Congress of the United States

House of Representatives

Washington, D.C. 20515

JOINT PUBLIC HEARING

Subcommittee on Fossil and Synthetic Fuels
Committee on Energy and Commerce

Subcommittee on Energy and the Environment
Committee on Interior and Insular Affairs

Date and Time: October 27, 1981 at 10:00 a.m.

Place: Room 2318 Rayburn House Office Building

Subject: H.J. Res. 341 (Providing for a Waiver of Law Pursuant To The Alaskan Natural Gas Transportation Act)

WITNESSES:

Honorable James B. Edwards
Secretary
U.S. Department of Energy
Washington, D.C. 20585

Panel I: U.S. Steel Caucus

Honorable Joseph Gaydos
Chairman
Congressional Steel Caucus
U.S. House of Representatives

Honorable Adam Benjamin
Executive Committee Chairman
Congressional Steel Caucus
U.S. House of Representatives

NO STMT

Bruce Davis
Assistant Vice President of
Government Affairs
Bethlehem Steel Corporation
Bethlehem, Pennsylvania 18016

Panel II: State Witnesses

Michael V. Hasten
Chairman
Illinois Commerce Commission
160 North LaSalle Street
Chicago, Illinois 60601

Don Newman
Director, Washington Office
State of Indiana
444 North Capitol Street
Washington, D. C. 20001

Panel III: U.S. Gas Industry Representatives

George H. Lawrence
President
American Gas Association
1515 Wilson Boulevard
Arlington, Virginia 22209

Jerome J. McGrath
President
Interstate Natural Gas Association
of America
1660 L Street, N.W.
Washington, D.C. 20036

Edwin Rothschild
Director
Energy Action Educational Foundation
2000 P Street, N.W.
Washington, D.C. 20036

Congress of the United States

House of Representatives

Washington, D.C. 20515

Subcommittee on Fossil & Synthetic Fuels
Committee on Energy & Commerce

Subcommittee on Energy & the Environment
Committee on Interior & Insular Affairs

JOINT PUBLIC HEARING

Date and Time: Monday, November 9, 1981 at 2:00 p.m.

Place: 2123 Rayburn House Office Building

Subject: Waiver Proposal for the Alaska Natural Gas Transportation System (H.J. Res. 341)

WITNESSES:

Panel I: Methanol Option

Sullivan Marsden
Department of Petroleum Engineering
School of Earth Sciences
Stanford University
Stanford, California 94305

George Doremus
Senior Planning Coordinator for Corporate Planning
Atlantic Richfield Corporation
515 S. Flower
Los Angeles, California 90017

Richard Rowberg
Program Manager for Energy
Office of Technology Assessment
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Washington, D.C. 20510

William Kumm
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Annapolis, Maryland 21403

LNG Option
Spencer Reitz
Deputy General Manager
General Dynamics Corporation
Electric Boat Division
Eastern Point Road
Groton, Connecticut 06340

Panel II: Other Public Witnesses

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Commissioner
Colorado Public Utility Commission
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1525 Sherman Street
Denver, Colorado 80203

Robert Georgine
President
Building & Construction Trades Department, AFL-CIO
815 16th Street, N.W.
Washington, D.C. 20006

Milton Copulos
Director of Energy Studies
Heritage Foundation
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Arie Verrips
Executive Director
American Public Gas Association
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Vienna, Virginia 22180

Edward Petrini
National Consumer Law Center
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Canadian Indians
David Porter
Vice Chairman
Council for Yukon Indians
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White Horse, Yukon
Canada Y1A3S5

Accompanied by:

Chief Paul Birkel
Don Rosenblum, Counsel

Congress of the United States

House of Representatives

Washington, D.C. 20515

JOINT PUBLIC HEARING

Subcommittee on Fossil and Synthetic Fuels
Committee on Energy and Commerce

Subcommittee on Energy and the Environment
Committee on Interior and Insular Affairs

Date and Time: Wednesday, November 4, 1981 at 10:00 a.m.

Place: 2123 Rayburn House Office Building

Subject: Waiver Proposal for the Alaska Natural Gas Transportation System (H. J. Res. 341)

WITNESSES:

Peter M. Sacerdote
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55 Broad Street
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Panel: Economic Experts on ANGTS

James T. Jensen
President
Jensen Associates
84 State Street
Boston, Massachusetts 02109

Carl S. Spetzler
Director
Strategic Decision Group
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Menlo Park, California 94025

Arlon R. Tussing
President
ARTA, Inc.
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Jerome Hass
School of Business &
Public Administration
Cornell University
Ithaca, New York 14853

Edmond R. Dupont
Edmond R. Dupont & Associates
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Washington, D.C. 20036

Congress of the United States

House of Representatives

Washington, D.C. 20515

October 9, 1981

The Honorable Alexander M. Haig
Secretary of State
Washington, D. C. 20520

Dear Mr. Secretary:

President Reagan has announced that he will propose to the Congress a resolution providing waivers of law under the Alaskan Natural Gas Transportation Act. The Fossil and Synthetic Fuels Subcommittee of the House Energy and Commerce Committee, and the Energy and Environment Subcommittee of the House Interior Committee will be conducting jointly and separately, a series of hearings on the President's resolution if it is received by the House. Because of the statutory thirty-day period within which committees are expected to conclude their deliberations on any such waiver proposals, we intend to move in as expeditious a manner as possible consistent with giving full and balanced consideration to the issues involved. We are therefore scheduling hearings in advance of receipt of a proposal in order to assure that you are ready to assist us in our work.

The first hearing would be held jointly by the two subcommittees on Friday, October 16, at 10:00 a.m. in Room 2123 of the Rayburn House Office Building.

This project has assumed a role of great importance in relations between the United States and Canada, and has involved many previous negotiations and understandings between the two nations. Because you are responsible for the conduct of our international relations, your testimony on the international implications of our decision on the waiver proposals is essential. This invitation will be confirmed at such time as we have received a proposed resolution from the President.

In accordance with the standard practice of our subcommittees, we ask that 100 copies of your testimony (50 for each subcommittee) be provided forty-eight hours before your appearance. Your statement may be of any length, although you will probably wish to summarize it in your oral presentation. In addition, please bring at least fifty additional copies of your prepared statement to the hearing for distribution to the press.

We look forward to hearing your views.

Sincerely,

Morris K. Udall
Chairman
Committee on Interior and
Insular Affairs

Philip R. Sharp
Chairman
Subcommittee on Fossil
and Synthetic Fuels
Committee on Energy and
Commerce

TESTIMONY

OF

MILTON R. COPULOS

DIRECTOR OF ENERGY STUDIES

THE HERITAGE FOUNDATION

FOSSIL AND SYNTHETIC FUELS SUBCOMMITTEE

HOUSE ENERGY AND COMMERCE COMMITTEE

OCTOBER 9, 1981

The Alaska Natural Gas Transportation System will certainly rank among the most ambitious commercial ventures in our nation's history. Its construction will take place over some of the roughest terrain, and in some of the harshest climactic conditions known to man. Its price tag, which could ultimately reach $50 billion, will make it one of the most expensive energy facilities ever built. The resource it seeks to tap is one of the most prolific found within our borders. Given the magnititude of this project, we can all agree that it is one which should not be entered into lightly, or unnecessarily.

It is useful, to stop for a moment, and consider the circumstances and conditions which prevailed in 1977 when the ANGTS route was approved. Only four years earlier, our nation had been shocked out of its complacency regarding energy by the OPEC embargo. The gasoline lines and price hikes which accompanied the embargo worked a profound change on our attitudes, and steeled our resolve to free ourselves from the bondage inherent in an undue reliance on foreign sources supply.

Again, in 1977, our faith was shaken as the cumulative effects of nearly two and one half decades of price controls on the interstate sale of natural gas made themselves felt with a vengence, and vast areas of the country were locked in the grips of a shortage. The sudden appearence of this shortage popularized the notion that we were rapidly exhausting our supplies of natural gas, and that like oil, gas too would soon be caught in a seemingly unending spiral of price escalations.

It was commonly believed at the time that even with sharp price increases for conventional gas, we would soon be importing large quantities of Liquified Natural Gas, for as much as $11 to $13 per thousand cubic feet. This belief was further reinforced by Carter administration studies suggesting that there was little additional gas to be found in the U.S. at any price. It is easy to see then, how the notion of developing the large gas reserves of Alaska would prove popular with both the COngress and the general public. However, circumstances have changed.

While estimates vary, all competant authorities, ranging from the Colorado School of Mines to the United States Geological Survey are in general agreement that the U.S. natural gas reserves are quite substaitial. If one includes unconventional gas, then these resources are enormous. Moreover, both Mexico and Canada have vast resources which they are willing to sell to us at prices far below the scare figures so common only a few years ago. The question is then, " Are the national security implications used to justify the huge expenditure for ANGTS apparent in our current domestic and hemispheric supply situation?" For the standpoint of supply, any competant observer would have to answer that they are not. This, however, does not allow for some future circumstance. Therefore, it is legitimate to ask whether building the pipeline can be viewed as an investment in our security further down the line. Here, the answers are not as clear.

We must first recognize that questions of energy security do not revolve around natural gas, but rather are focused on imported petroleum. Therefore, natural gas contributes to enhancing energy security only to the extent that it is a substitute for oil. It can do this in two ways. First, it can be used as a short-term substitute for fuel oil in industrial and utility boilers with dual capability and secondly, it can be used as a permanent substitute both in large boilers, and in home heating. Short-term shifts can be accomplished readily if there is a supply available, but long-term conversions require both more time, and a greater capital investment. How then can gas fit in?

Boiler conversions have been taking place at a somewhat slower pace than might have been anticipated due to the restrictions under the Fuel Use Act, and the uncertainty over supply. The potential though, in existing boilers with dual fuel capability is still considerable. In the short run, it may be that as many as 900,000 barrels of oil per day could be offset in an emergency, provided supplies of gas could be found at a reasonable price. At the same time, for the first time in a number of years, gas utilities are beginning to seek additional connections from residential consumers in some areas, indicating that substantial oil offsets might be realized there as well. All of this, however, hinges on the question of price. If gas is too expensive, neither residential or industrial consumers will use it. This is especially true if a cheaper alternative to expensive gas exists. The problem with Alaskan gas is that a cheaper alternative does exist :conventional gas.

