

RESOLUTION NO. 2598

A RESOLUTION of the Port Commission of the Port of Seattle
in support of an ALL ALASKA GAS PIPELINE Route

WHEREAS, the Port Commission of the Port of Seattle has reviewed and studied "Planning Research Report" dated August, 1975 pertaining to the route choice of Alaska's North Slope natural gas pipeline (which report is attached hereto as Exhibit "A" and by this reference incorporated herein), and

WHEREAS, the Port Commission of the Port of Seattle recognizes that the final outcome of a route choice for the natural gas pipeline is of paramount importance not only to the State of Alaska and the Pacific Northwest, but the nation as well, and

WHEREAS, the Alaska Arctic Gas Pipeline or "Canadian" proposal, for a total estimated cost in excess of \$10 billion, will deliver 2.25 billion cubic feet per day of gas to United States customers as opposed to an all Alaska pipeline proposal which, for an estimated cost in excess of \$6 billion, will have a daily delivery of 3.5 billion cubic feet to United States customers, and

WHEREAS, the operating costs for transporting North Slope Alaskan natural gas by the all Alaska proposal versus the Arctic proposal from the gas field to market may be equal or less, and

WHEREAS, the Arctic proposal will require over 6,000 miles of new pipeline approximately 1/6 of which would be through the environmentally sensitive tundra of Alaska and Canada (including Alaska's Arctic National Wildlife Refuge), and

WHEREAS, the all Alaska proposal will involve new pipeline construction primarily along the existing Alyeska Pipeline corridor, making use of existing roads, camps and other support facilities, and

WHEREAS, the all Alaska proposal would utilize thousands of miles of pipeline within the continental United States which are partially idle because of the dwindling West Texas gas supply, and

WHEREAS, the all Alaska proposal will stimulate the United States shipbuilding industry to meet the demand of transportation and will be in compliance with the requirements of the Jones Act, and

WHEREAS, the operation and construction of the all Alaska proposal is entirely within the United States versus the Arctic proposal which would result in an estimated \$6.3 billion net loss to the American economy over the 25 year life of the project, and

WHEREAS, energy is now recognized as a "scarce" resource in a seller's market and foreign political control of United States oil and gas supplies has proved to be not in the best interests of this nation, and

WHEREAS, an all Alaska proposal would assure economic benefits for the State of Alaska, including but without limitation, enhancement of jobs, goods and services within that state, and

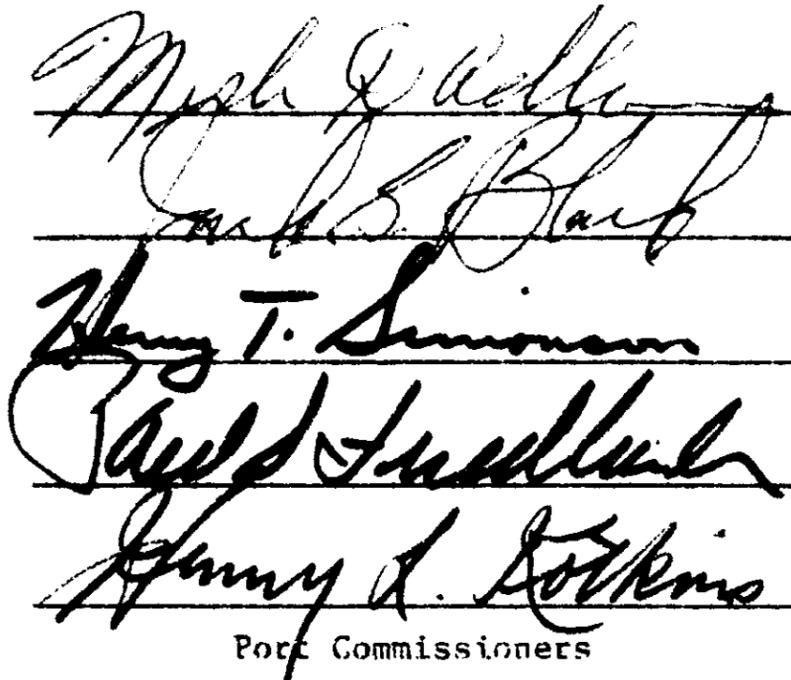
WHEREAS, the State of Alaska has officially adopted the position to support the all Alaska gas pipeline route,

