.

HUBER: We're assuming there is no market for it in the U.S.?

GREGG: No, you're talking about an awful lot of material and it may very well be locations specific, in the sense that it's very costly to transport it by land. I don't know the answer to your question, John... I don't think there is an immediate opportunity to seize on here. I do agree with you that it something that needs to be examined. Frankly, I don't...part of the problem is that there is so much gas there, that if we do try to do that in any given area, like fertilizer or methynol, we almost

immediately saturate the market and drive the price way down again. I don't think there is any way that we could try to maintain...we could try to sell a little bit of that gas for fertilizer--and maybe get 75¢ Mcf for it. If we try to sell it all as fertilizer, and if there is any way we could prevent the oil companies from marketing their share in that market if that is the most profitable thing to do with it, the price is going to go down to zero just the way it was in the case of gas.

HUBER: But methynol as a gasoline additive...there's practically an unlimited market there, isn't there?

GREGG: You've got the same problem there with a net back situation, you lose a substantial part of the gas energy when you revert to conversion.

HUBER: Do you know where we can get the information on that? I understood that it was a very simple chemical conversion as far as energy is concerned, because it's a change from CH_4 to CH_3OH which is the addtion of an oxygen molecule.

GREGG: I seem to recall sending you a copy of a report.

HUBER: The report was practically worthless for the direction I wanted to go into. Because the report was made by gas companies, apparently, who had a great interest in putting the methynol back into natural gas and putting it into distribution lines and making sure it became a home heating and industrial natural gas product. I'm interested in removing it entirely from the field that natural gas in normally used for. Converting it to a product that has a ready sale or should have a ready sale, gasoline or gasoline substitute.

BOWMAN: Are you speaking about, John, if I may ask, just our portion of it or the entire field?

HUBER: Well, if we should be able with our portion of it, uncommitted, to attract the necessary industry to build the methynol conversion plant on the North Slope. It's a cinch--look at the costs of energy as quoted here--that if we can get into that 75 to dollar region, which it looks like we can, considering what gasoline sells for, that we can probably attract it so that the company can get all that they want by buying from the oil companies in addition to our 12 1/2%, because it will probably by worth, judging from Gregg's economic study here, many times as much in making it into methynol as it will be to putting it into that pipeline.

GREGG: I don't know the answer to your question. I'll be glad to look and see if I can find some source

material for you.

HUBER: While we're at it, do you know if there is any other names of organizations or anything other than the source material that you have presently supplied.

GREGG: I haven't read through the entire draft DIS, and it maybe that there is an alternative there, as they've considered just about everything else.

KAY: Gregg, I don't know anything about petrochemicals, except the little I've read. I do know that this sort of thing (the table) is made out of natural gas, and with the lumber shortages that there are in the world today, would it be possible for the State of Alaska to use some of their gas or any gas in that type of thing and gain economically.

GREGG: It might be, I don't know the answer to that. It's the same sort of question that John was asking. I do know that the oil companies don't seem to be very interested in pursuing that. If there was a profitable outlet for their gas, I would think that it would be--but that is no reason not to go into it. I think it is worth looking into.

TILLION: ...you're poly-propylene ropes and all that stuff have to be manufactured at a dispersement center to make it work--to make it competitive. Some of our gas --when moved on a trans-Alaska gas line, and move it down liquified, say to southern California and relieve that pressure, releasing other sources that can go to the factory in the Mid-west. It's all tied together this stuff flowing from the Mid-west or from Texas. You just don't send it there. But, as far as the moving up and setting up plants in Alaska, the economics just aren't there, cost of shipping. I'm not saying that they won't be there in twenty years. Right now, there are those who have looked at it and a number have, have just backed off to the freight costs.

GREGG: I could look at this in a preliminary way, and determine if it would be feasible for the Committee to go into a more formal study of this. Obviously, I wouldn't be the person to do it. I think you need to spend quite a bit of money to get a professional analysis of this question, even in a very superficial way. I'd be glad to look into it and see what might be feasible in a way of a study of this sort of thing and what you'd likely to get on a short term basis.

SPECKING: I for one would like to have Gregg to pursue that, at least preliminarily, to see whether or not we want to look further.

HUBER: Another comment, if I could make it in this area,

we're talking about the same products, about converting natural gas to something else, I was pretty well heated up about this methynol--as it appears to be an unusual market for it because of the shortage of gasoline everywhere. I've tried to find out some and Gregg has tried to find out some, too. Now, Judy Whitney visited Stanford REsearch while she was outside on the West coast on the way back from the trip we made East on another committee. Stanford Research had published a paper, and I think Clem saw that.

TILLION: I don't know about that, but I went to Stanford And looked it over and also to the University of Miami and looked at methynol engines and there are some...it's not all as good as they say it is, but...

HUBER: The research we received on the blending quality and so on...

TILLION: You can make it out of pine trees, all sorts of things. It does have some...methynol is more liable to be rather than a certainty.

HUBER: This research that they had done, that they had made the blurb on during the session...That's what I tried to have checked on, and they told her that that was done for a private organization and they could not give her any more data on that. Unfortunately, she didn't get the name of the organization that it was done for because they might be commercially interested in doing.

TILLION: I can get all that for you. The fellow that they did it for serves on the Presidential Commission.

HUBER: I wonder if you can get it for me by the first of the month or so.

TILLION: To Stanford? That will be different. They won't give you much, I could send back for that stuff on methynol...It's like listening to the Trans-Alaska or trans-Canada pipeline stuff. You don't know which to believe--it's so diversified.

GRUENING: I'm kind of interested in proposals that Gregg suggested as to immediate action by the Committee. I'm wondering, aside from the overall problems we have of economics, regardless of which route is taken, what advantages, other than the spin-off construction and so forth, is there at this point in backing a trans-Alaska pipeline? Is there any advantages in that area of economics to the State, that you see, other than the spin-offs? How does that relate to any immediate action of direction that we should be taking?

GREGG: Well, a very good analysis of that question has

been conducted by the University of Alaska--it doesn't answer all the questions, but their input to the Aerospace Study is now available. I have one copy of it and would be glad to let anyone xerox a copy. I think that outlines what is expected to happen in terms of employment, in terms of state revenue, in terms of additional costs of services and so on. Whether these are in a net way beneficial to the State or not, is a decision that has to be made on a political basis--you folks. I'm not certainly prepared to give an opinion on that--at least not at this point.

It's clear that the El Paso route will have much more profound impact on the State. It's also clear, that the big drop off in employment, which will occur as the oil pipeline winds down would be mitigated substantially by the initiation of construction on the Alaska route. It's a pretty important thing, obviously, to a lot of people.

TILLION: How many people will leave Alaska, if we don't have it...that's a plus. That's one of the things seriously, you have to take into consideration. If you produce a massive amount of employment right at the end of the trans-Alaska oil line, you'll have a great deal of people you'll be caught with at the end of the construction of the gas line, that you may not have gotten caught with otherwise. It's going to be impact as the gas line winds down. Then you're going to have another project to face you. Booms have their advantages, people don't stay after them as much.

BOWMAN: The way it looks now, most Alaskans are selling out and moving out..... to cover your point somewhat, Clark, Gregg has certain proposals we can get into that further down. Maybe we ought to start moving in that direction. So if there is no objection. Unless someone has another question on these two proposals that he made in number three, we'll move on to the next one.

The fourth item is proposed attendance at the October 9th hearings at the House Interior Subcommittee on Public Lands, and briefings in Washington D. C. If you'll go to the page on Greggs Memo, Page 17, under number three. It states that the " Public Lands Subcommitee of the House Interior Committee plans to hold an Oversight Hearing on this same subject on Thursday, October 9th. Witnisses are expected to appear representing the Interior Department, FPC, and the State Department. The hearing will attempt to focus on the procedural issues that surround the current FPC proceedings and the Interior Departments outlook for disposition of the Arctic gas right-of-way application. No attempt will be made to get into the relative merits of the two competing proposals.

A great deal could be gained by the members of the

committee attending this hearing. If some or all of you were able to attend, I would take the opportunity to arrange briefings with key people at the Interior Department, FPC, Congress, possibly the Department of State, the Canadian Embassy and any other groups you might consider it useful to meet. We could evern try to arrange a meeting with the new Secretary of the Interior designate."

The advantages of such a visit En Masse to Washington are not only in terms of the better understanding you will gain of the issues and the climate in which they are being consedered; in addition the presence of a large group of Alaskan Legislators at the hearing cannot help but have some impact on the Congressman and, perhaps more significantly, on the witnesses.

Should you decide to make this trip I would suggest that as many of you as possible arrive on Tuesday evening (October 7) so that we can meet the prospective witnesses or their staff people and the congressional delegation on the following day. Friday, the 10th, could be used for other briefings and those who wish to spend some time of their own in D.C. could do so on Saturday and Sunday. Because of the time difference and airline schedule, the trip to D.C. usually kills a day, so the trip back could be done in a long evening."

Do you want to expand on any of the reasons why you want to go there?

GREGG: I think it's pretty straightforward, that Washington is going to be the arena in which these issues are going to be played out. Like it or not. It may be useful to you to have a first hand perception of what's going on. When I was with the Pipeline Impact Committee in 1972, the committee made a trip to Washington similar to this. At the time, I didn't think it was a useful thing for the committee to do, but Chancy overruled me and I think he was correct. I think it turned out to be a useful thing. I've already talked with Congressman Melcher's staff director and the Congressman would be very glad to have the committee or members of it attend the hearing and would like to meet the committee.

I'm sure we can arrange something also with the Canadian Embassy. They would be happy to talk with you. I'm sure there would be alot of people who would be quite willing to take the time to brief you as you wish.

BOWMAN: I personally feel that maybe we should, for various reasons, especially Gregg's. A group of legislators from Alaska will certainly have some impact. You'll be meeting people from FPC, Senate and House Interior Committees and others.

GREGG: I talked with the staffs of the delegations and they will do whatever they can to make your trip useful if you choose to come.

BOWMAN: The problem in my opinion is, there should be mor than one or two. If the commitee, of some consequence, goes there, I think that (1) we can get some input from what is happening ther, (2) and give some. Any others?

GRUENING: The input part, at this point, would'nt the committee be hard put to come up with any one uniform input? It seems that even philosophically, at this point, we're divergent. Maybe the differences are'nt so great when the facts are on the table.

GREGG: I don't think it's important that you should take a single position. I don't think it's necessary or desirable that you hammer out a position that you all go there and lay on the table for various people you talk to. A more important point is, the people who are testifying ot the people you're going to talk to are going to realize that Alaskans are vitally concerned with these issues. The fact that you don't all come with one single, monolithic, idea is advantageous in showing Alaskans as thoughtful people who are looking at these questions in a rational way. It's surprising how much impact that has.

HUBER: I was partly on the same track that Clark was on about questioning. I like the idea and I think it will have some impact. I wonder if this is the time, how the committee stands now. I wonder if there is another opportunity. I noticed you mentioned that the Senate would be meeting. I wonder if there is another opportunity to be meeting in the near future.

GREGG: I'm sure there will be additional opportunities. How near they will be, I don't know. The Senate Interior Committee has planned to hold hearings, but I've withdrawn from participating in the planning of any of Alaskan activities to avoid a conflict of interest because of the work I'm doing for you folks. Since I've withdrawn, no one has followed up on that. Also, It's perceived among the (Senator) Jackson people to be a politically sensitive issue. They're not sure whether they want to get involved in it right now. I think there's a good possibility that the Senate Interior Committee may indefinitely hold off on these. Obviously, the law says that the committees of Congress must review and approve the right-of-way of any pipeline that is approved above a certain size, So, it will be back in Congress eventually, When that will be--very shortly or a long, long time.

BOWMAN: To carry it a little furthur, John, I think we have to be somewhat realistic in the sense that if we have a Special Session and it looks as though we may. We also have some heavy work within this Committee to come up with some type of proposals legislatively by January. Along these lines, getting out of Juneau after the session has started and going to Washington D.C. would be almost impossible. So, any input that we intend to get or make has to be down now.

HUBER: I was thinking of another reason in regard to that. Maybe we could spread ourselves at more than one hearing, I don't know. There are members of this committee on Legislative Council also. Within throwing distance of here, during the 7th, 8th, 9th, and 10th of October, many of us will be in Philadelphia. I noticed that this is mentioned for the 9th. I consider that these hearing are taking place on the 9th, that I could pull a day off from this conference in Philadelphia and maybe other members attending the conference as well as dual members and have a fair showing in Washington D.C. Then maybe we could plan another one even later to where the committee could appear En Masse. If this main business is confined to the 9th, I doubt that there is a member of the Legislative Council down there that would'nt be glad to make it part of their business.... to swell the ranks of those going. Either if we go as a group or some of us go now and try to have another one later.

BOWMAN: I think we would all approve and heartily applaud those who are on the council to change their trip to the council and.....

SPECKING: I think it's important for all members to know what others they're going to do. I don't want to go as a two-member delegation.... if there is going to be some sort of participation committee-wise, I certainly want to attend.

BOWMAN: How many here could attend? O.K.; that's the majority of us. Clark, you don't know?

GRUENING: I don't know if I can make that date.

BOWMAN: Other than Clark, most of us would be there.

GREGG: The hearing is on the 9th, that's a Thursday at 10:30 a.m.

SPECKING: It appears that alot of the value there is going to be at the formal hearing, but what about the briefings? What do you think about that Gregg?

GREGG: I think you're correct. I think we could work in a lot of the congressional briefings on the 9th, probably meeting with Melcher and oter members of his committee. Some of them could be worked on the 9th, you're correct. The impact of having a large

number is significant.

BOWMAN: That would be the following day, the 10th, a Friday.

HUBER: Those are the days that interfere with the Legislative Conference.

BOWMAN: Could we go into other things you would hope to accompoish at the hearings and briefings? What do you propose for the briefings? I know that you outlined it in your Memo. Between now and then, you sill be setting those up....when we get to Washington, where will we meet?

GREGG: You have a large choice of accomodations. Those who want reservations, I'll make them. At the bottom of the hill, they're building a Hiatt House or Quality Inn.

SPECKING: It would be of value to be in a group, even though some of us have friends. I expect to meet with the President informaly and personally. In any event, there is a value to being together.

BOWMAN: What we will need is a list of those goint to Washington and those wanting reservations.

HUBER: What day for the briefings?

GREGG: Briefings on the day preceding the hearings on the 8th and day following, on the 10th and such briefings on the hill that we could arrange.

HUBER: Those of us attending in Philadelphia could easily come over on the 9th. We would miss part of the program, but what of the importance of the briefings.

TILLION: The Land Use is on the 9th, there would still be five or six of us that would be at the hearings.

Break for lunch.

BOWMAN: We more or less concluded item number four which was proposed attendance at the October 9th hearings in Washington D.C. We'll move on to item number five, proposal to retain legal consultants; a draft " Request for Proposal" is attached.

GREGG: The recommendations, number two, on page 16 of the Memo. It seems to me that one of the most important group of questions is just what the states authority is with respect to it's proprietary interests and oil and gas leases; proprietary interest in the lands needed for pipeline reght-of-way; powers with respect to oil and gas conservation.

How can the state act to control, how, when, where, under what conditions the gas is produced, sold, or exported or utilized for the state? There are a great many unanswered legal questions about this. It's clear that this is the kind of issue that's going to depend much more so than in the case of the oil or what kind of answers we develop to these questions. I've outlined the rationale that I think argues for retaining at least two separate studies of what these options are. I also suggested it might be advantageous for you to consider getting an opinion from an Alaskan group and an opinion from an outside group.

MILLER: Gregg, hasn't most of this ground already been plowed with the legislation on the right-of-way leasing act and the pipeline commission?

GREGG: I don't think so.

MILLER: Why not?

GREGG: The differences are that the regulatory regime under which we are operating is completely different. ICC is a more mundane agency. There is very little case law existant as to what the powers of the ICC are verses the state.

The second area of difference is, the extent to which our conservation power may be necessary, it's something we didn't consider at all in the Right-of-Way leasing act in 1972 legislation. We really don't know what the limits of state power are, at least I don't. I think that this issue is going to be resolved on the basis of whether or not the state has those powers. I'm not a lawyer, so it's a little difficult for me to explain in detail what the legal aspects of the study are. It's clear that the relationship between the state government and the FPC, and the pre-emption of the FPC is quite different from that we faced with respect to the ICC. There's also the international implications that didn't intrude in the same way with respect to the oil pipeline.

HUBER: I'd like to ask that we have consideration in choosing the people with expertise in the area of whether changing the form or changing it to the product will bring us out from under certain regulations and put us under other ones or what it will do.

BOWMAN: If they have expertise in that, or look at it?

HUBER: If they have expertise at least in the area and also to look at it.

BOWMAN: There's a difference John, when you say have expertise. I'm not an attorney either. I was wondering if you were saying "have" expertise in changing the end product.

HUBER: No, not in changing the end product, as we're talking about legal people here. I'm talking about the people who have expertise in the legal implications of where we stand if we don't take it out as gas, if we take it out as methynol or take it out as fertilizer; or any of the other things we might try to do here. Also where do we stand on the state saying "no, we withhold our gas. We're going to make fertilizer or methynol or something else out of it and you can't take it agay from us. Things like that.

GRUENING: I think again, as Gregg mentioned, that area would be encompassed by an attorney who dealt exclusively with the FPC and with the state's positions with the FPC and I think when we go back to Washington, that area is logically where we're going to find more expertise. I would like to see someone from Alaska involved. I don't know who does FPC work here, I think it's a relatively new field up here.

GREGG: We do know of attorneys in Alaska who have a lot of experience in oil and gas conservation and have gained that experience here but elsewhere. People with degrees in reservoir engineering or geology and law. That's one area where our power is uncertain. Can we say we will not allow the gas to be produced if it results in a waste of oil, as apparently the Title 3 study says? What is our power with respect to that? There is a large body of case law in that area that's one sort of separate study. The FPC study is something Alaska attorneys haven't been involved with. I'm not certain as there may be someone here who has had experience elsewhere.

BOWMAN: Our first question is, of course, do we follow with this proposal, to get the in-state and outer-state comments regarding our authority and the legal opinions handed to that, which is what the proposal is, I'm not so sure we do have the information available, even though there are a lot of studies being done. Pulling them together, would be part of the responsibility of these consultants to that point.

ANDERSON: Terry, do you think it has all been gone over already in previous work, or what?

MILLER: I suspect some of it has, but I also suspect that Gregg has raised, Partcularly the federal interface as it applies to the FPC, rather than the ICC, is probably pretty valid and ought to be looked at.

POLLAND: No matter what opinions we'd get, if we hired fifty lawyers we'd get fifty different opinions. They're not going to mean anything until the thing goes to court.

BOWMAN: Wasn't that the '73 special session?

TILLION: Remember, there were a number of us who spoke to change it. It did come out at that time, the difference between the juresdictions, FPC, ICC. There's a good body of law on that. You just have to first make the decision, I think before you hire your counsel, on what you're going to do with the information when it comes in. I agree with you, we shouldn't hire two counsels, because we can't stand the confusing information. I think you can get a good deal of this put together. Gregg should write some questions on the difference and hire counsel on the answering of those questions. Just hire to have the questions answered to the best of their ability, and then get rid of them.

GREGG: That was the thrust of the proposal. I assumed, though, that once you had the study in hand, that the program committees in considering legislation, would probably want to call these people back.... as Witherspoon was cakked back.

TILLION: The big problem you're going to find is, there won't be any clear cut answer as to what we ought to do.

GREGG: I think you're right.

TILLION: I remember from past years, just which way to go after you have all the information.

HUBER: I just wanted to express concern.....we mentioned "outside" and "Alaskan" expertise here.... Though I like the general trend of that, I haven't noticed any starving lawyers in Alaska. I would hope that we wouldn't tie ourselves with any particular thing. Say we're going to get some of this from an Alaskan here and some of it from a non-Alaskan, fine, if not, maybe we'll have to look somewhere else. I didn't want you tied with that millsone around your neck.

GREGG: My proposal was to solicit, just a suggestion as I say, from attorneys both in Alaska and outside and look then over and see what you've got and make a decision on that basis.

MILLER: As a matter of form, is this definite enough or do you need to go one step further, as Clem suggested, and actually outline some of the issues and legal questions?

GREGG: I say here, that this information on a possible scope of the study in a form of an issue paper is available from that office. I've been working on one right now in a draft form. I quite agree with you, we need something mor concrete.

MILLER: How do you intend to circulate this solicitation?

GREGG: That would be a matter for you to decide. I had thought of publishing in the Anchorage papers to get circulation here in Alaska. Undoubtedly, an informal method would be necessary in the states. It's up to you.

TILLION: I would recommend that we get the questions, say a dozen questions. Then I think you'd be far better off to locate a laqyer, expert in that area, probably in Washington D.C. and just contract him to answer those questions. And then, somebody else can argue over his answers at a later date.

GREGG: That was my proposal; to have it contracted out to have it done.

TILLION: I certainly wouldn't advertise, as that would cause that much dissatisfaction for those who put in a proposal and didn't get the job. I think you should just shop around and find the best you can by asking a few questions and go to that person and say, "Will you do this study?"

MILLER: I think the area of greatest interest to me, is the first question of the FPC jurisdiction. I think you'll have to go to Washington D.C. to find the expertise.

BOWMAN: I know if we spend time advertising for some submittal of proposals, we're going to lose an awful lot of time. I would just as soon have the committee authorize us to move on it as we'll be just dead in the water if we don't.

SPECKING: Last year there was another gas pipeline committee, and they explored this. This come out in a study. I've never seen the final copy of it. Bob Hartig had the control of the preparation of the thing, but they explored the options of getting some people in Washington. There might be some valuable data in that thing. I'm sure a copy of it could be obtained from Hartig.

GREGG: I'll make sure I contact him.

MILLER: I think we may be chasing our tails on this. I agree with Clem, you can't get much further until you have specific questions and issues to find. It would appear to me, however, that what you're shopping around for is expertise in the area, and not expertise as to specific questions. Maybe we ought to authorize the consultant to begin that search. Most probably it will be centered in Washington and when we arrive there, you'll have it narrowed down to two or three firms which you think the majority of the committee would approve and could meet with them there.

TILLION: But, you need a few basic questions to present to the people while you're shopping around.