Contrary to the view so popular only a few years ago, our nation is not exhausting its conventional gas supplies. A study, soon to be released by the Department of Energy indicates that amazingly, supply additions to proved natural gas reserves last year were only 2 Trillion Cubic Feet less than consumption. In coming years, this reversal of the trend twoards diminishing supplies is expected to be further accelerated, so that we may again, one day soon witness the discovery of new reserves at a rate in excess of that at which they are consumed. This will not only tend to keep the price down, but will also tend to encourage natural gas use. The irony is that this broader use of natural gas will diminish the contribution that the fuel can make in times of interruption.

A second point we should not miss about the new reserve additions is that they are being discovered, by and large, in the lower 48, and with the exception of deep gas, will be far less expensive than the apparent cost of gas brought in by ANGTS. The existence of these reserves will act as a barrier to entry of Alaskan gas into the domestic market. No one is going to pay from $10 to $15 for Alaskan gas when they can purchase gas from the Overthrust Belt at $4.50. In short, the national security argument used so widely in 1977, may not be valid today. This is not to say that there is no place for Alaskan gas in our nation's energy mix, but rather that market forces will determine what that place should be, and when it will be taken.

As to the argument that the pipeline will be such a monumental undertaking that the market will fail, I can only say nonsense. Market failures can result from the existence of cartels, or from external circumstances such as wars, but the mere fact that a project is expensive does not constitute a market failure.

What is really happening is not that the market has failed, but that it has sent a signal. That signal is quite clear, and it says that unless some cheaper form of transportation is found, there will be no market for Alaskan gas in the U.S. It may well be then, that we would be better advised to examine alternate markets such as Japan to see if they could support the cost of building a pipeline due to their relative energy poverty.

What then, of the waivers themselves? Let us first address the question of ownership. The exclusion of producers from ownership never made sense. First, they will not be in a position to sell their gas at below market prices, as their costs are too high to permit such action. Secondly, given the large capital requirements of the project, it is senseless to exclude from participation a major source of funds. Finally, the notion that producer ownership would lead to undue concentration in the gas industry is not supported by the facts. The gas industry is, in fact, one of the least concentrated of our major industrial sector, including literally thousands of companies. This compares with the auto industry in the U.S. which has three and one half producers, and that just barely. Therefore, I can see no reason not to exempt producers from the restriction on ownership.

As to allowing the Federal Energy Regulatory Commission to alter the agreed on tariff at some later date, I cannot see any justification for not prohibiting such action. All too often, the government changes the rules in the middle of the game, and any place their ability to do so can be reduced, is to the long-term benefit of the consumer.

Similarly, expediting the hearing process will also work to the benefit of the consumer in that it will ultimately reduce the costs they must bear.

One notion that does trouble me, however, is that the U.S. ratepayer should bear full responsibility for the cost of the construction of the Canadian section of the pipeline, with no guarantee that there will ever be an Alaskan section. It seems to me that the U.S. consumer is being saddled with the lion's share of the risk, and with little in return.

In conclusion, I would like to thank the Committee for this opportunity to express my views, and to state that it is my belief that the waivers will make little difference one way or the other, if, as appears to be the case, the market is unwilling to accept the project.

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

United States Senate

COMMITTEE ON ENERGY AND NATURAL RESOURCES

James A. McClure, *Chairman*

NEWS RELEASE

Room 3104
Dirksen Senate
Office Building
Washington, D.C. 20510

(202) 224-4971

STATEMENT BY SENATOR MCCLURE
FOR PRESS CONFERENCE ON
ALASKA NATURAL GAS PIPELINE,
OCTOBER 19, 1981

GOOD MORNING, LADIES AND GENTLEMEN. SENATOR JACKSON, SENATOR STEVENS, SENATOR MURKOWSKI AND I ARE HERE TOGETHER THIS MORNING FOR THE PURPOSE OF INTRODUCING THE SENATE JOINT RESOLUTION TO APPROVE PRESIDENT REAGAN'S WAIVER PACKAGE FOR THE PRIVATE FINANCING OF THE ALASKA NATURAL GAS PIPELINE. AS SOON AS THE SENATE CONVENES, I WILL FORMALLY INTRODUCE THE RESOLUTION OF APPROVAL ON BEHALF OF THE THREE SENATORS AND MYSELF. EACH OF US THEN WILL DISCUSS IN DETAIL ON THE SENATE FLOOR OUR SUPPORT FOR THE PIPELINE AND THE PRESIDENT'S WAIVER PACKAGE.

THE INTRODUCTION OF THIS RESOLUTION CULMINATES SIX MONTHS OF ACTIVE REVIEW, DISCUSSION, AND NEGOTIATIONS AMONG THE FOUR OF US, WITH THE PIPELINE SPONSORS, THE FINANCIAL COMMUNITY, AND BETWEEN OURSELVES AND THE ADMINISTRATION AND THE LEADERSHIP OF OUR COUNTERPART HOUSE COMMITTEES. WE JOINTLY WROTE TO THE PRESIDENT ON JULY 24TH AND AGAIN ON SEPTEMBER 14TH URGING HIM TO CONSIDER AND SEND TO THE CONGRESS A WAIVER OF LAWS NECESSARY TO ENABLE PRIVATE FINANCING OF THE PIPELINE. SINCE SPRING, THE ADMINISTRATION HAS BEEN ENGAGED IN A PARALLEL DIALOGUE WITH THE CANADIAN GOVERNMENT, INCLUDING A NUMBER OF DIRECT DISCUSSIONS BETWEEN THE PRESIDENT AND PRIME MINISTER TRUDEAU.

THE PRESIDENT ON OCTOBER 7TH ANNOUNCED HIS DECISION TO SEND TO CONGRESS A WAIVER PACKAGE SIMILAR TO THE ONE WE FORWARDED TO HIM ON JULY 24TH AND AGAIN ON SEPTEMBER 14TH. LAST THURSDAY, OCTOBER 15TH, CONGRESS FORMALLY RECEIVED THE PRESIDENT'S WAIVER PACKAGE, THUS TRIGGERING THE 60 DAY CONGRESSIONAL REVIEW AND APPROVAL PROCEDURE UNDER THE ALASKA NATURAL GAS TRANSPORTATION ACT OF 1976. THE SENATE JOINT RESOLUTION OF APPROVAL WE ARE INTRODUCING TODAY MUST BE ENACTED, WITH BOTH HOUSES OF CONGRESS APPROVING, PRIOR TO THE EXPIRATION OF THE 60 DAY PERIOD. THREE DAYS OF HEARINGS IN THE ENERGY AND NATURAL RESOURCES COMMITTEE ON THE RESOLUTION WILL BEGIN ON THURSDAY. I BELIEVE ALL OF THE CO-SPONSORS HERE ARE CONFIDENT THAT THE RESOLUTION ULTIMATELY WILL BE ENACTED, AND HOPEFULLY ENACTED BEFORE THE END OF THIS SESSION OF CONGRESS.

-MORE-

ALL OF US ARE PLEASED, I AM SURE, THAT THE PRESIDENT DECIDED TO SEND US THIS PARTICULAR WAIVER PACKAGE, WHICH PRESERVES IN TACT OUR SUBSTANTIVE RECOMMENDATIONS TO HIM. THE ALASKA GAS PIPELINE WILL OPEN ACCESS TO PROVEN GAS RESERVES ON THE NORTH SLOPE WHICH EQUAL 15 PERCENT OF DOMESTIC GAS RESERVES AND WILL DELIVER 5 PERCENT OF OUR CURRENT ANNUAL GAS CONSUMPTION TO THE LOWER 48 STATES FOR A PERIOD OF 20 TO 30 YEARS.

SUCH ACCESS AND DELIVERY WILL MAKE A MAJOR CONTRIBUTION TO OUR NATIONAL ENERGY SECURITY, THE ECONOMIC GROWTH OF AMERICA, AND CERTAINLY OUR NATIONAL SECURITY. ALSO, AS THE PRESIDENT CABLED TO PRIME MINISTER TRUDEAU AND NOTED IN HIS FORMAL TRANSMITTAL STATEMENT, THE PROJECT IS "A SYMBOL OF U.S.-CANADIAN ABILITY TO WORK TOGETHER COOPERATIVELY IN THE ENERGY AREA FOR THE BENEFIT OF BOTH COUNTRIES AND PEOPLES (AND) THIS SAME SPIRIT CAN BE VERY IMPORTANT IN RESOLVING THE OTHER PROBLEMS WE FACE IN THE ENERGY AREA."

PERHAPS WHAT ALL OF US BELIEVE IS MOST IMPORTANT ABOUT THIS SPECIFIC PACKAGE IS THAT IT WILL PROVIDE A POSITIVE OPPORTUNITY FOR PRIVATE FINANCING OF THE PIPELINE, RATHER THAN ANY FEDERAL GOVERNMENT ASSISTANCE. LEGAL BARRIERS TO GAS PRODUCER PARTICIPATION IN FINANCING THE PROJECT WOULD BE MODIFIED TO ALLOW SUCH PARTICIPATION, WHILE RETAINING APPROPRIATE SAFEGUARDS, THUS ENSURING NEEDED EQUITY FINANCING FOR CONSTRUCTION. ALSO, POTENTIAL LEGAL IMPEDIMENTS TO ADEQUATE DEBT FINANCING ARE MODIFIED TO INCREASE THE SECURITY OF SUCH INVESTMENTS IN THE BILLING ARRANGEMENTS AND IN NEEDED REGULATORY PREDICTABILITY.

WE ARE CONVINCED THAT THE COMBINATION OF THESE SEVERAL MODIFICATIONS, WHICH THE PRESIDENT FOUND TO BE NECESSARY UNDER THE LAW "TO PERMIT EXPEDITIOUS CONSTRUCTION AND OPERATION" OF THE PIPELINE, WILL SUPPORT THE EARLY NEGOTIATION OF A VIABLE FINANCING PLAN WITH NEEDED DEBT AND EQUITY FOR THE PIPELINE. I BELIEVE WE ARE ALSO CONVINCED THAT THESE MODIFICATIONS, WHICH WILL BE IMPLEMENTED AND ENFORCED BY THE FEDERAL ENERGY REGULATORY COMMISSION UNDER STRICT REGULATORY PROCEDURES, CAREFULLY BALANCES THE VERY BEST INTERESTS OF THIS NATION, INCLUDING GAS CONSUMERS, PARTICIPATING FINANCIAL INSTITUTIONS, THE PARTICIPATING PIPELINES, PRODUCERS AND SPONSORS, AS WELL AS INTERNATIONALLY IMPORTANT CANADIAN INTERESTS. ON THAT BASIS, WE WILL URGE OUR COLLEAGUES IN THE SENATE AND THE HOUSE OF REPRESENTATIVES TO REVIEW AND CONSIDER MOST CAREFULLY THIS PACKAGE AND THE PIPELINE. HAVING DONE SO, WE ARE CONFIDENT THAT THEY WILL AGREE WITH US TO APPROVE THE PRESIDENT'S PROPOSAL BY ENACTING OUR SENATE JOINT RESOLUTION IN THE NEXT SIXTY DAYS.