NOW, THEREFORE, BE IT RESOLVED by the Port Commission of the Port of Seattle, in support of the position of the State of Alaska endorsing the pipeline route from Prudhoe Bay to Gravina Point near Valdez, as follows:

1. That an all Alaska Gas Pipeline is fully endorsed and supported as being in the national interest and essential to meet current energy requirements; and
2. That the Arctic proposal is opposed as being contrary to the national interest; and
3. That this Resolution be immediately transmitted to the following:
 - a. The Governor and other officials of the State of Alaska
 - b. Members of the State of Alaska Congressional Delegation
 - c. Members of Alaska State Legislature
 - d. Members of the State of Washington Congressional Delegation
 - e. The Governor of the State of Washington
 - f. Washington Utilities and Transportation Commission
 - g. Alaska State Chamber of Commerce
 - h. Seattle Chamber of Commerce
 - i. United States Chamber of Commerce
 - j. Washington Public Ports Association

ADOPTED BY THE PORT COMMISSION of the Port of Seattle this 16th day of September, 1975 and duly authenticated in open session by the signatures of the Commissioners voting in favor thereof and the Seal of the Commission duly affixed.

(SEAL)


Port Commissioners

DATE: August, 1975

PLANNING AND RESEARCH DEPARTMENT
A. H. Yoshioka, Director

PLANNING RESEARCH REPORT

TITLE: WHY WE SHOULD SUPPORT THE ALL ALASKA
(EL PASO) GAS PIPELINE

Every U.S. citizen has a large stake in the final routing choice of Alaska's North Slope natural gas pipeline--either through Alaska or through Canada. However, now that we have hindsight from the Alyeska Oil Pipeline experience we recognize that the benefits, for the entire nation, are enormous. While we will not experience oil or gas shipments through the Seattle harbor, nearly all Port operations are directly affected by Alaska's economic growth. The gas pipeline, furthermore, is not as susceptible to the violent environmental reactions that the Alyeska Pipeline experienced, thus we have much less to lose by taking a stand on the issue. Final approval for the Alyeska Oil Pipeline decision was decided in Congress. The same will most likely be true for the gas pipeline. However, the Alyeska Oil Pipeline was one proposal in which an alternate Canadian route was raised but the choice was to either approve the Alyeska Pipeline proposal, or not. Routing of the gas pipeline has two different proposals, and approval is sought for either one or the other. Thus the Canadian Alternative, unlike the situation of the oil pipeline, is a clear and viable choice. Logic and economics clearly favor the all-Alaska, El Paso proposal. National politics, however, may presently favor Arctic's proposal - the Canadian route.

The Port of Seattle can contribute some help in the decision-making process in Congress. We cannot change the facts, but we can express our point of view. Route choice, for us, will make a big difference. The following is an outline of the essential elements of the two routing proposals. These we cannot change. Our point of view, however, is important to the decision the U. S. Congress must make to the natural gas consumers of Washington state, and to our largest trading partner--Alaska.

A. The Routing Comparison.

The Alaska Arctic Gas Pipeline is the "Midwest" or "Canadian" proposal consisting of two separate sections. The division of the two sections is based upon criteria of international politics, with the first section originating at Alaskan North Slope and Canadian gas fields and terminating at the U.S./Canadian Border, and the second section being the distribution system within the "lower 48" states. The first section is technically known as the Arctic Gas Pipeline, though both sections are needed to complete the Arctic proposal. The Arctic pipeline is a 2,600 mile pipeline system which originates at Prudhoe Bay, Alaska, and travels easterly into Canada where it is joined by another pipeline from the Mackenzie Delta gas field for a 48 inch, common pipeline to the south. North of Calgary, Alberta, the Arctic pipeline splits into two with a western branch entering Idaho, and an Eastern branch entering Montana. The Western Branch, near the international

border also splits into two sections, with one section serving Northern California, and the other serving Southern California. (The first one of these is an existing pipeline which will be expanded and the second is an entirely new route to Southern California.) The Eastern branch near the U. S./Canadian border, connects with the existing trans-Canada gas pipeline to serve eastern Canadian provinces, then traverses south and east from the International Border toward distribution systems in Illinois and the eastern seaboard destinations. The entire system proposed by the Arctic gas proposal (including the U. S. distribution system) totals 6,300 miles of new pipeline. As proposed, the Pacific Northwest would tap off of the new pipeline destined for Southern California, feeding into Washington State's existing system.

