DECISION ON AN ALASKA NATURAL GAS TRANSPORTATION SYSTEM

PREFACE—STATUTORY REQUIREMENTS FOR A DECISION ON AN ALASKA NATURAL GAS TRANSPORTATION SYSTEM

Section 7(a)(4) of the Alaska Natural Gas Transportation Act of 1976 (ANOTA) states:
If the President determines to designate for approval a transportation system for delivery of Alaska natural gas to the contiguous States, he shall in such decision—
(A) describe the nature and route of the system designated for approval;
(B) designate a person to construct and operate such a system, which person shall be the applicant, if any, which filed for a certificate of public convenience and necessity to construct and operate such system;
(C) identify those facilities, the construction of which, and those operations, the conduct of which, shall be encompassed within the term "construction and initial operation" for purposes of defining the scope of the directions contained in Section 9 of this Act, taking into consideration any recommendation of the Commission with respect thereto; and
(D) identify those provisions of law, relating to any determination of a Federal officer or agency as to whether a certificate, permit, right-of-way, lease, or other authorization shall be issued or be granted, which provisions the President finds (i) involve determinations which are subsumed in his decision and (ii) require waiver pursuant to section 8(g) in order to permit the expeditious construction and initial operation of the transportation system.

As part of these determinations, an Agreement on Principles concluded with the Government of Canada prescribes various terms and conditions applicable to the construction and operation of the pipeline. The Agreement on Principles is attached hereto as Section 7 of this Decision and made an integral part of the Decision by this reference.

With the incorporation of the aforesaid Agreement, and the finding that it is in the national interest to expeditiously undertake to construct an Alaska Natural Gas Transportation System, the system designation and related statutory determinations are as follows:

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67-359 O—93—8

DOE002-1057
SECTION 1—DESIGNATION OF PERSON TO CONSTRUCT AND OPERATE THE SYSTEM

The Alcan Pipeline Company, now a wholly owned subsidiary of Northwest Pipeline Corporation,1 or its successor, is hereby designated to construct and operate the portion of the system within the State of Alaska.

The Northern Border Pipeline Company, a partnership consisting of subsidiaries or affiliates of Columbia Gas Transmission Corporation, Michigan-Wisconsin Pipeline Company, Natural Gas Pipeline Company of America, Northern Natural Gas Company, Panhandle Eastern Pipe Line Company, and Texas Eastern Transmission Corporation, or its successor, is hereby designated to construct and operate the portion of the system from the United States-Canada border near Monchy, Saskatchewan, to a point near Dwight, Illinois.

*The Alcan Pipeline Company, or its successor, and the Northern Border Pipeline, or its successor, shall be publicly held corporations or general or limited partnerships, open to ownership participation by all persons without discrimination, except producers of Alaskan natural gas.

The Pacific Gas Transmission Company is hereby designated to construct and operate the portion of the system from the United States/Canada border near Kingsgate, British Columbia, to the border between the States of California and Oregon.

The Pacific Gas and Electric Company is hereby designated to construct and operate the portion of the system from the border between the States of California and Oregon through the State of California.

SECTION 2—DESCRIPTION OF THE NATURE AND ROUTE OF THE APPROVED SYSTEM

The Alcan system is an overland pipeline system to transport natural gas from the Prudhoe Bay area of Northern Alaska through Alaska and Canada into the Midwest and Western sections of the contiguous United States. See Exhibit 1.

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1 Northwest Pipeline owns and operates a 4,300-mile pipeline system for transporting gas in the states of Colorado, Idaho, Nevada, Oregon, Utah, Washington, and Wyoming. Northwest Pipeline is a wholly-owned subsidiary of Northwest Energy Company, a holding company whose principal asset is all the outstanding common stock of Northwest Pipeline.

* This provision has been modified by Public Law 97-93 (Dec. 15, 1981; 95 Stat. 1204). The modification is set forth in the President's findings and proposed waivers of law, and is shown on page 334 of this volume of the compilation.

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DOE002-1058
The expected volume of gas to be available initially from the Prudhoe Bay field is 2.0 to 2.5 billion cubic feet per day (bcfd). The system described herein is designed to handle this throughput volume. The capacity of the system could be increased in the future to accommodate additional volume throughput by construction of additional facilities.

**ALCAN PIPELINE ROUTE IN ALASKA**

*The proposed Alcan pipeline will commence at the discharge side of the gas plant facilities in the Prudhoe Bay field. The pipeline will parallel the Alyeska oil pipeline southward from the North Slope of Alaska, cross the Brooks Range through the Antigun Pass, and continue on to Delta Junction.*

At Delta Junction, the Alcan Pipeline will diverge from the Alyeska oil pipeline and follow the Alaska Highway and the Haines oil products pipeline right-of-way, passing near the towns of Tanacross, Tok, and Northway Junction in Alaska. The right-of-way of the Haines oil products pipeline is at present approximately fifty feet wide and is closely parallel to the Alaska Highway. The Alcan pipeline will then connect with the proposed new facilities of Foothills Pipe Lines (South Yukon) Ltd. at the Alaska/Yukon Territory border.

From Prudhoe Bay in Delta Junction, Alcan expects to construct its line approximately eighty feet from the Alyeska oil pipeline. As proposed by Alcan, construction will be carried out by extending the existing Alyeska work pads. However, Alyeska advised Alcan that its "Preliminary general guidelines" indicated that the Alyeska and Alcan lines must be separated by 100 to 200 feet where blasting to build the pipeline trench would occur (approximately 350 miles of pipeline length). Additional studies will determine the minimum distance between the Alyeska oil pipeline and the Alcan line that is necessary to permit safe construction and operation.

**ALCAN PIPELINE ROUTE THROUGH CANADA**

The Canadian portion of the Alcan Project will commence at the Alaska/Yukon border in the vicinity of the towns of Border City, Alaska and Boundary, Yukon.

From the Alaska/Yukon border, the Foothills Pipe Lines (South Yukon) Ltd. pipeline will proceed south until it reaches the White River (Milepost 44), where it will take a more eastward course across the Yukon Territory. The pipeline will cross the Territory generally parallel to the Alaska Highway. Along most of the pipeline route through the Yukon, the separation between the pipeline route and highway route will be approximately one mile. There will be several points, however, where the pipeline route will divert substantially from the route of the Alaska Highway. These departures from the Alaska Highway route will permit the pipeline to continue on a more direct course than if it were to follow the Alaska Highway.