THANK YOU, AND LET ME NOW DEFER TO MY CO-SPONSORS AND THEN TAKE QUESTIONS. SENATOR JACKSON.

(A SYNOPSIS OF THE PRESIDENT'S FINAL WAIVER PACKAGE IS AVAILABLE IN THE PRESS PACKETS.)

# # #

SYNOPSIS OF PRESIDENT REAGAN'S FINAL WAIVER PACKAGE
FOR THE PRIVATE FINANCING OF THE ALASKA NATURAL GAS PIPELINE

Producer Ownership Participation

President Carter's 1977 Decision recognized that "(P)roducer participation in the financing of the project is warranted due to the beneficiary status and their financial strength." However, it limited that participation by prohibiting producers from having an equity interest in the project. The prohibition was based upon antitrust concerns, as expressed by the Department of Justice. A more thorough analysis of the antitrust issues reveals that the producers' ability to exert monopoly control over the project, or to inhibit further development of North Slope reserves by controlling the sole transportation available to natural gas markets, would most likely stem from their ability to limit access to the system or restrict its expansion. By requiring the Commission, in consultation with the attorney General, to address the access and expansion issues at the time of the final ANGTS certificate issuance, the proposed waiver provides sufficient antitrust protection to meet the express concerns.

Conditioning Plant

President Carter's 1977 Decision excludes the conditioning plant from the description of the approved transportation system. The exclusion stems from the original certificate application which requested certification of facilities commencing at the discharge side of the conditioning plant facilities. The system described in the Decision was necessarily limited to the facilities for which certification was requested. As a practical matter, the economic effect of including the conditioning plant in the system is the same as treating the plant as a separately certificated facility and providing a conditioning cost allowance sufficient to provide for the recovery of the gas conditioning cost.

Billing Commencement Date

The proposed waiver is designed to address two interrelated tariff issues which are not dealt with in President Carter's 1977 Decision. Part (a) will enable the Commission to conform the tariff provisions to the tariff approved by the Canadian National Energy Board. The Canadian tariff provides for recovery of the full cost of service for the pipeline in Canada. The proposed waiver recognizes the Canadian decision, while protecting United States natural gas customers from the possiblity that the Canadian segment of the pipeline would be completed in advance of the time it would be necessary. Part (b) will enable the Commission to fashion a tariff that will provide an assured source of revenue for the payment of a minimum bill tariff. Such a tariff could conceivably go into effect in advance of completion and commissioning of all parts of the system. The minimum bill tariff would not go into effect before a date determined by the Commission to be the most likely date for the entire pipeline system to begin operation.

Evidentiary Hearing Requirement

The Natural Gas Act may be construed to require a formal, on the record, evidentiary hearing by the Commission on each application for a certificate of public convenience and necessity to construct or operate any segment of the ANGTS. The proposed waiver simply elitinates the requirement that such a hearing be held, leaving the Commission with discretion to determine whether such a hearing is necessary. The waiver is consistent with the purpose of the 1976 ANGTS to expedite decision-making on the project. The Commission would most likely substitute streamlined rulemaking procedures, with complete opportunity for public participation, on the remaining certificate issues.

SYNOPSIS OF WAIVER

Authority to Modify or Rescind Orders

The proposed waiver is intended to assure lenders for the project that the income stream which serves as security for their loans will not be reduced below the level necessary to retire the principal of the loan and to pay the interest thereon. It would accomplish this purpose by precluding the Commission from changing the rules of the game, so to speak, in a manner which would undercut the security of the loan. This objective would be achieved by withdrawing from the Commission its authority under the Natural Gas Act to change the project tariffs in such a manner as to reduce project revenues below the level necessary to service project debt.

Regulatory Status as a "Natural Gas Company"

This waiver is technical in nature.

Import and Export Authority

This waiver is technical in nature.

ALASKA NATURAL GAS TRANSPORTATION ACT - WAIVER OF LAW PROPOSAL

DRAFT WITNESS LIST

October 22, 1981 - Public Officials

XXX
U.S. Senate

XXX
U.S. House of Representatives

Hon. Alexander Meigs Haig, Jr.
Secretary of State

Hon. James G. Watt
Secretary of the Interior

Hon. James B. Edwards
Secretary of Energy

* * *

Hon. Jay S. Hammond
Governor of Alaska

* * *

Hon. John J. Rhett, Jr.
Federal Inspector

Mr. C.M. Butler, Chairman
Federal Energy Regulatory Commission

* * *

XXX
National Association of Regulatory
Utility Commissioners

October 23, 1981 - Sponsors

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October 23 cont.:

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New York, New York 10041

October 26, 1981 - User Groups

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

InterNorth

Addendum To Statement
of Robert P. Raasch

In Reference to Questions Posed by
Chairmen Sharp and Udall
by Letter dated October 19, 1981

Q. What are your reasons for being involved in the Alaskan Project?

A. We really have two reasons for being involved in the Project. First, the Alaskan Project is a means for us to bring Alaskan gas to our customers, thereby providing long term supply assurance needed in our market territory. Second, we believe that the financial commitment and business expertise we bring to the Project should allow us to earn an attractive return on our investment.

Q. What are your expectations as to the marketability and price of the delivered Alaskan gas in your service area?

A. We approach marketability by looking at the various supply alternatives available to us over the long term. These alternatives include conventional lower-48 supplies, unconventional natural gas supplies, synthetic gas, and imports, as well as Alaskan gas.

Alaskan gas is one of the more attractive alternatives when analyzed from a long term perspective. When Alaskan gas first begins to flow in the mid-80's, this project will be just beginning a life of approximately 25 years. That is true, even if no additional gas is found on the North Slope beyond Prudhoe Bay.

Over the life of this project as presently envisioned the real cost of delivered gas (adjusted for inflation) is going to fall. We do not visualize stable real prices for any other kind of supply project we could undertake, much less declining prices.

Over the first 20 years of the project, we expect the delivered cost of Alaskan gas to average about $5/MCF in 1980 dollars - a very attractive price. Additional gas discoveries could make that price even more attractive by reducing unit transportation costs.

We expect potential marketing challenges in the project's early years. We are examining ways, such as deferring depreciation, to overcome the relatively high initial delivered cost. Nevertheless, over the life of this project, Alaskan gas represents one of the best future energy bargains available to this country.

Q. What will the effective cost of the Project be to the various classes of your consumers?

A. We discussed the costs of delivering Alaskan gas to our 74 distribution customers utilities in the preceding answer. Our distribution customers differ widely in the way they classify service to the consumers they serve. They also operate under a wide variety of regulatory jurisdictions. We do not, therefore, know exactly how the delivered cost of Alaskan gas might be passed on to various consumer classes.

Q. What is the effect of the waiver proposal in assuring marketability of the Project's gas?

A. As we see it, the waiver proposal before you has little impact on marketability. We view the waiver package primarily as a prerequisite to further progress in obtaining private financing.

Q. What effect will partial or complete deregulation and part cularly deregulation of Prudhoe Bay gas (in 1985 or earlier) have on your participation in the Project?

A. The pricing of Prudhoe Bay gas is an important consideration in the marketability of the gas, as delivered, which itself is a key determinant in our level of participation. As we currently view the project, the gas appears very marketable in the long term.

Decontrol of Alaskan gas per se does not have to adversely impact the marketability of the gas; in fact, some have drawn a scenario which shows improved marketability. At this point, the certainty afforded by the NGPA pricing scheme makes us most comfortable with it. Assuming appropriate action by the producers and regulators, decontrol would not prevent us from participation.

Since nearly everyone connected with the project agrees that it must be kept economically viable we are optimistic about our participation.

Q. What is the extent of your financial involvement in the Project as compared to your other business activities?

A. We expect to make a substantial financial contribution for a corporation our size. To put it in perspective, in 1980, our corporation had assets of about $3.5 billion in all its business lines. Our financial participation could be in excess of 25% of that figure. Stated another way, our participation could equate to 4 or 5 times last year's earnings.

Of course, this level of commitment presupposes satisfactory resolution of some key issues. the most immediate of which is this waiver proposal.

Q. What degree of risk does this project represent to your shareholders, customers, and final consumers from failure or delay?

A. If the project fails, our shareholders, customers, and the consumers which our customers serve all stand to lose. The nature and degree of loss will depend on the nature and circumstances of the failure.

The most serious losses take the form of lost opportunities. Our customers and the consumers they serve would be denied access to Alaskan gas. Many of their alternatives (synthetic fuels, imported gas, imported oil) will cost much more over the life of this project than Alaskan gas will cost. Our stockholders will lose a business opportunity, one which is uniquely suited to InterNorth expertise and experience.

Delay costs everyone. As John McMillian has pointed out, inflation continues to drive the cost of this Project up. Each day this Project is delayed, when inflation is 10%, increases its cost by $6-8 million. Everybody loses as the Project is delayed.

Q. What contracts for Alaskan gas have your signed or you contemplate signing?

A. We have signed gas purchase contracts with Exxon and Sohio which cover approximately 18-20 percent of the Prudhoe Bay gas.

Q. What are the take-or-pay, indefinite pricing, and renegotiation clauses in such contracts?

A. Prudhoe Bay gas is "associated" gas, i.e., it is found and and produced in conjunction with oil. As is common with such gas, we are obligated to take or pay for all gas tendered by the producers for delivery.

Under both contracts, the gas is to be priced under provisions of NGPA.

In the event of deregulation of Prudhoe Bay gas, our contracts provide that the producers may elect to redetermine price. These redeterminations are to be based on formulas which generally involve either other prices paid in the general Prudhoe Bay vicinity or equating the delivered price of the gas on our system to distillate prices.

In the event the gas is not marketable, except at an economic hardship, the parties agree to seek ways to rectify such a situation under both contracts.

Q. To what degree do your financial commitments to the Project and the potential liabilities of your customers relate to your Partnership share in the Project versus your actual receipts of Alaskan gas through the Project?

A. Our corporate financial commitments to the Project have not yet been finally determined. Our tentative commitments will be influenced heavily by what is prudent for a company of our size. We will seek to balance the diverse interests we must serve. For example, if it is necessary to more closely balance our financial commitment with our gas dedication, we will do so by adjusting one or the other.