The Trans-Alaska Gas Project is sponsored by the El Paso Alaska Company as an All-Alaska/LNG tanker route. It will utilize the transportation corridor set aside for the Alyeska Pipeline from Prudhoe Bay to an all-weather port between Valdez and Cordova (Gravina Point), Alaska, where the natural gas would then be liquefied for LNG ocean shipping. The primary destination of the LNG would be a port terminal located in Southern California, though Puget Sound and San Francisco facilities may also be served. Eleven LNG tankers would be needed for ocean transportation. In Southern California the LNG would be de-liquefied (regasified) back to natural gas and placed into a new pipeline between the port terminal and existing, underutilized gas pipelines in California. Alaskan gas would then enter existing gas pipeline systems (also underutilized as West Texas gas supplies dwindle) serving Pacific Northwest, Southwest, Midwest and Eastern Seaboard customers. However, through "displacement" (which is explained later), not all regasified LNG from Alaska would be physically transported to Texas, but "traded" in California markets for Texan supplies.

B. Comparative Capital Costs for the Proposed Two Pipeline Systems.

The total cost for the Arctic pipeline has been estimated at an excess of \$10 billion. However, there is an "apples and oranges" consideration when comparing El Paso and Arctic pipeline costs. The Arctic system is currently designed to deliver 4.5 billion cubic feet/day (BCF/day) of gas to both U. S. and Canadian customers, with 1/2 going to each side of the border (i.e., 2.25 billion cubic feet to each). This is a major issue of the two pipeline proposals--the Arctic proposal will get 28% more natural gas to North American (Canadian and U. S.) customers. However, the El Paso proposal will (undoubtedly) deliver more gas to U. S. American customers, by as much as 55% more, since the Canadians have stated many times that they do not intend to "supply the U. S. with excess MacKenzie Delta gas beyond their own needs." The Canadians will not because they will need all the natural gas for their own use and, therefore, there will not be an excess of Canadian gas available to the U. S. market from the Canadian share of the Arctic Pipeline.

The capital cost for the entire El Paso proposal (which includes the Alaska gas pipeline, liquefaction/regasification terminal facilities, LNG tankers and "lower 48" pipeline connections), is estimated at \$6.7 billion. This figure would include a daily delivery of 3.5 billion cubic feet to U. S. customers (vs. 2.25 billion cubic feet for the Arctic proposal). The cost figure should be "clear cut" for comparing

the two Pipeline Alternatives, but it is made complex because of their potentially different delivery amounts. The El Paso proposal delivers 3.5 billion cubic feet/day to the "lower 48" U. S. market at a cost of \$6+ billion. The Arctic proposal, for \$10+ billion, is a guaranteed 2.25 billion cubic feet to the same market, plus 2.25 billion cubic feet to Canadian markets (and the potential of a portion of the Canadian share - as excess to Canadian needs - to the U. S. market). One should keep in mind, however, that an excess of Canadian gas for a U. S. market is highly unlikely. (As an aside, the Canadians have their own plan to serve Canada's markets with Canada's own North Slope, MacKenzie Delta gas. This plan--known as the Maple-Leaf Project--would deliver 2.4 BCF/day at an estimated capital cost of \$2.3 billion (for the main trunk line) to \$4 billion (depending upon the final distribution network selected). Thus, for a true comparison, the Arctic proposal would deliver 4.5 BCF/day to North American customers at a cost of \$10+ billion, while the El Paso and Maple-Leaf project proposals (assuming there is enough gas available) would deliver 5.9 BCF/day to North American customers at an approximate cost of \$9+ billion.)