MILLER: I think we ought to go that far and then interview some of thise people when we get to Washington.

BOWMAN: You're not at this time interested in the weighing of whatever we do between having a consultant here in Alaska and Washington. You don't think that is a valid argument? What he says here.....the reason I recommend two independent opinions is simply that in situations wherw your entire legislative effort is likely to stand or fall on the basis of some unknown judges' opinion issued at some future date. Where the legal issues are complex, it is false economy to skimp on legal expertise. Also, the knowledge that your statutes are based on sound legal reasoning is likely to stiffen the resolve of possible reluctant administration. When the time comes to defend the legislation in court, which we never got to before. Are we throwing that out entirely?

TILLION: I would throw it out, because I think we ought to get the basic questions, pick a counsel, answer them, and it will just be like hiring counsel when you bring the answers to those questions back and people start shooting out....

GREGG: I have no objection to that approach.

GRUENING: I think ultimately, what we want ia a yes answer. Whatever we decide to do, we want an attorney to draft something that works. Whoever we pick should be also skilled in drafting legislation ar at least can look at legislation and can guide us to the result that we want. It isn't the trouble of having two people; of one sayin " No, you can't do it" and the other saying "Yes, You can." We want "Yes, you can." We want to find the limits of state power. Logically, you would take it to this extreme. You want to use what power you have to get the best possible result. By making one attorney responsible, rather than having someone say no, it wouldn't work. The other consultant would then, when trying to produce a piece of legislation, you would have everyone on one side of the fence or the other.

SPECKING: There may be some merit in making that decision now; but keeping open the idea of retaining some local legal counsel that could give us some interpretation or advice on matters that may come down to us from Washington people. We do have some people that are skilled with particular problems in Alaska in that oil and gas thing. I think it's premature to say we'll get one of each.

GRUENING: I think it's true that even in the conservation area, again we go back to the FPC, whether that makes any difference in their rulings. You've got to have an expert in that area, to some degree.

BOWMAN: The chair would entertain a motion to implement that point.

GREGG: The motion then would be for me to make preliminary examinations and narrow down the field of Washington attormeys that may be able to do this kind of work and prepare a set of questions or issue paper that will define the issues more precisely and have these people available for you to review when you get to Washington.

ANDERSON: I ask unanimous consent.

BOWMAN: Unanimous consent has been asked for. Opposed? Hearing none, motion passes.

Let's move to item 6; technical factors involved in gas productions, specifically suggests 400 million barrels less of oil. Authorization to pay witness expense. That is on page 15.

HUBER: Does this mean we'd set this up for the next meeting? We'd need authority to pay the witnesses' expences.

BOWMAN: No, not for the next meeting. Well, yes, for our next meeting. On page 15, Gregg has outlined some of the arguments or opinions among experts as to what actually is or is not the case. Here again, we're still arguing what the case is.

GREGG: There are some other questions, too. One is, how much gas is there; the other, how fast it can be produced. These are all the same sort of questions. I think that the recommendations are pretty self-explanatory.

BOWMAN: I agree to the one point. The first one being the state and oil and gas division officials. I saw in the paper the day before or so, that the new division is already in operation. I forget the name of the person heading it, now. They're going out by January. We'll be evaluating the taxation on the various fields. However, we need to know how they're going to go about their taxation methods. Also, the oil companies, the state's outside consultants, and reservoir analysis and aerospace subcontracts on gas supply, Mr. Grey.

GREGG: This study says that Alaska is going to lose 400 million barrels of oil to produce the gas.

It also says that the oil companies are going to have to receive the net of all the state's taxes and royalties.....47 cents Mcf, otherwise, they won't find it economically feasible to produce the gas. These are kind of, if not shocking, at least, surprising figures. I think they differ substantially from what other people have been saying up to now. I would expect you might want to look into that.

It was decided that the Department of Interior would be asked to study possible methods of removing gas from Alaska and to report back to congress within two years of the day of the act. That two years ixpires Nov. 16, 1975. The interior Department decided as a first step in making their report to congress, they would commission a study. This aerospace study is the draft of that study.

MILLER: You're suggisting that we have a public hearing?

GREGG: One could ask for written responses to questions, my suggestion was for a public hearing, yes.

BOWMAN: ...which should be at our next meeting. We haven't set it, yet.

TILLION: We could set it after Washington.

BOWMAN: We have to consider that we may have a Special Session. If we do, we could always hold it in Juneau.

MILLER: How much time do you need?

GREGG: I would think that the oil companies and the consultants would need at least three weeks and possibly a month to get their material together in a way that would be most useful to us.

MILLER: Why don't we schedule a hearing in Juneau--and if there's a Special Session, we'll go around it. If there isn't, we could just meet in Juneau.

BOWMAN: Would most of our people be here?

GREGG: I think the oil company people would more likely be here, than in Juneau...YOu don't have to determine the place right now.

B OWMAN: Is the 10th of November agreeable to everyone?

MILLER: I move we hold the meeting and hearing on Nov. 10th at 10 a.m.

ANDERSON: I object.

BOWMAN: The motion is carried. We didn't cover the authorization to cover witnesses expenses...The state's outside consultants, the Aerospace subcontractor...Are we calling all those people before us?

TILLION: A lot of this will depend...on counsel to get your answers before we haul a bunch of consultants before us--shouldn't we? ...so that you can ask these consultants that you bring, these questions and have some background to be able to do it. I don't think we should have all the consultants in til after we have something prepared--so we know what to ask them.

MILLER: Gregg, is there that much dispute among the experts as to how much oil is going to be used in this process or is it pretty standardized.

GREGG: I don't think it's a matter of how much it's going to be used in terms of consumption. The production of the gas means that that gas is not available for reinjection, which means there's a need for an artificial water drive...and that is less efficient than gas injection and therefore oil would remain in the reservoir that wouldn't otherwise remain in the reservoir. There is definitely a dispute about that. I've discussed this with the BP people and they say the Aerospace consultants are just plain wrong. I have no idea who is right or wrong. I have no idea who is right or whether there is misunderstanding, but it is clearly an issue of importance of public policy.

MILLER: If we can invite, for example, the Division of Oil and Gas people--who should have a handle on that. Maybe someone to represent some outside expertise ...I suspect if we make those producers on the Slope aware of the information we want, I'm sure that they'll pay their own witnesses...

GREGG: Oh, yes. I think there is some misunderstanding. I'm simply suggesting we not retain these other consultants to do a study for us. We simply ask them, as having done the study for the Title III Study and the study for the state to come back up here and explain their study that they've already done.

MILLER: Wouldn't one be enough?

GREGG: Well, I think, definitely, you're going to have to get the Title III people and maybe the state's consultants don't need to come--maybe the state's engineers can answer those questions.

SPECKING: Of the state's consultants, who are we talking about?

GREGG: The reservoir consultants... These are technical consultants answering technical questions.

SPECKING: What sort of retainer are they on?

GREGG: I think we're talking about at most $100/day and they will be testifying for one day and then their airline ticket. That's the magnitude.

TILLION: The airline ticket is the big cost.

GREGG: ...if they come up from Houston. To tell you the truth, I would suggest asking them to come up and not offer to pay their ticket.

HUBER: Could I make the suggestion that we authorize the Chairman to pay the Consultants and fees--such ones as he deems necessary.

SPECKING: I think that is unfair to the Chair.

GREGG: I think that is a lot of money... If you'd like to restrict it to Gruy and Associates--they are the ones I have the most important questions for. They have come out of the blue stating we're going to lose 400 million barrels of oil.

HUBER: I don't want to restrict it to them. If the Chair feels there is someone...

TILLION: It's so nebulous, because they are guessing as to world factors on price and use.

GREGG: That's a non-economic evaluation. It's a technical engineering constraint only.

MILLER: If it's a state consultant working for the Division of Oil and Gas, I think we ought to invite the Division of Oil and GAs to testify--if they feel it's necessary to bring their consultants, let them do so.

We ought to invite industries who have reserves on the Slope to come. If you feel we need this Dallas firm, let's invite them. Let the State make the decision as they are the Division's consultants.

BOWMAN: The Aerospace people?

MILLER: No, we ought to invite them specifically, if Gregg feels it is necessary.

BOWMAN: If they are of value, do we pay them?

MILLER: I would suspect so, yes, but in terms of the Divisions consultants, let them make the decision as to whether they want to come.

HUBER: Mr. Chairman, I would like the Chair to note the presence of Mr. Shelley from Mobil Oil who has been quite helpful with such thing as this in the past--and maybe he'll take it back to his people--that maybe we want to hear something in this line, too.

BOWMAN: The motion before the Committee is in essence, of what John has stated: Everyone will be invited as our consultant and the Chair feels should be.

And the Aeropace subcontractor will be paid if he asks for Consultants' fees for the hearing. That's the basis of it, the rest of them will be invited on the basis of their being State and Oil Division people and consultants for the State.

GREGG: Do you have supoena power?

BOWMAN: Yes, the Committee has supoena powers.

GRUENING: It may be good to send the Division of Oil and Gas a copy of this report and ask them to come up with a written comment prior to the meeting--so we can ask them questions on the basis of their response to this.

GREGG: That's a good idea.

TILLION: That's good--because if they can punch holes in it, even if they're not successful...

GREGG: What we really need is the report that underlies that, and I will get that.

GRUENING: I imagine they have enough expertise to go ahead and say--well, this couldn't possibly be--based on their conclusion.

TILLION: They can at least explain to us the difference between the way they figured it and the way the others figured it. Right now, we're on the blind on that/

BOWMAN: Are you ready for the question?

HUBER: I think the motion included that ybu weren't tied down to that one. If you found that there was somebody else you wanted to pay for. Unless the Chair is refusing that.

BOWMAN: The Chair would feel that the Committee would be recognized if problems come up in the Interim that somebody else should be invited. We would probable do it.

HUBER: I ask for unanimous consent.

BOWMAN: Unanimous consent has been asked for. Hearing no objection, so ordered. Let's move on to item number seven. Gregg, you want to explain that one?

GREGG: Item number seven is explained in detail and is probably the least firm of these recommendations. It's a suggestion you might want to consider. On page 13 I say, discuss the El Paso proposal. As yet, El Paso has not clearly demonstrated itself as a serious and credible applicant for the right to develop an Alaskan gas transportation system. Largely because of the fact, that they haven't been willing to pay for the necessary draft DIS--associated with the right-of-way permit. There are some things that the state could do if it wanted to get that right-of-way application underway. I mentioned some of them, but it seems to me, that <u>if</u> the Committee wanted to go that route--the first thing <u>to</u> do would be to talk to El Paso and ask them number (1) why they haven't done it, (2) do they intend to do it in the near future, (3) how much it would cost and so on.

SPECKING: What you're saying now is that this is a cloud on their credibility?

GREGG: They 've requested it, but they refused.

SPECKING: ...I think some of the others have heard John Bennett on this subject. I think, it has been explained and I'm vague on the explaination,I wasn't particularly unhappy with it. I wouldn't mind listening to it again. I think it does wash the thing out publicly if we ask the question.

GREGG: What I'm saying, and this really depends on the direction the Committee wants to go. Sometime in the future, you might want to consider the State getting involved in this.

TILLION: If I might disagree with my older brother, I do object to listening to El Paso again and would prefer to have it in written form in something under 12 pages. I don't want any pictures...I think that would be satisfactory and I wouldn't have to listen to another presentation, I'm all burned out.

HUBER: I disagree, I would like to have them answer as Gregg has suggested. I would also suggest that we

put it on the agenda for the second day of the meeting that we have set for the 10th. Those that don't want to listen can go home. I think Gregg has some viable ideas and we do have to clear the air as far as El Paso is concerned. It's a case of either them eating the roast or pushing the pan around to the next one, if you know what I mean. The state may want to do something.

TILLION: John, I'm not opposed to asking the questions, I think we should. I would just prefer to have it in writing in a short presentation that we could read and crank in without a long drawn out discussion that eats up all the time. If there are other questions, we ju just might want to call them in at a later date and have those specific questions ready on a person-to-person basis. I don't think we're that far along now.

HUBER: I didn't want to go too deep into that. It's obvious, that my opinion falls in the same place as Jerry's does in this area. I think El Paso, with all the publicity going on, is saying that Alaska is at fault because we haven't committed to them. I think El Paso, is at the present time, trying to get us to commit our gas to them. They haven't done anything to assure us that it is going to go through Alaska, even the first step. It would certainly be a big thing, if they could get it for 10¢ Mcf. Later on, then, they'd say, we just couldn't get a permit, so we'll sell it to Arctic Gas Consortium for a $1.50 Mcf. Unavoidably we;ve made $1.40 profit on something like that. We tried our best shot. We just couldn't get it through Alaska. I have backed them right along. I believe now that their credibility is lacking. I'd like to hear from them--if their credibility isn't lacking, I'd like to apologize to them.

SPECKING: I have all the faith in the world in the Chairman being able to control whether they put on' a dog and pony show or whether they answer the question. He's got a large gavel... I think he could be mean about it, if he chose to. I think if the Committee feels like they want to say to the Chairman--we don't want to listen to El Paso all day, we'd like to get this question answered. That's the way it will be.

BOWMAN: Keith, you said you had heard them defend their position as to why they had not applied for the permit?

SPECKING: I'm somewhat vague on that, Mr. Chairman.

TILLION: I think they had a valid reason.

BOWMAN: Does anyone have any idea why they haven't , other than the money?

KAY: I could possibly be confused, but I swear that within the last week, I saw a small article in the paper saying that they were going to apply to make the environmental impact statement.

TILLION: They intend to make another by now anyway. Someone would have requested to make a change.

GREGG: I think there was something on theFPC--their assertion that the FPC EIS would be sufficient. I saw an item of that nature in the last week. They think they can build the pipeline on the basis of their FPC certification and need of right-of-way. They'll have to get a separate EIS for that.

SPECKING: My vague recollection is that there are discussions centered around the idea of the EIS thing would be forth coming after the permit position, if they go it. They couldn't see them spending the money, and others spending the money to plow the same ground. I'm certain that if you went back and researched the Anchorage Times during the period when this oil and gas thing --that you'd find the answer.

HUBER: I also recall some long hearings with EL Paso a year or so ago, along with grafts they had. I ran into some photographs of those grafts that dealt with the displacement of gas going back East--by displacement through the West coast lines and so forth and I see that Jerry called to our attention, that the same lines are now apparently leased to move oil East. I just think that their credibility is lacking. Now at the last minute, they want to get their hands on the ownership of the state's royalty gas and then say we're so sorry we couldn't build the line, because they're apparently leased or sold the lines that they were going to get this Alaska gas into the East by displacement.

BOWMAN: The question, then, is still whether we want them to appear before us to answer this question--maybe in writing previous to that or anu question we might have at that time or however you want to handle it. The Chair is open to a motion to that extent.

SPECKING: I would move and ask unanimous consent that we call on EL Paso to answer to that specific question and not give us a dog and pony show and sort of a controlled answer.

BOWMAN: You've heard the motion, any discussion? Unanimous consent has been asked for, hearing no objections, motion carries unanimously.

Item number eight, is summary of projected committee expen-

ditures. We can give you a rough estimate of what it is.

GREGG: Our total expenditures to date are less than than $10,000. The obligations we have now, we estimate about $7000.00 for the Committee's trip to Washington, probably less than that. The consultants you may or may not hire in Washington for the legal questions, I would estimate the cost at $30-50,000 or so. It could be more or less, depending on what you choose. My payroll will not come out of the Committee's budget, I'll be paid by Legislative Affairs--I think you're budget is in pretty good shape.

BOWMAN: Are there any questions? We will have at the next meeting a print out of our expenses. Other business, Bev would you like to speak. Bev Isenson from OMAR,

BEV: On October 6, here in Anchorage, will be three people from Louisiana who have had experience with problems of their state's control and use of their oil and gas and their problems that we may wind up having and they will have some bearing on some of the things you've discussed today.

The three who are coming are, John Kamp who is a Louisiana Attorney, Ray Sutton who is the Commissioner of Conservation for Louisiana and conservation means something very different there. They're talking about getting every last drop of oil and gas out of the fields. The third person is Harry Borsch, Harry is a Louisiana attorney who now practices in Washington D.C. He's with the firm of Patton and Boggs. Boggs being Hale Boggs, Jr. and also in that firm is Bill Foster who was one of the chief lobbyist on the Alyeska oil line. Some of you may remember Bill from years ago, He worked for the ALaska Legislature Affairs Agency back in the early days. He went to Washington to work for Senator Bartlett and he has never come back.

BOWMAN: Oh, He comes back every year.

BEV: Well, to visit. Alyeska is still a client of that firm. Mr. Borsch has a considerable amount of experience in dealing with the FPC and we thought that it would be useful to bring these gentlemen up here and have a seminar. SO, sometime during the day, October 6th, we hope you will all attend. We'll be sending you the details on that as soon as we get them worked out. We're doing this in concert with the Anchorage Chamber of Commerce. We had originally anticipated coming to this Committee for money, however, we had to make a decision quickly and so we decided to guarantee their funds. These gentlemen are not being paid. We are reimbursing them for their expenses, their ticket and hotel and so on, but they have agreed to come up here at no cost. We hope that this will give us the benefit of the experience Louisiana has had. We hope that you will be able to take the time to come

to come to the meeting. It will be here in Anchorage.

HUBER: Bev, you mentioned conservation; you mean Conservation in the sense of conservation of an oil pool as its used by petroleum geologists?

BEV: That's the way we understand it.

BOWMAN: So, you will be sending out information as to where it will be and all that?

BEV: Right.

TILLION: Is this going to be a Chamber of Commerce Luncheon?

BEV: No, it's going to be more than a luncheon.

TILLION: Well, it's going to be the whole ballroom.

BEV: Right, but it will go on, either, start in the morning and continue through lunch or start with lunch and continue through the afternoon.

HUBER: ...on the 26th?

BEV: ...on the 6th of October.

HUBER: This Committee will be traveling?

BEV: ... Depending on what you schedule--it may be possible to leave Tuesday morning and get to Washington D.C. Tuesday night and then be briefed on Wednesday, hearings on Thursday.

GREGG: Does Borsch have an office in Washington?

BEV: Patton and Boggs.

GREGG: He's there though?

BEV: Yes, he is there. I would like to make one comment. When you were discussing refining the natural gas in the state and therefore keeping it out of FPC jurisdiction. I thought you would be interested in knowing that there has been a study undertaken of whether or not there is a real need in the state to use the royalty gas. The study was undertaken by a consultant to the FPC. The consultant is the REsource Planning Associates, in Cambridge. They did a study on two aspects of information that the FPC wanted. One being the socio-economic impact of a line coming through the state, either down the rail belt or along purposed EL Paso route; or going thro-ugh the wildlife range or going to Fairbanks and down the Alaskan highway. The second aspect of the study relates to whether

the state has a real need for its royalty gas and so in undertaking their study, this firm started calling around Alaska to find out if there was anyone willing to step forward and say--yes, I want to use that royalty gas to use to do this, that, or the other thing. Of, course, at this point, there isn't anyone willing to say, I want to take that royalty gas and use it for fertilizer or even heating. So, we're very concerned that the recommendations of that FPC consultant--will be that the state has absolutely no need for it's royalty gas. Therefore, it should all be ordered into Interstate Commerce.

HUBER: What consultant is this?

BEV: Resource Planning Associates--they're a consultant to the FPC.

HUBER: That's a loaded question to ask that of a non-industrialized area...Do you have a plan to use it when you don't have industry here--that now that the gas is here, the industry comes where the resource is. So, they're asking a loaded question...There's just no way that you can compare - is there an interest in that gas in Alaska? at this time? For many people who have money, there is no interest... For people who have no money, and no facilities in, we have a lot of interest in that.

GREGG: Did you talk to these people, Bev, when you were in Washington?

BEV: They called us and unfortunately, we didn't have anything concrete to give them. We couldn't send them to a company that was going to open a factory of any sort doing anything with the gas.

GREGG: There are two separate studies you're talking about?

BEV: RIght, on the socio-economic aspects, we sent them a copy of the state's job forecasts. The state Department of Labor had a consultant doing a job forecast on construction manpower--so we sent that to them--and sent this information on our past experience with them.

GREGG: What is the projected date of the study by Resource Planning Associates?

BEV: September 20th.

GREGG: I'll write a letter over Senator Jackson's signature asking for a copy and see what happens.

BOWMAN: One other point, sometime in thelast few weeks

or so, Bev and OMAR people requested of us some assistance in paying for a group of Alaskans going down to some hearings in Washington. I said at the time that I wasn't too sure we were able to do this. Anyway, I called Berrier at LAA, to do the research of whether we could pay out of the funds that we have allocations to help defray the costs of private groups. This is the answer from Berrier--until I received this, I was not in any position until the Committee met to say we could assist them in any way. As I understand it, you were down there last week, Bev?

BEV: Yes, and we had many profitable meetings. I'd like to share the information with Gregg.

BOWMAN: It seems, though, that we would be able to do anything on that. I just need confirmation from or Legislative sources.

HUBER: We have the authority now and the question is how much money do we want to expend and for what purpose, right?

BOWMAN: Yes, if there is one. I presume the need is still there. Were you able to get your money, Bev?

BEV: Yes, we took care of it.

BOWMAN: Are there other questions or business to come before the Committee? Keith?

SPECKING: Mr. Chairman, I'm wondering if it would be possible for Gregg to let us know in advance of this Washington thing. Where are we first meeting? There could be a little confusion there.

BOWMAN: Yes. Where is our assembly point?

GREGG: I'll send you confirmation of your hotel reservations to the address that Cathy has unless there's some other address that I should send it to. What the tentative schedule will be--I'll work it up in the next week or so.

SPECKING: Yes, in the event we don't get together that night before, we'd know where in the morning.

HUBER: Am I the only one that will be joining the group on the morning of the 9th and for the 10th.?

BOWMAN: I don't know.

HUBER: Everybody else wants to get in on the 7th, is that right? We start on the 7th over in Philadelphia.

BOWMAN: We don't know where Pat Rodey, Mike Bradner, and Chancy Croft is going to be. There will probably be others.

ANDERSON: Has the OMAR made a proposal for assistance?

BOWMAN: They make a request about three weeks ago when they were trying to get the moneys together to send a group down.