As for our customers, we will exert every influence to insure that they too are treated equitably in relation to other customers of this Project.

Q. What is your perception of the flexibility of regulation at both State and Federal levels, with and without the Waiver proposal, and how might that affect your ability to participate and the costs of the Project to your customers?

A. We are sure that if the regulatory climate is not perceived as reasonable by prospective lenders and other investors, the Project will either cost more to compensate for risk, or the capital will not be available at all. That portion of the waiver proposal which relates to regulatory certainty is certainly going to affect our ability to participate. We understand it also will affect the ability of lenders to make capital available for the Project.

That part of the Waiver package which assures us of the ability to pass along just and reasonable costs to our customers is very important to us. Once a tariff has been finally established, we need to know that we will continue to be able to recover costs which the tariff is designed to collect (as do the lenders).

Q. What are the comparative costs, supplies, security, and risks of consumer liability from the Alaskan Gas Project versus your other gas supply options?

A. As I previously mentioned, we believe Prudhoe Bay gas is extremely attractive as a supply source which will extend well into the next century. This is primarily due to our expectations that the price will decline in real terms over the Project's life. Most other options available in that same time frame will cost our customers more in terms of price (and, in some cases, in terms of security).

For example, there is always an element of uncertainty about gas purchased from overseas. Actually what our company seeks is a mix of supplies, so that if any major source falls short of expectations, we will still be able to serve our customers with manageable adverse consequences.

We are sure that our customers benefit from this approach. For example, we believe the relatively low risk of billing prior to completion is preferable to the risk of relying on imported oil. Any reasonable steps we can take to mitigate our dependence on unstable imports are worth real effort. This Project is such a step.

Q. What will be the effect of your participation in the Project on competition between you and other pipelines which are not participating?

A. From our perspective, Alaskan gas appears to be a very desirable supplement to our supplies, especially in comparison with alternatives that we perceive as available. On that basis we chose to participate in this Project.

Other pipelines had an opportunity to participate also. Their view can only be described by themselves; we do not know how they perceive the other alternatives and the likely costs of each.

Q. To what degree are your other assets and business activities insulated from costs arising from failure or delay of the Project, with and without the Waiver proposal?

A. Without the requested waivers, the project will not go forward and InterNorth's dollar exposure will cease to accrue.

With the waiver package, and assuming that the project goes forward, InterNorth will continue to contribute equity in the form of cash, and exposure will obviously continue to increase until the Project goes into service. Indeed, even after service commences there are risks should there be an extended service interruption. We will not know the full extent of InterNorth's exposure until the financing plan has been defined. However, it appears that, in addition to an equity contribution, InterNorth may be called upon to somehow secure a portion of the debt during the construction period.

STATEMENT OF

JAMES B. EDWARDS
SECRETARY OF ENERGY

Before the

ENERGY AND COMMERCE
SUBCOMMITTEE ON FOSSIL AND SYNTHETIC FUELS

and

INTERIOR AND INSULAR AFFAIRS
SUBCOMMITTEE ON ENERGY AND ENVIRONMENT

U.S. HOUSE OF REPRESENTATIVES

OCTOBER 21, 1981

Mr. Chairman and members of the Subcommittee, I am pleased to appear before you to discuss the President's waiver proposal for the Alaska Natural Gas Transportation System, or ANGTS. The President submitted this proposal to the Congress on October 15, 1981. I am here to support this waiver proposal, and to urge you to consider it carefully and expeditiously.

Background and Description of the ANGTS

In the winter of 1967-68 a wildcat drilling rig struck a large oil and natural gas reserve at Prudhoe Bay on the North Slope of Alaska. The proven natural gas reserves at Prudhoe Bay are estimated at 26 trillion cubic feet and represent approximately 13 percent of the present total U.S. proven reserves. When ANGTS is completed, these reserves are expected to supply initially approximately 5 percent of total U.S. gas consumption. There are also estimated undiscovered recoverable resources of around 100 trillion cubic feet of natural gas in Alaska of which a sizable portion is believed to lie on the North Slope.

Congress recognized the importance of bringing this gas to the lower 48 American market by enacting the Alaska Natural Gas Transportation Act of 1976 (ANGTA). That statute provided special expedited procedures for designation and approval of a system to bring Prudhoe Bay gas to the lower 48 states, thereby bypassing the normal, drawn-out regulatory process. Under procedures established by ANGTA, President Carter, in

the Decision and Report to Congress on the Alaska Natural Gas Transportation System (September 1977), designated the Alaska Highway route as the route for the pipeline. Congress incorporated that Decision in Public Law 95-158. The Alaska pipeline segment of ANGTS, to be constructed and operated by the Alaskan Northwest Natural Gas Transportation Company, will be a 745 mile pipeline from Prudhoe Bay running south along the existing oil pipeline right-of-way and then southeast along the Alaska Highway to the Canadian border. A gas conditioning plant necessary to prepare the gas for entry into the pipeline will be located at Prudhoe Bay.

There will be three other segments of the ANGTS. The Canadian pipeline segment will run from the Alaska-Yukon border to central Alberta, a distance of approximately 1500 miles. From Central Alberta the pipeline will fork into two legs. The Western Leg will carry gas to the the San Francisco area while the Eastern Leg will carry gas to the Chicago area. The two legs are being largely prebuilt to carry Canadian gas to the lower 48 states. The pre-build segments are now under construction and initial deliveries through the Western Leg have begun at the rate of 240 million cubic feet per day (the Western Leg was completed on schedule and under budget). The complete ANGTS would cover approximately 4800 miles.

The sponsors have estimated the direct construction cost of all segments of the ANGTS to be around $23 billion U.S. Let me point out that the Administration has not performed a

cost estimate of its own nor has it conducted a final evaluation of the sponsors' estimated costs. The $23 billion figure includes approximately $3 billion for the "pre-build" segments now completed or under construction. These figures are in 1980 U.S. dollars. The initial cost of the Alaska pipeline segment is estimated to be approximately $10 billion. The gas conditioning plant segment is expected to cost at least $3 billion. The Canadian pipeline segment is expected to cost at least $5 billion.

Both President Carter and President Reagan have taken a personal interest in the ANGTS. President Carter advised the Canadians that the United States supports construction of the ANGTS. President Reagan recently stated in a message to Prime Mininster Trudeau regarding this proposed waiver:

> "My Administration supports the completion of this project through private financing, and it is our hope that this action will clear the way to moving ahead with it. I believe that this project is important not only in terms of its contribution to the energy security of North America. It is also a symbol of U.S.-Canadian ability to work together cooperatively in the energy area for the benefit of both countries and peoples. This same spirit can be very important in resolving the other problems we face in the energy area."

In submitting the waiver proposal to Congress, it is the President's intention to remove certain legal obstacles to the private financing of the ANGTS. This will allow free market forces to operate and thereby determine whether this project will become a reality.

Waiver Proposal

Because of the extraordinary dimensions and complexity of the ANGTS, Congress envisioned that a specific waiver of law might be necessary to remove obstacles to "expeditious construction and initial operation." The waiver proposal is submitted for precisely that purpose pursuant to section 8(g)(1) of ANGTA.

The President has submitted a waiver proposal dealing with several provisions of law. Some aspects are entirely technical and I do not propose to discuss them here. They are discussed in the President's submittal.

Before moving to the specific elements of the waiver I wish to emphasize why we are taking this unusual step. The purpose of the waiver proposal is to facilitate private sector evaluation and finance of the project. Absent this waiver proposal, we believe the ANGTS cannot be privately financed.

There are three major elements of the waiver proposal to which I now turn. Section 1, Paragraph 3 of the President's Decision provides that ownership participation in the ANGTS is

open to anyone except producers of Alaska natural gas. Section 5, Condition IV-4, of the Decision contains a similar prohibition. Section 5, Condition V-1 provides that producers of significant amounts of Alaska natural gas cannot participate in ownership of the ANGTS; however, they may provide guarantees for project debt. This latter condition also excludes the producers from holding an equity interest in the project, having any voting power, or having any management control in the project. The President's proposal will waive these provisions to allow producers of Prudhoe Bay gas to participate in the ownership of the Alaska pipeline segment of the ANGTS and the gas conditioning plant segment. The scope of their role will be determined in negotiations by the interested private companies. I emphasize that there is an important proviso to this waiver provision to meet antitrust concerns. Any agreement on producer participation in the ANGTS is to be approved by the FERC, after consultation with the Attorney General, and upon a finding by the FERC that the proposed agreement would not (1) "create or maintain a situation inconsistent with the antitrust laws" or (2) create restrictions on access to the Alaska pipeline segment by other shippers or place restrictions on capacity expansion. We believe these safeguards provide sufficient Federal review to eliminate any possible antitrust violations.

The second important part of the waiver concerns the gas conditioning plant segment. Section 2, Paragraph 3, First Sentence of the President's Decision excludes the gas conditioning plant

as part of the ANGTS and from the final certificate to be issued by the FERC for the system. However, the President's decision does not exclude a payment by gas customers for conditioning costs. FERC also has not yet made a final ruling concerning payment for conditioning costs. To resolve this issue we propose to waive the provision that excludes the gas conditioning plant from the ANGTS. The gas conditioning plant would, of course, be subject to final FERC certification as part of the ANGTS. The cost of the plant is estimated to be at least $3 billion. As a part of ANGTS, the cost of the conditioning plant would be recoverable through FERC - approved tariffs along with pipeline construction costs.

The final element of the waiver proposal I want to mention involves the issue of when billing for the cost of ANGTS may commence. Section 5, Condition IV-3 of the President's Decision provides that consumers of Alaska natural gas cannot be charged any amount for the cost of the ANGTS at any time prior to completion and commissioning of all segments - American and Canadian - of the system. We propose a waiver of that provision so that the FERC could allow billing for transportation through the ANGTS prior to the time the whole system is completed and gas begins to flow, under certain specified, limited circumstances. Under this waiver element, the system would be divided into three parts for billing purposes: the Canadian pipeline segment, the Alaska pipeline segment, and the gas conditioning plant segment.

With regard to the Canadian segment, this waiver element would permit recovery of the full cost of service upon completion and successful testing of that segment; however, no billing could commence before a date established by the FERC, in consultation with the Federal Inspector, in issuing a final certificate for the ANGTS as the most likely date for the ANGTS to begin operation.