Nonetheless, the gas sharing aspect of the Arctic proposal raises an interesting cost issue. Consider, for example, that the "net" additional pipeline needed for moving Canadian gas from their MacKenzie Delta gas field to the main Arctic gas pipeline trunk from Prudhoe is only a distance of some 200 miles. Apparently, little or no "net" pipeline is needed at the southern end of the Arctic pipeline trunk for connecting to the existing trans-Canada pipeline for service to eastern Canadian provinces. Thus, 200 miles of new pipeline and an enlarged diameter pipe on most of the route through Canada is, by far, the greatest proportion of the overall cost of the Arctic proposal as it relates to gas for the Canadians. Proponents of the Arctic gas proposal are arguing that for a somewhat greater capital cost (\$10+ billion vs. El Paso's \$6+ billion), a greater economy of scale will lower per unit costs for both U. S. and Canadian customers because of the joint sharing of a higher delivery amount (4.5 billion cubic feet vs. El Paso's 3.5 billion cubic feet). The question that is raised in one's mind, however, is: when viewing the Arctic proposal from a Canadian point of view, why should they (the Canadians), because of the limited "net" pipeline and "piggyback" status, share equally in the overall cost of \$10+ billion (or even their portion from the MacKenzie/Trans-Canada connection) when the net cost of the Canadian portion is much less (perhaps 10%). One can only conclude that in the Arctic proposal the ultimate delivery cost, in terms of U. S. customers, will be based upon 2.25 billion cubic feet being delivered at a capital cost of something approximating an overall cost of \$9 billion; while the Canadians costs will eventually be based upon their "fair" share, or 2.25 billion cubic feet for something around 10% of the \$10 billion or \$1 billion. For the El Paso proposal, 3.5 billion cubic feet will be delivered to U. S. customers at a capital cost approximating \$6+ billion. The Canadians will receive no gas from the El Paso proposal, thus necessitating the expenditure of well over one billion dollars to obtain MacKenzie Delta gas. (In fact, the Maple-Leaf project would cost something over \$2.3 billion for a comparative system.) Thus one can understand why, before either pipeline routing is approved, the Canadians might be encouraging the Arctic proposal, and with "equally shared" costs.

C. Comparative Operating Costs for the Proposed Two Pipeline Systems.

Natural gas customers pay three costs: (1) wellhead price at the gas field, (2) transportation costs from the gas field to market, and, (3) local distribution costs. Since Local Distribution Costs and the gas wellhead price is presumably the same for either pipeline proposal, the gas field to market transportation operating cost (along with amortization of respective capital costs), will determine the actual cost difference for North Slope natural gas to the ultimate consumer.

The primary operating cost for either pipeline proposal is the amount of energy used (and therefore the cost) in gas transportation (primarily for compressors) between the gas field and the customers. The amount of energy consumed in transporting gas in the Arctic gas proposal is 9.6% of the system's 4.5 billion cubic feet per day delivery. Again, the assumption that operating costs would be equally shared by the Canadians and the Americans is naive since the length of the Canadian delivery is much less. Using the same logic as with the capital cost of the system, the gas loss may equal 9.6% of the total 4.5 billion cubic feet per day by the entire system, but the costs for the pipelines' operation will probably be paid for primarily out of the 2.25 billion cubic feet U. S. share. Thus the gas consumption equivalent could be closer to double - say 15% - for the U. S. share of 2.25 billion cubic feet, after an adjustment is made for proportioning Canada's pipeline length to the U. S. pipeline length.