ANDERSON: My objection to OMAR, as noted in the previous minutes, still stands, unless OMAR takes a look at our labor force...and makes it one of their objectives. I don't really think I can support a request for using our funds. But, I'm sure that they will come up with a way so that the inconsistancy will be resolved where you're asking people to help you then turning around and saying, well, you can't work on it.

HUBER; Of interest to the Committee; our xerox operator on the second floor of the Capitol, Bob Chy, who was out for a cancer operation last year. I ran into him in Fairbanks and he complained very bitterly to me that he's been in Fairbanks 13 weeks as an Alaskan trying to get out on the line and he hasn't been able to make it yet.

BOWMAN: I agree and I get a lot of calls like that but you have to really get down into each one and search it out to verify a lot of information. I don't know of too many, I'm sure there are a lot of them, but I don't know of too many people. They might not have gotten thejob they wanted or the position out in the Union, but I don't know of too many people.

HUBER: Bob is with the teamsters...

BOWMAN: He's with the teamsters and wasn't able to get out?

HUBER: That's what he volunteers. All of you fellows here know Bob, so you know that he's a competent man and a worker.

BOWMAN: I also want to take notice of Senator Meland her. Senator, would you have some instructions for the committee?

MELAND: Mr. Chairman, I don't have any instructions for you. I certainly am very impressed with the type of rapport that you have in your meeting. Seems like you have accomplished an awful lot and in good humor, thank you.

BOWMAN: Well, it's always a pleasure for us Senator, to have you sit in with us.

Are there any other items you want to bring up? If not, the meeting will stand adjourned. I appreciate all of you coming on the notice we had. We will be sending out the minutes and other documents, as soon as we can get them together. Thank you.

PLEASE NOTE: THE PRECEDING PAGES WERE TREATED AS A UNIT IN THE ORIGINAL DOCUMENT.

ANCHORAGE CHAMBER OF COMMERCE
SYMPOSIUM

WITH
Louisiana attorney John Camp

October 6, 1975

Croft's introductory remarks are not included because the tape-recorder was located too far away from the speaker.

I came to Alaska to talk on an intrastate gas line and how it would relate to Louisiana. The problem with your gas going into the intrastate line on a contract that would permit you to pull that gas out at some later date and if you have an FPC approval on this--how safe would you be?

I would be gravely concerned if I was an Alaskan...I also posed the same question to Don Smith and another member of the FPC and to Russ Moody who just left the FPC. I go back to my suggestion that I've no doubt in my mind with the proper contract and proper certification to doing...I think you have to go much further than that, as the philosphy and political and economic realities on the further end of the pipeline are really going to go on what happens to your gas.

Now, circumstances that make it more difficult is when people take your gas when you need it. It would seem to us that legislation would give you your best protection--even legislation can be changed, however. I'll I'm doing is giving you thoughts I have--I'm certainly not qualified to go further than that. With assurance, your deal to protect Alaska is going to be made before that gas starts moving. If you don't protect yourself in the absolute maximum degree...control of your producer share of the gas in your leases, taxes with a refund to those people using gas in your state--everything you can do must make it more economically feasible to keep the gas here--more difficult to move.

If you can get in a position where it's a question of a pipeline running from the North Slope to the Midwest or California or some place else. What you're trying to do is take some of your gas out of that line. Let's assume the line is full to Anchorage and you want to take some of that gas out and use it here..I'll say you have your work cut out for you in the future. The shortages will be greater, the politics will be tougher. Every practical circumstance I can think of mitigates against favorable decisions in your favor down the road.

People are going to do the right thing as they see it. The right thing is to protect the home folks. I'm just giving you thoughts

that I had run into on how this works. I may not by absolutely correct on my facts as I've only run through this and I'm subject to correction.

My understanding is as the lower end of El Paso's line or rather in the California users off of El Paso that the format normally is interruptable industrial contracts, meaning you pay a low price, you intend that your gas may have been interrupted as various problems arose. It's interruptable. Over into New Mexico and Arizona and other areas from which a part of El Paso's gas is received, the general type of contract, according to the information, is a confirmed contract.

You want the gas, you make a confirmed contract--getting the gas over a period of so many years on a regular basis. The FPC now construes the firm contracts and the interruptable contracts on virtue of the same basis and that same rule is being repeated in key legislation now before the Congress. What I'm saying is that a guy in New Mexico who made a firm contract built his plant and did not put in alternate fuel capacity. A man in Los Angeles has perhaps alternate fuel capacity but, he has an interruptable contract. There's no difference in the way they're now being considered. There was a time -- but this has been building up for the past several years, it's all over. I point out a couple salient facts--the interruptable contracts are where the people are and the votes are. The interruptable contracts are on the East coast--they're on United gas pipeline climb, they're on the El Paso climb. It's not a question of whose land they are on but where they are. They are where the votes are, the people are, and the jobs. The Firm contracts, by and large, are in New Mexico and Louisiana and in any other place where we don't have any people and no votes.

Now back to my personal feelings--better make your deals now and get your protection there. If it were me, just me, not the state of Louisiana, I would keep my gas in the ground--I'm not talking about royalty gas--I'm talking about my producer's gas in the ground until I have something worked out. I don't see you keeping it in the ground ten years...the circumstances are so desperate that that's not going to happen. If it were me, it might take another six months--but it will take some period of time. I say it will stay in the ground til we get fair treatment assured to us under the best approach.

I can't over emphasize to you how little knowledge and how distorted the knowledge is in the Congress and federal agencies on the gas problem. I'm not saying they're stupid, I'm saying that you don't have very many people in Congress who have been involved or next to the oil and gas business. The fact that you're from Louisiana or Texas or Oklahoma doesn't mean you're an instant oil and gas expert. You run into this every day. From an oil state

you'll be lucky that you got a couple or three people in Congress who know anything about the oil and gas business. Whatever the reason you just don't have that much expertise and you are very fortunate in Alaska for I know three people you have down here --I'm not up here to elect them, I'm just telling you that they have a good grasp on this problem. You don't need to lobby them --you need to lobby the guy from New Jersey, New York, Iowa and other places. In my own state of Louisiana, we've had people tell us: I don't know anything about oil and gas, I don't have anyone on my staff that knows, so figure this out for us--that's what you're here for. We have found particularly congressmen, from basic producing states who were elected on the platform to get prices down--reduce prices and cut depletion allowance...

Before I get into that I have an editorial from the Washington Post which I will tell you (one of the newspapers in the country that doesn't reflect the views of Louisiana). The Washington Post says Texas, Louisiana, Oklahoma are subsidizing the fuel costs of Washington D.C. and the East coast and heavily populated areas of the country. I'm convinced, but didn't know they were. I met with the Governor of Oklahoma last week on the problem in Washington. He was very frustrated because the deeper the gas reserves in Oklahoma, that haven't been produced, and believed to be there below 15,000 ft.--you could absolutely not produce that gas at the current price rate. It's a question of no gas or cheap prices--it just can't be done. I said to the governor, I'll answer your problem for you, as I've been through this, I can give you the staff people on one of the key committees that we had a real battle with. I was telling one of the senators that you have to have a price to drill the deep sands and so on and on. So his answer was, I didn't understand the problem-- that the averages would take care of it. He said, look, you don't understand that if you drill an 8000 ft. well and you make a lot of money on it and drill a 15,000 ft. well and lose a lot of money on it--the average will be all right.

Now, I read in daily gas reports what the prices are for synthetic natural gas. So when we say our prices are too high when compared to what? Coal? Synthetic gas? LNG from outside? when compared to what? It doesn't have any value. When we proposed our legislation to our legislature, we made a presentation along this line. The reason we have the problem is that the gas is so cheap. We talked to them about a plant in West Virginia at the mouth of a coal mine that converted to gas because it was cleaner, cheaper and so on. It should never have been converted to gas if gas had been where it should have been. As long as we have these cheap prices, we increase the demand and so on. Again, I go back to where the votes are and how it's done. I re-emphasize to you that when we talk to people from these other areas and sit down and get acquainted with them over a period of time...

I remember visiting with a congressman from Kansas. He said, you represent big oil companies, we don't have anything in common with your state. I said, did you ever have any schools closed because of gas shortages. Yes, he said, schools in my town closed two weeks in the middle of last winter because of gas shortages.

I said, I thought you had some gas. He said, we do, we have the biggest dry gas field in the world. All it took was that visit. All I had to say was, where is your gas going? We found that gas was going into underground storage under a different set of priorities from which it was taken out. Again, I go back to this Commissioner, he said, Where in the hell have you people been? Don't you know what's happening to you?...

QUESTIONS:

Q: What about deregulation? Is that in the cards politically? How would you put price of gas on an economic basis. What would that do to the local supply of Louisiana?

A: Deregulation of gas, we feel is good for the nation, as it would create gas. It would be bad for Louisiana, because it means that people who cannot bid for our short supply will then be in a position to bid for it. Governor Edwards has taken a position that it is so critical for the nation in having increased gas supplys that you could get with more prices, deeper drilling and that sort of thing. He's taken a position even though it's prejudicial to the interests of the state of Louisiana. It's such a national problem, we've got to go with it--so our position has been with the deregulation. We expect deregulation to come about under some kind of compromised formula, maybe, but it has got to come. I was there last week with our people and we were very pleased with the vote. Our senators have met with some of the "border states" on the problem. I'll I did was give just an earthy explaination of what this was all about. It was no gas, or get the price up so we can drill for some of the deep gas. One senator said, I don't understand it that way--I'm for cheap gas. I said, well, fine. How are you going to get the money to drill for deep gas you can't produce for the present time. He said, I didn't understand it that way, but I'll go with you. I'm convinced that we're going to get deregulation--whether it will be 100%, I don't know.

It seems to me that if the price is competitive, then they would just sell it to the highest bidder ...

That's true, but the thing about it is, You've got so many reserves known and believed to exist, that you can't drill it and produce it for the current permitted prices. In other words this won't stay in the ground.

Now let me go back to my staff problem. I was meeting with staff members a year or so ago. One of the three top committees, he was saying that we should have a national price for gas. Maybe you can help me with the problem I have right now. I'm representing some clients of North Louisiana that are trying to sell gas where the wells cost $30,000

to drill and it's very low production. We're also trying to buy that gas. We're trying to sell gas out of the well of one of our clients that cost three million dollars and went down 20,000 feet. Now can you tell me how you can have a price that will really work out across the border on this. We'll make some adjustments they said--no understanding of the problem at all.

Q: Mr. Camp, the lands of Louisiana, who owns or controls those lands where gas was found. Did the state of Louisiana receive any percentage of that as a royalty gas and if so, what are you doing with it.

A: The substantial part of the gas produced in Louisiana is produced from state owned land. Up until three or four years ago, leases would not provide that we take state royalty gas. We are not in fact having to take state royalty gas at this moment. We have a critical need, we call in the people around the table, ...we need some gas, and we need it now.

Q: Would you have a certain amount given to the state of the production of that field as your right as a royalty or do you want it all.

A: We have a royalty on it. All of our new leases provide that if you bring in new gas well, that is not previously committed, If you get a new lease, and you discover gas you have to first offer that and sell it intrastate. If you can't sell it, have the state offer to sell it. What we're trying to do is keep it in the state. So we can pull our royalty share, we can also tell the producer we want him to sell his share intrastate.

Q: Our problem is a little different here--we sold the right to our gas quite a few years ago. However, the state retains one eighth to twelve and a half percent of that production of that field as our royalty. Our problem is control of where the gas goes, how it yield[illegible], as it basically belongs to others. Louisiana gas primarily comes from state owned leases.

A: Under our old state-owned lease, we do not have the right to get at the producer's share, only the new leases. We have our royalty right the same as you do. What I'm suggesting is that your lease form for new leases--I understood you had a lot of state lands that were not leased.

Q: We do, but all of Prudhoe Bay is on state land...We've got our royalty with the option to take it...

A: Well, Senator, do you have a lot of state owned lands that are yet to be leased for development? Would there be any problem in putting in those new leases yet to be granted--provisions that would give you some control over what happens to the producer share.

Q: The non-royalty share?

A: That's correct. We do that in Louisiana and it's a new statute in Texas. I'll be glad to give you copies.

Q: Mr. Camp, does the state of Louisiana take any of its royalty gas for the use of the state?

A: No, we have the right to own recent leases. I'm saying that what actually happened in that we've had a need to call on state royalty gas. What we've done is call on the holders of various state leases and suggested to them that we have that right and that wouldn't it be much better if they worked it out for us and gave the man some gas so we didn't really have to get involved in all sorts of bidding problems. Incidentally, on that same point, at our recent Legislature, we passed a law that permits our mineral board to sell gas by negotiation rather than bids. Of course, the first problem is what looks like a bunch of crooks trying to get the state's gas. My point was this, there is legislation in Congress that could make every intrastate gas line a common carrier. There are some bills that will have the same effect. So I said any time that the town of Elizabeth (e.g.) wants to bid for gas against the city of Chicago, Elizabeth will lose. We've got little towns that don't have much money and we've got bidders over the country whose prices are totally inelastic. So on a bid basis, we figure that most of the gas available in Louisiana might well be lost. So what we did was pass a law that set all kinds of guidelines and standards and says that if mineral board decides to negotiate for the sale of state royalty gas, the contract must go back to our natural resources committee in the House and Senate and everybody else for approval. What it does is give us the right to negotiate the sale of gas to the people in Louisiana whereas if we had an open bid, the chances are, we would lose to somebody else....(end of tape)

...I brought eight states with me--that's the thing you might possibly be missing, I don't know, but it has been most effective for us--and we can get out and hussle these other states to have similar interests with us. We had meetings in Washington, we invited the governors people up, all the state people up, the legislature. Even seven or eight members of the New Mexico legislature came up. What we had found was this, that most state levels, I'm speaking here of people I've worked with like Mississippi, Arkansas, Kansas, Wyoming, Texas, and New Mexico and a number of others. At the state level, they tell me to find what's going on by reading the newspapers. Frequently, we've been able to take what a committee is doing .. five major committees meeting the same day--so if you don't have a staff to do it, you can't do it. We find out what's happening, what is being proposed--maybe we say, boy, this is hitting New Mexico and then get a hold of New Mexico people

and tell them this is what they are trying to do to you. We've worked great with the New Mexico senators and representatives. It's a question of what's happening. I don't know a single senator or congressman whose staff did not fully occupy themselves with taking care of the home folks' problems. There's no way they can find out what's happening in five or six of these major committees. I tell you that people against your interests would know.

Q: Mr. Camp, I understood you to say that we ought to build our own pipeline for our own gas. Do you mean by that then that it wouldn't really matter to the state of ALaska or if a major interstate pipeline went through Alaska or whether it went through Canada, if we built our own pipeline for our own royalty gas down from Prudhoe Bay. Is that what you meant?

A: No, not exactly as I also said, that if your gas supply is moved from the North Slope to the lower 48 in such a fashion that the pipeline does not cross the part of Alaska where you would need gas or industry. What I am saying, if you built the pipeline from the North Slope across Canada--then you'd never have any of these problems, because you'd never even get a crack at the gas. First, I personally believe a pipeline of Alaska is preferable and secondly, if you're going to have an interstate line, for god sakes have it at a place where you can always argue about it and at least try to get some of the gas out.

Q: Were you also suggesting that we wouldn't have this problem of the gas being commandeered outside from an interstate line if we had our own pipeline from Prudhoe Bay that didn't have anything to do with the industry.

A: What I was really trying to say was that it would be possible if it would be possible that you could build a pipeline from Prudhoe Bay to Valdez or whatever big enough or pipelines big enough to handle your gas--hopefully all of your gas is moving through Alaskan lines. Then you would be in a much better position than if one or more of those lines were an interstate line running through Alaska to Chicago.

Q: What would be considered interstate if it's liquified and taken out.

A: What my understanding is at the present time, is that it wouldn't be considered intrastate, I tell you that this is subject to change when in a tight spot--these rules can change. As long as you have your pipeline and your gas and you're not connected with anyone else, you've got your best hope. Of course, if you build your own pipeline, not necessarily the state building it, and you financed that

line with the guarantee from the people who were going to build it--then I don't see any real financial risks there for Alaska.'

Q: We've heard you say, then, that if the proposed gas line goes through from Prudhoe to Valdez--that it will be liquified there and shipped out. Then there is the twelve and a half percent royalty gas--you suggest that it go where the population is going to go. Now, it just so happens that the Prudhoe-Valdez area is not going to be the area where all the people are going to be located. Are you suggesting that you would build a state-pipeline carrying a 12 and a half percent royalty in a location other than the one established.

A: I'm not sure I'm suggesting that, but it sounds like a good idea for the economics that go with it. You may have to find some producer's gas--you ran a new lease, and in that lease you can keep a call on that gas--you can require it in your lease to be run through your pipeline. You've got the muscle.

Q: Recently a report was published by Getty which was not supposed to be published. Getty reported an estimated deregulation that the price of gas would go to 2.25 per Mcf. Do you believe that is correct?

A: Our experience in Louisiana would tell us not. We have a free market in Louisiana and in Texas. I talked with the chairman of the Railroad Commission a week ago--and he told me there had been a few isolated sales of $2.00 but really sales are much lower than that on the average. An average during the past year has been about $1.40.

Q: Let's assume Getty's prices of $2.25, the lowest estimate so far coming out of here by BLM and the studies they have had done or some that other people had done run from $2.50 to $3.00 -- that's in the same area of competition. Do you believe that we could continue to compete with that kind of gas?

A: Yes, let's go back and talk about the gas in the lower 48. Remember the facts on Louisiana, the export as much as all the other states put together? Our drilling was up about 20% and production down about 12 or 13%. The production decline has been doubling every year... there is a significant decline in production in Louisiana even though there is a significant number of new wells being drilled. At the prices you're quoting, somewhere around two dollars. It's cleaner and easier in handling at a flat even delivered price, you're still better off.

Q: The price I was talking about was city gate price..Do you think our gas would be competitive?

A: I read some figures the other day in New York city and I'm

not sure I can quote them to you correctly, but it seems to me that for a unit of gas it was $2.25 The price of gas just isn't that big. This is a political football and if you take the delivered price of gas in most instances, the actual well-head cost of the gas is not the biggest part of the cost. If the gas delivered turns out to be $2.00, I think it would be considered a bargain. Maybe I don't know that much about that, I don't think you have much of a problem. I have in my briefcase an analysis of all the price afforded within a given quarter recently--there are a bunch of prices in that--$5.00 is one. You've got a lot of uses...My own feeling is that at $2 or $2.50, you have not reached the point where you have a surplus of unsalable gas...

Q: Do you see any hope of what I call this ridiculous FPC regulation that says when gas....will the regulation ever be changed?

A: Oh, no. The only way that will be changed is through pure transportation agreements of the FPC...The real hope we have is that some of our strongest...are running out of gas. If we just don't let them have the rest of the gas until they've got something that's reasonable, we'll get it.

Q; The reserves are presently estimated at 26 trillion, I think most of that has been committed with the leases of the North Slope. WE have a right to 12 and a half percent. There's a real fear that once this gets into any gas line--whether it be trans-Canada or trans-Alaska, that it will be treated as interstate commerce and lose the right to use it in whatever we desire it for. If I understand your advice that we have a committement for the use of that 12 and a half percent. It behooves us to have a committment and probably have an interstate line if it's economically feasible to use.

A: You should do all those things and get your gas. Let me give you three examples where contracts just didn't mean very much. At Lake Charles, we have... they made a deal with Pennico to buy and drill some off shore reserves. The deal was that Pennico would take half the gas for its interstate line, Connico and the ... would take the other half. Pennico got it's half, the other two applied and nothing happened--nothing happened for so long that Pennico came in and said that half the gas is gone, let's shut the valves off--because the other two own the other half. FPC said that it didn't matter that Connico didn't sell their gas interstate, you cannot abandon--keep delivering the gas. There is another case involving south bound...royalties where there was a 50 year lease (I think Gulf was the company) and it expired so that the owners at that point had never contracted with anybody. The owners at that time wanted to sell the gas to somebody else intrastate--I think for $1.90. The FPC said no. It doesn't matter that the owners of the mineral rights never involved itself in the sale of its gas--it is committed interstate and you cannot stop deliverance unless the FPC approves. There are some others like that.

Q: Has that ever been challenged?

A: Oh, yes. Connico often worked out some small percentage. There are a number of recent cases--

Q: Do you have any examples of the kind of manufactures involved?

A: Louisiana is filled with petrochemical plants and so is East Texas. Natural gas is used to make every kind of synthetic fiber and materials and all sorts of sophisticated products. I personally know of major companies, I know of two right now who are making a major survey of the world's locations to attempt to determine where some major new petrochemical plants must be located--in order to be located at the base of natural gas. They're looking at the mid-East, at various areas outside the U.S.

Q: We here have one petrochemical plant that manufactures--that's the urea-ammonia, which uses about 50 million cubic feet of gas. I guess we can presume that the pressure on fertilizer is going to be a future. Because these are base products and not packaged in the consumer goods where your freight is high. I would suppose that we should go into that very vigorously--if it's not already being done. Do you think so?

A: Absolutely, I really would encourage you to do that if it's not already being done. Again, in preparation to the trip up here, I talked to some of the Washington representatives of an organization, I don't know the name, made up of all the other companies, the Duponts, etc. involved in this kind of endeavor. I think it sounds like a good idea even though the economics may not be with it.

The petrochemical group has a prominent organization. Before I came up here, as I said, was to talk to their Washington representatives about whether or not this was a good suggestion. I made the suggestion based on conversations I had already had with people in that organization.

Q: If it's going to cost 11 or 12 million to build the pipeline Maybe we should produce fertilizer in Prudhoe Bay and then ship it out.

A: As I understand it, some of the estimates are like a billion and nine to build the gas line from the North Slope down to Valdez--all the rest of that money goes into liquification plants. That's not that much money in terms of .....

Q: Alaskans are a little bit concerned over the possibility that maybe the final decision as to whether the pipeline will go across Canada or Alaska may not be a decision of the FPC but in Congress. Do you have any feel for that at all?