*This provision has been modified by Public Law 97-93 (Dec. 15, 1981; 95 Stat. 1204). The modification is set forth in the President's findings and proposed waivers of law, and is shown on page 334 of this volume of the compilation.*

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DOE002-1060

Obtained and made public by the Natural Resources Defense Council, March/April 2002
At approximately milepost 246, the pipeline will be routed north of Whitehorse and cross the Yukon River near the intersection of the Alaska and Klondike Highways. Near this intersection, approximately 9 miles northwest of Whitehorse, the pipeline will be constructed to permit a later connection with the proposed Dempster Line from the Mackenzie Delta, if and when the Dempster Line is constructed.

After it crosses the Yukon River north of Whitehorse, the pipeline will turn southeast and again travel parallel to the Alaska Highway, entering British Columbia at approximately milepost 397 and reentering the Yukon Territory at approximately milepost 435. The pipeline will continue to follow the Alaska Highway eastward through the Yukon Territory and again cross the border into British Columbia, approximately twelve miles southwest of Watson Lake, Yukon. At this point, the Foothills Pipe Lines (South Yukon) Ltd. pipeline will terminate, and the Foothills Pipe Line (North B.C.) Ltd. interconnecting pipeline will commence.

After it passes the British Columbia border, the pipeline will proceed generally southeast across the northeastern part of the province to the British Columbia/Alberta border, crossing the existing Westcoast Transmission Company Ltd. main line some 35 miles south of Fort Nelson. At Boundary Lake on the British Columbia-Alberta border, the pipeline would connect with the Foothills Pipe Lines (Alta.) Ltd. pipeline. In Alberta, the Foothills Pipe Lines (Alta.) Ltd. pipeline will proceed generally southeast from Boundary Lake to Gold Creek Junction. After Gold Creek Junction, the pipeline will follow the existing Alberta Gas Trunkline Co., Ltd. (AGTL) pipeline right-of-way to James River Station.

From James River Station, the western leg of the pipeline will proceed separately to the south, approximately following the existing AGTL right-of-way to the Alberta/British Columbia border near Coleman, Alberta. It will then connect with the Foothills Pipelines (South B.C.) Ltd. pipeline, continue to the southwest across British Columbia, and finally connect with the Pacific Gas Transmission (PGT) pipeline at the United States/Canada border near Kingsgate, British Columbia. The pipeline route through southern British Columbia will generally parallel the existing pipeline route of Alberta Natural Gas Company, Ltd.

For the eastern leg from James River Station, the pipeline will proceed generally to the southeast until it reaches the Alberta/Saskatchewan border near Empress, Alberta. The eastern leg will then connect with the Foothills Pipe Lines (Sask.), Ltd. pipeline. The pipeline will then continue to the southeast across Saskatchewan and join with the Northern Border Pipeline system at the United States/Canada border near Monchy, Saskatchewan.

**ALCAN PIPELINE ROUTE IN THE CONTIGUOUS UNITED STATES**

On the western leg, the Alaska gas will be transferred at the United States-Canada border near Kingsgate, British Columbia, to the PGT system. The PGT system will transport the gas through northern Idaho, southeast Washington, and central Oregon. At the Oregon/California border, the gas will be transferred to enter the
Pacific Gas and Electric Company (PG&E) system and will then be transported throughout California.

On the eastern leg the Alaska gas will be transferred at the Saskatchewan/Montana border from the Canadian-owned portion of the Alcan system to the Northern Border Pipeline system. The Northern Border Pipeline system will then transport the gas across the northeast corner of Montana, the southwest section of North Dakota, the northeast section of South Dakota, the southwest corner of Minnesota, and the northeast section of Iowa, and finally bring the gas just south of Chicago to Dwight, Illinois.

Exhibit 2 on the following page illustrates the respective routes of the eastern and western legs of the Alcan system and their relationship to the existing gas pipeline network in the United States.
SECTION 3—IDENTIFICATION OF FACILITIES INCLUDED WITHIN
"CONSTRUCTION AND INITIAL OPERATION"

GENERAL PROJECT DESCRIPTION

This section identifies the facilities for the Alcan project which will be entitled to the expedited authorization process prescribed in Section 9 of ANGTA. The facilities which are to be covered are those in the U.S. which are adequate for a throughput of up to 2.4 bcf/d and are included in the revised Alcan filing submitted to the Federal Power Commission (FPC) in March 8, 1977. If any modifications to those facilities are required by the Agreement on Principles between the U.S. and Canada, those modified facilities will also be entitled to the expedited authorization process in Section 9.

Uncertainties remain as to the future level of gas exports from Canada’s historical gas supply sources. The actual division of Alaska gas among the various regions of the contiguous United States awaits conclusion of gas sales contracts. Routing and design work should be sufficiently complete to allow final certification in late 1978 or early 1979. The final design and location of the facilities, however, will be within the general description set forth.

The gas transportation system will utilize a 48-inch diameter pipeline from Prudhoe Bay to James River, Alberta. From James River, gas destined for the midwestern and eastern states will be transported through a 42-inch diameter pipeline to Monchy, Saskatchewan, and gas destined for the western states will be transported through a 36-inch pipeline to Kingsgate, British Columbia. PGT and PG&E will complete looping as necessary of their existing pipeline systems from the Idaho-British Columbia border to Antioch, California (near San Francisco) with a 36-inch diameter pipeline.

All of the pipeline in Alaska and the first forty-one miles of pipeline in the Yukon lie in the continuous and discontinuous permafrost region. This section will be operated in a chilled state (i.e., below 32°F.) to prevent degradation of the permafrost regime. Gas chilling will be accomplished by propane refrigeration systems at all compressor stations in Alaska.