The El Paso proposal, like the Arctic proposal, uses energy for pipeline transportation. However, they also use gas energy for the liquefaction process at the port terminal and for LNG tanker's fuel. The estimated energy used by the El Paso system totals some 12.1% of the system's 3.5 billion cubic feet per day. However, of the 12.1% used in transportation by El Paso, 8%, or two-thirds, is used in the process of liquefying the natural gas. The liquefaction process "concentrates" natural gas to a more economically concentrated form of energy for ocean transportation in LNG tankers. In actuality, however, LNG is merely natural gas energy in a supercold form and, theoretically, is not lost energy since there is a corresponding release of energy when the liquefied gas is regasified at the receiving Port terminal (minus some losses due to friction). Regasified energy is now being used in France and Japan for functions such as food processing and freezing. Theoretically, this energy could even be used to generate electrical power or reduce thermal pollution from electrical generating facilities. Nonetheless, because of potential energy from regasification, there exists a realistic probability for a lower than 8% consumption in the liquefaction stage. Because of this potential energy recovery, as well as LNG tanker efficiency and lower pipeline length, the percentage of energy consumed by the El Paso proposal could be somewhat less than that of the Arctic proposal. This is especially so if one assumes that the Canadians will only pay for their "fair" share, and not an "equal" share. A lower expenditure of energy in the transportation process equates to a lower operating cost.

There is an additional essential factor on the subject of system costs (including capital costs) to consider when comparing the two pipeline proposals. This is the subject of "displacement." Displacement is a term which refers to the "paper" trading by two (or more) gas suppliers for one source of gas supply that is closer to the other's market (and vice versa) with mutual transportation cost savings by both suppliers because less gas is lost from the "physical" movement of their respective gas. For example, because of "displacement," not all of the 3.5 billion cubic feet per day would physically be transported from Southern California to the Midwest in the El Paso proposal. This is because at the present time there is a large volume of gas (and an even larger pipeline capacity) moving from West Texas gas fields to the California market. Also, there is a large volume of gas moving from the West Texas gas fields to the upper Midwest and Eastern Seaboard markets (which also has a large unused pipeline capacity). As natural gas supplies continue to dwindle in West Texas fields, existing gas pipelines increasingly become underutilized. Using "displacement," two things can occur. One, Alaskan gas can be used in the California market so the West Texas gas assigned for the California market can then be "traded" to the Midwest/Northeast. Two, the Texas/California pipeline can then be reversed to physically transport a portion of the Alaskan gas to West Texas where it can supplement the dwindling supply of the West Texas field. Because of displacement, therefore, additional savings accrue to the U. S. consumer because:

- 1) Some of the "traded" gas to the U. S. Midwest/Northeast does not physically move from California, and therefore saves in the transportation fuel cost of moving gas from California to West Texas (to say nothing of the costs saved by not moving gas from West Texas to California), and
- 2) Existing pipelines, both between California and Texas and between Texas and the Midwest/Northeast, are better utilized for their existing capacity, thus lowering their unit costs to additional gas customers.

D. Environmental Impact Comparison.

The Arctic proposal will require 6,000+ miles of new pipeline approximately 1/6 of which would be through the environmentally sensitive tundra of Alaska and Canada (including the Alaska's Arctic National Wildlife Refuge).

In the El Paso proposal almost all new pipeline construction would be in the existing Alyeska Pipeline corridor, utilizing already existing roads, work camps, etc. (There is, however, some 200+ miles anticipated in Southern California.) Instead of the 1,000+ miles of permafrost crossing in the Arctic proposal, El Paso crosses some 200+ miles. Many are already arguing that the real environmental impact from the Alyeska Oil Pipeline will be from the opening of the Alaska tundra to hunters, tourists, etc., once the pipeline access road becomes a public highway. The Arctic proposal would not only open more Alaskan tundra, but the Arctic National Wildlife Refuge and the entire MacKenzie Valley. The environmental disruption from opening the MacKenzie Valley to public

access has to be a strong environmental argument against the Arctic proposal (and the Canadian's Maple-Leaf project as well). The environmental disruption of the El Paso and Arctic Gas proposals, by almost any measure, is comparative with the length of new construction --six to one.

Other than construction, the disruptive environmental effects of the two proposals are less comparable and more subtle. For example, the El Paso proposal utilizes thousands of miles of pipeline within the continental U. S. which are increasingly becoming less utilized because of the dwindling West Texas gas supply. Since LNG tankers and liquefaction/gasification terminal facilities are relatively clean, they are not a major environmental issue (as oil tankers were with the Alyeska Oil Pipeline issue). Other environmental factors might include the respective use of natural resources by each proposal--the amount of steel used is three times greater for the Arctic Proposal vs. El Paso's. This is an important factor not to be taken lightly since the amount of rolled steel tubing used in the Arctic proposal is equal to the entire U. S. rolled steel tubing capacity for a minimum of three years. Several environmental groups are already supporting the El Paso proposal because of its more favorable environmental impact.