A: No, I don't. I don't have anything useful to give you at all If I were pursuing this, I would be sure to talk to some people who would be getting the gas out of your all-Alaskan line. I would assume that would affect states like Arizona, California, New Mexico, and all the states, and maybe Texas, that would benefit from deliveries of gas to the West coast of the U.S. I don't know if you are doing this, but this is the most successful thing we've been able to do is go find states that have an interest in what we're trying to do.

Q: In that regard, you may have heard of the two proposals of displacement of gas that now moves to California, El Paso particularly, would move it to the Mid-west and the East. What dangers would you see in that? You talked earlier about the possibility of curtailment.

A: What dangers that I would see if your gas was moved to the East coast?

Q: We don't care once we sell it, but do you think that is practical? Do you think the people back East would buy it?

A: Yes, I'm sure all of you have seen this map. It is a map of major natural gas pipelines--you will see that you can move gas anywhere in the populated areas. If your gas comes in the West coast, you have existing lines,where the flow would have to be reversed. I know El Paso stated in one of the exhibits I read, that this was no problem.

Ok, once you get this gas down into this area, into Texas or Louisiana, you've got a spaghetti bowl of pipelines that will permit that to go anywhere. So my answer is, I think would be all over the United States.

Q: In meeting with the California coastal Commission people, they were talking about converting that line to an oil line going the other way in order to get additional refining...with that in mind is there sufficient passage to California, Texas, Oklahoma, Louisiana to handle the gas?

A: I don't have the technical knowledge to answer that. My impression is that if you reversed the direction you can do this. I know Texas, Arizona, New Mexico gas is going to California. If they're getting your gas and don't need your gas..judging from the position by El Paso, you could reverse the flow of that gas....I think you have a tremendous number of allies in the U.S. that you might not be using. If you send a delegation to meet with a Commissioner or somebody else or congressman. Here, I can't over emphasize, here is a mass of people out here you're not communicating with. And they are the guys that are going to make all the decisions.

Q: (garbled)

A: I would think that first of all your Legislature could possibly pass some very restrictive legislation--part of which

may be unconstitutional. You're entitled to try and build your own pipeline. You've got a long hard way ahead of you with many different battles and you're going to have to face each one as you go along. Each time you take a position to make it more practical or more feasible or easier to leave the gas here and more difficult for people to absorb your gas in the lower 48, you've got the best hope of success.

Q: Could you go into some detail some of the legislation whereby Louisiana taxes gas and then gives the rebate to those who use it.

A: It does not do that any more. WE had a law for that purpose but really we got short of gas, and we saw no reason for the rebate because we don't have any gas for anyone to use, But for the period when the law was effective, it provided that if you had an industry in Louisiana using natural gas, you got a refund against your other taxes. If you put a tax on all gas--but if an industry used gas in Louisiana, he got some special tax concessions of a significant amount.

Q: (garbled)

A: No, Louisiana has a severance tax on all gas produced.

Q: You talked about the gas from the North Slope already being Committed, from your experience from a producers standpoint, then he has some escape in his contract if he can't deliver? If he has his gas committed to a utility or another gas company in the East coast--if he can't deliver, he's not going to be penalized if he couldn't go ahead and fulfill it--it's a continued sale, isn't it?

A: No, I can't say that. If you passed a law that directly interfered with Interstate commerce, I think you would lose.

Q: I'm not talking about that--but rather our continued sale. I'm questioning the emphasis we're placing on the fact that people would say, we've already sold that gas.

A: I'd like to comment on that. Could anyone tell me if the Alaskan Regulatory Commission regulates the drilling and operation on your leases(?) I include in that question a reference to how the wells should be drilled, the whole bit.

Down in Louisiana, we find that if we can create as much muscle as possible, we hardly have to use it. In fact when handed all these things to the Governor, I was asking the Legislature how we were going to apply. I said I hope we never have to use it. I think it's so restrictive that I really don't think we have to use it. But, if someone won't play ball, we will use it--and we had almost no opportunities to use it, because everybody plays ball. You're sitting

there will one board pointed by the governor that's regulating how many wells you should drill--and another agency appointed by the governor that gives you well permits and really regulates the physical drilling of the well. If you have those two things under firm control, you've got an awful lot of muscle. If you don't have as much as you like, maybe you ought to pass some laws and create some more. We're pretty reasonable people..... Let me give you an illustration of what we did last week. At the Southern Governor's Conference, I think it was Gov. Edwards, ...he needed 20 million cubic feet of desert(?), nothing; they had some glass manufacturing plants, and textile mills, and some thousands of people would be out of work this winter if they couldn't get some gas. Gov. Edwards said, we'll get you some gas. The political realities in Louisiana is that we need North Carolina's votes bad. You heard the figures, we're short of gas. But, our best hope of getting gas, is to get people like North Carolina going with us. The Governor said, you get them some gas. We invited about 30 companies to come in. We explained our problem and at least six people stood up and said they'd be delighted to help. We didn't make anyone do anything. In fact, one guy said, I understand the political realities of what you are trying to do--you want some votes from these people.
(end of tape)

MEMO: Members of the Gas Pipeline Impact Committee
FROM: Eric Eckholm
RE: Discussion of Gas Pipeline with Department of Interior officials.
DATE: 10/31/75

PLAYERS: John Latz, DOI
Burke Riley, DOI
Clark Gruening
Pat Rodey
Staff

Riley apologized for short notification stressing informal and not official briefing. Latz did all the talking. He is an engineer for DOI, and seemed very knowledgeable. He said:

1. Gas pipeline by either route is financially desirable.
2. Neither route has financing capability at this time
   a) Arctic route would need federal subsidy or guarantee.
   b) El Paso is not at all credible unless they get financially sound partners.

This lack of sound financing is partially the reason why the Federal Power Commission is not rushing to make a decision.

The industry will probably make some readjustments in gas ownership to insure financing capability for a pipeline.

a) At present, North Slope gas is optioned out to 8 gas companies who are behind the Gas Arctic proposal.
b) Cost of the pipeline will be shared in proportion to ownership of gas. Principal present owners of gas cannot finance pipeline.
c) Tenneco Gas is the largest gas company in the world, and probably only company able to come up with financing necessary for construction of the pipeline.
d) Whichever line is able to come up with sound financing will probably swing rest of owners behind it, thus taking competitive bids for line.
e) Exxon wants to build Canadian line because of McKenzie Delta gas, which they own most of.

Latz indicated the State's royalty gas is critical at this point in time. The Canadian line is not feasible for at least two years according to DOI. Each 1 year delay means 10% loss of economic desirability for either line.
His suggestion for state posture, if we decide we want an Alaskan line--commit royalty gas with qualifications:

1. Gas available only to the extent that the State doesn't need it for in-state use.

2. Committed only if purchaser insures pipeline is built through Alaska. He also indicated industry assurance that we would not do the same thing we did to the oil industry; reserves tax, was necessary.

He stressed he did not advocate committing to Tenneco, that if the state committed to anybody (i.e. El Paso), that they would then cut a deal with Tenneco to insure financing.

He also indicated that time was critical to maintaining favorable state position.

Latz"s general comments:

1) Keeping our gas in the ground is not a possibility. It uses up gas, we do not own the resevoir, and need to come up with a lot of financing for the equipment.

2) The lower 48 market will acept any $3 per million cubic feet gas it can get according to Arctic's marketing people.

3) Anything over 50¢ wellhead price is profitable enough for the line.

4) 400 million barrel loss of oil by 2000 A.D.will accrue due to gas production, but this is insignificant compared to gas revenues.

5) Nobody in the industry or government has ever done this before...nobody's sure what is going to happen...

Mr. Latz stressed that these are only his opinions, not DOI policy, these are rough notes from his qualified opinions.

11/7/75

Memo: To the file
From: Eric
Re: Meeting with Pat Dobey, Div. of Oil and Gas

Main Points

A) State should not commit royalty gas at this time
B) Keeping the gas in the ground is an option
C) Industrial development in Alaska is a very real possibility
D) The country is running out of gas and oil, prices will only rise.

Explanation

A) The state should not commit royalty gas at this time.

Past history has shown that if we commit our gas to go out of state, we may not be able to use it in-state if we later want to (FPC ruling in Lousiana). To commit our gas now might preclude later development in state.

B) Keeping the gas in the ground is an option.

As the gas is produced, we can count 12.5% as credit, not taking any of the gas. At a point when the reserves are estimated to be down to only our share, we could cut off production.

This has not been done before. We run the risk of 1) accepting reservoir estimates, and possibly not getting the amount of gas we are entitled to, or 2) having the US nationalize the gas and taking it away. It would not involve reinjection, if we just did not produce it.

C) Industrial development in Alaska is a very real possibility.

The cost of gas is spiraling. Gas in California is spiraling. present costs are in the neighborhood of 50¢ Mcf in Alaska, and $2.00 Mcf in California. If industry can purchase guaranteed quantities of gas at 1/2 or 1/4 the rate, immense savings can result (in the nieghborhood of $30M a year for a petrochemical plant). This savings will probably more than offset the cost of transportation, and added labor and construction costs, which are escalating at a much slower rate than gas.

D) The country is running out of gas and oil, prices will only rise.

It is a fact that the reserves in this country, and around the world are running out. Some countries are talking more often about significantly cutting production to maintain reserves. 40 years is the number Dobey mentioned more than once for supply of major reserves. California is going to be faced with critical shortages in 2 years. The country is hungry for natural gas. If Alaska uses it's gas to sell outside the state, our resources will be depleted in 15--25 years. According to Dobey, around 199- the state will begin to face shortages. Due to nationwide shortages, and geography, Alaska will probably be unable to purchase gas elsewhere--"We'd better hang on to what we've got."

Memo: To the file
From: Eric
11/11/75
Re: Arlon Tussing seminar/Alaska Industrial Development Council

A brief history on Alaska Oil and Gas use, and possible direction;

"The era of cheap energy is over"

Main Points regarding North Slope Gas;
1) It is not economical to produce North Slope gas.
2) De-regulation of gas in lower 48 would make production of North Slope gas less feasible.
3) Either line will probably need some federal subsidy to be completed.

Explanation:
1) Neither line is economical.
Tussing said he studied ~~akk~~ major construction projects in the past, and they run approximately twice as expensive as anticipated. This would mean a price of$16to $20 billion for the Gas line, either route. Here is his projected scenario;

The FPC gives a go ahead to either route, and allows companies to charge interest on their construction loans to current consumers--A portion of the line is funded, $3 or $4 billion in loans from private industry with projected cost of $8 to $10 total.
--By about 1979 the preliminary work is done, the main financing is needed, but the cost has risen to $14+ billion--financing companies want proof that gas can be sold with solid contracts at a price to cover the cost of the line. The price is too high to guarantee sales.
--The constructors of the line go to congress to get bailed out and obtain financing for the rest of the line.
--Congress provides a subsidy, but the wellhead value is negative. the state receives minimal price for taxes or royalty gas.
--In this case, the Alaskan line is economically beneficial to Alaska, considering revenue from building the line, and possible industry attracted by cheap gas at tidewater, before liquifaction.

2) De-regulation of Natural Gas would adversely affect North Slope production.
Effects of De-regulation
a) supply will increase.
--price will rise to intra-state level(FPC inter-state price is 52¢ Mcf. Intra-state price is about $2.00Mcf)
--Horded gas will be sold
--more gas will be tapped
b) Existing lines interstate will be able to compete with intra-state prices, and the non-producing states will have their shortages eased.
c) Demand will go down.
--As price rises, some consumers will switch to other fuels--at present, 50% of natural gas is used as boiler fuel, this would be cut down as price rises.

All other things equal, the demand for Alaskan gas would go down. --Alaskan gas is going to be expensive. With regulated price, expensive Alaskan gas can be used to supplement cheaper, regulated southern gas. The price can be "rolled-in" to maintain a competitive price with other forms of energy, especially coal. If gas is de-regulated, there will be no "cheap" gas to average the price with, and the High cost of North Slope gas would keep it out of the market.

3) Either line will probably require a federal subsidy --see scenario for 1). Line costs will be prohibitive for private financing, and not be worthwhile to produce unless congress provides subsidy.

Memo: To Committee members
From: Eric
Re: Suggestions for gas use, speaker didn't want his name used.
11/12

1) Severance tax increase incrementally according to revenue lost if Canadian Line is OK'd by FPC
2) Severance tax tied to price index
3) equity ownership of Pipeline rather than cash contract.

1) If the FPC goes with Canadian line, raise Alaskan Severance tax to cover economic opportunity lost to the state;
If we determine the Alaskan Line will produce 15 times the revenue the Canadian line will, then raise the severance tax 15X to cover our losses.

2) Structure the severance tax so that we are insured some return. Set a % and a base price, and tie it to a price index to compensate for increasing market value.
--The FPC might set an unreasonably low wellhead price on the gas, from Alaska's viewpoint. If Alaska makes the tax something like 10% per X, or 5¢, whichever is greater--we are assured of some return.
--Prices are skyrocketing for gas. If we make a deal today, we may get shafted tommorrow. severance tax should be tied to at least one or possibly several price index'--gas price intra-state, inter-state, or wholesale price index--insure we maximize returns.

3) equity ownership of a pipeline.(watch out,hot topic)
The state of Alaska assume joint venture with industry for construction of pipeline. Serves several purposes;

--Once we make a cash deal for our royalty gas, there is a very strong possibility that it might be deemed inter-state commerce, and we would be giving up any chance of future in-state use, no matter where the line goes.
--We make a deal for partial cash payment, and say 25% equity of line, and 25% equity of ~~xxx~~ LNG tankers. We get;
a) A cancellable contract if the line does not go through Alaska, which we might not have with a cash contract.
b) Increased financial backing for an Alaskan line--the financing is minimal now, with state support the financing is ~~maybe~~ enhanced, we recover whatever we invest with taxes very quickly, without cash outlay.
c) A continuing revenue source ~~xx~~ at a rate of return that is attractive--12%--14% on line, and LNG tankers are not regulated, so their return will be probably higher. This money cannot be squandered, and would provide steady, bankable revenue for the state.

Problems
--Obviously political dynamite--state participation in private industry
--possible mismanagement due to political partisanship rather than corporate profit seeking

But--this would be controlled by private industry, with the state as only a monor stockholder--would give state leverage and $$

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED AS A UNIT IN THE ORIGINAL DOCUMENT.

Memo: Committee members
From: Eric
Re: Tenneco meeting
11/13/75

Tenneco has proposed to buy the state's royalty gas.
They offer; $100,000,000 front end money
--they will pay the interest
--Alaska will pay by future oil or gas income
--They will support Alaska route

--$100,000,000 front end money.
They will give us the money even without FPC allowance to pass on the cost of the money to their present consumers. El Paso's offer is contingent on FPC allowance to pass on costs.
They say we can back out if Alaskan route is not given FPC Go-ahead. There is some question if this is possible with the FPC once a contract has been signed..i.e. if we commit our gas contingent on obtaining an Alaskan route, and we accept some cash for it, if the line goes Canadian, we might not be able to then back out of the contract.
-- We would pay back the principal, not the interest out of our future oil or gas revenues.

--They want a committment of at least 90% of the royalty gas before they will sign a contract. They say that supporting the Alaskan route will cost considerable money, and that they need at least 90% of the gas before their company will consider backing an Alaskan route. They say that there are undoubtedly other gas reserves in Alaska that will be able to take care of our in-state future needs as they arise.

--Tenneco sees the next 4--6 month period as critical in obtaining a go-ahead on the pipeline. With the stalemate of an energy policy in Washington, the only way the country can further "Project Independance" is to push for quick availability of Alaskan Gas. With the country facing a gas shortage this winter, and an election coming up, the decision can be made soon, possibly with congressional override of FPC's right to determine route. After this period, the variables are too great to determine what might happen. Tenneco is willing to push for Alaskan route if they get commitment soon.

--El Paso is so far into the project they will continue to be involved even if we commit gas to Tenneco. Tenneco did not specify what involvement El Paso would have, or their plan for building the line, or their strategy for getting the decision for an Alaskan route. They are the largest gas company in America, and are financially as viable as all the major Gas Arctic people combined.
--personal observation Tenneco is gambling. They seem to think the Alaska route is possible. They have not put very much into their proposal or their discussions with Alaska. They are asking the state to commit 90% of our royalty gas, but they have yet to show strategy plan for getting Alaskan line, or construction plan for the line, if approved. We need more information...

Tennessee Gas Transmission
A Tenneco Company

Robert C. Thomas
Vice President

Chamber of Commerce Building
P. O. Box 2511
Houston, Texas 77001
(713) 229-2275

August 28, 1975

Mr. Guy R. Martin, Commissioner
Department of Natural Resources
State of Alaska
Pouch M
Juneau, Alaska 99801

Dear Mr. Martin:

In response to communications with Alaskan officials, Tennessee Gas Transmission, a Tenneco Company, has been developing a method for contracting the royalty reserves owned by the State of Alaska in the Prudhoe Bay Field. We have designed a method which provides the necessary benefits to Tennessee Gas and we request your evaluation of the benefits which can be derived by the State. We are attaching a memorandum which outlines the framework of our approach in some detail.

In our opinion the key issue involved in the sale of the right to contract this gas is the routing of the gas pipeline from Prudhoe Bay. If the State desires the pipeline to cross Alaska, the royalty gas should be contracted to an interstate organization which can supply additional support for this route. We feel the State, with this new support and combined with existing backing, can successfully influence the routing of this market outlet. This could protect the future of Alaska through creation of jobs and insure that progress is achieved in a manner consistent with the Alaskan way of life.

In summary, our proposal would allow the State to receive:

1. Support for a trans-Alaskan system.
2. An initial cash payment to be repaid at a later date.
3. A portion of the gas for use in Alaska
4. Maximum permissible wellhead price.

The company would receive:

1. The right to contract for the purchase of the State's Prudhoe Bay royalty gas.

2. Recovery of their initial payment to the State at a later date.

With the publication of the Department of Interior study concerning the relative merits of the alternate market systems, time becomes more critical. Decisions will be made in the near future which will affect the pipeline routing. We do not feel that rumor of a U. S. - Canadian agreement dictates a Canadian routing because the basic problems confronting this route have not yet been solved. Our analysis of the facts now indicate a trans-Alaskan route can be completed at an earlier date thereby creating economic benefits for our company, the State and the consumer.

We suggest the State consider a negotiated contract covering all their Prudhoe Bay royalty reserves. A competitive bid sale cannot obtain comparable benefits.

We are prepared to immediately enter into negotiations with the State concerning these royalty reserves. We request a meeting with you after your review of these recommendations. We will be prepared to meet on any acceptable date.

Robert C. Thomas

cm

Attachment

MEMORANDUM

CONTRACTING OF PRUDHOE BAY GAS

STATE OF ALASKA

In late May, 1975, Tennessee Gas Transmission Company received a letter from the Commissioner of Natural Resources for the State of Alaska requesting proposals for the purchase of the State's royalty gas from leases in the Prudhoe Bay Field. We have communicated with Alaskan officials and discussed the needs of the State to be met in contracting the gas and the ability of Tennessee Gas Transmission or the industry to structure a mutually advantageous proposal.

We have reviewed carefully the ramifications of contracting or securing the rights to contract these gas reserves from the State. Our procedure in reviewing this situation was to determine the benefits necessary to us before we could offer to contract the gas and the benefits to be obtained by the State before they could justify the selling of the right to contract their royalty reserves. The benefits listed below represent what is in our best interests and what we assume to be in the best interests of the State.

1. Benefits Which Must Accrue to the State

   In order to justify selling the right to contract the royalty natural gas reserves, certain benefits should accrue to the State. The more significant ones considered are:

   a. The company purchasing the right to contract the reserves should be capable of giving maximum support to a market outlet across the State of Alaska.

   b. The State should receive substantial front-end money.

c. Some of the gas should be available for use in Alaska.

d. The maximum possible wellhead price should be paid at the wellhead for the reserves when produced.

2. Benefits Which Must Accrue to the Purchaser

There are still unknown timing factors and substantial risks associated with purchasing the right to contract Prudhoe Bay gas. To compensate for these risks, certain benefits must accrue to the purchaser. These are:

a. The front-end payment must be financeable eliminating the necessity for the company to make a large capital advance in a single year.

b. The front-End payment must be recoverable at a particular point in time, perhaps out of a percentage of natural gas revenue or other guaranteed type arrangement.

c. The right to contract all of the State's royalty gas in Prudhoe Bay must be secured. A minor percentage may be reserved by the State for use within Alaska, but if not used will be included with the gas marketed by the purchaser of the rights.

We have worked toward an approach that would meet these requirements. In the consideration of various methods of financing, three limiting factors immediately surface. They are (1) the constitutional or statutory limitation on State debt for longer than one year, (2) FPC regulations controlling advance payments and their anticipated expiration at year end, and (3) the capital and

debt position of most pipeline companies. The State does not qualify under current FPC regulations for receiving advance payments.

There are several other factors which must be considered in this decision. Plans are now being made for pipeline routing which will drastically affect the future of the State of Alaska. We see the contracting of royalty gas as leverage supporting the routing of the pipeline across Alaska. This leverage will diminish rapidly with time and will completely disappear if not used. Despite the rumors of a U. S. - Canadian agreement covering a Canadian pipeline route being initialled by the two governments, we now feel a trans-Alaska project can be completed at an earlier date thereby creating economic benefits for our company, the State of Alaska and the natural gas consumer. We base this analysis partially on the fact that the Canadian problems related to natives claims and the rights of the Provinces have not been resolved. We question these can be resolved in a reasonable length of time. It is also possible that some type of U. S. Federal assistance in the form of financial guarantees or new legislation will be required for the successful completion of a pipeline. This would be difficult to obtain for a Canadian route.

We feel there are substantial volumes of additional gas to be discovered in Northern Alaska in the future. This future gas will go to market through the route selected at this time. These volumes could be the energy source for future industrial growth within Alaska if the market outlet is now established through the State.