The length of the various pipeline segments will be as follows:

<table>
<thead>
<tr>
<th>Company and Location</th>
<th>Length (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcan Pipeline Co.—Alaska</td>
<td>731</td>
</tr>
<tr>
<td>Foothills Pipe Lines (South Yukon) Ltd.—Yukon</td>
<td>517</td>
</tr>
<tr>
<td>Foothills Pipe Lines (Sask.) Ltd.—Saskatchewan</td>
<td>160</td>
</tr>
<tr>
<td>Foothills Pipe Lines (North B.C.) Ltd.—Yukon/B.C. Border to B.C./Alberta Border</td>
<td>439</td>
</tr>
<tr>
<td>Foothills Pipe Lines (South B.C.) Ltd.—Coleman to Kingsgate</td>
<td>106</td>
</tr>
</tbody>
</table>

2"looping" is construction of a pipeline parallel to and interconnected with an existing pipeline. Looping may extend to part or all of an existing line.

3"By definition, permafrost consists of soil, rock, or other earth material, the temperature of which remains at or below 32°F. (0°C) continuously for two or more years. Its distribution is not uniform. Factors controlling the distribution of permafrost include the glacial and climatic history of the area, thermal properties of the earth material, ambient temperature, insulating properties of overburden, and amount of exposure to sun (e.g., shading caused by orientation of topographic features). The permafrost would be continuous along approximately the first 240 miles of the pipeline (to near the South Fork of the Kuskokwim River). Along the remaining pipeline route to the Yukon border, the permafrost would be discontinuous.
Foothills Pipe Lines (Alta.) Ltd.:  
B.C./Alberta to James River ........................................... 395  
James River to Coleman .................................................. 176  
James River to Empress .................................................. 235  
Total Alaska and Canada .................................................. 2,759  
Pacific Gas Transmission Co.—Kinggate to Malin .................... 612  
Pacific Gas & Electric Co.—Malin to Antioch ......................... 299  
Northern Border Pipeline Co.—Monsdy to Dwight .................... 1,117  
Total contiguous States .................................................. 2,028  
Total system length ...................................................... 4,787

Exhibit 3 on the next page identifies and locates the various pipeline segments.
Peak-day capacity utilizing nine compressor stations (see item 4 below) will be 2.6 bcf/d, with an average daily volume of 2.4 bcf/d. By installation of intermediate compressor stations, the system could be increased to 3.4 bcf/d peak capacity, with an average day capacity of 3.2 bcf/d. The system capacity could be further increased by addition to the compressor horsepower at each station.

**ALCAN COMPRESSOR STATIONS AND REFRIGERATION FACILITIES IN ALASKA**

Centrifugal compressors, powered by natural gas-fueled turbine engines, will be used on the Alcan system. In order to minimize thawing of the permafrost soil, the discharge gas at each compressor station in Alaska will be chilled by a propane refrigeration plant. The following describes the required compression and refrigeration facilities. All of these facilities are required for construction and initial operation.

<table>
<thead>
<tr>
<th>Station</th>
<th>Milepost</th>
<th>Number of gas compressors</th>
<th>Total installed horsepower (ISO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL-1</td>
<td>75.0</td>
<td>1</td>
<td>26,500</td>
</tr>
<tr>
<td>AL-2</td>
<td>133.0</td>
<td>1</td>
<td>26,500</td>
</tr>
<tr>
<td>AL-3</td>
<td>242.3</td>
<td>1</td>
<td>26,500</td>
</tr>
<tr>
<td>AL-4</td>
<td>331.8</td>
<td>1</td>
<td>26,500</td>
</tr>
<tr>
<td>AL-5</td>
<td>418.8</td>
<td>1</td>
<td>26,500</td>
</tr>
<tr>
<td>AL-6</td>
<td>504.7</td>
<td>1</td>
<td>26,500</td>
</tr>
<tr>
<td>AL-7</td>
<td>589.9</td>
<td>1</td>
<td>26,500</td>
</tr>
<tr>
<td>AL-8</td>
<td>675.4</td>
<td>1</td>
<td>26,500</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>8</td>
<td>212,000</td>
</tr>
</tbody>
</table>

**OTHER ALCAN PIPELINE FACILITIES IN ALASKA**

Metering facilities for the measurement of gas flow and gas quality will be required in Alaska at the Prudhoe Bay receipt point, at the Fairbanks sales point, and at the transfer point on the Alaska-Yukon border.

A central operating center, located in Fairbanks, will monitor and control all compressor station operations.\(^4\)

Alcan will utilize staging areas established for the Alyeska oil pipeline at Prudhoe Bay, Fairbanks, and Valdez. Material storage sites will be located at Anchorage, Seward, and Whittier, and at selected locations along the pipeline route.

Existing transportation and communication facilities will be utilized to the fullest extent practicable. Short lateral roads will be constructed to pipeline facilities as required.

Permanent bases for operating and maintaining the system will be selected and located after defining areas in which common problems may occur due to similarities of terrain and climate. The bases will be located at or near compressor stations to avoid duplication of permanent above-ground facilities. Materials and various

\(^4\) The compressor stations will be automated for remote control of all normal functions, including discharge gas temperature.
spare parts will be located at the bases to facilitate maintenance and repair operations.

All of these facilities will be required for construction and initial operation.

LOWER 48 FACILITIES

For purposes of this part of the Decision, the facilities described generally below are deemed necessary for construction and initial operation, and will be entitled to expedited issuance of authorizations pursuant to section 9 of ANGTA, provided that the final certification of such facilities shall be determined by reference to the size necessary to provide the transportation capacity certified to the FPC by the Secretary of Energy, as set forth in the terms and conditions section.

In order to deliver gas contemporaneously to points both east and west of the Rocky Mountains in the lower continental United States, the Alcan system will bifurcate at James River, Alberta and form a Western Leg and an Eastern Leg. First, the Western Leg is described below, and then the Eastern Leg.

Western Leg

Alaskan gas will be transferred at the Canada/United States border near Kingsgate, British Columbia, to Pacific Gas Transmission Company (PGT). PGT will transport the gas through Idaho, Washington, and Oregon. At the Oregon/California border, the gas will enter the intrastate facilities of Pacific Gas and Electric Company (PG&E). The gas will be transported throughout much of California through existing and expanded intrastate gas pipelines.

The additional Western Leg facilities which are part of the Alcan project are those covered by the "1580 Design." The major component of this expansion will add approximately 873 miles of looping and result in complete looping of the 917-mile PGT/PGE system from the Canada/United States border to Antioch, California (near San Francisco). The two parallel lines will be operated as a single system. Various modifications to the existing compression facilities will be required. However, the increase in system capacity of 659 mmcf/d could be achieved without installation of additional compression horsepower or increase of compression fuel usage. A minor addition of facilities south of Antioch may be made at a later date, depending on conditions prevailing at that time. All Western Leg facilities which are part of the Alcan project are subject to Section 9 of ANGTA.