With regard to the Alaska pipeline segment, this waiver element would permit recovery of a minimum bill, that is, actual operation and maintenance expense, actual current taxes and amounts necessary to service debt, upon completion and successful testing of that segment. As with the Canadian pipeline segment, billing could not begin before the date set by the FERC as the date for the ANGTS to begin operation. Similarly, recovery of a minimum bill could occur for the gas conditioning plant segment upon completion and successful testing of the plant, but not before the completion date of the ANGTS established by the FERC.

I want to emphasize that this billing element is subject to important safeguards. First, the FERC is not required to allow pre-completion billing. For all three segments individually, it is simply authorized to do so. Second, cost recovery cannot be had before the date that the FERC has determined as the most likely date the whole system would begin operation. That limitation on recovery reduces the possibility that billing would, in fact, commence before completion and operation of the entire ANGTS. Finally, with

regard to both the Alaska pipeline segment and the gas conditioning plant segment, only a minimum bill could be recovered prior to the flow of gas through the ANGTS. Under these circumstances, there would be no return on equity. We believe this would provide a strong financial incentive for the sponsors to persevere and to complete the project.

In conclusion, it is clear that the project cannot be privately financed without this waiver proposal. The President's message to the Congress makes clear his intention, with the approval of Congress, to remove certain legal obstacles to private financing. As the President stated, the project is a symbol of U.S. - Canadian ability to work together in the energy area.

That concludes my prepared testimony. I will be pleased to answer any questions.

Appendix C

#21

TESTIMONY OF

GOVERNOR JAY S. HAMMOND

BEFORE THE

SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

ON THE PROPOSED WAIVERS FOR THE

ALASKA NATURAL GAS TRANSPORTATION SYSTEM

October 22, 1981

(and before House Committees, Oct 27, 1981)

We appreciate the opportunity to testify today with respect to the proposed waivers of law for the Alaska Natural Gas Transportation System, a subject of vital concern to Alaskans and the nation as a whole. With me are C. Deming Cowles, the State's Director of State/Federal Relations in Washington, D. C., and our counsel on gas pipeline matters in Washington, Robert H. Loeffler.

I have served as Alaska's Governor for nearly seven years. Over that time, I have seen the Trans-Alaska Oil Pipeline financed, constructed, and begin operation. Yet over the same time as I have watched and participated in gas pipeline matters, it has been a source of frustration to me that we as a nation have been unable to move ahead with the gas pipeline. Before we turn to the specific waiver package, I wish to review the basic principles that have formed the State's position from the beginning of my administration.

The State of Alaska supports the construction of the Alaska natural gas pipeline, and supports the construction of the pipeline by the Northwest Partnership along the proposed route. We believe this is the best available pipeline route, and that the line should be built now. I have made it a priority of my administration to see that the pipeline is built and to assist the project as much as we realistically can.

In 1977, officials of my administration testified before Senate and House Committees with respect to the President's Decision and Report to Congress on the Alaska Natural Gas

Transport System. Since then, the State has continued to support the project. I personally have communicated my support to the President (in 1979) and to the Secretary of Energy's special representative (in 1980). My representative has testified before the House Committee on Interior and Insular Affairs, expressing Alaska's support for the project.

In the winter and spring of 1980, several of my cabinet members and I, as well as other representatives of the State, participated in the negotiations that led to the Cooperative Agreement for the design and engineering of the Alaska gas pipeline and conditioning plant. The State participates on the Design and Engineering Board as a non-voting member. In Article 13.7 of that Agreement, the State "pledges its support for, and its cooperation and good faith in the exercise of its regulatory functions with respect to, the project, the ANGTS, and related facilities." We continue to abide by that pledge.

Since the Cooperative Agreement was signed in June, 1980, representatives of the State, including the Lieutenant Governor and the Commissioner of Natural Resources, have participated in the meetings of the Design and Engineering Board. This has served to keep us informed of progress on engineering matters and to help us become better acquainted with the major participants.

Alaska and the federal government share responsibility for permitting on the pipeline; the pipeline will cross nearly two hundred miles of State land. This joint responsibility is expressly recognized and accepted by Section 7(a)(5)(A) of the Alaska Natural Gas Transportation Act of 1976, which calls for a cooperative agreement between Alaska and the federal government to monitor the ANGTS.

The State has consolidated our permitting and monitoring functions under a State Pipeline Coordinator who reports directly to the Commissioner of Natural Resources. The Office of Pipeline Coordinator assumed the responsibility for surveillance of the gasline in January, 1978, nearly four years ago. Our experience with TAPS led us to conclude that the project would be better served by this arrangement.

We believe ANGTS stands alone in terms of the major national energy projects currently proposed. The technology required for the completion of ANGTS is almost entirely conventional even taking into account the special circumstances of Arctic construction. It is equally important that ANGTS involves no risk with respect to whether energy will result. We know that there are 26 trillion cubic feet of natural gas in the Prudhoe Bay reservoir, and that this gas will be available once the

transportation system is completed. There is no uncertainty as to the availability of an enormous amount of energy from Alaska's North Slope. Thus, once ANGTS is completed, gas consumers and the nation generally are assured of realizing deliverable energy for their investment.

We think the ANGTS is critical, not only because it will unlock the reserves at Prudhoe Bay, but because it will spur exploration and development of Alaska's storehouse of oil and natural gas. There are varied estimates of what additional quantities of natural gas and oil may be found in and around the North Slope of Alaska, but it is indisputable that it is one of the nation's most promising, if not the most promising, energy provinces. Completion of a transportation system for natural gas would not only encourage, but in a basic sense permit, the development of these resources. The State is and will remain committed to the protection of our other natural resources. Thus, exploration for and production of hydrocarbon products must be harmonized with Alaska's environmental concerns. We are certain these goals can be achieved. We are equally certain that, absent a system to transport North Slope gas to lower 48 markets, the economics of exploration and development of additional supplies of both oil and gas would be severely handicapped.

I am aware that many parties have asked about State financial participation, particularly in light of our temporary financial gain due to the increase in the price of oil. Since the beginning of the project, the State has been receptive to examining some financial participation in ANGTS. Of course, there are many factors, both short and long term, including the need for approval by the Legislature, that would precede any decision to invest. To date, full information as to the status of the financing plan, the prospects for its successful conclusion, and what, if any, appropriate role the State may play in the matter have not been available. Thus, we have not been able to conduct an in depth analysis of state financial participation.

Now that the waiver package has been introduced, it appears that many of the details of the financing plan will be crystalized. I have been assured by the project sponsors that the information Alaska needs to determine the viability of state participation will soon be available to us. In light of that fact, I have appointed a special committee headed by my Commissioner of Natural Resources, and consisting of the Commissioner of Revenue and the Attorney General, together with representatives designated by the Legislature, to investigate the merits of our financial participation in ANGTS.

In the past, the Governor proposed, and the Legislature enacted, legislation establishing a gas pipeline revenue authority to aid in financing construction of the gasline. Alaska was mindful then, as now, of our regulatory responsibilities with regard to the prevention of waste in the production of oil and gas from the Prudhoe Bay reservoir and with respect to environmental, health, safety and other functions. We are hopeful that any potential conflict between financial participation and these fundamental state responsibilities can be avoided as we begin consideration of the merits of State financial participation in ANGTS. I conclude by saying that we look forward to working with the project sponsors and receiving from them information that will permit us to make a prudent and responsible judgment on an investment in the gasline project.

Let me turn to the waiver package.

Alaska supports Congressional approval of the waiver package. We believe that it should assist a private financing of the project. Whether it will, of course, depends on how the financial markets respond to the project's financing plan. However, I am informed by my financial and legal advisors that adoption of the package should strengthen the final plan the project can offer to Wall Street. I will not address the

specifics of the waiver package except to say that they have been reviewed by my administration and are acceptable to the State. The package incorporates a number of provisions the State has advocated in the past as helpful to making the project a reality.

I would be pleased to answer any questions.

STATEMENT OF S.J. RESO,
SENIOR VICE PRESIDENT, EXXON COMPANY, U.S.A.,
BEFORE THE SUBCOMMITTEE ON FOSSIL AND SYNTHETIC FUELS
OF THE COMMITTEE ON ENERGY AND COMMERCE AND
THE SUBCOMMITTEE ON ENERGY AND ENVIRONMENT OF THE
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
UNITED STATES HOUSE OF REPRESENTATIVES
OCTOBER 22, 1981

On behalf of Exxon, I am here today to testify concerning the project to contruct and operate a system for transporting Alaska natural gas to the 48 contiguous United States.

PROJECT IN NATIONAL INTEREST

A transportation system for Alaska gas is in the national interest, first of all, to permit utilization of the large known gas reserves at Prudhoe Bay. The project will also provide a basic system which can be used or expanded to transport other gas that may become available on the North Slope or the interior of Alaska. In this way, the Alaska gas transpotation system should serve to encourage further exploration for natural gas in Alaska.

BACKGROUND FOLLOWING 1977 DECISION

On November 2, 1977, Congress approved a Presidential Decision designating the Alcan Project as the approved Alaska gas transportation system. That decision prohibited producers of Alaska gas from participating in the ownership of the transportation system. Two years ago, however, the Secretary of Energy invited the principal Prudhoe Bay producers to his office and at the meeting urged them to

propose terms, under which they could provide financial support for the Alaska segment of the transportation system.

Exxon was reluctant to become involved in the Alaska gas pipeline project for several reasons. Exxon was not engaged then and is not now engaged in the interstate gas transmission business and not inclined to commit funds to a new venture in that highly regulated business. We were barred by law from owning equity in the project. Providing indirect financial support, such as loan guarantees, would have been far afield from our normal lines of endeavor and not in our shareholders' interest.

At the urging of the Secretary and after negotiations involving the Department of Energy, the Justice Department, and the Alaskan Northwest group of pipelines sponsoring the project, we joined with Arco, Sohio, and the pipeline sponsors in an agreement (the Cooperative Agreement) to participate in the design and engineering phase of the project to achieve a reliable cost estimate for the Alaska gas pipeline and conditioning plant. The Cooperative Agreement was signed in June, 1980, and since then the producers have contributed 50 percent of the money spent over the life of the project for design and engineering of the Alaska segment. By the end of this year, the producers and pipelines will have spent almost $400 million on the design and engineering phase. Exxon alone will have spent more than $70 million in this effort. As a result, all of the participants are more confident now that the cost estimate for the project is reliable.