There has been much speculation about the economics of a market outlet for Prudhoe Bay gas and the effect it will have on the future wellhead price of this gas. This speculation is due to the substantial cost overruns being experienced by major engineering projects throughout the world. A recent study by Tenneco indicates the capital cost of the trans-Alaska pipeline

the liquefaction plant, LNG ships, and receiving facilities, when escalated to the year of expenditure, to be $3.8 billion, or 57% greater than the recently published U. S. Department of Interior study. After adding a $.50/Mcf wellhead price, this capital cost would yield regasified LNG at the Los Angeles city gate at a cost of $2.58/Mcf in 1982. If Tenneco's projection of capital costs should be low by a factor of 50%, which is highly unlikely, the Los Angeles city gate price will increase to $3.54/Mcf. According to our market analysis, however, this gas will be saleable in the interstate market. We do not wish to minimize the problems of financing that relate to the escalating project cost, but the escalation certainly does not render this gas valueless at the wellhead.

A negotiated sale of the right to contract these reserves is the most advantageous method. A competitive bid sale is not appropriate and it cannot accomplish the many objectives nor provide the benefits envisioned. This is supported by the following:

1. A competitive bid sale should be made on a standard basis for all bidders. This is preferable only when all bidders have equal capabilities and price is the only variable.
2. All bidders could not supply the same degree of effectiveness in the support of the Alaskan route.
3. The unknown risk factors such as date of delivery, routing, natural gas regulation in the U. S. and many other factors which must be taken into consideration will result in lower cash bids on a competitive sale. Provision for some of these uncertainties can be made in a negotiated sale.
4. Competitive bidding would suggest the breaking up of the royalty reserves into smaller packages for sale. These smaller reserves would attract neither the cash bids nor the substantial support for the routing that will be required.

We would propose the following approach as one meeting our requirements and interests and accomplishing the objectives we have assumed for the State. We have divided it into four parts for the purpose of review.

1. Pipeline Route Support

As of this date, Tenneco has not actively supported either of the projects designed to deliver North Slope gas. With the securing of the right to contract the State royalty gas and with the current facts now indicating a trans-Alaska system will offer the quickest and most assured method of getting this gas to market in the lower 48 states, we would be prepared to support the Alaskan route.

2. Capital Contribution

a. Tenneco will make available to the State an amount in excess of $100 million for the right to contract all of the royalty natural gas reserves in the Prudhoe Bay Field.

b. These funds will be made available to the State over a three year period according to its needs. The amount of the funds advanced will be dependent upon the drawdown schedule which will be agreed upon by the parties prior to the execution of the agreement.

c. All financing will be arranged by Tenneco.

d. There will be no recovery of the advanced funds for a period of three years following the date of the advance.

e. We will consider that each drawdown will constitute a separate advance, and that such advances will be recovered out of a percentage of revenue from the

royalty gas production beginning three years after the drawdown and continuing over a recovery period of five years. In the event gas sales have not begun by the beginning of the recovery period, the recovery will be made initially from revenue derived from a percentage of royalty oil production until natural gas production begins. According to our interpretation, this advance would not be classified as debt on the books of the State since repayment is to be made solely from a percentage of revenues to be generated by the sale of the State's natural gas and/or oil.

3. Gas Available for Alaskan Use

Tenneco recognizes that some of the State's royalty gas may be required for use within the State. However, the major source of gas for future use within the State will be available from new reserves found and transported through the system now considered for Prudhoe Bay. We are confident this new gas will become available as the natural gas demand grows in Alaska.

Tenneco would consider a reservation by the State of up to 10% of the royalty gas production for use within Alaska so long as the pipeline, plant and shipping design would accommodate it. The State would own this gas and pay the applicable transportation tariff. In the event this gas was not used within the State, it would be sold to Tenneco under the contemplated contract.

4. Pricing

The gas produced at Prudhoe Bay will flow into interstate commerce and under current regulations would be subjected to control by the U. S. Federal Power Commission. Tennessee Gas is also a company regulated by the FPC. For this reason, we are unable to guarantee a specific wellhead price.

We feel the best assurance for maximum possible pricing lay in the requirements and market potential of the purchaser. Tenneco's interstate pipeline systems have average current requirements for supplying existing customers of 3.8 Bcf per day making us one of the largest interstate systems in the U. S. The majority of our current market consists of the higher premium residential and commercial market.

We can contract to pay the maximum price permitted by the FPC and are willing to do so. Our market analysis indicates that the wellhead price will be at least $.50/Mcf in the early 1980's, and that it will increase on an annual basis as the project matures. In addition, we do not expect that deregulation, in whatever form it could be established, would have the effect of reducing the wellhead price below this figure.

We propose that Tenneco (through Tennessee Gas Transmission Company or a subsidiary) and the State immediately enter into negotiations for the purpose of purchasing the right to contract the State royalty gas in Prudhoe Bay and securing support for a trans-Alaska market outlet.

SUMMARY

I represent Tennessee Gas Transmission, the natural gas pipeline subsidiary of Tenneco Inc. By letter dated May 22, 1975, the Commissioner of Natural Resources of the State of Alaska requested Tennessee Gas Transmission to submit a proposal for the disposition of the State's royalty gas in the Prudhoe Bay Field. Our memorandum dated August 28, 1975, was in response to this request.

The suggested approach discussed in the memorandum resulted from our assessment of critical factors to be considered by both the State and our company. The approach outlined is acceptable to our company and we have submitted it for review by this Board.

The main thrust of the approach we suggest is contained in the overall benefits to be obtained by each party. The significant benefits we feel should accrue to the State compared to what we have suggested in our memorandum are as follows:

Benefit 1: The company acquiring the right to contract the royalty reserves should be capable of giving maximum support to obtaining a trans-Alaska pipeline route.

Approach: As of this date, Tenneco has not actively supported a project designed to market North Slope gas. With the securing of the right to contract the State royalty gas we would be prepared to give maximum support to the securing of a trans-Alaskan route. This support would be in the form of time, money and people. This support would be fully coordinated with the State to insure maximum impact.

Benefit 2: The State should receive substantial front-end money.

Approach: Tenneco will make available to the State an amount in excess of $100 million for the right to contract all of the royalty natural gas reserves in the Prudhoe Bay field. The exact amount contributed will be subject to negotiations between the parties and will reflect the needs of the State, the drawdown schedule and other factors. These funds will be made available to the State over a three-year period according to a mutually acceptable schedule. There will be no recovery of the contributed funds for a period of three years following the date of the advance. The contributions will be recovered out of a percentage of the royalty gas or oil production beginning three years after the drawdown and continuing over a recovery period of five years. These funds made available to the State would be interest free.

Benefit 3: Some of the gas must be available for use in Alaska.

Approach: Tenneco would consider a reservation by the State for up to 10% of the royalty gas production for use within Alaska.

We do not intend to imply that this 10% represents the maximum anticipated future growth of the State's natural gas needs. We feel the primary goal at this time is to insure a Trans-Alaskan system. The major source of gas for long-term growth will be available from future reserves found and transported through this system.

Benefit 4: The maximum possible wellhead price should be paid at the wellhead for the reserves when produced.

Approach: The gas produced at Prudhoe Bay will flow into interstate commerce and under current regulations would be subjected to control by the U.S. Federal Power Commission. Tennessee Gas is also a company regulated by the FPC. For this reason, we are unable to guarantee a specific wellhead price.

We feel the best assurance for maximum possible pricing lay in the requirements and market potential of the purchaser. Tenneco's interstate pipeline systems have average current requirements for supplying existing customers of 3.8 Bcf per day making us one of the largest interstate systems in the U.S. The majority of our current market consists of the higher premium residential and commercial market.

We can contract to pay the maximum price permitted by the FPC and are willing to do so. Our market analysis indicates that the wellhead price will be at least $.50/Mcf in the early 1980's, and that it will increase on an annual basis as the project matures.

These are the major benefits accruing to the State of which the most important is the support of the pipeline route across Alaska.

The purchaser is subject to unknown timing factors and substantial risks associated with purchasing the right to contract Prudhoe Bay gas. To compensate for these risks, certain benefits must accrue to the purchaser. These are as follows:

a. The front-end payment must be financeable eliminating the necessity for the company to make a large capital advance in a single year.

b. The front-end payment must be recoverable at a particular point in time. We have structured an eight-year recovery period in this approach. This recovery will be from a percentage of royalty natural gas or oil revenue.

c. The right to contract all of the State's royalty gas in Prudhoe Bay would be secured subject only to the 10% reservation by the State for use within Alaska.

We feel the most important consideration by the State at this time is the securing of a Trans-Alaska routing for the Prudhoe Bay reserves. This is the one single factor that will have the greatest impact on the State throughout its future. This must be considered in relation to the other benefits which can be obtained either through the proposal we submitted or the approach recommended by any other company.

a. Front-end Capital Contribution - Strictly a short-term benefit and will be available regardless of the route selected.

b. Wellhead Price - You will be assured of getting the maximum permissible price regardless of the pipeline routing.

c. Retention of Gas for Use in Alaska - This has little if any value if the market outlet does not cross Alaska.

d. Routing - This is a mutually exclusive, either-or decision. The market outlet will either cross Alaska or it will not. Once a route is selected, it will influence exploration because companies understand that reserves from future discoveries in the North will be transported to market through the first system constructed or by an expansion of that system. Resulting economic and industrial benefits will accrue to that system and to industry and people able to be served by it.

e. To insure there is no question about our intentions to support the routing of this project, we are willing to give the State the option to terminate our right to contract should the trans-Alaska route not be approved. This termination would be conditioned only upon the State refunding our capital contributions plus interest and assuring us we would not be prejudiced in any future attempts to contract the royalty gas.

We understand the difficulties you face in deciding in the near term a question as important as how to dispose of the State's royalty gas. We have heard arguments that the State's interest can be best served by leaving the gas in the ground as bargaining leverage to assure that gas is available in the State for future development and expansion and to assure that what gas is sold returns the highest possible price.

However, we do not think it feasible to keep part of the gas in the ground. Either the gas will flow to market or it won't; it's all or nothing. Another factor which must be considered is the natural gas shortage in the lower 48. Headlines yesterday in the Seattle newspaper said "500,000 Americans jobless this winter due to natural gas shortage." Future prospects are not encouraging.

This State's policies have always responded to such overriding national interests and we not believe the State will now alter that basic approach.

Moveover, as this Board is well aware, a decision now to agree to contract the royalty gas does not commit the State to a specific price. As mentioned, we will agree to pay the maximum permissible price.

We are not aware of all the proposals that have been presented to the State for the contracting of their royalty natural gas reserves. I'm sure there have been many. I'm confident, however, that no other company can offer the State the additional support for a trans-Alaska route that our approach insures. It is in this additional support that our proposal will differ from any other proposal which the State receives.

We see the contracting of royalty gas as leverage supporting the routing of the pipeline across Alaska. This leverage is very strong now but will weaken rapidly with time and will disappear completely if not used. In our opinion critical dicisions concerning the routing will be made in the next 6 - 12 months.

We have recommended to you that a negotiated sale of the right to contract the royalty natural gas is the most advantageous method. We recognize the political problems inherent in a government entity negotiating a sale, but the objectives we envision cannot be achieved through a competitive bid sale. As an example, how many bidders could supply the same degree of effectiveness in providing additional support for the trans-Alaska route?

My company is prepared to enter into negotiations with the State or this Board for the purpose of securing the right to contract the State's royalty gas in Prudhoe Bay and to provide support for a trans-Alaska pipeline route.

Tennessee Gas Transmission
A Tenneco Company

Robert C. Thomas
Vice President

Chamber of Commerce Building
P. O. Box 2511
Houston, Texas 77001
(713) 229-2275

November 3, 1975

Mr. Guy R. Martin
Department of Natural Resources
State of Alaska
Pouch M
Juneau, Alaska 99801

Dear Mr. Martin:

In accordance with your request, we have prepared a comparision of the offers submitted to the State of Alaska by Tennessee Gas Transmission Company and El Paso Natural Gas Company for the purchase of royalty gas from Prudhoe Bay Field. The comparision is summarized on the attached tabulation.

In our opinion, the primary consideration to be given by the State is the securing of the pipeline route across Alaska. The most significant difference between the two offers is Tenneco's ability and commitment to give additional support to this route selection. To insure there is no question concerning this support, Tenneco has agreed to allow the State to terminate the right to purchase the gas should the pipeline route not corss Alaska.

We will look forward to working with the State in the furthering of this project.

Robert C. Thomas

cm

Attachment

bcc: Jared Carter w/attachment

COMPARISION OF OFFERS SUBMITTED TO THE

STATE OF ALASKA BY TENNECO AND EL PASO

FOR THE PURCHASE OF PRUDHOE BAY ROYALTY GAS

		TENNECO	EL PASO
1.	Gas Volume	All royalty gas but State can reserve up to 10% for their needs.	All royalty gas or any part surplus to State's needs.
2.	Advance Payment	In excess of $100 million subject to negotiation.	10¢/MCF of gas dedicated which equates to $300 million for all of the royalty gas.
3.	Conditions precedent for making advance payment	None	Requisite governmental authorizations in satisfactory form and the conclusion of all necessary financial arrangements (rate base treatment of the advance).
4.	Recovery of advance payment	In 5 years starting 3 years after drawdown or a total of 8 years.	Within 7 years of commencement of oil or gas production or 7 years after date of advance, whichever is later.
5.	Offer to pay share of field gathering and processing facilities if assessed to State of Alaska by producers in order to take in kind	No	Yes
	NOTE: Government is not normally required to invest in field facilities to take in kind, but to pay a fee for gathering and processing royalty gas. Lease agreements provide for government taking delivery in kind at a mutually agreed upon point and for the producer to charge a fee for any processing.		
6.	Give additional support to the Alaskan pipeline route	Yes	No
7.	Interest charged on advance payment to the State	No	No
8.	Relinquish right to purchase gas if pipelines goes across Canada	Yes	No

HISTORICAL NET PRODUCTION OF NATURAL GAS IN TEXAS
(BILLIONS OF CUBIC FEET)
1962-1973

	Intrestate	Interstate	Total
1962	3250	2960	6210
1963	3359	2979	6338
1964	3442	3165	6607
1965	3538	3201	6739
1966	3787	3276	7063
1967	3984	3334	7318
1968	4159	3461	7620
1969	4345	3620	7965
1970	4614	3844	8458
1971	4900	3721	8621
1972	4930	3788	8718
1973	5123	3427	8550

FINANCIAL STATISTICS - MAJOR GAS TRANSMISSION COMPANIES

$ - Millions

	12-31-74 Assets	Gross Revenue 1974	Net Income 1974
Arkansas Louisiana Gas Company	$ 616	$ 280	$ 59
Cities Service Gas Company	2,898	2,806	204
*Colorado Interstate Gas Company	454	354	38
*Columbia Gas Transmission Corporation	2,838	1,278	110
Consolidated Natural Gas Company	1,636	861	63
El Paso Natural Gas Company	2,122	1,251	74
Florida Gas Transmission Company	273	104	13
*Michigan-Wisconsin Pipe Line Company	1,161	531	50
Mississippi River Transmission Corp.	176	142	12
*Natural Gas Pipeline Company of America	1,269	564	99
*Northern Natural Gas Company	1,704	1,013	120
Northwest Pipeline Corporation	406	276	15
*Panhandle Eastern Pipeline Company	951	564	69
Southern Natural Gas Company	1,066	539	59
Tennessee Gas Pipeline Company	6,402	5,001	321
*Texas Eastern Gas Transmission Corp.	2,438	1,065	192
Texas Gas Transmission Corporation	864	692	45
Transcontinental Pipe Line Corp.	1,532	520	12
United Gas Pipe Line Company	565	608	20

*Participants in Gas Arctic

Tennessee Gas Transmission
A Tenneco Company

Robert C. Thomas
Vice President

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(713) 229-2275

October 31, 1975

Mr. Guy Martin, Commissioner
Department of Natural Resources
State of Alaska
Pouch M
Juneau, Alaska 99801

Dear Mr. Martin:

During my presentation to the Alaskan Royalty Oil and Gas Advisory Board earlier this month, it was requested that we provide additional information concerning the effect of FPC regulation on the ability of the State to utilize a portion of their royalty gas within the State. The attached memorandum is submitted in response to that request. It is still our belief that the State is free from the direct jurisdiction of the FPC, but the FPC will be able to exercise some indirect control. Freedom from this indirect control could be obtained by securing the proper authorizations in the initial certificate or by securing appropriate federal legislation. Either of these alternatives are considered feasible if the proper actions are taken by the State in the very near future.

There are some that support a state-owned pipeline to insure freedom from FPC jurisdiction. Our memorandum mentions this point. In legal theory this may have merit, but in reality there is little basis for support for at least two reasons:

1. A pipeline from the North Slope is tremendously expensive regardless of its planned capacity. Based upon current events, investor confidence in municipal and State financings may not be sufficient to support such a venture.

2. If financing were available, the State would be obligating itself for all of the capital required for the pipeline in order to secure assurance of access to their royalty gas which is no more than 12 1/2% of the gas transported.

The benefits do not appear to justify the risk involved in the State's financing of a pipeline. Future decontrol of natural gas could eliminate the indirect control by the FPC without the necessity of the financial involvement.

We trust this information will be of benefit to you and the Board. Our legal representatives would be prepared to discuss this problem in greater detail with your legal counsel if you consider it worthwhile.

Robert C. Thomas

cm

Attachments

bcc: Jared Carter w/o attachments

The following is written in an effort to summarize recent discussions concerning the relationship of regulation by the Federal Power Commission (FPC) and the sale by the State of Alaska of its royalty interest in Prudhoe Bay gas.

I

It is conceivable under an appropriate fact situation that the FPC would have no jurisdiction over the production, sale and use of any Prudhoe Bay gas. This situation would exist if all the gas were produced within the State of Alaska (none from offshore Federal leases) and all gas were consumed in Alaska without ever having left Alaska. In this fact situation the State of Alaska and all producer sellers could sell gas and be subject only to those restrictions contained within their sales contracts. However, because of the lack of market and the cost of facilities needed to get the gas from Prudhoe Bay to whatever Alaskan market there is, such a totally intrastate project is not presently feasible.

II

Proceeding then on the assumption that most of the gas produced from Prudhoe Bay will necessarily leave Alaska and must in some manner be transported to and consumed in the lower 48 states, it must be recognized that any such project cannot become a reality without FPC approval of some particular facet of its operation. It must also be recognized that the necessity of FPC approval for portions of such project, coupled with the FPC's right to consider all factors bearing on the public interest and convenience, gives the FPC a position in determining what type of project is ultimately built. This does not, however, mean that the State of Alaska cannot endeavor to structure a project that gives the State of Alaska the best opportunity possible to utilize its royalty gas as Alaska sees fit.

The FPC generally has jurisdiction over the sale for resale of natural gas in interstate commerce, the transportation of gas in interstate commerce, and the construction and operation of facilities to be used for such sales and transportation. However, it appears that (1) the FPC would have no direct certificate jurisdiction over the sale of royalty gas by the State of Alaska and (2) that the FPC would have no jurisdiction to fix the rates at which Alaska could sell its royalty gas whether by direct sale or by sale in interstate commerce for resale. Such conclusion is reached on the basis that Alaska is neither a "person" nor a "natural gas company" within the meaning of the Natural Gas Act. The FPC's regulatory authority covers only those entities which are "persons" or "natural gas companies" as defined in Section 2 of the Act.

Section 2 of the Act defines "natural gas company" to mean a person engaged in the transportation of natural gas in interstate commerce, or the sale in interstate commerce of such gas for resale. That same section defines "person" to include an individual or a corporation. A corporation is defined to exclude municipalities. "Municipality" is defined as a city, county, or other political subdivision of a State. Inasmuch as the State of Alaska would probably sell the royalty gas through some agency of the State, the FPC would have no direct jurisdiction over such transaction.

There is authority to support the conclusion that the State of Alaska is beyond the jurisdiction of the FPC. In Tennessee Gas Pipeline Company, Docket Nos. CP66-269, et al., by order issued June 29, 1967 (37 FPC 1195) the FPC made the following statement concerning the State of Louisiana as a royalty owner (37 FPC 1197):

> "We note that in addition to the aforementioned, the State of Louisiana and one of its local subdivisions (the Buras Levee District) are among the royalty owners of the acreage at issue. But Section 2(6) of the Natural Gas Act would seem to exclude such political entities from the definition of "natural-gas company" and thus exempt them from the necessity of obtaining this Commission's authorization prior to effectuating an interstate sale. However, in view of the fact that this Commission already has made clear its concern with the cost to Tennessee of the Bastian Bay reserves we would expect that both the State of Louisiana and the Buras Levee District will be most interested in the course of these proceedings and we would welcome their participation as interveners."

Since the State of Alaska is not a "natural gas company" under the Natural Gas Act, the FPC would also be precluded from regulating other activities performed by the State of Alaska which, if done by some other entity, would be subject to FPC regulation. Therefore, if the State of Alaska were to construct and operate a natural gas pipeline from Prudhoe Bay to the southern coast of Alaska, the construction and operation of that pipeline and the transportation of gas by that pipeline would not be subject to direct FPC regulation, even though all or some portion of the gas ultimately entered the interstate market. Under this arrangement, all of the gas produced in Prudhoe Bay could be transported to the southern end of the pipeline with no direct certificate regulation by the FPC and the rates to be charged by such pipeline for transporting gas from Prudhoe Bay to the terminus would not be subject to direct FPC regulation.

While sales of Alaska's royalty gas made from such line would not be subject to direct FPC control, the sale of gas attributable to the working interests of Prudhoe Bay leases would, of course, be subject to FPC regulation, whether made at the wellhead or at the southern terminal of the line, if such sales were made to a "natural gas company". The resale in interstate commerce of Alaskan royalty gas, facilities necessary at the terminus of the line for the liquefaction of the gas and loading of LNG, the facilities necessary to receive and transport such gas, and the resale of such gas in the United States would be subject to direct regulation by the FPC. Through its regulation of these aspects the FPC might affect the viability of any contractual arrangements made for Alaska's royalty gas.

III

In view of the existing provisions of the Natural Gas Act, the State of Alaska is exempt from direct FPC regulation. However, under certain

circumstances, it will be subject to indirect regulation. If we assume that the pipeline from Prudhoe Bay to the southern coast of Alaska will be constructed and operated by a "natural gas company", the State of Alaska will be subject to indirect regulation if any part of its royalty gas enters such a pipeline.