The Eastern Leg

The Alcan system will transport Alaskan gas for delivery to Midwestern and Eastern markets in the lower continental United

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*The final certification function currently resides with the Federal Power Commission under the Natural Gas Act. On October 1, 1977, the Department of Energy will be activated pursuant to the Department of Energy Organization Act, Public Law 95-91, and the functions of the FPC under the Natural Gas Act will be transferred in part to the Federal Energy Regulatory Commission (FERC). Therefore, where reference is made herein to future actions of the FPC, they will be carried out by either the Secretary or the FERC, as the case may be, as of October 1, 1977.
States through an Eastern Leg. The Eastern Leg will commence at the bifurcation point of the main express line at James River, Alberta and terminate at Dwight, Illinois (near Chicago). Total length of the Eastern Leg will be 1,352 miles, including 235 miles in Canada and 1,117 miles in the United States. All pipeline for the Eastern Leg will be 42 inches in diameter.

Alaskan gas will be transferred at the Saskatchewan/Montana border from the Canadian-owned portion of the Alcan system to the Northern Border Pipeline system (Northern Border). The Northern Border system will travel diagonally across Montana, North Dakota, South Dakota, Minnesota, and Iowa, and terminate near Chicago, Illinois. Along this route, direct deliveries of gas will be made by Northern Border into the systems which cross the pipeline: Natural Gas Pipeline Company of America, Northern Natural Gas Company, and Michigan-Wisconsin Pipeline Company. Other purchasers will receive Alaska gas by displacement.6

The specific facilities that will be required to interconnect the various pipelines to receive gas from the Northern Border system, either by direct delivery or by displacement, will be determined when gas sales contracts have been executed. Final design of the required facilities will depend upon the division of Alaskan gas among the various pipeline companies and various regions of the contiguous States. Final design will be complete at the time of final system certification in late 1978 or early 1979. All facilities which are part of the Northern Border system are necessary for construction and initial operation, and all facilities which are part of the Northern Border system as finally certified by the FPC are subject to Section 9 of ANGTA.

SECTION 4—DELINEATION OF PROVISIONS OF LAW THAT ARE SUBSUMED IN THIS DECISION AND REQUIRE WAIVER

Under Section 7(a)(4)(D) of ANGTA, the President shall identify those provisions of law, relating to any determination of a Federal officer or agency as to whether a certificate, permit, right-of-way, lease, or other authorization shall be issued or be granted, which provisions the President finds (i) involve determinations which are subsumed in this decision and (ii) require waiver pursuant to section 8(g) in order to permit the expeditious construction and initial operation of the transportation system.

At this time, however, there are only two statutory provisions that involve determinations subsumed int his decision and require waiver pursuant to section 8(g) of ANGTA.7

Under Section 3 of the Natural Gas Act (15 U.S.C. 717b), the Federal Power Commission must issue an order to authorize any

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6 "Displacement" of gas is a method by which gas may be supplied to a purchaser from close by in exchange for gas sold to the purchaser elsewhere. Displacement, which is a commonly used method in the gas industry, eliminates the cost of physically transferring gas between markets.

7 Section 8(g)(x) of ANGTA states that the President will have the opportunity at a later date to identify and seek waiver of additional provisions of law. This subsection states:

At any time after a decision designating a transportation system is submitted to the Congress pursuant to this section, if the President finds that any provision of law applicable to actions to be taken under subsection (a) or (c) of section 9 require waiver in order to permit expeditious construction and initial operation of the approved transportation system, the President may submit such proposed waiver to both Houses of Congress.
export of natural gas; such an order shall issue unless the Commission finds that the export is not consistent with the public interest.

In addition, under Section 103 of the Energy Policy and Conservation Act, the President is required to promulgate a general rule prohibiting exports of natural gas from the U.S., except that he may permit those exports which he determines to be consistent with the national interest and with the purposes of the Act (Section 103(b)(1)). To make such a determination, Section 103(d)(1) directs the President to take into account the need to leave uninterrupted or unimpaired "exchanges in similar quantity for convenience or increased efficiency of transportation with persons or the government of a foreign state."

As a result of the recent Agreement on Principles between the United States and Canada, Alcan will be required to make available limited quantities of Alaskan gas to communities in the Yukon Territory and the western provinces, subject to provision of replacement gas downstream in Canada. This transaction will be an export requiring separate authorizations under the above mentioned two statutes.

The requirements arising under Section 3 of the Natural Gas Act and under Section 103 of the Energy Policy and Conservation Act could be met without waiver of these provisions, but additional, and unnecessary, FPC and Presidential action would be required. Accordingly, both of these statutory subsections shall be waived for the exchange of gas mentioned herein.

SECTION 5—TERMS AND CONDITIONS AND ENFORCEMENT

To ensure the proper management and timely completion of the construction of the designated transportation system, the following general terms and conditions shall be appropriately incorporated into any certificate, right-of-way, lease, permit or authorization directed to be made by any Federal officer or agency.

As described more fully below, these terms and conditions will be followed by a set of stipulations establishing general standards of environmental and construction performance, and the procedures for the submission and approval of construction plans and environmental safeguards, and then by site specific terms and conditions issued prior to actual construction of any pipeline segment. The terms and conditions described here are not meant to limit or foreclose the adoption of such stipulations and terms and conditions but are intended to begin the process by which a set of effective and workable safeguards are evolved. There is contemplated cooperative action by the Federal and Alaska State Governments in the development and enforcement of stipulations and site specific terms and conditions. Similar cooperative action is contemplated with the governments of all affected states.

Under the proposal made at the end of this section for the organizational involvement of the Federal Government with the successful applicant, the Federal Inspector for construction of the transportation system shall have supervision authority over the enforcement of these terms and conditions subject to the ultimate authority of the Executive Policy Board described below.
TERMS AND CONDITIONS

The terms and conditions proposed for inclusion into this Congressional authorization are set forth, by category, as follows:

I. Construction costs and schedule

Management and organization

1. Prior to the issuance of the certificate, the successful applicant shall provide a detailed overall management plan, to be approved by the Federal Inspector, for the preconstruction and the construction phases of the transportation system project. The successful applicant shall define its relationship with the execution contractors, and shall give consideration to various management approaches—such as Fast Track Stage Design, and other management approaches—that will facilitate the cost-effective, environmentally sound, and timely construction of the project.