FINANCING

Producer Support

Also in June of 1980, at the urging of the Secretary of Energy, the Prudhoe Bay producers agreed to work with the pipeline sponsors to develop the sponsors' financing plan. In January of this year, Arco, Exxon and Sohio advised the project sponsors that each of the producers was prepared to support a modification of the sponsors' financing plan for the purpose of approaching the financial community, which would be asked to commit funds. Under the modified plan, each producer would have provided its share of 30 percent of the equity in the project and be responsible for arranging for its share of 30 percent of project debt based upon a project cost not exceeding $30 billion. The financing plan as modified covered all project facilities, including the conditioning plant, pipeline and compression and refrigeration stations in Alaska. The plan incorporated an essential concept, that each equity owner take responsibility for arranging for a share of project debt equal to its share of equity. The plan also included important conditions which are required for Exxon's participation in the project in any event; such conditions are: All funds for the project must be committed before start of construction; each participant's investment commitment must be limited and defined from the outset; the financing to be arranged by each participant must be accorded equal terms and conditions; there must be assurance that the Canadian segment will be financed and

completed without our involvement; all necessary government actions must be taken; and finally, the whole project must be economically viable.

Exxon's Support at Maximum

We have advised the Alaskan Northwest pipeline group that Exxon will not commit to support or arrange for more than its share of the 30 percent of project equity and debt allocated under the plan to Prudhoe Bay producers. That is Exxon could be responsible under the plan for about 11 percent of $30 billion (maximum) for the Alaska segment. This could require our company being responsible for providing or arranging for up to $3.4 billion pro-rata with funds brought to the project by the sponsors and the other producers. We believe that is a significant commitment to the project.

Financing Uncertain

We do not know whether the project can be financed even with producer participation. We leave the assessment of this issue to the financial community. They are in the process of evaluating the sponsors' plan and the ability of the participants to support their respective commitments. While I do not know what the final answer will be from the financial institutions regarding the private financing of the project, I can tell you that Exxon is prepared to support its share of the project on the basis I have outlined.

Waiver Proposal

You have before you, now, a proposal by the President for a waiver of law to facilitate implementation of the sponsors' financing plans. I will comment on the two parts of the waiver request which concern producer ownership participation and the conditioning plant.

PRODUCERS' EQUITY PARICIPATION

The President's Decision in 1977 prohibited producers of Alaska natural gas from participating in the ownership of the ANGTS. As mentioned before, if the project can be privately financed, Exxon is willing to invest in the project on the basis I outlined earlier, provided that the funds we invest receive equal treatment with funds invested by others and provided we have a voice in project management commensurate with our investment. The impediment to our investing in the project on such a basis is the prohibition in the Decision against such investment; therefore, waiver of the prohibition is necessary.

CONDITIONING PLANT IN SYSTEM

The 1977 Decision did not include in the system description the plant which will be required at Prudhoe Bay to condition gas for transportation. The conditioning plant is required because of the design of the transportation system. To reduce pipeline construction costs, the pipeline will be buried underground and therefore the gas must be refrigerated

to prevent thawing of the permafrost. To allow transportation of refrigerated gas, certain liquefiable hydrocarbons must be removed from the gas. Prudhoe Bay gas contains about 12 percent carbon dioxide, an inert gas. The carbon dioxide content does not prevent the use or the transportation of the gas, as is evident from the use at Prudhoe Bay and along the oil pipeline of more than 100 million cubic feet of gas per day for the last four years; but it would be costly to transport so much carbon dioxide through the transportation system. Accordingly, the conditioning plant will remove carbon dioxide from the gas. The plant will refrigerate the gas, and to power the pipeline, the conditioning plant will compress the gas to about 1,260 pounds per spare inch. All of these plant functions are necessary only because of the pipeline design. Also, there will be seven stations along the pipeline in Alaska to compress and refrigerate the gas. The conditioning plant and seven on-line substations will be an integral part of the transportation system. Construction of the plant as designed would be undertaken only in conjunction with construction of the rest of the pipeline system; the two segments are interdependent. The 1977 Decision of the approved transportation system excludes the conditioning plant. Waiver of that description is necessary to include the plant in the approved transportation system and in the final certificate for the system.

Conclusion

Exxon believes that the Alaska gas transportation system should be constructed and is prepared under the appropriate conditions to invest in that system. We have already invested our time, effort and money in Alaska over a period of two decades, and we are confident that Alaska will be a source of additional natural gas reserves for the nation over many years to come.

STATEMENT OF

H. ANTON TUCHER
Vice President
Bank of America NT & SA

BEFORE THE

SUBCOMMITTEE ON FOSSIL AND
SYNTHETIC FUELS OF THE HOUSE
ENERGY AND COMMERCE COMMITTEE

AND

SUBCOMMITTEE ON ENERGY AND
THE ENVIRONMENT OF THE HOUSE
INTERIOR AND INSULAR AFFAIRS
COMMITTEE

ON

October 22, 1981

AND BEFORE THE

UNITED STATES SENATE COMMITTEE
ON ENERGY AND NATURAL RESOURCES

ON

October 23, 1981

WASHINGTON, D.C.

Mr. Chairman and Distinguished Members of the Committee--

My name is H. Anton Tucher. I am a Vice President of Bank of America NT&SA with responsibility for oil and gas pipeline, electric utility, synthetic fuel and alternate energy project financings. I am here today as a financial witness regarding the waiver package you are considering.

I appreciate the opportunity to appear before you today to discuss the financing of the Alaska segment of the Alaska Natural Gas Transportation System (ANGTS). The purpose of my testimony is to give you an overview, from a banker's perspective, of the problems and risks perceived by lenders in assessing the financeability of the Alaska segment, to indicate the types of assurances lenders can be expected to require before extending funds to this project, and to comment on the waiver package submitted to Congress by the President. My purpose is to inform, not persuade. Ultimately, the President and Congress must resolve the fundamental public policy issues involved in the requested waivers.

Let me say at the outset that I will focus my remarks principally on the Alaskan segment of the pipeline and the conditioning plant. I shall refer to this portion of the overall system as the project. You are aware that the Canadian segment will be separately owned and financed -- the lead financing responsibility presumably will be handled by Canadian institutions. The system in the lower 48 states has already been partially "prebuilt" and financed. The issues involved

in the expansion and financing of the "lower 48" facilities required to carry the Alaskan gas have not yet been addressed by the bank group but the problems are clearly secondary to the issues confronting us in the Alaska segment.

Before I discuss specific issues involved in financing the Alaska segment, I would like to give you a very brief history of Bank of America's involvement in the project.

Bank of America has been involved with the pipeline sponsor group for the Alaskan Natural Gas Transportation System from the outset in 1976. For some time we served as commercial bank advisor on limited aspects of the project, particularly the types of tariff provisions needed to permit the pipeline to be project financed. This advisory relationship was terminated by mutual agreement in January 1980.

In late May 1981, we were asked, together with the three other banks represented here today, to review the financing plan presented to us by the sponsors with a view to making a substantial loan commitment for the project and arranging debt financing for the project as a lead managing bank. At the same time, we were asked to comment on a package of waiver requests prepared by the sponsors for submission to the President.

The essential parameters of the financing plan presented by the sponsors were as follows:

1. Capital costs on an "as spent" basis of $21 billion for the pipeline and $6 billion for the conditioning plant, with a completion assurance pool of an additional $3 billion.

2. A debt equity ratio of 75%/25%, and an equity split of 70%/30% between sponsors and producers.

3. The risk of non-completion to be covered by a "completion pool of funds", i.e., irrevocable commitments from lenders and no formal undertakings from creditworthy parties to assure debt repayment in the event of non-completion by a date certain and/or pre-completion abandonment.

During the summer, we began our review of the project. We looked at the questions of gas marketability, capital cost and technical feasibility of the project only to the point of considering how these questions should be studied in depth by the banks. We are in the process of identifying independent consultants to assist us in conducting technical studies necessary to evaluate the marketability of the gas, the capital cost estimates and construction programs, and the adequacy and deliverability of the gas reserves. While we therefore do not yet have an independent view on the technical and economic viability of the project, we are for the present operating on the assumption that the sponsors and producers - all responsible companies experienced in major energy projects - are proceeding with this project because, in their view, it is technically and economically viable. Independent verification of this assumption with the assistance of consultants retained by the banks can and will be made in due course in accordance with usual practice in major project financings.

To date, we have focused our investigation and analysis on three areas:

First, we surveyed on a global basis the likely availability of funds from the debt markets in amounts commensurate with the enormous size of this project. Without going into detail, let me say that we found that the debt requirements of this project are likely to test the limits of the world's capital markets. Just one set of numbers will

illustrate the magnitude of the problem. The aggregate legal lending limits of the 100 largest banks in the United States amounted to approximately $4.7 billion at the end of last year. The next 200 banks collectively could lend only a maximum of $1.4 billion and are not likely to be a very significant source of funds. In mentioning legal lending limits, I should point out that banks lend up to their legal limits only to their best and most creditworthy customers. For most major banks, loans up to their legal limits are the exception rather than the rule. In an effort to manage and diversify the risks in their portfolios, many banks have self-imposed "house" or "policy" limits that are considerably smaller than their legal limits. It would be reasonable to expect that these house limits would be applied to this project.

The ability to raise the enormous amount of debt financing implicit in the $27 billion capital expenditure estimate will depend on several factors, the overall financing structure, the unquestioned strength of the credit being offered, the terms being sought and the condition of world financial markets. It will also depend on lenders' perceptions of the U.S. government's attitude towards this project. Lenders throughout the world will be looking for a reliable legislative and regulatory framework within which the financing can be arranged.

I wish I could be more definitive on the question of funding availability than to say that, under the right set of conditions, it may well be possible to raise the required amounts. However, because it

will be necessary to obtain the participation of literally hundreds of the world's major lenders, the financing structure must be sufficiently strong to satisfy all of them.

Second, we analyzed the proposed financing structure presented by the sponsors. Our unanimous conclusion here was influenced very heavily by what we found in our funding availability study. To raise the required amount of money, the credit had to be very strong. Practically speaking, very strong means that lenders must be assured that there are creditworthy parties who have the financial capacity and incentive to assure timely project completion or, failing to accomplish completion by a date certain, have the financial capacity and obligation either to repay or to assume the debt in the event of non-completion. In the operating phase, the project must be capable of transporting a sufficient volume of gas, at a cost resulting in an assuredly marketable price; tariffs and tracking provisions must be unquestionably effective from the outset, and throughout the life of the financing; and these tariffs must generate a reliable cash flow to meet operating costs, interest and principal repayment obligations, normally with a margin of safety represented by return on and of equity.