To the extent royalty gas is so transported, even if transported only within Alaska and consumed in Alaska, the transporting pipeline will be required to obtain a certificate of public convenience and necessity pursuant to Section 7(c) of the Natural Gas Act. The rate charged by the jurisdictional pipeline for such transportation will be subject to FPC regulation under Section 4 of the Act. This is the situation that must be anticipated under either the present Gas Arctic route or the present Trans-Alaska route. While Alaska might sell its royalty gas at an unregulated price, the FPC will have direct control over the transportation rates charged by jurisdictional pipelines that carry the gas to the ultimate market. In addition, to the extent any buyer of Alaska's royalty gas resells such gas in interstate commerce, that rate will be subject to FPC regulation. Thus, through its regulation of the rates allowed for resale or the rates allowed for transportation, the FPC might affect the viability of any contractual arrangements made for Alaska's royalty gas.

The Commission, in exercising its authority to regulate the transportation of gas by interstate pipelines, has refused to grant such authorization due, in part, to the inferior end use for which the transported gas was destined. See F.P.C. v. Transcontinental Gas Pipe Line Corp., 365 U.S. 1, (1961) and Arizona Public Service Company v. F.P.C., 483 F.2d 1275 (1973). In those two cases certificates were denied, and the Courts upheld such denial, because, among other things, the consumer intended to use the gas for boiler fuel -- an inferior use. Thus, in processing an application for authorization to transport gas in interstate commerce, the Commission will consider the end use of the gas. It might be possible for a pipeline to distinguish the Transco and APS cases and to show that the present and future public convenience and necessity requires certification of a particular transportation agreement.

IV

As indicated above, it appears that the FPC, under the Natural Gas Act, has no direct jurisdiction over Alaskan royalty gas committed to the Alaska pipeline project. The State of Alaska would, therefore, be free to sell all or part of its royalty gas at whatever price it can negotiate and to withdraw such gas from the course of such sales in accordance with the terms of its sales contracts without governance by the FPC.

Despite the latitude afforded an entity excempt from FPC regulation, there is a degree of indirect regulation due the jurisdiction of the FPC over the natural gas company operating the pipeline across Alaska. Such indirect regulation would arise each time the State of Alaska effected a change which required the natural gas company to amend its certificate.

Thus, at the time the State of Alaska desired to enforce that contractual provision permitting a portion of the royalty gas to be used within the State, the natural gas company would have to obtain a certificate authorizing such modification in service. However, it would appear that, in view of the State's exempt status, the holding of Granite Cities Steel Company v. Federal Power Commission, 320 F.2d 711 (D.C. Cir. 1963) would have no bearing on the State of Alaska's authority to divert a portion of its royalty gas to users within the State.

V

In order to completely circumvent the indirect regulation of Alaska adverted to above, it is conceivable that the legislative branch of the U.S. Government could propose legislation that the executive would sign which specifically (a) removed the issue of the transportation of Alaskan gas to the lower 48 states from the jurisdiction of the FPC and (b) provide procedural guidelines for the resolution of all legal issues associated with such transportation. Under such a statute, it is probable that the Natural Gas Act would be suspended as it applied to the Alaskan gas, thus mooting all of the legal principles enunciated herein. In view of the various approaches such legislation could take, a detailed discussion at this time would constitute mere speculation.

PLEASE NOTE: THE PRECEDING PAGES WERE TREATED AS A UNIT IN THE ORIGINAL DOCUMENT.

Memo: To Committee members
From: Eric
Re: ISEGR briefing
11/19

The meeting was open to all legislators and staff.
Attending;

John Huber
Joe Orsini
Ed Willis
Jim Rhodes
Ted Smith
Susan Sullivan
Kathyrn Ostrosky
Bill McGuire
Anne Carbonetti--Leg. Affairs
Mike Scott ISEGR
Dave Kresge ISEGR
Eric Eckholm

The briefing dealt with the ISEGR study prepared for Dept. of Interior. Enclosed is a recent study they prepared, the last portion is a summary of the ISEGR report. Also, I mailed out a very brief summary prior to the meeting.

The map details 10 proposed routes that ISEGR is running through their "Man in the Arctic" computer model for the BLM. They should have results on economic impact by early January.

They reiterated their main points from the study;

1) per capita income does not rise more than 2% from either proposal, due to population migration.

2) They assume the state is going to save 50% of their petroleum revenue in an investment fund. This will mitigate the "boom/bust cycle by providing long term state revenue not tied to the initial resource. (see report inclosed) This investment fund is assumed to provide a 7% return on investment.

Other comments
1) If El Paso goes, there will be a significant detrimental effect on pricing of goods in Alaska. It follows on the heels of the oil line, and another boom will probably cycle inflationary pricing higher than normal inflationary process'.
2) Petrochemical Industry is high capital-intensive. In other words, it does not provide much employment, and the revenue generated will be minor compared to the North Slope tax base. Kresge suggested a tax break for industry producing in-state consumable items such as cement/food processing.
3) little can be done about boom/bust economics, but by state saving revenue, the end can be tapered off the "bust" stage.
4) If "Project Independance" suggestions are followed, Alaska will have a well everywhere there is the smell of oil or gas. Kresge feels this is not feasible, but they do assume OCS development in creating their state growth model.

Memo: Members of the Gas Pipeline Impact Committee
From: Eric Eckholm
Re: Cook Inlet Royalty Gas
11/25/75

Problem: Anchorage Natural Gas (ANG) has asked for the right to purchase the state royalty gas from the North Cook Inlet field. This gas is presently being sold to Phillip's Petroleum for use in their Liquified Natural Gas (LNG) operation, which is then shipped to Japan. The Royalty Board, with the concurrence of the legislature determines use of royalty gas.

ANG's Proposal:

1) ANG wants to purchase all of the state's royalty gas now being purchased by Phillips, at a price equal to that being paid to Phillips.

--This could be done as a "paper trade" in that gas from the North Cook Inlet is equal to gas from Swanson River areas where ANG is currently receiving gas. ANG could purchase royalty gas in equivalent amounts from Swanson River, and credit the North Cook Inlet producer.

2) ANG says their reserves are running low, and purchase of State royalty gas will allow them to continue to fill their contracts with state users that might have to be wwitched to costlier oil fuel (i.e. Bernice Lake power plant) if gas was not available. This would increase electrical costs to consumers.

Also, the amount of gas available to ANG is limited (550 Billion Cubic Feet until 1992), and they are seeking to build up their reserves to assure continued financing.

Phillip's response:

1) ANG doesn't really need the gas. They are building a case without real needs because they want cheap gas in the future. At present, ANG is only utilizing 72 Million Cubic Feet/day when their contract allows as much as 160 MMcf/day.

2) Phillips has created a market for LNG that didn't exist, at considerable risk and expense to Phillips. They sunk $125 million developing the market, and their partners pulled out, leaving Phillips with all the risk. They generated income for the state that would not have been there without Phillips. By taking the state royalty gas, the economics of Phillips operation would be impacted.

3) There is a possibility of allowing Phillips to come under APUC regulation if the gas is sold to ANG. Phillips does not want to become regulated as a public utility, and the small percent of royalty gas should not warrent them being regulated by the APUC.

Staff comment:

This proposal could be an important precedent for future use of the State's royalty gas.
--It signals the intention of the state to use gas "in-kind" and within the state, if possible. Previously, royalty gas was assumed to be paid on a 1/8th of revenue basis, not as possible real gas for state use. All of the projections by industry of gas development include the royalty gas, with the assumption that the state would take 1/8th share of $$, not gas. This is true with North Slope transportation system plans.

Staff recommendation:

Sell the gas to ANG, with the following conditions;
--ANG demonstrates a real need for the gas.
--ANG pays a price equivalent to that being paid by Phillips, and it continues to rise on a equitable market price. (The state would not be "subsidizing" Anchorage users)
--Phillip's Petroleum is not subject to critical economic burden. (Phillips has wells drilled on their present platform that are not being used. They have a contract with the Japanese for 15 years--1970-1985, 140 MMcf/day delivered to Japan. They would have to confirm their reserves and ability to meet their contract.) This would also probably increase development of the Cook Inlet field.

[Staff note--I toured the Phillip's plant in Kenai. I was impressed by the efficiency of the operations, and the environmental concern. Phillip's also had an Alaskan hire policy, 10 out of 46 employees were Alaskan natives, and they trained employees in all phases of the operation. They are a highly capital-intensive industry that appear to me to be a positive asset in terms of natural gas resource use in Alaska. Although I recommend taking the royalty gas, I believe that the state should be concerned in maintaining a good business relationship with Phillips.]

The Royalty Board is meeting December 9 and 10. They will be giving a presentation to this Committee on December 11. If they take action relative to the royalty gas, the legislature would be asked for a concurrent resolution during the session.

Phillips has not signed a contract with the state, they pay the state essentially on a day to day basis. By selling the gas to ANG, we would not be cancelling any contracts.

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED AS A UNIT IN THE ORIGINAL DOCUMENT.

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Alaska State Legislature

JOINT GAS PIPELINE IMPACT COMMITTEE

November 17, 1975

QUESTIONS CONCERNING

THE PRUDHOE BAY NATURAL GAS RESERVOIR

AND RELATED MATERIALS

In the following questions, "Aerospace" refers to the two volume draft study entitled Alaska Natural Gas Transportation Systems, prepared by the Aerospace Corporation under contract to the Department of the Interior, and published by the latter in June, 1975. Unhyphenated page numbers (i.e., Aerospace, p. 19) refer to Volume I, containing the executive summary. Hyphenated page references (Aerospace, p. 3-13) refer to the backup material contained in Volume II. "Gruy" refers to the two volume analysis prepared by H. J. Gruy and Associates, Inc., of Dallas, Texas under subcontract to the Aerospace Corporation. The analysis is entitled Gas Supply Study, Alaska Natural Gas Transportation System, Sadlerochit Reservoir, Pruhoe Bay Field, Alaska. Copies of selected pages from these studies are attached. However, all four volumes are available for review and copying in the committee's Anchorage office.

1. (A) What discount rate does your firm use in evaluating field development investment of the sort envisaged in the Prudhoe Bay area?

   (B) If more than one rate is used, indicate the reasons, and the circumstances appropriate to each rate.

2. (A) Are there any circumstance under which a requirement to reinject all gas produced could lead to a reduction in the rate of oil recovery, or in the ultimate recovery?

   (B) If so, explain those conditions and estimate the amount of reduction.

   (C) Are there any circumstances under which the reinjection of gas could be more costly than production of gas for sale?

3. (A) The Aerospace study states (p. 3-30) that gas compression for reinjection will require five percent of the gas as fuel. Is this a reasonable estimate?

(B) How does this compare with the field consumption of gas to be expected under the assumption of maximum production for sale?

(C) Neglecting the gas used as compression fuel, is there any reason why all the re-injected gas could not eventually be recovered?

(D) Assuming that all gas was reinjected, at what point do you estimate the total quantity of gas reinjected would equal the total recoverable gas reserves contained in the reservoir?

(E) Would this quantity (less that consumed in reinjection) actually be recoverable at that point? If more or less, why?

4. (A) Are the cost figures used in the H. J. Gruy model (Aerospace, p. 3-23 and Gruy, p. 10) reasonable?

(B) Aerospace (p. 3-22) indicates that the quantity dependent costs are in addition to the costs of water treatment plants, but no cost figures are provided for such plants. Apparently, there are similar additional capital costs associated with gas processing, to control the water and hydocarbon dewpoints, and to remove carbon dioxide (Aerospace Report, p. 3-8). Please explain the relative costs of these activities, and any other related activity necessary to prepare the gas for sale, so that the committee can have a general idea of why the costs of producing the gas for sale are higher than the costs of production for reinjection.

5. (A) Have you entered into any agreements for the sale of your share of the Prudhoe Bay gas which would require you to produce the gas even if the price obtainable for it was very low?

(B) What minimum price, if any, is mentioned in any gas sale or option agreement covering North Slope gas to which your firm is a party?

6. (A) What will become of the heavier hydrocarbons contained in the gas stream (ethane and heavier) if the gas is reinjected?

(B) If it is sold?

(C) To what extent, if any, has your firm committed itself to the sale of these heavier hydrocarbons?

7. (A) Will the proceeds of the production of gas and oil be shared by the producers on the basis of original oil and gas in place?

(B) If not, then how?

(C) If, as is indicated in Gruy, the production of gas for sale results in a loss of oil, what principal will govern the apportionment of this loss among the field's several owners?

8. (A) The Aerospace study indicates that the future field development costs of gas production for sale exceed the costs of field development under a 100% reinjection assumption by a substantial amount. (Aerospace, p. 19 indicates a difference of $3.8 billion). Does your firm generally believe this to be a realistic prediction?

(B) If so, please explain the reasons for this $3.8 billion difference; if not, why?

9. (A) Pages 3-37 of the Aerospace report indicate that the total costs of producing the gas, considering the lost oil production (at $9/barrel) and the actual field development costs, under maximum pressure maintenance, would be $7.251 billion. Is this a reasonable figure? If not, what would be a reasonable estimate?

(B) The Aerospace report indicates that, assuming a $9/barrel price for oil and a 10% discount rate, the cost of gas production will be $47/MCF (Aerospace, p. 3-38, 3-39). Is this a reasonable figure? If not, what would be a reasonable figure?

10. (A) Would your firm be willing to develop the field for gas production (for sale) if the expected revenue from the gas sales were less than the costs of its production? (In other words, are there any circumstances under which your firm would go ahead with development for gas sales even if the present net worth of the field (or your part of it) were to be reduced thereby?)

(B) Are there any circumstances under which the production of natural gas could be subsidized by the production of oil?

(C) Are there circunstances under which a firm could be compelled to produce the gas even though such production did not make economic sense?

11. (A) The Aerospace study seems to indicate that the maximum gas production from the Prudhoe Bay Reservoir sustainable for any substantial period of time, without undue loss or oil recovery, is about 2.5 BCF/day. Some pipeline feasibility calculations

seem to be predicated on a higher rate of production. Is the Aerospace estimate realistic?

(B) If not, what is a realistic estimate?

SIGNIFICANT FINDINGS

From the sensitivity indications it was clear that pressure maintenance with peripheral water injection yields higher discounted future net revenue (DFNR) values than those obtained from depletion cases. The pressure maintenance cases become more attractive as the prices for oil and gas increase. Oil production rates of 2.0 million bopd appeared difficult to maintain for many years as did gas deliveries above 2.5 bcfd. For the range of oil and gas prices considered, drilling at 160-acre spacing does yield maximum DFNR, but involves a large capital expenditure at a time when reservoir parameters are not very well defined. A prudent choice of 320-acre spacing for preliminary drilling spacing obtains a reasonable DFNR at a moderate risk on capital expenditure. Infill drilling to 160 or even 80-acre spacing could then be deferred until the reservoir is defined and the wells are needed. Gas-oil ratio limits were not critical although DFNR showed unexpected sensitivity to such limits as the gas price increased. Ratios above 15,000 cubic feet per barrel seem to penalize oil production without corresponding economic gains.

Five cases assuming some restrictions on the sale of gas and moderate to maximum usage of injected water for pressure maintenance emerged as being of greatest interest. They are the following:

Case 19 (42126) - This case tests the capability to sustain a 2.0 million barrel per day oil recovery rate, by pressure maintenance with water injection and by reinjection of 95 percent of the produced gas. The gas compression for reinjection requires five percent of the gas as fuel, the oil rate is held to 1.2 million barrels per day for the first four years of production, the gas-oil ratio limit is set at 4,000 cubic feet per barrel, and the minimum well spacing is 320 acres. The total oil produced through year 25 is 7.84 billion barrels with no gas sales.

Case 20 (22326) - This case considers partial pressure maintenance by water injection with the same oil production rate limits of 1.2 million barrels per day for four years increasing to 2.0 million barrels per day thereafter. Gas sales begin after the fourth year of production and are held to 2.5 billion cubic feet per day. With the production of gas cap gas and some increase in water injection, this rate is observed to hold for six years and then to commence a steady decrease. Well spacing and gas-oil ratio limit are the same as for the previous case. Oil production amounts to 6.75 billion barrels with gas sales of 14.448 trillion cubic feet.

Case 21 (22322) - This case modifies Case 20 to reach gas sales of 3.5 billion cubic feet per day and increase the gas-oil ratio limit to 10,500 cubic feet per barrel. Calculated oil production totals 6.26 billion barrels and gas sales are 15.320 trillion cubic feet.

(Continued)

Development and Operating Costs

SADLEROCHIT RESERVOIR

	ESTIMATED COST
DRILL AND COMPLETE TYPICAL WELL	$3,000,000
FIRST WORKOVER	220,000
SECOND WORKOVER	310,000
ABANDONMENT	210,000
FIELD OPERATIONS, MONTHLY	$9,020,000
QUANTITY-DEPENDENT COSTS	
PIPELINE GAS PROCESSING	$0.07/MCF
GAS LIFT COMPRESSION	0.03/MCF
INJECTION GAS	0.05/MCF
INJECTION WATER	0.09/BBL
LIFTED OIL TREATMENT	0.023/BBL

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A two-dimensional three-phase simulator model was used for this study. The vertical equilibrium concept is incorporated in the two-dimensional model to simulate the flow behavior of an oil reservoir overlain by a gas cap and underlain by water.[1] The physics of the reservoir behavior is simulated by a set of differential equations that result from combining Darcy's law and the law of mass conservation for each phase in the system. The equations include the effects of gravity, viscosity, capillarity and fluid and rock compressibilities. The drive mechanism resulting from solution gas is also included in the differential equations. The differential equations are approximated by finite difference equations based on a Taylor's series expansion. The finite difference equations are simultaneously solved for each time increment for oil phase pressures and oil and water saturations by a modified version of the Strongly Implicit Procedure (SIP)[2]. Fluid formation volume factors, solution gas-oil ratio and capillary pressure relationships are updated at each iteration by the Newton-Raphson method. Relative permeabilities and viscosities are explicitly calculated at the beginning of each time step. Calculation of relative permeabilities and capillary pressure relationships are based on the vertical equilibrium concept. A provision is provided to perform workovers on wells depending on assigned water-oil and gas-oil ratio limits.

B. Description of Economics Program (M-3)

The output from the D-2 Model provides data from which annual oil and gas production, gas and water injection, oil, gas or injection wells drilled, workovers performed and wells abandoned can be calculated.

The costs for all field operations are either supplied by card or have been incorporated in the economics program. The principal of these costs are listed on Table 4 for each case. The range of other costs considered but not shown on Table 4 are:

	Minimum Cases 1-21	Maximum Cases 19-23
Well drilling costs (includes contingency for dry holes)	$1,650,000	$3,000,000
First workover cost	75,000	220,000
Second workover cost	100,000	310,000
Well abandonment cost	75,000	210,000

PRUDHOE BAY COST DATA

Cost data were developed from published information, contacts with industry sources and subsequent discussions with Prudhoe Bay Field operators. Field development expenditures for facilities completed prior to January 1, 1975 have been included in the category of sunk costs, a lump sum figure estimated to be approximately $1.2 billion. All costs are based on 1975 prices with no consideration for inflation.

The economics program applies these costs to the output of the D-2 Model which itemizes field activity, such as, the annual volumes of oil and gas produced; of oil produced by means of gas lift; of gas and water injected into the reservoir for pressure maintenance, etc. The monthly costs for field operations are incremented by the costs for drilling and completion of additional wells required for production or injection. Finally, wells are worked over accordingly to a set of prespecified rules, such as the following set for the occurrence of a gas-oil ratio above the limit specified for the simulation.

1. First workover, performations are moved down one-half of original perforation interval and total perforated interval remains the same.

2. Second workover, perforations are reduced to the lower one-half of the previous thickness.

3. The third time the gas-oil ratio is exceeded, the well is abondoned.

The quantity-dependent costs are in addition to the capital expenditures provided for associated facilities, e.g., the injected water cost per barrel is added to the cost of water treatment plans and water injection wells.

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GAS PRODUCTION AND SALE

With the further development of the field made possible by completion of the Alyeska oil pipeline, oil and associated gas will be produced. While facilities will exist to reinject this gas for pressure maintenance, it is expected that substantial quantities of gas will be available for sale.

In this schematic, a typical production site is shown in relation to the subsurface reservoir in the Sadlerochit Formation. For illustrative purposes, the three wells are, from left to right, a gas injection well, a gas producer (reversible for injection), and an oil well. All have been drilled directionally from a common pad or drill site which will eventually accommodate 6 to 20 wells.

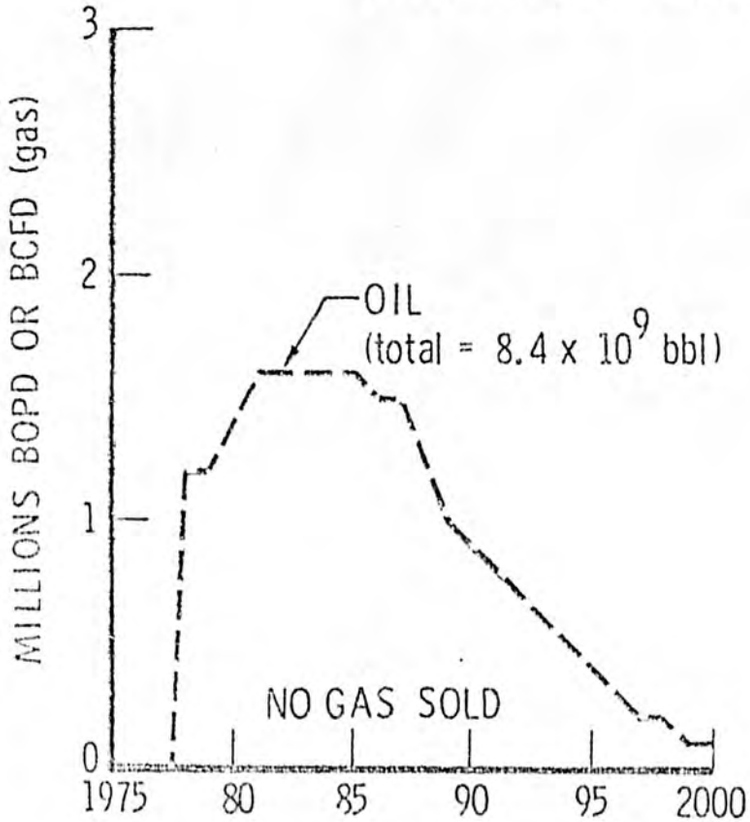
Production from three or four such sites will be processed at flow stations where the initial separation of gas, oil, and water occurs. The gas gathering system collects all of the produced gas at a central processing facility for further treatment to remove condensable liquids and for two-stage recompression to required injection pressures.