E. Employment Comparison.

Employment should somewhat reflect a relationship to capital expenditures: Arctic \$10+ billion, El Paso \$6+ billion. However, shipbuilding would make up a significant portion of the El Paso expenditure, which (because of the Jones Act) would be entirely in the U. S. Though both proposals would undoubtedly turn to the lowest cost pipeline--which usually means foreign steel--El Paso has publically stated that it intends to purchase from U. S. suppliers. El Paso, because of tanker construction, one-sixth less pipeline, LNG terminals and no Canadian participation, will have a greater overall U. S. employment impact during construction, in spite of their lower capital expenditure, by approximately 24,000 for El Paso to approximately 12,000 for Arctic Gas.

F. Balance of Payment Comparison.

Both the operation and construction of the El Paso proposal is entirely within the U. S., which suggests there will be little or no net loss to the U. S. balance of payments. The Arctic proposal has had an estimated \$6.3 billion loss to the American economy over the 25-year life of the project. Whatever the actual price, it only follows that if a substantial portion of the pipeline is in Canada, a substantial proportion of operational and construction costs will also be in Canada. It has been estimated that for each dollar paid by the American consumer in the Arctic Gas project, \$.67 will go to Canada.

G. Control Aspects.

Before the Arab oil crisis of September, 1973, foreign political control of U. S. oil and gas supplies (and their transportation) was a topic for discussion, but seldom used as serious argument. Energy is

now recognized as a relatively "scarce" resource and in a seller's market. The Canadians cannot be expected to act any differently than they have in the past. In the state of Washington, where our price for Canadian gas has gone from \$0.32 per cubic foot to an announced \$1.60 per cubic foot in a two-year period, the message is clear: once the pipeline is in effect there can be no assurance that the provinces of Canada will not tax to "whatever the market will bear."

The provinces of Canada, unlike the states of the U. S., are not bound by national treaties for taxing purposes. The Canadians are developing their own strategies for energy independence, and it is becoming increasingly clear that they will have no excess gas to sell to U. S. consumers. Furthermore, in "times of scarcity" either their national government, or any province, could appropriate the entire Arctic gas supply, Canadian and Alaskan, for Canadian use.

The Canadians have been good neighbors, especially from a military security standpoint. However, they may be less dependable from an economic security standpoint. Total U. S. control of Alaskan resources is becoming one of the most important (albeit unrecognized publicly) arguments in favor of the El Paso proposal over the Arctic. (Furthermore, from a North American national security standpoint, it would appear to be more desirable to have two pipelines, i.e., El Paso and Maple-Leaf, than one, i.e., Arctic.)

H. Timing Considerations.

Timing is an important factor because only so much gas (economically) can be reinjected into the North Slope fields once oil production starts. Time estimates vary, but the early 1980's is probably the latest before either North Slope oil production must be curtailed or the gas flared, and thus wasted entirely. Timing is also important from a balance of payments standpoint, because of the growing demand in the U. S. for imported natural gas, and the rapid increase in the cost of foreign natural gas. As with the environmental argument, the El Paso proposal has a timing advantage because of the Alyeska Oil Pipeline. From a timing standpoint, the Alyeska Pipeline gives the El Paso proposal an overwhelming favorable argument by two to three years because roads, construction camps and support facilities are already in place. The total number of permits needed would be much fewer with the El Paso proposal. The Native Land Claim question in Canada is not resolved and could take years--as did the Alaska Native Land Claims. The competing Maple-Leaf all Canadian project will add time to approval process in Canada (in fact, the Maple-Leaf project could use the extra time to augment their proven reserves). Treaty negotiations between the U. S. and Canada could also add delays. Environmental groups have already stated opposition to the Arctic Gas proposal and approval of the El Paso as the better, less damaging alternative. The sheer distance in pipelaying, 6,000 miles vs. 1,000 miles, suggests a major time difference (shipbuilding is not a time factor since they can be built concurrently with the pipeline - and, at the present time, there is an excess of shipbuilding capacity in U. S. shipyards). Timing, as with the political control argument, is clearly in the favor of El Paso and is becoming more so as time (and inflation) continues to pass.