We have given considerable thought to possible sources of credit support during the pre-completion phase. The banks were unanimous in their view that a completion pool of funds by itself did not provide sufficient assurance that the project could and would be completed on time. The size of the project relative to both the financial capacity of the sponsors and the size of the world capital

markets is simply far too great; the risks and uncertainties inherent in the project are too large; and the size of any reasonably attainable pool of funds would be too small. We told the sponsors and producers that in the professional opinion of the four banks, the project could only be financed if lenders were assured that creditworthy parties had undertaken to assume or repay the project debt in the event of non-completion of the project by an agreed upon date.

The banks reported our findings during the first phase of our work in a letter to John McMillian dated August 28, 1981. We are submitting a copy to you with the request that it be incorporated in the record.

We have not yet begun detailed discussions with individual pipeline sponsors and producers about the amount or terms of equity and pre-completion debt support that each party is prepared to provide, but it is apparent that the development of sufficient pre-completion debt support from this group, given the $27 billion capital cost estimate, represents a major challenge that will require considerable negotiations among the various parties.

Third, we considered the waivers presented to us by the sponsors. As I indicated, the banks' involvement with the waivers of law as a means of resolving lenders' concerns previously identified began in late May of this year when we were asked to comment on the proposed set of waivers prepared by the pipeline sponsors. We provided our views on that set of proposed waivers in our letter to John McMillian of June 3, 1981. A copy of the letter is being submitted to you for incorporation in the record. We identified certain of the

waivers as being of particular importance in facilitating the financing. As I will discuss later in more detail, we also suggested that the waiver request in regard to the commencement of billing under the tariff should preserve flexibility as to the possibility of further segmenting the Alaskan segment for commencement of billing or of establishing some other basis of earlier billing commencement as to some or all charges.

During June and July, we met with a number of Administration and Congressional principals and staff members to explain the banks' views on the waiver package. I think that it is important to point out that all the waivers included in the President's request were included in substantially the same form in the original package which was given by the sponsors to the banks in May. That package at that time also included items not now before you for consideration. None of the waivers originated with the banks.

With this background, let me now turn to the specific waivers being requested. Let me reiterate my purpose is not to persuade or to advocate but simply to tell you how the various provisions affect the financeability of the project, as we understand them.

I will focus my comments on waivers concerning producer ownership participation, billing commencement date, and authority to modify or rescind orders. These are the waivers which we believe have the most direct impact on lenders. The remaining waivers affect the financing but indirectly.

Producer Ownership Participation

In our judgment, producer participation in the equity of the project will significantly facilitate the financeability of the project. Lenders will understandably be very concerned that the ownership group have the financial capacity to assure timely completion and to provide necessary pre-completion debt support. The substantial equity participation by the three producer companies adds substantial financial capacity and thus important comfort to the lenders. Furthermore, we had it explained to us that the producers' willingness to provide any formal pre-completion debt support would be strictly on a pro-rata basis relative to their share of ownership vis-a-vis the pipeline sponsors. Thus, since the existing pipeline sponsor group does not have the capacity to provide all the necessary pre-completion debt support and insufficient support appears to be available from other sources, significant producer involvement in the equity and pre-completion debt support arrangements would seem to be practically essential. For that reason, we support the waiver to permit producer ownership participation in the project.

Billing Commencement Date

A number of fairly complex, distinct but related issues come into play here. Understandably, therefore, this waiver has caused the greatest misunderstanding. There appears to be misunderstanding of its purpose and effect, and misunderstanding of the position of the banks.

Let me first tell you what we understand the present waiver request would and would not accomplish for lenders to the project. For tariff purposes, it would essentially divide the project into two

segments in Alaska, the conditioning plant and the pipeline. It would authorize the FERC to approve tariff arrangements that would permit minimum bill charges, for operating costs, actual taxes, and debt service payments (principal and interest), relating to either of these two Alaskan segments, to commence after a date approved by the FERC, and upon completion of that segment. It would not, however, provide lenders for either portion of the project protection against the risk of non-completion of the portion to which they are lending. All that it would provide is protection against the risk of non-completion of the other Alaskan portion, or of the Canadian segment, or of other facilities needed to ship gas through the system. In our judgment, this limited protection against non-completion of facilities other than those being directly financed is, in practical terms, essential to permit private financing. Lenders will certainly not assume the risk of non-completion of other facilities. We see no creditworthy private party - not the pipeline sponsors or producers, nor the Canadian sponsors - who could reasonably be expected to assume this risk. Financial capacity limitations and considerations of prudence preclude this possibility.

Three additional points regarding this requested waiver should be made.

First, while this waiver provides limited protection to lenders, equity owners will have to wait until the total system is completed before the tariff provisions for return on and of equity come into force.

Secondly, it should be pointed out that this waiver is not a total departure from the present situation. Under existing law and FERC orders, the tariff relating to t'e Alaskan facilities is set to begin charges to the consumer once the system is completed and commissioned, but without the necessity of gas actually flowing. As things stand now, without the proposed waivers, the pipeline tariffs begin to operate even if gas cannot flow because the plant or gathering facilities have not been completed. The billing commencement waiver with regard to the Alaska project segments largely restores the situation that exists without the waiver change that incorporates the plant into the ANGTS.

The third point concerns the impact of a separate billing commencement date for Canada on the financing of the Alaskan facilities. The basic purpose of this provision is to facilitate the financing of the Canadian segment. This aspect is approprately addressed by other witnesses, but from the perspective of a lender to the Alaskan project one can say that separate Canadian billing commencement will directly facilitate financing of the Alaskan project facilities. By facilitating the Canadian financing, it should remove one area of uncertainty for the Alaska financing.

At this point, you might reasonably ask just how large the risk of non-completion of the various segments is in the perception of lenders, and exactly what assurance anyone can have that the overall system will in fact be completed. As I mentioned, the banks have not yet made an in-depth review of the construction plans, and I have no testimony on the precise risk of non-completion. I can, however, assure

you on two points. We will not go forward until we have done a "due diligence" investigation to satisfy ourselves on the technical, economic, financial and regulatory feasibility of completing the whole system. Secondly, even if the present waiver package is approved, no lender or equity owner in any segment would have any reason to proceed with his individual segment unless he were satisfied that his segment will in fact be completed. No money would be available from the tariff to lenders or equity owners unless their segment is completed.

Many distinguished Members of this Committee will probably be aware that the banks have strongly suggested to the sponsors, and in conversations with Administration and Congressional officials and staff have urged, that the waiver package preserve flexibility to permit some form of pre-completion billing commencement in Alaska beyond that contemplated in the present waiver request that would provide some form of consumer risk-taking or actual tariff charges to commence prior to completion of the Alaskan segment. A memorandum dated July 13, 1981, briefly outlining the banks' views on the early billing commencement issue, was supplied to Administration officials and to Committee Staff in both houses. A copy of this memorandum is submitted for inclusion in the record. We continue to believe that the delegation of authority to FERC to permit some limited but expanded form of pre-completion billing commencement would have been enormously helpful in facilitating private sector financing. With Congressional approval of the present narrower billing commencement waiver, the task of developing the needed pre-completion debt support will be far more ambitious. I cannot overemphasize the magnitude of the challenge that faces the sponsors and

producers in this regard. We will work with them. I wish I could give you assurance that we will succeed. All I can say is that without the requested waiver, as a practical matter, private financing cannot be arranged, and that with it we will give it our very best try.

Authority to Modify or Rescind Orders

So long as lenders to the project can look for payment of interest and repayment of principal after completion of the ANGTS solely to the project's ability to generate the necessary cash flows from charges passed on through the FERC approved tariff arrangements, including the tracking provisions by the individual shipper pipeline companies - and we know of no other practical source of post-completion credit support - lenders will lend only if they have confidence that they can rely on these FERC approved tariffs throughout the life of their loans. We have read with interest the recent opinion of the General Counsel of the FERC dealing with the present state of the law.

While it is true that lenders, including this bank, have on occasion been willing to assume this type of regulatory risk in much smaller transactions, those transactions are so different, both in size and in the nature of the underlying situations, as to make those cases, in our opinion, practically irrelevant for this project. To raise the required amounts of money in the capital markets of this country, and particularly abroad, will require the elimination of what has come to be known as "regulatory risk." In my opinion, this makes adoption of the requested waiver in this regard absolutely mandatory if private financing is to be arranged.

It is important to point out here that neither commencement of billing under a tariff nor regulatory certainty of that tariff will guarantee lenders payment of any money. They simply provide a reliable regulatory framework within which contracts may be made. Performance under these contracts and the marketability of the gas involve risks that lenders must appraise in order to determine the acceptability of the credit.

I have focused my comments on those items of the waiver proposal which we view as the most critical for achieving private financing of the project. The remaining items, some of which are of a purely technical nature, may each add perceptibly to the feasibility of attaining private financing for the project, either by facilitating the certifications for the project as with the evidentiary hearing waiver, or by necessary clarifications as with the regulatory status of the project as a natural gas company. However, from a lender's standpoint, they are clearly overshadowed by the importance of the three items I have discussed today. I cannot emphasise enough that without approval of these waivers, private financing for the project is not possible. On the other hand, I cannot tell you that approval of the waivers will assure private financing for the project. What the waivers will accomplish is to provide a framework within which negotiations can continue in an effort to structure a financing plan which will be acceptable to the various interested parties including the literally hundreds of the world's major lenders necessary to finance the project.

Thank you. I would be happy to respond to any questions you may have.

STATEMENT OF

STEPHEN W. JENKS
Vice President of
Morgan Guaranty Trust Company of New York

BEFORE THE

HOUSE SUBCOMMITTEE ON FOSSIL AND
SYNTHETIC FUELS OF THE
ENERGY AND COMMERCE COMMITTEE

AND

HOUSE SUBCOMMITTEE ON ENERGY AND
THE ENVIRONMENT OF THE
INTERIOR AND INSULAR AFFAIRS
COMMITTEE

ON

October 22, 1981

Statement of
Stephen W. Jenks
Vice President of
Morgan Guaranty Trust Company of New York

Mr. Chairman and members of the Committee.

My name is Stephen W. Jenks and I am a Vice President of Morgan Guaranty Trust Company of New York. Morgan Guaranty is one of four banks retained by Northwest Alaskan Pipeline Company on behalf of the pipeline sponsors (hereinafter referred to as Sponsors) to review the Sponsors' financial plans and the capacity of the world capital markets and, ultimately, to consider being a lender and a lead manager for the financing of the Alaska segment of the Alaska Natural Gas Transportation System (hereinafter referred to as the Project). We were also asked to comment upon certain waivers of law designed to facilitate private financing of the Project which had been prepared by Northwest Alaskan for consideration by the Administration. During the course of our engagement, which began in June of this year, we have had discussions with the Sponsors and with the three oil companies who have been proposed as equity participants in the Project (hereinafter referred to as Producers). We have also had numerous meetings with Northwest Alaskan.