2. The successful applicant may not use cost-plus type contracts with execution contractors, except where the Federal Inspector determines that special conditions warrant this type of contract. Otherwise, the applicant shall use fixed-price contracts, including the firm fixed-price, the fixed-price with escalation, and fixed-price incentive type of contract.

3. The successful applicant shall specify for approval of the Federal Inspector the insurance, bonding, and any other prequalification requirements for all consultants and execution contractors.

Construction cost and schedule control techniques

4. Prior to the initiation of construction, the successful applicant shall provide a detailed analysis and description of its proposed cost and schedule control techniques. The applicant shall give particular consideration to cost and manpower control and manpower estimating techniques.

5. Prior to the initiation of construction, the successful applicant shall develop and submit to the Federal Inspector a final design, design-cost estimate, and construction schedule. This design cost estimate and schedule must represent a construction design of at least 70 percent (or greater) of the total system, and the remainder may not represent any one contiguous or specific type of construction or geologic situation (e.g., river crossings, discontinuous permafrost, or elevated pipeline). The Federal Inspector may relax the above specified minimum percentage requirement, with the consent of the Executive Policy Board, if he finds there are extenuating circumstances that warrant such an action.

General operating strategies

6. The successful applicant shall develop and submit to the Federal Inspector cost-effective and feasible methods for supplying general and specialized equipment, as well as repair facilities and spare-part inventories, to the execution contractors. The applicant shall give consideration to various techniques of equipment provision, including use of equipment pools, equipment leasing or buy-backs.
7. Prior to the initiation of construction, the successful applicant shall supply detailed information to the Federal Inspector on its labor relations procedures, and indicate the proposed means to address and resolve disputes arising under collective bargaining agreements.

8. In entering into contracts with execution contractors, the successful applicant shall seek to incorporate techniques for resolving disputes arising under such contracts without recourse to litigation.

Quality assurance and control procedures

9. The successful applicant shall provide to the Federal Inspector a detailed description of quality assurance and control procedures that will be implemented prior to the start of construction. Such a description must at least include provisions for quality assurance and control procedures for environmental protection, corrosion, pipeline and compressor-station welds, pipeline placement, equipment and other appropriate matters.

Procedures for enforcement of terms and conditions

10. The successful applicant may not initiate activity on any aspect of the pipeline until authorization to proceed with construction, including site-specific terms and conditions for that aspect of the pipeline, has been issued and procedures for enforcement of terms and conditions have been established by the appropriate Federal officers.

Minority business enterprise participation

11. The successful applicant shall develop and submit to the Federal Inspector for approval a plan for taking affirmative action to ensure that no person shall on the grounds of race, creed, color, national origin or sex be excluded from receiving or participating in contracts for management, engineering design or construction activity. The successful applicant shall require each of his contractors and subcontractors having contracts valued at $150,000 or more to develop similar plans providing the assurances specified in the preceding sentence.

II. Safety and design

1. The successful applicant shall construct, operate, maintain and terminate the pipeline in accordance with Federal gas pipeline safety regulations. The applicant shall ensure that construction and operating specifications are in accordance with good engineering practice, both to maintain the safety and the integrity of the pipeline and to protect the health and safety of project personnel and the general public.

2. The successful applicant may not begin construction of any pipeline segment until the Federal Inspector has approved the design of that segment, including technical construction specifications, having had sufficient time to review the design.

3. The successful applicant shall establish a procedure for briefing the Federal Inspector, or his designated representative, on a regular basis concerning the status of the project during the design, construction, testing and start-up phases.
4. The successful applicant shall establish a procedure to ensure access to all project facilities by the Federal Inspector, or his designated representative, in the performance of official duties.

5. The successful applicant shall submit a plan or procedure for conducting its own inspections of project facilities during construction, to be approved by the Federal Inspector.

6. The successful applicant shall provide a seismic monitoring system, to be approved by the Federal Inspector, and shall ensure that there are adequate procedures for the safe shut-down of the project under severe seismic conditions.

III. Environment

1. The successful applicant shall construct, operate, maintain and terminate the pipeline with maximum concern for the protection of environmental values. A set of stipulations containing the general standards of environmental and construction performance, and the procedures for the submission and approval of construction plans and environmental safeguards will be developed by the concerned government agencies and must be accepted by the applicant as a condition of his right to proceed over public lands. Additional "site-specific" terms and conditions will be incorporated in authorizations to proceed with construction issued by the appropriate Federal agency, into particular certificates, rights-of-way, permits and other authorizations to protect and enhance environmental values during the design, construction and operation of the pipeline. These additional "site specific" terms and conditions will be issued as appropriate to minimize disturbance from construction and operation of the pipeline to rivers and other water bodies and adjacent land and vegetation; to protect wildlife and endangered species and maintain forest, agricultural and other resource productivity; to control the risks of pipeline ruptures, leaks and hazards; to maintain air and water quality values; to make provision for control and disposal of sewage, garbage, wastes and toxic substances; and take other measures necessary for protection of the environment during the design, construction and operation of the pipeline.

2. The successful applicant shall prepare a plan of operations which integrates environmental protection with the proposed schedule of construction and operations, the proposed supervisory and technical staffing, the proposed quality control programs, and the proposed quality assurance programs. In preparation and implementation of this plan, the successful applicant shall provide for timely integration of environmental mitigation and restoration practices with the activity which creates the need for the restoration or mitigation.

3. The successful applicant shall develop and submit to the Federal Inspector an effective plan for implementation of specific environmental safeguards through an educational program for field personnel prior to and during construction, operation, maintenance and termination of the pipeline.

4. The successful applicant shall establish an effective pipeline-performance monitoring system of inspection and instrumentation to insure performance in keeping with environmental concerns.
IV. Finance

1. The successful applicant shall provide for private financing of the project, and shall make the final arrangement for all debt and equity financing prior to the initiation of construction.