I. Technological and Safety Aspects.

Both proposals have technological and safety considerations. Technological aspects primarily concern the LNG terminal in Alaska--can it be done? El Paso intends to use a process perfected over a decade ago in Alaska's Kenai peninsula. Even Arctic is not raising the technological aspects of the terminal as an issue. Obviously many technological considerations must be taken into account before a full utilization can be assumed for the "recapturing" of energy released in the regasification process at the receiving terminal in southern California. Safety considerations also concern the LNG portion of gas transport, though there is some concern raised on the safety of the 48-inch diameter pipeline that Arctic intends to use vs. the commonly used 42-inch pipeline that El Paso (and the Maple-Leaf project) intends to use. LNG tanker safety is receiving attention by Maritime experts throughout the world. The physics of LNG make explosions impossible. Natural gas, however, must be handled with a great deal of care, and tanker transfer operations, obviously, must receive the safety precautions necessary to keep safety risks to a minimum. Neither proposal challenges the safety risk aspects of the other.

J. State of Alaska Benefits.

The tax revenue estimated to accrue to all of the U. S. from the Arctic proposal is \$5 billion over the twenty-five year life of the project. The El Paso proposal is twice that, or \$10.7 billion. However, for the state of Alaska, the differences in tax revenues are even more striking with \$2.2 billion accruing from the El Paso proposal and \$311 million from the Arctic proposal, or one-seventh of the El Paso proposal. For jobs in Alaska, El Paso anticipates over 600 permanent employees, Arctic 39. Jobs, goods and services within Alaska during the construction phase would total \$4 billion from the El Paso proposal as compared to \$500 million from the Arctic proposal. Lastly, the El Paso proposal will provide inexpensive access to royalty gas for the State of Alaska, the Arctic proposal will not.

Royalty gas alone is of major importance to the state of Alaska--much of their future hope for industrialization rests on the availability of low cost energy. Oil, because of refining, is not low cost for Alaska. Gas, however, offers Alaska not only a low cost fuel, but a valuable raw material source as well. The royalty gas, therefore, has a two-pronged effect: a more stable economic base within the state and a lower cost fuel for home uses.

The benefits accruing to the state of Alaska from the El Paso proposal, more than any other point, is important to the Port of Seattle. The same "lower 48" natural gas customers will get equal access to Alaskan North Slope gas supplies from either pipeline proposal, since both pipeline proposals are "contract carriers." However, the differences in impact upon Alaska are substantial between the two proposals. The El Paso gas pipeline could be another Alyeska pipeline in terms of economic development. With the Arctic proposal, very little impact will be felt in Alaska, or in Puget Sound. Thus, the Port of Seattle has a great deal to gain from the All Alaska/El Paso proposal, since Alaska is still our most important trading partner.

Logic favors the El Paso proposal over the Arctic gas Arctic proposal from the argument of capital cost, operating cost, less environmental impact, more favorable balance of payments, more desirable political control, more favorable timing and a more favorable economic impact upon Alaska. The gas pipeline, however, may not be decided upon entirely by logic, but politically in the halls of Congress. The El Paso proposal needs all the support possible and the Port of Seattle, like the State of Alaska, has a great deal to win or lose, depending upon which pipeline proposal is eventually accepted.

Source: Conference proceedings, Western Resources Congress, April 2, 3, 4, 1975,

"Arctic Gas - The Most efficient System for Moving Arctic Natural Gas to Consumers Coast to Coast" by Dave Harbour, Director of Public Affairs, Alaskan Arctic Gas Pipeline Company, Anchorage, Alaska, and

"The Trans-Alaskan Gas Project" by Michael C. Holland, Assistant to the Vice President, El Paso Alaska Company, Anchorage, Alaska.

Numerous interviews

Paul Chilcote, Senior Long Range Analyst