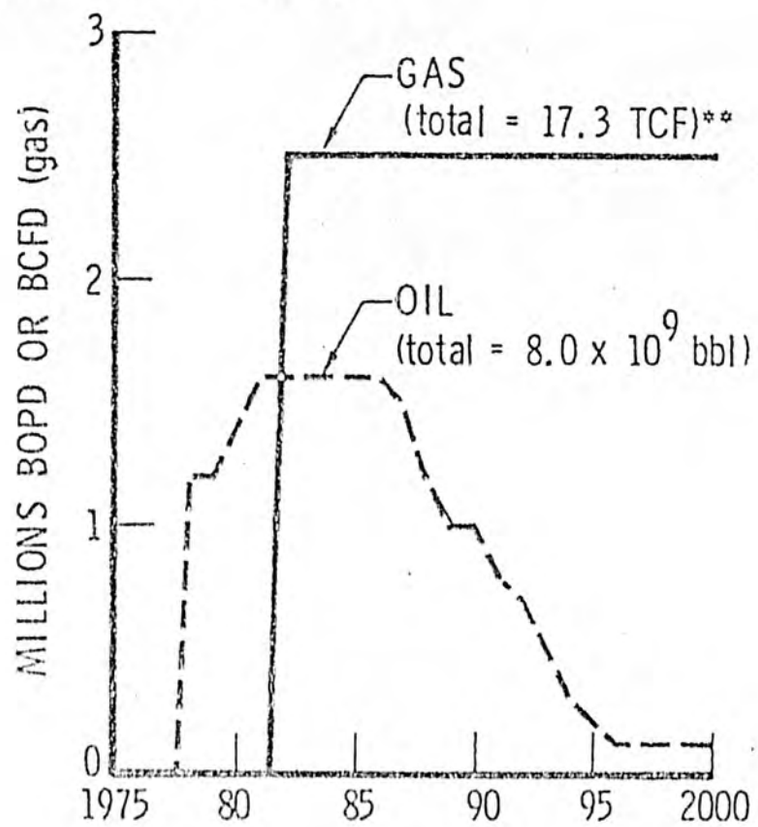
Gas not required for reinjection or other use will be processed for carbon dioxide removal and control of the water and hydrocarbon dew points before being routed through the first stage compressors for delivery to the pipeline point of sale.

Reservoir pressure, depleted by the withdrawal of oil and gas, can be maintained by the injection of water separated from the production stream at the flow station or obtained from other sources. Although the introduction of water increases the ultimate recovery of hydrocarbons, the collection, processing, and injection of water involves both plant and operating expenditures which add significantly to the field development costs.

Prudhoe Bay Gas Supply

MAXIMUM PRESSURE MAINTENANCE IN SADLEROCHIT RESERVOIR
DAILY RATES OF SADLEROCHIT GAS AND OIL SALES





GAS SALES	NONE	2.5 BCFD
FIELD DEVELOPMENT COST*	$8.2 billion	$12.0 billion
COST PER MCF (Base Case)	- -	$ 0.47

* Estimated Future Expenditures Only

** 17.8 tcf Through Year 2000

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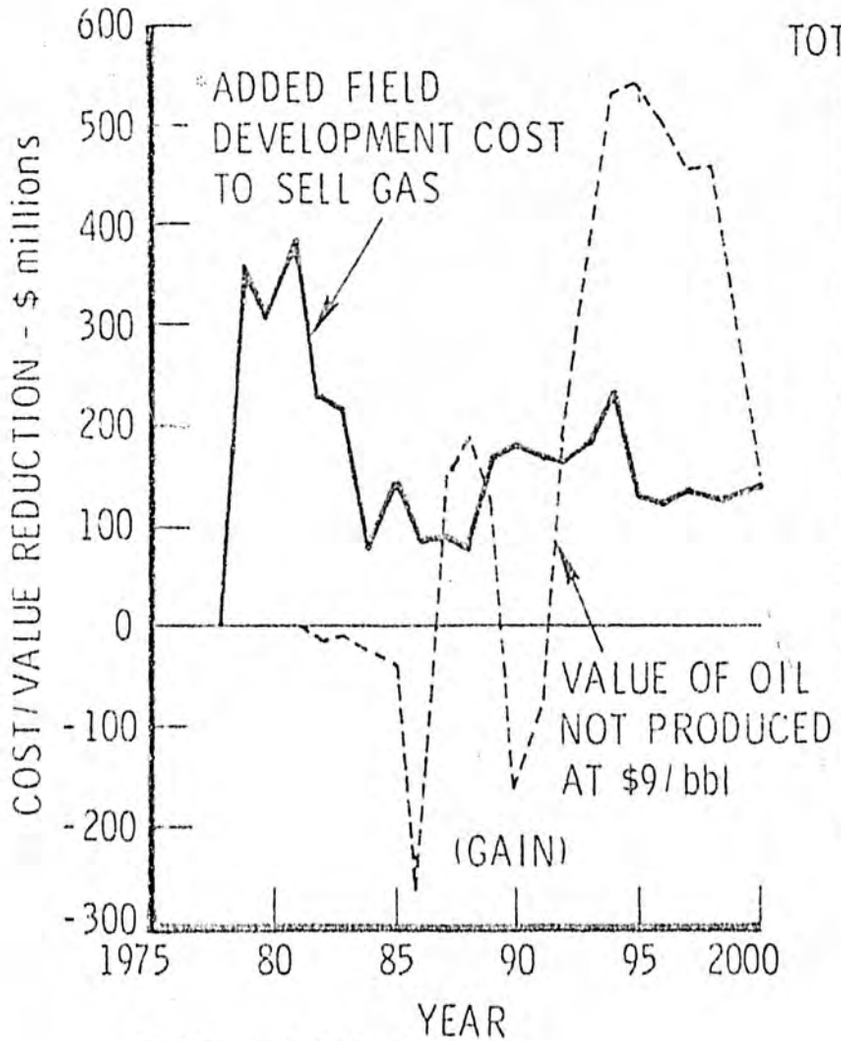
Resource Cost of Gas

MAXIMUM PRESSURE MAINTENANCE IN SADLEROCHIT RESERVOIR
2.5 BCFD GAS SALES vs NO GAS SOLD - 44402/44102



* Estimated future expenditures only

TOTAL** RESOURCE COSTS TO SELL GAS - $ millions

DISCOUNT RATE	OIL PRICE		
	$5/bbl	$9/bbl	$12/bbl
0%	5,727	7,251	8,394
5.0%	2,907	3,463	3,880
7.5%	2,183	2,523	2,778
10.0%	1,695	1,907	2,066
12.5%	1,349	1,477	1,573
15.0%	1,109	1,193	1,256
20.0%	785	817	841
25.0%	586	594	600

** Sum of field development cost to sell gas and gross value of oil not produced if gas is sold

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PRODUCERS COST OF GAS

As a practical measure of merit in comparing field development patterns, discounted future net revenue (DFNR) from the production and sale of both oil and gas has been calculated from the viewpoint of the field operators who must pay all production costs out of net (working interest) revenues after deducting production (state severance) taxes.

The fundamental concept described for establishing a resource cost of gas from any pair of field development options which are alike, except for the sale of gas, can also be used to arrive at an incremental unit cost to the operator for producing and selling the gas.

Regarded as a minimum wellhead price, it is that dollar amount per mcf of gas that would make the present discounted value of profits for the oil producing companies when no gas was produced just equal to the present discounted value of profits when gas was produced.

The generalized equation shown on the opposite page serves to calculate such an incremental average cost per mcf from the future field development costs and the forecast quantities of net oil and gas sold for the account of the working interests. The terms used are the same as those defined in the earlier explanation of Price-Discount Arrays. The discount rate and its relation to rate of return required by the producer of oil and gas to attract capital is discussed elsewhere in this report.

Using cost and net production figures from the comparative cases 44402 and 44102, previously discussed for maximum pressure maintenance in the Sadlerochit reservoir, and assuming a wellhead price of $9 per barrel for oil, yields the curve at the right for a unit cost of selling gas which just equals the sum of added field cost, reduced oil revenues, and severance taxes. At 10%, the value is approximately $0.47/mcf. For other prices of oil (P_o) at the same discount rate, the price of gas (P_g) needed to cover operators costs for this pair of cases is:

$$P_g(44102, 44402) = \$0.377 + 0.0108\ P_o$$

The constant term ($0.377) is the amount per mcf which can be attributed to the development and operating cost of selling the gas over reinjecting it and the determinant of the second term is literally the fraction of a barrel of oil which would not be sold for each mcf of gas which was sold. In these cases, an effort was made to minimize the effect of the variable term by planning the field development for like volumes of oil production when gas was produced as when it was not. The difference of 1% of a barrel per mcf is probably nearing practical limits of such achievements.

Producers Incremental Unit Cost of Gas

MAXIMUM PRESSURE MAINTENANCE IN SADLEROCHIT RESERVOIR

2.5 BCFD GAS SALES vs NO GAS SOLD

$$P_G = \frac{\sum \frac{P_O(1-T_O)\bar{Q}_O^t - \bar{C}^t}{(1+R)^t} - \sum \frac{P_O(1-T_O)Q_O^t - C^t}{(1+R)^t}}{(1-T_G)\sum \frac{Q_G^t}{(1+R)^t}}$$

P_G = INCREMENTAL UNIT COST OF GAS ($per MCF)

P_O = WELLHEAD PRICE FOR OIL ($per barrel)

T_G = SEVERANCE TAX ON GAS

T_O = SEVERANCE TAX ON OIL

Q_G = NET VOLUME OF GAS SOLD (MCF)

Q_O = NET BARRELS OF OIL SOLD IN CONJUNCTION WITH Q_G

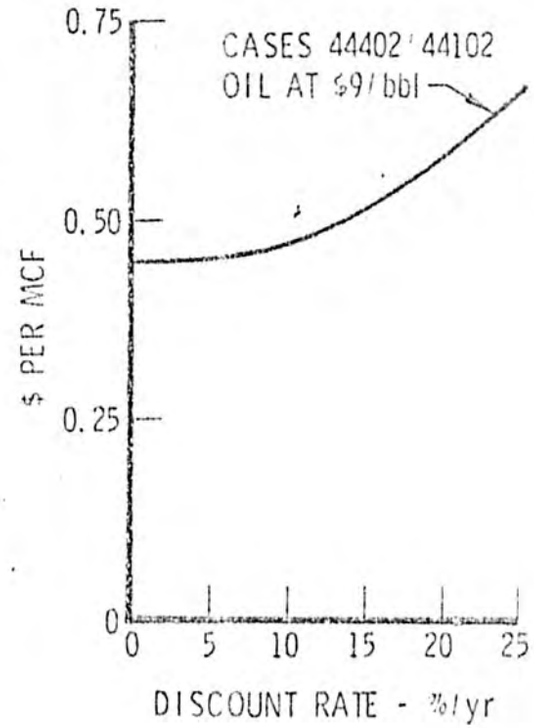
$\bar{Q}_O$ = NET BARRELS OF OIL SOLD IF GAS WERE NOT SOLD

$\bar{C}$ = DEVELOPMENT COSTS IF GAS WERE NOT SOLD

C = DEVELOPMENT COSTS IF BOTH GAS AND OIL WERE SOLD

R = DISCOUNT RATE

t = YEARS



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Replies to Questions
from
Alaska State Legislature - Joint Gas Pipeline Impact Committee
Concerning
"The Prudhoe Bay Natural Gas Reservoir and Related Materials"

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1. A and B

We do not have a single discount rate that we apply to all oil field projects. We use a range of rates to investigate the sensitivity of this factor, and to cover a range of risks that we judge might occur, consistent with good business practice. 15-20 vmbl

2. A and B

There are circumstances under which a requirement to reinject all the gas produced might lead to a reduction in the rate of oil recovery and the loss of ultimate oil recovery. However, these are hypothetical circumstances; under good reservoir management schemes we would inject water if necessary in sufficient quantities to prevent this happening.

C

Yes, there are circumstances where gas injection is more costly than gas production for sales. The factors that must be considered are:

i. The cost of gas injection equipment.
ii. The cost of gas sales processing equipment.
iii. The cost of water injection to offset gas sales.
iv. The wellhead price of gas.

3. A

The estimate is reasonable.

B

The amounts of fuel gas used in reinjection and in sales gas processing are about the same.

3. C

No.

D

Never under good reservoir management.

E

It should all be recoverable.

4. A

The well drilling/workover costs are reasonable.

Quantity dependent costs are reasonable direct operating costs.

B

Water injection facilities plus water injection wells are estimated to cost $1.3 billion.

Gas conditioning plant additions for gas sales to augment the compressors used for injection we estimate at $500 million.

The reason for the extra plant required for gas sales is that the reinjected gas contained about 12% carbon dioxide plus heavy hydrocarbon gases. These gases would be removed before transmitting the nearly 100% methane through a pipeline.

5. A and B

BP Alaska has committed to negotiate a gas sales contract with a gas company. No specific price is mentioned within the contract but would be the highest prevailing price on the North Slope.

6. A

Some of the heavier hydrocarbons are recovered before the gas is reinjected. They are retained in the crude oil. The remainder are initially reinjected.

B

More of the heavier components will be removed when the gas is processed for sale. As much as possible of these products will be blended with the crude oil; the remainder could be used as fuel on the field, thus releasing more natural gas.

C

No commitments have been made.

7. A and B

The sharing of oil and gas production on the field is being discussed in unitization meetings that are in progress. This allocation will be related oil and gas in place.

C

We do not believe there will be a loss of oil recovery from gas sales.

8. A

No, the Study estimate of $3.8 billion is too high. unless includes operating costs

B

Our estimate for the total investment cost, including water injection for gas sales of 2.5 BCF/Day, is $1.8 billion.

9. A

The Study estimate is too high for two reasons:

(1) Total investment for gas sales is too high (see 8. B).

(2) No oil loss is expected.

B

The reservoir is complex and the productions of oil and gas are interrelated, and pre-unit committees are now working on the allocations of costs between oil and gas productions. Until these are resolved we cannot be specific about production costs.

10. A and B

We would not normally produce a reservoir where costs exceed revenue. However, Prudhoe Bay contains both oil and gas and we would look at the overall benefits of producing both, as their production costs are interrelated.

C

We do not foresee any.

11. A and B

The maximum gas production rate of 2.5 billion sc/day is reasonable. It is, however, dependent on two factors:

(a) An oil production rate of 1.5 millions b/d which will produce about half the gas.

(b) Injection of water as necessary into the reservoir to replace the gas voidage in the gas cap zone of the reservoir.

hydrostatic tests

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED AS A UNIT IN THE ORIGINAL DOCUMENT.

Joint Gas Pipeline Impact Committee
HEARINGS
December 10-11, 1975

Senator John Rader opened the meeting. Senator Kay Poland made the motion that John Rader be Chairman. Senator John Huber seconded that motion. Senator John Rader was then made Chairman and Representative Clark Gruening was made Vice-Chairman.

The following is a brief summary of the December 10 and 11 Hearings. A more detailed transcription will be made.

December 10:

Forrest Garb, President of H.J. Gruy and Associates presented testimony in the morning

December 10:

The afternoon testimony in answer to Gregg Erickson's questions was presented by B.P.Alaska, Kenneth Keep ; Exxon Co. USA, Justin Miller; and ARCO, Howard Slack. Each submitted written statements.

December 11:

The Department of Revenue, Tom Williams of the Petroleum Revenue Division spoke on revenue from natural gas production and answered questions from Eric Eckholm's letter. David Knudsen of the Petroleum Revenue Division continued to answer questions favoring a trans-Alaska line as being more beneficial with higher revenues to the state than the Arctic Gas route. The net present value today being $100-200 million. He also mentioned that deregulation of natural gas will not lead to instantaneous release of natural gas supply; it will not create new supplys. There is no alternative cheap resource. The establishment of a well head price lies between 50¢-$1.00. Continual change disrupts an exact figure.

December 11, afternoon:

Guy Martin, Commissioner of the Department of Natural Resources presented a brief written statement and an outline for subsequent testimony: a. demand vs. surplus; b. reservoir study implications; c. status report of Royalty oil and gas Board. He pointed out that the surplus study will change having to deal with projections of state needs to match time period for need. It is difficult to make any reliable projection for a 10-15 year period.

Pat Dobey, Division of Geological & Geophysical Survey presented map scenarios of Open File 90-92 dealing with how we've used energy in Alaska in the last three years to 1974. Last year, 241 BCF was actually used from what came out of the ground.

The Reservoir Study is a conservation tool. It was mentioned that early production of gas does have implications on the production of oil.

Hoyle Hamilton from the Division of Oil and Gas also presented map scenarios

Witnesses appearing before the Committee were Arlon Tussing, ISEGR; John C. Bennett, El Paso Natural Gas Co.; Amos Matthews, Alaskan Arctic Gas Co.; and Dr. Vic Fischer, Director ISEGR who recommended that a study be made of each route: El Paso and Arctic as each have different economic affects.

Following was a short business meeting that closed the day.

Two motions were made during the business meeting. One motion made by Senator Huber to allocate $500 for a study of methanol was defeated.
Another motion allowing staff to continue working for the Committee in Juneau was carried.

AtlanticRichfieldCompany

Legal Division
Post Office Box 360
Anchorage, Alaska 99510
Telephone 907 277 5637

M. K. Singletary
Regional Attorney

December 8, 1975

Joint Gas Pipeline Impact Committee
Alaska State Legislature
425 G Street, Suite 750
Anchorage, Alaska 99501

Attn: Mr. Eric Eckholm

Gentlemen:

Enclosed for the Committee's consideration is Atlantic Richfield Company's response to the list of questions submitted with your letter of December 19, 1975.

It is presently contemplated that Howard A. Slack, Vice President and Resident Manager, will make a brief statement on behalf of Atlantic Richfield Company during the hearing on December 10.

Very truly yours,

M. K. Singletary

M. K. Singletary

MKS:ajd

Encl.

CC: H. A. Slack

ATLANTIC RICHFIELD COMPANY TESTIMONY
JOINT GAS PIPELINE IMPACT COMMITTEE HEARING
ALASKA STATE LEGISLATURE
ANCHORAGE, ALASKA - DECEMBER 10, 1975

1A. What discount rate does your firm use in evaluating field development investment of the sort envisaged in the Prudhoe Bay area?

1B. If more than one rate is used, indicate the reasons and circumstances appropriate to each rate.

Our Company's evaluations of field development investments are based on economics after federal income tax, using a single discount rate with all risks treated as a part of project costs. The specific discount rate we use is confidential, but it primarily reflects the cost of capital and varies with time. The Aerospace study based its economic evaluations on a discount rate of 10% before federal income tax and assumed no inflation. This rate of return is too low for evaluating field development investments.

The total economics of a field that is being developed should reflect a much higher rate of return than is used as the economic criterion for incremental field development investments (i.e., much higher than the discount rate discussed above). In general, a field that is being developed represents a successful project. A company's successes must pay for their unsuccessful ventures such that the company can make a reasonable rate of return on their overall exploration and development program. A report entitled "Calculation of New Oil Costs, United States, Years 1959 through 1974" dated May 1, 1975, which was prepared by LaRue, Moore and Schafer, Petroleum Consultants, as a basis for testimony by

Mr. Robert R. Nathan, Robert R. Nathan Associates, Inc., before the Senate Committee on the Interior on April 28, 1975, stated that a 15% discounted cash flow rate of return to the producers (after federal income taxes) is "the minimum required in our opinion, to maintain exploration levels."

2A. Are there any circumstances under which a requirement to reinject all gas produced could lead to a reduction in the rate of oil recovery or in the ultimate recovery?

2B. If so, explain those conditions and estimate the amount of reduction.

From a reservoir mechanics standpoint, there is no reason prolonged reinjection should affect oil producing rate or ultimate recovery. However, from an economics standpoint, there probably would be a point where it would be impractical to add injection compressor capacity to maintain the oil rate. At this point the oil producing rate could be sustained and perhaps increased if gas were sold. An additional one billion cubic feet of gas per day could be compressed to sales line pressure with the same compression equipment initially used for reinjecting gas. The increased capacity to handle produced gas in this manner could accommodate increased oil rates from the existing wells.

2C. Are there any circumstances under which the reinjection of gas could be more costly than production of gas for sale?

All the cases we have studied for reinjection of gas include the eventual sale of gas. The reinjection case in the Gruy study terminates in the year 2000 without gas sales. It has no costs or revenue for gas sales. When gas is eventually sold, gas reinjection over a long term should be more costly than early gas sales, both in terms of gas

handling equipment and operating costs. This would occur because the same sales gas compression and processing facilities would be required for late gas sales as for early sales. However, during the prolonged injection period, more costly compression equipment would be required because two stages of compression are needed to reinject gas while only one is required for sales. The long delay of gas sales for reinjection also would extend the producing life of the field, causing additional operating and maintenance costs. Inflation will also cause gas sales to cost more for the delayed gas sales case than for the early gas sales case.

3A. The Aerospace study states (p. 3-30) that gas compression for reinjection will require 5% of the gas as fuel. Is this a reasonable estimate?

Yes. Consumption of 5% of the produced gas as compressor fuel for reinjection is a reasonable estimate. An additional 5% would be consumed as fuel in the operation of the separation centers and the power plant, giving a total consumption for field fuel of about 10%.

3B. How does this compare with the field consumption of gas to be expected under the assumption of maximum production for sale?

There are, of course, many reservoir management alternatives in the gas sales and reinjection programs with many uncertainties regarding fuel consumption in each program. However, we believe that field fuel consumption for a long-term gas reinjection program would be essentially the same as for a program involving early gas sales. Our conclusion is based on the assumption that the reinjection program would provide for gas sales to begin well before oil production ceases.

3C. Neglecting the gas used as compression fuel, is there any reason why all the reinjected gas could not eventually be recovered?

No. From a reservoir mechanics standpoint all the reinjected gas could be recovered. However, when the economics of the operation are considered, all the reinjected gas may not be recovered if a long-term reinjection program were employed.