*2. If the direct capital cost estimates excluding interest during construction for the overall project in 1975 constant dollars filed with the FPC immediately prior to certification, adjusted to reflect design changes to increase capacity that result from the Agreement on Principle between the United States and Canada, materially and unreasonably exceed the comparable capital cost estimates filed by Alcan with the Federal Power Commission on March 8, 1977, Section 6, page 2, the FPC may not issue a certificate for the project. If these final capital cost estimates are not excessive under the above standard, the FPC may use these final estimates for the U.S. segments as the basis for fixing a variable rate of return on equity that will reward the applicant for project completion under budgeted cost and penalize the applicant for project completion above budgeted cost. The variable rate shall be set to provide substantial incentives to construct the project without incurring overruns. These final capital cost estimates need not be the design-cost estimates based on the system design which must subsequently be submitted to the Federal Inspector. The applicant shall, however, submit to the FPC for approval on a timely basis all components of construction work in progress.

*3. Neither the successful applicant nor any purchaser of Alaska gas for transportation through the system of the successful applicant shall be allowed to make use of any tariff by which or any other agreement by which the purchaser or ultimate consumer of Prudhoe Bay natural gas is compelled to pay a fee, surcharge, or other payment in relation to the Alaska natural gas transportation system at any time prior to competition and commissioning of operation of the system.

*4. The Alcan Pipeline Company, or its successor, and the Northern Border Pipeline, or its successor, shall be publicly held corporations or general or limited partnerships, open to ownership participation by all persons without discrimination, except producers of Alaskan natural gas.

V. Antitrust

*1. The successful applicant shall exclude and prohibit producers of significant amounts of Alaska gas, or their subsidiaries and affiliates, from participating in the ownership of the Alaska natural gas transportation system, except that such producers may provide guarantees for project debt. The aforesaid producers of Alaska gas may not be equity members of the sponsoring consortium, have any voting power in the project, have any role in the management or operations of the project, have any continuing financial obligation in relation to debt guarantees associated with initial project financing after the project is completed and the tariff is put into effect, or impose conditions on the guarantees of project debt permitted
above which may give rise to competitive abuse, including power to veto pro-competitive policies.

2. All agreements for the sale of Alaska gas made between the aforesaid producers and purchasers who are shippers through the Alaska natural gas transportation system shall be fully disclosed to the Federal Power Commission, and all collateral agreements made between the same parties with respect to the sale of Alaska gas shall also be fully disclosed. All contracts for sale of Alaska gas, for all collateral agreements to these contracts, shall be submitted for approval by the Federal Power Commission.

VI. Certification of facilities

1. Prior to the issuance of a certificate of public convenience and necessity to Northern Border Pipeline or to Pacific Gas Transmission Company, the Secretary of Energy shall certify to the Federal Power Commission whether there has been any material change in the facts regarding future potential gas supplies for the East or West since the date of this Decision that would warrant certification of such facilities at a different rated capacity than authorized herein. If the Secretary certifies that there has been a material change in the facts, he shall instead certify to the Commission the capacity at which he has determined a certificate of public convenience and necessity should be issued and the reasons therefor, which capacity shall be determined in a manner that is as consistent as possible with the reasons for the initial authorization, as set forth in the Report submitted to the Congress pursuant to Section 7(b) of the Alaska Natural Gas Transportation Act, Public Law 94–586. The certificate issued by the FPC shall be consistent with the Secretary's determination.

ENFORCEMENT

To enforce the terms and conditions proposed above, and to carry out the duties of the office assigned and set forth by section 7(a)(5)(A)–(E) of ANGTA, an appropriate and qualified individual shall be appointed by the President to serve as the Federal Inspector, with the advice and consent of the Senate. Upon approval of the Presidential designation of an Alaska natural gas transportation system, the Federal Inspector shall:

(A) establish a joint surveillance and monitoring agreement, approved by the President, with the State of Alaska similar to that in effect during construction of the trans-Alaska oil pipeline to monitor the construction of the approved transportation system within the State of Alaska;

(B) monitor compliance with applicable laws and the terms and conditions of any applicable certificate, rights-of-way, permit, lease, or other authorization issued or granted;

(C) monitor actions taken to assure timely completion of construction schedules and the achievement of quality of construction, cost control, safety, and environmental protection objectives and the results obtained therefrom;

(D) have the power to compel, by subpoena if necessary, submission of such information as he deems necessary to carry out his responsibilities; and
(E) keep the President and the Congress currently informed on any significant departures from compliance and issue quarterly reports to the President and the Congress concerning existing or potential failures to meet construction schedules or other factors which may delay the construction and initial operation of the system and the extent to which quality of construction, cost control, safety and environmental protection objectives have been achieved.

In addition to these duties and responsibilities, the President will submit to Congress, upon approval of the Presidential decision, a limited executive reorganization plan to transfer to the Federal Inspector field-level supervisory authority over enforcement of terms and conditions from those Federal agencies having statutory responsibilities over various aspects of an Alaska natural gas transportation system. The respective Federal agencies would retain their existing statutory authority pursuant to section 9(a) of ANGTA, to issue on an expedited basis the necessary certificates, permits, rights-of-way and other authorizations, and to prescribe any appropriate terms and conditions that are permissible under present law. The Agency Authorized Officers would directly represent the statutory authority of the respective Federal agencies in the field on all matters pertaining to construction of the pipeline. However, the Federal Inspector would have the necessary field-level supervisory authority to overrule the enforcement action of an Agency Authorized Officer, whenever the Federal Inspector determined that such a decision was warranted.

The President's supervision of the Federal Inspector will be carried out by an Executive Policy Board. The Board would be made up of the Secretaries of the Interior, Energy, Transportation, the Administrator of the Environmental Protection Agency, and the Chief of the Army Corps of Engineers, or their Deputies (or senior officers who have been delegated authority over gas pipeline matters), as well as the Federal Inspector, who is the non-voting Chairman of the Board. The Board will provide policy guidance to the Federal Inspector, and act as an appellate body to resolve differences among the agencies and the Federal Inspector, including differences that may arise when the Federal Inspector overrules an enforcement action of an Agency Authorized Officer. The Board shall expeditiously resolve any such appeal with a limited period of time that shall be prescribed. The President will authorize by Executive Order the creation of the Executive Policy Board pursuant to his power under Section 301 of Title 3, and will delegate the necessary authority to the Board to carry out its functions. The Board shall be paramount for policy-making purposes on all matters pertaining to construction of an Alaskan natural gas transportation system; the Federal Inspector shall be the agent or conduit of the Board in such matters, and shall also have the necessary supervisory power over field level decisions.

SECTION 6—PRICING OF ALASKA GAS

Final financing for an Alaska natural gas transportation project cannot be arranged until the producer-owners of the Prudhoe Bay Gas execute sales contracts. Without such contracts,
no gas can be transported, and financing consequently would be unobtainable. Producers cannot be expected to negotiate sales contracts until a price has been established with a reasonable degree of certainty. If this project is to proceed expeditiously, the field price of the gas should be established as soon as possible.

Because no contracts for gas sales in interstate commerce have been concluded and submitted to the FPC for approval, the FPC has not, to date, attempted to determine the costs of providing the gas in order to establish what might be a just and reasonable (cost-based) wellhead price. The FPC, in fact, has excluded the Alaska gas from its national rate proceedings; Alaska costs and related reserve data have been excluded from all statistics underlying FPC rate determinations.

Alaska gas is produced in association with oil; therefore, it is impossible to determine precisely the costs of finding, developing and producing only the gas. Cost allocation and, therefore, cost-based pricing is somewhat arbitrary. Because of the difficult and arbitrary nature of the allocation problem, the FPC in recent years has priced gas on the basis of the cost of only nonassociated gas in each producing area, and then allowed the same price to be paid for associated gas produced in that area as well. Were the FPC to initiate a price proceeding under the Natural Gas Act, it is expected that its procedures and subsequent litigation over cost allocation and other matters would likely exceed a period of 18 months.

The Administration's proposed National Energy Act is before the Congress. That Act provides a basis for moving from cost-based pricing to commodity-value pricing. That transition is essential to restoring the balance between natural gas supply and demand. Under the gas pricing provisions in the National Energy Plan, Alaska gas would be classified as "old gas under a new contract" subject to a $1.45 per mcf ceiling price.

If, on the other hand, proposals to deregulate natural gas prevail, serious uncertainties and delays concerning the development of any Alaska natural gas transportation project could result. If producers are inclined to insist on prices of $2.00 per mcf or higher, questions concerning the saleability of the gas and the financeability of the project will arise. Such price levels could result in an additional $20 billion in consumer charges, as well as the added costs of any delays in project construction.

This decision, therefore, calls for enactment of a gas pricing approach similar to that contained in the National Energy Plan. That approach also provides a mechanism for allocating the cost of more expensive supplies to lower-priority users, rather than the residential and commercial users who have less capacity to convert to other fuels. The gas pricing policies which are part of the National Energy Plan are fair and equitable, and should apply to both the production and sale of Alaska gas.
SECTION 7—AGREEMENT BETWEEN THE UNITED STATES OF AMERICA
AND CANADA ON PRINCIPLES APPLICABLE TO A NORTHERN NATURAL GAS PIPELINE

The Government of the United States of America and the Government of Canada,

Desiring to advance the national economic and energy interests and to maximize related industrial benefits of each country, through the construction and operation of a pipeline system to provide for the transportation of natural gas from Alaska and from Northern Canada,

Hereby agree to the following principles for the construction and operation of such a system:

1. PIPELINE ROUTE

The construction and operation of a pipeline for the transmission of Alaska natural gas will be along the route set forth in Annex I, such pipeline being hereinafter referred to as “the Pipeline”. All necessary action will be taken to authorize the construction and operation of the Pipeline in accordance with the principles set out in this Agreement.

2. EXPEDITIOUS CONSTRUCTION; TIMETABLE

(a) Both Governments will take measures to ensure the prompt issuance of all necessary permits, licenses, certificates, rights-of-way, leases and other authorizations required for the expeditious construction and commencement of operation of the Pipeline, with a view to commencing construction according to the following timetable:

Yukon—main line pipe laying January 1, 1981.

Other construction in Canada to provide for timely completion of the Pipeline to enable initial operation by January 1, 1983.

(b) All charges for such permits, licenses, certificates, rights-of-way, leases and other authorizations will be just and reasonable and apply to the Pipeline in the same nondiscriminatory manner as to any other similar pipeline.

(c) Both Governments will take measures necessary to facilitate the expeditious and efficient construction of the Pipeline, consistent with the respective regulatory requirements of each country.

3. CAPACITY OF PIPELINE AND AVAILABILITY OF GAS

(a) The initial capacity of the Pipeline will be sufficient to meet, when required, the contractual requirements of United States shippers and of Canadian shippers. It is contemplated that this capacity will be 2.4 billion cubic feet per day (bcfd) for Alaska gas and 1.2 bcfd for northern Canadian gas. At such time as a lateral pipeline transmitting Northern Canadian gas, hereinafter referred to as “the Dempster Line”, is to be connected to the Pipeline or at any time additional pipeline capacity is needed to meet the contractual requirements of United States or Canadian shippers,
the required authorizations will be provided, subject to regulatory requirements, to expand the capacity of the Pipeline in an efficient manner to meet those contractual requirements.

(b) The shippers on the Pipeline will, upon demonstration that an amount of Canadian gas equal on a British Thermal Unit (BTU) replacement value basis will be made available for contemporaneous export to the United States, make available from Alaska gas transmitted through the Pipeline, gas to meet the needs of remote users in the Yukon and in the provinces through which the Pipeline passes. Such replacement gas will be treated as hydrocarbons in transit for purposes of the Agreement between the Government of Canada and the Government of the United States of America concerning Transit Pipelines, hereinafter referred to as "the Transit Pipeline Treaty". The shippers on the Pipeline will not incur any cost for provision of such Alaska gas except those capital costs arising from the following provisions:

(i) the owner of the Pipeline in the Yukon will make arrangements to provide gas to the communities of Beaver Creek, Burwash Landing, Destruction Bay, Haines Junction, Whitehorse, Teslin, Upper Liard and Watson Lake at a total cost to the owner of the Pipeline not to exceed Canadian $2.5 million;

(ii) the owner of the Pipeline in the Yukon will make arrangements to provide gas to such other remote communities in the Yukon as may request such gas within a period of two years following commencement of operation of the Pipeline at a cost to the owner not to exceed the product of Canadian $2500 and the number of customers in the communities, to a maximum total cost of Canadian $2.5 million.