3D. Assuming that all gas was reinjected, at what point do you estimate the total quantity of gas reinjected would equal the total recoverable gas reserves contained in the reservoir?

The timing for reinjected gas volumes to equal the total recoverable gas reserves is, of course, dependent on the reinjection rate. If prolonged gas injection were anticipated, additional compression might be added to increase the injection rates. Even with the increased rates, the earliest possible timing for injected volumes to equal the total recoverable gas reserves would be about 30 years. With no increased injection capability, the timing would be about 45 years. The utility for such information is not readily apparent. It should be pointed out that some of the reinjected volume would be gas that was produced and reinjected several times, whereas part of the gas that would ultimately be recovered would not have been produced in reaching the described balance.

3E. Would this quantity (less that consumed in reinjection) actually be recoverable at that point? If more or less, why?

Yes. From a reservoir mechanics standpoint all of the reinjected gas could be recovered. However, when the economics of the operation are considered, all of the reinjected gas at the point described in question 3D, may not be recovered.

4A. Are the cost figures used in the H. J. Gruy model (Aerospace 3-23 and Gruy p. 10) reasonable?

The cost estimates used in H.J. Gruy's study do not appear to be unreasonable although they are lower than our current projections. Their estimates are, however, in 1975 dollars and are quite different from the actual expenditures in current dollars (i.e., in the year they are spent) expected to be made for field development and operations. There is a great deal of uncertainty in predicting future investment and operating costs for the Prudhoe Bay Field because of major changes in inflationary trends during the past few years and the complications of operating in the harsh Arctic environment.

4B. Aerospace (p. 3-22) indicates that the quantity dependent costs are in addition to the costs of water treatment plants, but no cost figures are provided for such plants. Apparently there are similar additional capital costs associated with gas processing to control the water and hydrocarbon dewpoints and to remove carbon dioxide (Aerospace Report p. 3-8). Please explain the relative costs of those activities and any other related activity necessary to prepare the gas for sale so that the Committee can have a general idea of why the costs of producing the gas for sale are higher than the costs of production for reinjection?

The Gruy reinjection case terminates in the year 2000 and has no costs or revenue for gas sales. As indicated in our response to Question 2C., the costs of producing gas for sale should not be higher than the costs of reinjection with eventual gas sales. Regardless of when the gas is sold, carbon dioxide and certain natural gas liquids will be removed from the gas stream and the stream will be dehydrated in a gas conditioning facility prior to sales. This facility will be designed to make the Prudhoe Bay gas production meet pipeline quality specifications. The cost of constructing the gas conditioning facility is estimated to

be about $900 million (current dollars based on construction timing for gas sales beginning in 1982).

5A. Have you entered into any agreements for the sale of your share of the Prudhoe Bay gas which would require you to produce the gas even if the price obtainable for it was very low?

The three funding agreements into which we have entered provide the funding party with the exclusive right to negotiate for a portion of Atlantic Richfield's gas in the Prudhoe Bay Field subject to regulatory approvals and various termination provisions on the part of each party dependent on certain happenings or occurrences.

We do not expect the price for Prudhoe Bay gas to be so low that there will be any question with regard to the economic desirability of sale of the gas. Each of the contracts we have made provides for a mechanism for determining the applicable wellhead price in the event the gas continues under price regulation or becomes exempt from price regulation. In the event the contracts are not subject to price regulation, the contract price clauses would ensure that the sales prices would reflect fair market value.

If, on the other hand, the prices under the gas contracts to be negotiated are subject to FPC regulations, then the price would be the highest just and reasonable price set by the Federal Power Commission. At this time we do not know what this price would be, but the present FPC nationwide price for gas at the wellhead is 51¢ per MCP plus applicable BTU adjustment and sales taxes, and we feel sure that the nationwide price for gas at the time of first sales from Prudhoe Bay (1981-1983) will be

considerably higher. We recognize that the present nationwide area rate price of the FPC does not apply to Alaskan gas, and we would expect the Alaskan price to be higher than the nationwide price because of the greater costs involved in Alaska.

5B. What minimum price, if any, is mentioned in any gas sales or option agreement covering North Slope gas to which your firm is a party?

As mentioned in our response to Question 5A., we have entered into funding agreements with Pacific Lighting Gas Development Company, Panhandle Eastern Pipe Line Company, and Texas Eastern Transmission Corporation. The contracts between Atlantic Richfield and Panhandle Eastern Pipe Line Company and Texas Eastern Transmission Corporation provide, in part, as follows (the contract with Pacific Lighting Gas Development Company provides roughly the same):

> "(a) The contract gas sales price under regulation shall be negotiated to the highest of (1) the highest price provided in any long-term Prudhoe Bay contract for delivery of substantial volumes of gas to the lower 48 states or (2) the highest applicable just and reasonable rate adopted by the Federal Power Commission of (3) the highest nationwide area rate in effect in 1975 adjusted for applicable Alaska taxes and inflation to date of first deliveries.
>
> "(b) The contract gas sales price absent regulation shall be negotiated to the highest of (1) commodity value in Buyer's market less treating and transportation costs to such market, (2) any higher price then payable under any other long-term Prudhoe Bay

contract for delivery of substantial volumes of gas to the lower 48 states, and (3) a negotiated minimum price not less than the highest nationwide area rate in effect in 1975 adjusted for Alaska taxes and inflation to date of first deliveries.

"(c) Other pricing provisions shall include but not be limited to full BTU adjustment, 100% tax reimbursement, excess royalty clause, escalation and redetermination clauses and Seller's right to file for special relief."

6A. What will become of the heavier hydrocarbons contained in the gas stream (ethane and heavier) if the gas is reinjected?

We have no plans to initially construct facilities for removal of heavier hydrocarbons from the gas stream. These hydrocarbons will be reinjected along with the gas. If a long delay in gas sales were incurred, the economics of installing facilities to extract the heavier hydrocarbons prior to gas sales would be studied.

6B. What will become of the heavier hydrocarbons contained in the gas stream (ethane and heavier) if the gas is sold?

When the gas is sold, most of the ethane and heavier will remain in and be sold with the gas stream or will, if Atlantic Richfield exercises an option in its gas contracts, be recovered from the gas stream, taken in kind, and utilized elsewhere. Certain liquids will be separated out in the gas conditioning plant. Atlantic Richfield retains the option to take these liquids or leave them for disposal by the gas purchasers.

6C. To what extent, if any, has your firm committed itself to the sale of these heavier hydrocarbons?

None. As mentioned in our response to Question 6B, above, Atlantic Richfield has the option to further process the gas stream for removal of ethane and heavier liquids.

7A. Will the proceeds of the production of gas and oil be shared by the producers on the basis of original oil and gas in place?

Proceeds of production will not, of course, be shared on any basis. The owners of tracts overlying the Prudhoe Bay Field signed a Letter of Intent which was submitted to the State at the Prudhoe Bay Field Rules Hearing in 1969. The letter provided that each owner would work toward a unit agreement providing for the development, production and operation of the field as if its area had been included in a single lease. The Letter of Intent provides that ownership in separate oil rim and gas cap participating areas within the unit is to be based upon oil and gas originally in place with each tract in each participating area being allocated its appropriate percentage of production. The field owners are currently involved in unitization negotiations which should resolve all the details of the production sharing problem.

7B. If not, then how?

As indicated in our response to Question 7A., final agreement has not been reached on all the details for sharing oil and gas production from the Prudhoe Bay Field.

If as is indicated in Gruy, the production of gas for sale results in a loss of oil, what principle will govern the apportionment of this loss among the field's several owners?

Provisions will not be made for sharing any hypothetical "loss of oil" or gain of oil, but only for sharing the oil and gas actually produced. The so-called "loss" of production in Gruy's report is in reality a difference in estimates of recovery through the year 2000 for different reservoir management programs determined theoretically through the use of a mathematical reservoir simulation program.

8A. The Aerospace study indicates that the future field development costs of gas production for sale exceed the costs of field development under a 100% reinjection assumption by a substantial amount (Aerospace - p.19 indicates a difference of $3.8 billion). Does your firm generally believe this to be a realistic prediction?

We have not studied the same cases for gas sales and reinjection as those provided by Gruy for the Aerospace study. The reinjection case they have studied terminates in the year 2000 and has no costs or revenue for gas sales. We do not believe that a program which does not provide for eventual gas sales is realistic. We also note that the Aerospace cases do not appear to be optimized and improvements might be made which would reduce the difference between the two plans in both field development costs and ultimate recovery. Although we do not have adequate data to determine the validity of the quoted $3.8 billion difference in field development costs for the assumed conditions of the two Aerospace cases, we have reviewed component parts of Gruy's cost estimates and do not find them to be unreasonable.

8B. If so, please explain the reason for this $3.8 billion difference. If not, why?

It is our understanding that the $3.8 billion difference in development costs between the gas sales and reinjection cases includes both capital expenditures and operating costs. However, we suggest that Gruy is in a better position to report on the specific causes for the difference.

9A. Pages 3-37 of the Aerospace Report indicate that the total costs of producing the gas considering the lost oil production (at $9/bbl.) and the actual field development costs under maximum pressure maintenance would be $7.251 billion. Is this a reasonable figure? If not, what would be a reasonable estimate?

$3.8 billion of the total $7.251 billion reported cost of gas production represents the added field development costs discussed in Questions 8A and 8B. The remaining $3.45 billion is based on the 400 million barrels "lost oil production" with gas sales as compared with a reinjection program.

The Aerospace report indicates that 400 million barrels less oil will be recovered by the gas sales program as compared with the reinjection program but states on pages 3-34 that "it is reasonable to suppose that the small percentage reduction in oil recovery forecast between the two cases would be reduced even further through practical experience gained in operating the field." We are certainly in agreement with this conclusion.

For an analysis of hypothetical hydrocarbon losses to be complete, the recovery of gas, natural gas liquids, and condensate, as well as oil, must be considered in comparing

gas sales with a reinjection program. Although we have not quantified the effects of early gas sales on hydrocarbon recoveries other than for black oil, we believe that directionally earlier gas sales will provide a greater recovery of natural gas, natural gas liquids and condensate. It is also important to note that the gas sales case would bring to the U.S. energy market 42% more energy prior to the start of the 21st century than would the gas reinjection program.

9B. The Aerospace Report indicates that assuming a $9/bbl. price for oil and a 10% discount rate, the cost of gas production will be $.47/MCF (Aerospace p. 3-38 and p. 3-39). Is this a reasonable figure? If not, what would be a reasonable figure?

The 47¢/MCF gas production cost indicated in the Aerospace report is part of a national economic benefit analysis and is not indicative of the true cost of production. The assumptions that go into the national economic benefit analysis which make it unrealistic from a producer's standpoint are: (1) all costs are in 1975 dollars, (2) federal income taxes are excluded, and (3) the 10% before tax discount rate is not sufficient in the current high inflation environment to provide an adequate incentive to find new gas reserves. The current replacement cost for gas reserves is much higher than the reported 47¢/MCF.

10A. Would your firm be willing to develop the field for gas production (for sale) if the expected revenue from the gas sales were less than the cost of its production? (In other words, are there any circumstances under which your firm would go ahead with development for gas sales even if the present net worth of the field (or your part of it) were to be reduced thereby?)

No.

10B. Are there any circumstances under which the production of natural gas could be subsidized by the production of oil?

We do not foresee any circumstances where production of natural gas (for sale) from the Prudhoe Bay Field would be subsidized by the production of oil.

10C. Are there circumstances under which a firm could be compelled to produce the gas even though such production did not make economic sense?

Federal Power Commission regulations require that the price of gas sold in interstate commerce be "just and reasonable." This, by definition, requires that a reasonable profit be realized on such sales. We anticipate no circumstances which would compel a firm to produce the gas (for sale) even though such production would be uneconomic.

11A. The Aerospace study seems to indicate that the maximum gas production from the Prudhoe Bay reservoir sustainable for any substantial period of time without undue loss of oil recovery is about 2.5 BCF per day. Some pipeline feasibility calculations seem to be predicated on a higher rate of production. Is the Aerospace system realistic?

The gas sales rate that could be sustained from the Prudhoe Bay reservoir for any substantial period of time is, of course, sensitive to the starting date for gas sales. Based on the assumed gas sales date of the Aerospace study, we believe that the 2.5 BCF per day estimate is realistic.

11B. If not, what is a realistic system?

As indicated above, we believe that the Aerospace system is realistic.

Replies to Questions
from
Alaska State Legislature - Joint Gas Pipeline Impact Committee
Concerning
"The Prudhoe Bay Natural Gas Reservoir and Related Materials"

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1. A and B

We do not have a single discount rate that we apply to all oil field projects. We use a range of rates to investigate the sensitivity of this factor, and to cover a range of risks that we judge might occur, consistent with good business practice. 15-20 rmbl

2. A and B

There are circumstances under which a requirement to reinject all the gas produced might lead to a reduction in the rate of oil recovery and the loss of ultimate oil recovery. However, these are hypothetical circumstances; under good reservoir management schemes we would inject water if necessary in sufficient quantities to prevent this happening.

C

Yes, there are circumstances where gas injection is more costly than gas production for sales. The factors that must be considered are:

i. The cost of gas injection equipment.
ii. The cost of gas sales processing equipment.
iii. The cost of water injection to offset gas sales.
iv. The wellhead price of gas.

3. A

The estimate is reasonable.

B

The amounts of fuel gas used in reinjection and in sales gas processing are about the same.

3. C

No.

D

Never under good reservoir management.

E

It should all be recoverable.

4. A

The well drilling/workover costs are reasonable.

Quantity dependent costs are reasonable direct operating costs.

B

Water injection facilities plus water injection wells are estimated to cost $1.3 billion.

Gas conditioning plant additions for gas sales to augment the compressors used for injection we estimate at $500 million.

The reason for the extra plant required for gas sales is that the reinjected gas contained about 12% carbon dioxide plus heavy hydrocarbon gases. These gases would be removed before transmitting the nearly 100% methane through a pipeline.

5. A and B

BP Alaska has committed to negotiate a gas sales contract with a gas company. No specific price is mentioned within the contract, but would be the highest prevailing price on the North Slope.

6. A

Some of the heavier hydrocarbons are recovered before the gas is reinjected. They are retained in the crude oil. The remainder are initially reinjected.

B

More of the heavier components will be removed when the gas is processed for sale. As much as possible of these products will be blended with the crude oil; the remainder could be used as fuel on the field, thus releasing more natural gas.

C

No commitments have been made.

7. A and B

The sharing of oil and gas production on the field is being discussed in unitization meetings that are in progress. This allocation will be related oil and gas in place.

C

We do not believe there will be a loss of oil recovery from gas sales.

8. A

No, the Study estimate of $3.8 billion is too high.
unless includes operating costs

B

Our estimate for the total investment cost, including water injection for gas sales of 2.5 BCF/Day, is $1.8 billion.

9. A

The Study estimate is too high for two reasons:

(1) Total investment for gas sales is too high (see 8. B).

(2) No oil loss is expected.

B

The reservoir is complex and the productions of oil and gas are interrelated, and pre-unit committees are now working on the allocations of costs between oil and gas productions. Until these are resolved we cannot be specific about production costs.

10. A and B

We would not normally produce a reservoir where costs exceed revenue. However, Prudhoe Bay contains both oil and gas and we would look at the overall benefits of producing both, as their production costs are interrelated.

C

We do not foresee any.

11. A and B

The maximum gas production rate of 2.5 billion sc/day is reasonable. It is, however, dependent on two factors:

(a) An oil production rate of 1.5 millions b/d which will produce about half the gas.

(b) Injection of water as necessary into the reservoir to replace the gas voidage in the gas cap zone of the reservoir.

December 10, 1975

STATEMENT BY HOWARD A. SLACK,
VICE PRESIDENT AND RESIDENT MANAGER,
ATLANTIC RICHFIELD COMPANY,
TO THE JOINT GAS PIPELINE IMPACT COMMITTEE
ANCHORAGE, ALASKA

DECEMBER 10, 1975

Mr. Chairman and members of the Committee. We have previously submitted for your consideration answers to the questions posed in your letter of November 19 concerning the Prudhoe Bay natural gas reservoir and related materials. While these answers speak for themselves, I think it is appropriate to note that we are not certain that we fully appreciated the thrust or utility of some of the questions. Further, some of the questions involved so many variables that it was difficult, if not impossible, to provide answers which satisfy all of the variables involved. Thus, some further elaboration or clarification may become appropriate incident to your further consideration of this matter.

Now I would like to briefly summarize the thrust of our answers.

1. Atlantic Richfield Company supports the early sale of Prudhoe Bay natural gas and believes it can be produced and marketed at a competitive price and generate a reasonable return to the producers, the pipeline owners and the State of Alaska. We are firmly convinced that Prudhoe Bay gas can make a substantial contribution to the Nation, both in terms of net economic benefit and in terms of achieving positive steps toward energy independence. Further, early gas sales will allow condensate and natural gas liquids to be recovered when their yields are the highest. In addition, we would expect early gas sales to achieve a greater gas recovery than prolonged reinjection.

2. The Committee's letter of October 23, 1975 requested comments on the Aerospace Study's reported loss of 400 million barrels of oil resulting from early gas sales. The Aerospace Report indicates that 400 million barrels less oil will be recovered by the gas sales program as compared with the reinjection program, but states on page 3-34 that "It is reasonable to suppose that the small percentage reduction in oil recovery forecast between the two cases would be reduced even further through practical experience gained in operating the

field". We are certainly in agreement with this conclusion. In our opinion, this so-called "loss" of 400 million barrels is in reality nothing more than the difference in estimates of recovery through the year 2000 for two different and theoretical reservoir management programs. Further, the "loss" only commences to occur after 1992 and it is probable that experience gained in the field prior to that time would allow variations in well completion intervals, production volumes, water interjection locations, etc. to reduce this theoretical difference in oil recovery.

Thank you very much for your interest and attention.

PLEASE NOTE: THE PRECEDING PAGES WERE TREATED AS A UNIT IN THE ORIGINAL DOCUMENT.

WILLARD BOWMAN
CHAIRMAN

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Alaska State Legislature

JOINT GAS PIPELINE IMPACT COMMITTEE

REVISED AGENDA--PUBLIC HEARINGS--DEC. 11

10:00 am
Department of Revenue, Petroleum Revenue Division

Presentation of state revenue from natural gas.

10:15 Dr. Arlun Tussing

Wellhead price projections of North Slope gas.

11:00am Department of Natural Resources, Div. of Geological and Geophysical Survey.

Testimony regarding current and projected natural gas consumption in Alaska

1:00pm Department of Natural Resources, Division of Oil and Gas

State presentation of Prudhoe Bay Reservoir projections.

1:45pm Royalty Board

Discussion on Royalty Board actions.

2:30pm El Paso

Latest developments of El Paso proposal

3:00pm Arctic Gas

Latest developments of Arctic gas proposal

3:30pm ISEGR, Vic Fisher

State options.

4:00pm Committee work.

WILLARD BOWMAN
CHAIRMAN

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Alaska State Legislature

JOINT GAS PIPELINE IMPACT COMMITTEE

AGENDA FOR PUBLIC HEARINGS
DECEMBER 10-11

COURTROOM K--ALASKA COURT BUILDING

December 11

10:00 a.m. Department of Revenue
Petroleum Revenue Division

Presentation on State revenue from natural gas

11:00 a.m. Department of Natural Resources
Division of Geological & Geophysical Survey

Testimony regarding current and projected natural gas consumption in Alaska.

1:30 p.m. Department of Natural Resources
Division of Oil and Gas

State presentation of Prudhoe Bay Reservoir projections

2:30 p.m. Royalty Board

Discussion on Royalty Board actions. They are meeting in Juneau Dec. 9-10

4:00 p.m. Discussion on future Committee work.

The Agenda may be changed at the discretion of the Chairman or Committee.

WILLARD BOWMAN
CHAIRMAN

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Alaska State Legislature

JOINT GAS PIPELINE IMPACT COMMITTEE

AGENDA FOR PUBLIC HEARINGS
DECEMBER 10-11

COURTROOM K--ALASKA COURT BUILDING

Testimony regarding natural gas supply from the Prudhoe Bay Reservoir:

December 10

10:00 a.m.	H.J. Gruy and Associates
1:30 p.m.	BP Alaska
2:15 p.m.	Exxon Corporation
3:00 p.m.	ARCO Regional Council

There will be opportunity in the afternoon for H.J. Gruy and Associates and the Oil Companies to participate in a "round table" discussion of the major issues.

STATEMENT BY HOWARD A. SLACK,
VICE PRESIDENT AND RESIDENT MANAGER,
ATLANTIC RICHFIELD COMPANY,
TO THE JOINT GAS PIPELINE IMPACT COMMITTEE
ANCHORAGE, ALASKA

DECEMBER 10, 1975

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Now I would like to briefly summarize the thrust of our answers.

1. Atlantic Richfield Company supports the early sale of Prudhoe Bay natural gas and believes it can be produced and marketed at a competitive price and generate a reasonable return to the producers, the pipeline owners and the State of Alaska. We are firmly convinced that Prudhoe Bay gas can make a substantial contribution to the Nation, both in terms of net economic benefit and in terms of achieving positive steps toward energy independence. Further, early gas sales will allow condensate and natural gas liquids to be recovered when their yields are the highest. In addition, we would expect early gas sales to achieve a greater gas recovery than prolonged reinjection.

2. The Committee's letter of October 23, 1975 requested comments on the Aerospace Study's reported loss of 400 million barrels of oil resulting from early gas sales. The Aerospace Report indicates that 400 million barrels less oil will be recovered by the gas sales program as compared with the reinjection program, but states on page 3-34 that "It is reasonable to suppose that the small percentage reduction in oil recovery forecast between the two cases would be reduced even further through practical experience gained in operating the

field". We are certainly in agreement with this conclusion. In our opinion, this so-called "loss" of 400 million barrels is in reality nothing more than the difference in estimates of recovery through the year 2000 for two different and theoretical reservoir management programs. Further, the "loss" only commences to occur after 1992 and it is probable that experience gained in the field prior to that time would allow variations in well completion intervals, production volumes, water interjection locations, etc. to reduce this theoretical difference in oil recovery.

Thank you very much for your interest and attention.