4. FINANCING

(a) It is understood that the construction of the Pipeline will be privately financed. Both Governments recognize that the companies owning the Pipeline in each country will have to demonstrate to the satisfaction of the United States or the Canadian Government, as applicable, that protections against risk of non-completion and interruption are on a basis acceptable to that Government before proof of financing is established and construction allowed to begin.

(b) The two Governments recognize the importance of constructing the Pipeline in a timely way and under effective cost controls. Therefore, the return on the equity investment in the Pipeline will be based on a variable rate of return for each company owning a segment of the Pipeline, designed to provide incentives to avoid cost overruns and to minimize costs consistent with sound pipeline management. The base for the incentive program used for establishing the appropriate rate of return will be the capital costs used in measuring cost overruns as set forth in Annex III.

(c) It is understood that debt instruments issued in connection with the financing of the Pipeline in Canada will not contain any provision, apart from normal trust indenture restrictions generally applicable in the pipeline industry, which would prohibit, limit or inhibit the financing of the construction of the Dempster Line; nor
will the variable rate of return provisions referred to in subpar-
graph (b) be continued to the detriment of financing the Dempster
Line.

5. TAXATION AND PROVINCIAL UNDERTAKINGS

(a) Both Governments reiterate their commitments as set forth
in the Transit Pipeline Treaty with respect to non-discriminatory
taxation, and take note of the statements issued by Governments
of the Provinces of British Columbia, Alberta and Saskatchewan,
attached hereto as Annex V, in which those Governments under-
take to ensure adherence to the provisions of the Transit Pipeline
Treaty with respect to non-interference with throughput and to
non-discriminatory treatment with respect to taxes, fees or other
monetary charges on either the Pipeline or throughput.
(b) With respect to the Yukon Property Tax imposed on or for
the use of the Pipeline the following principles apply:
(i) The maximum level of the property tax, and other di-
rect taxes having an incidence exclusively, or virtually exclu-
sively, on the Pipeline, including taxes on gas used as compres-
sor fuel, imposed by the Government of the Yukon Territory or
any public authority therein on or for the use of the Pipeline,
herein referred to as "the Yukon Property Tax", will not exceed
$30 million Canadian per year adjusted annually from 1983 by
the Canadian Gross National Product price deflator as deter-
mined by Statistics Canada, hereinafter referred to as the GNP
price deflator.
(ii) For the period beginning January 1, 1980, and ending on
December 31 of the year in which leave to open the Pipeline
is granted by the appropriate regulatory authority, the Yukon
Property Tax will not exceed the following:
1980—$5 million Canadian.
1981—$10 million Canadian.
1982—$20 million Canadian.
Any subsequent year to which this provision applies—
$25 million Canadian.
(iii) The Yukon Property Tax formula described in sub-
paragraph (b)(i) will apply from January 1 after the year in
which leave to open the Pipeline is granted by the appropriate
regulatory authority until the date that is the earlier of the fol-
lowing, hereinafter called the tax termination date:
(A) December 31, 2008, or
(B) December 31 of the year in which leave to open the
Dempster Line is granted by the appropriate regulatory
authority.
(iv) Subject to subparagraph (b)(iii), if for the year ending
December 31, 1987, the percentage increase of the aggre-
gate per capita revenue derived from all property tax levied by
any public authority in the Yukon Territory (excluding the
Yukon Property Tax) and grants to municipalities and Local
Improvement Districts from the Government of the Yukon Ter-
ritory as compared to aggregate per capita revenue derived
from such sources for 1983 is greater than the percentage in-
crease for 1987 of the Yukon Property Tax as compared to the

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Yukon Property Tax for 1983, the maximum level of the Yukon Property Tax for 1987 may be increased to equal the amount it would have reached had it increased over the period at the same rate as the aggregate per capita revenue.

(v) If for any year in the period commencing January 1, 1988, and ending on the tax termination date, the annual percentage increase of the aggregate per capita revenue derived from all property tax levied by any public authority in the Yukon Territory (excluding the Yukon Property Tax) and grants to municipalities and Local Improvement Districts from the Government of the Yukon Territory as compared to the aggregate per capita revenue derived from such sources for the immediately preceding year exceeds the percentage increase for that year of the Yukon Property Tax as compared to the Yukon Property Tax for the immediately preceding year, the maximum level of the Yukon Property Tax for that year may be adjusted by the percentage increase of the aggregate per capita revenue in place of the percentage increase that otherwise might apply.

(vi) The provisions of subparagraph (b)(i) will apply to the value of the Pipeline for the capacities contemplated in this Agreement. The Yukon Property Tax will increase for the additional facilities beyond the aforesaid contemplated capacity in direct proportion to increase in the gross asset value of the Pipeline.

(vii) In the event that between the date of this Agreement and January 1, 1983, the rate of the Alaska property tax on pipelines, taking into account the mill rate and the method of valuation, increases by a percentage greater than the cumulative percentage increase in the Canadian GNP deflator over the same period, there may be an adjustment on January 1, 1983, to the amount of $30 million Canadian described in subparagraph (b)(i) of the Yukon Property Tax to reflect this difference. In defining the Alaska property tax for purposes of this Agreement, the definition of the Yukon Property Tax will apply mutatis mutandis.

(viii) In the event that, for any year during the period described in subparagraph (iii), the annual rate of the Alaska property tax on or for the use of the Pipeline in Alaska increases by a percentage over that imposed for the immediate preceding year that is greater than the increase in percentage of the Yukon Property Tax for the year, as adjusted, from that applied to the immediately preceding year, the Yukon Property Tax may be increased to reflect the percentage increase of the Alaska property tax.

(ix) It is understood that indirect socioeconomic costs in the Yukon Territory will not be reflected in the cost-of-service to the United States shippers other than through the Yukon Property Tax. It is further understood that no public authority will require creation of a special fund or funds in connection with construction of the Pipeline in the Yukon, financed in a manner which is reflected in the cost of service to U.S. shippers, other than through the Yukon Property Tax. However, should public authorities in the State of Alaska require cre-