Based upon these meetings, our initial evaluation of the international financial markets, the financial arrangements currently being discussed between the Sponsors and the Producers and our professional judgment as bankers, we support the package of waivers which the President has submitted to you as a necessary element for raising private financing for the Project -- that is financing without

U.S. Government funds or guarantees. We cannot say at this time whether the waiver package is sufficient to assure private financing for the Project, but we believe that it is a pre-condition to any successful private financing plan.

We support the entire waiver package, but we wish to highlight three of its elements which we consider to be of particular importance to lenders:

1. Producer Ownership Participation. In our judgment, the credit capacity of the existing Sponsor group is insufficient to attract the necessary funds to complete the Project. We feel that an ownership interest in the Project by the Producers would constitute an important additional element of credit support for the Project. Accordingly, we support the waiver necessary to permit such ownership.

2. Regulatory Certainty. Any private financing plan for this Project will require lenders to rely upon the tariffs and other orders issued by the Federal Energy Regulatory Commission. Borrowings required for this Project will be several times greater than the private sector has provided for any single project in the past, and the involvement of both U.S. and foreign lenders will be essential. In our judgment, lenders will be unwilling to advance substantial funds if there is a risk of a regulatory agency changing the tariff provisions and other crucial regulatory aspects of the Project after funds have been committed. After completion of the Alaska Natural Gas Transportation System, cash flow generated through tariffs will be the only source of funds for debt repayment. It is therefore important that regulatory certainty be provided. Regulatory certainty is needed both with respect

to the tariffs charged by the pipeline companies to shippers of gas and with respect to the tariffs charged by those shippers to their customers. This will not only remove a major risk but will also provide lenders with the additional comfort of knowing that the United States considers the Project to be of sufficient national importance to remove administrative and regulatory impediments.

3. Billing Commencement. We support the provision in the waiver package that would permit the commencement of billing for the Alaska pipeline segment and the conditioning plant segment before the completion of the entire Alaska Natural Gas Transportation System, including the Canadian segment. However, we cannot now say that this provision is adequate to attract private financing.

Our concern stems from the unprecedented size of the Project, the limits on the financial resources that can be committed by Sponsors and Producers and the capacity of the world capital markets. As we advised the Sponsors in our letter of August 28, a copy of which is furnished herewith, in order to raise from $12 to $18 billion for the Project from private institutions, the loans must be supported by creditworthy parties at all times. Such creditworthy parties include Sponsors, Producers, consumers through a tariff mechanism, and other beneficiaries of the Project. Until we have seen how much each Producer and Sponsor proposes to commit in equity and debt support and have determined whether or not those amounts are within each Sponsor's and Producer's financial capacity, we cannot say to what extent and for what periods support must be available from other creditworthy parties,

including consumers. For example, it could be necessary to have other billing provisions which would reduce the overall financing needs of the Project. Therefore, until a definitive financing plan has been developed, we cannot be sure if the billing commencement provision in the waiver package will be adequate.

In conclusion, we support the waiver package as a necessary step in the process of raising financing for the Project without U.S. Government funds or guarantees. Whether or not this package will be sufficient to ensure such financing we are unable to say at this time.

This concludes my statement and I would be happy to answer any questions that you may have.

STATEMENT OF

STANLEY J. LEWAND
Vice President
The Chase Manhattan Bank, N.A.

BEFORE THE

HOUSE SUBCOMMITTEE ON FOSSIL AND
SYNTHETIC FUELS OF THE
ENERGY AND COMMERCE COMMITTEE

AND

HOUSE SUBCOMMITTEE ON ENERGY AND
THE ENVIRONMENT OF THE
INTERIOR AND INSULAR AFFAIRS
COMMITTEE

October 22, 1981

AND BEFORE THE

SENATE COMMITTEE ENERGY AND NATURAL RESOURCES

October 23, 1981

Mr. Chairman and members of the Committee. My name is Stanley J. Lewand and I am a Vice President of The Chase Manhattan Bank. I head up the Public Utility Division of Chase, which is responsible for Chase's major involvement in the financing of gas and electric projects in the United States. I have been responsible for the Chase public utility area for 13 of my 44 years with Chase.

While Chase has followed the progress of this project from its inception, we were formally retained by the gas pipeline sponsors in May of 1981 to review the plan for the financing of the Alaskan segments of the Alaska Natural Gas Transportation System (ANGTS), to provide advice on funding the Alaskan segments in the world capital markets, and to comment on certain requests for waivers of law which were being submitted by the sponsoring group to the Administration. Our advice to the sponsors and our testimony today reflect not only our position as a prospective lead manager of the financing, but also as a prospective lender of very large amounts to the ANGTS project. Please keep in mind that we are being asked to consider lending $3 to the project for each $1 of equity provided by the owners. We are keenly aware of our responsibilities to our depositors, our stockholders and the public, including our responsibilities under law, to engage only in prudent lending practices. Therefore, as in the case of any loan made by Chase, our loans to the ANGTS project can only be made if the loans satisfy fundamental credit criteria. Our initial responses were contained in several letters and a memorandum (June 3, 1981 and July 13, 1981 regarding waivers; and August 28, 1981 regarding funding and the sponsoring group's financial plan), copies of which are being submitted with this testimony.

Chase is, as you know, one of a coordinating group of four banks, each of which has been given similar roles and charged to work as a group in examining all aspects of this unprecedented financing request. Since May 1981 the banks have had numerous meetings among themselves as well as with the sponsors and the gas producers. Based upon our work to date, The Chase Manhattan Bank is prepared to support the entire request for waivers. We share the views expressed by President Reagan in his message to the Congress that approval of this waiver package will enhance the likelihood of successful private financing. We also share with the President his conclusion that this project will contribute to the energy security of North America.

The Chase Manhattan Bank for many years has expressed publicly its concern about the inordinate dependence of the United States upon imported hydrocarbons to meet its energy needs. We feel as strongly today as we have in years past that this potential substitution of natural gas for imported oil, which may have the effect of reducing imports by approximately 350,000 barrels per day (the oil equivalent of 2 billion cubic feet of gas per day), will contribute very significantly to this country's national security.

We view the request for these waivers not only as necessary conditions precedent to the structuring of a workable financial plan but also as clear signals to the international community of lenders that this project is of great significance to the United States. As we attack the syndication of this $27 billion project among the lenders of the world we would hope that strong signals will continue to emanate from our government which will

reflect no diminution of interest among the many beneficiaries of a secure delivery system for these quantities of gas from United States sources in Alaska.

In project financing, risks and rewards must be equitably shared among the various beneficiaries of the project. This sharing is accomplished through active participation by all beneficiaries in the negotiating process, including the participation of Congress through the waiver process we are engaged in today. Certain legal impediments have existed prior to the submission of this waiver package that have inhibited a free and constructive dialogue among some of the beneficiaries of the project. It is most important therefore that the way be cleared for the type of give and take negotiating process that addresses each of the financing elements of this total endeavor.

We must review in greater detail the capacity and willingness of the pipeline companies to contribute equity and to undertake contingent obligations; similarly we must review and assess the same attitudes on the part of the owners of the gas, the producers; we must reexamine the capacity of the global credit markets to ascertain in a more specific sense their capacities and appetites for the credit structure that will evolve from the negotiating process. We must also independently assess both the marketability of the gas to be delivered and the engineering and cost estimates of the Alaskan segments. And we must try to assess in our own minds as lenders the attitude of a future Congress with regard to the demands that possibly may be placed upon the consumer to begin paying for

these Alaskan segments before the total delivery system is complete and gas is flowing.

In our opinion, and based upon the knowledge we have of many of the pipeline sponsors, we do not feel that these companies in the aggregate have sufficient credit strengths to support the debt necessary to finance the $27 billion Alaskan segments. That which cannot be supported by the pipelines must obviously obtain its support from other creditworthy sources. This will be the subject undoubtedly of future negotiations among all participants and will be fundamental to the credit structure of the financing plans. How equity will be shared among the parties and how contingent obligations will be allocated will be the basis for the ongoing work in the financing of this project.

The size and complexity of this financing are viewed with a good degree of awe by the lenders. Lenders have indicated in our preliminary conversations both here and abroad that they are not willing to accept the risks that the delivery system might not be completed nor are they willing to accept the risk of a future regulatory body changing the conditions under which the tariff and tracking mechanisms have been allowed to be implemented. These lenders have also indicated to us, and we concur in their attitudes, that they must be assured of the timely repayment of their debt and the interest thereupon. The word <u>timely</u> here is important because we will be obtaining funding from various groups of lenders with terms that might range from three to twelve years. A revenue stream must be

defined and considered dependable for the lender to put his money at risk. Thus it must follow that when completion of the segment occurs, but not later than a date certain, the so-called early commencement of billing must be allowed at a minimum in order to ensure that a revenue stream is available for debt servicing.

We cannot say at this juncture, absent a more definitive financing plan, that approval of the waiver requests will ensure that the financing will be accomplished. We do believe, however, that if the Congress permits the proposed waivers to become effective, the private party participants in the project may be able to reach agreement upon the level and degree of equity and credit support which each can contribute. Such agreement, together with properly constructed tariff and tracking mechanisms, will provide the necessary underpinnings to permit us to continue our determined efforts to try to structure the financing of this project. Reggie Jackson, of the New York Yankees, put it aptly not too long ago when he said of himself modestly, that he was the straw that stirred the drink. This waiver request, if approved, will similarly be "the straw that stirs the drink."

Thus, with regard to the purpose of our appearing here today, i.e., to discuss the proposed waiver package, let me make the following comments:

With regard to producer participation, it is our understanding that the producers would not be willing to accept the risks associated with the construction of this project absent ownership roles. The waiver package

addresses these ownership roles and we concur in the need for waiver in order to successfully enlist their financial support.

With regard to regulatory certainty, we have long been concerned with the very specific provisions of the Natural Gas Act that may not allow one regulatory body to bind the actions of a future regulatory body. This particular concern of ours was admirably described in the memorandum of August 18, 1981 by Charles A. Moore, General Counsel, Federal Energy Regulatory Commission to the Hon. Phillip R. Sharp and Hon. Clarence J. Brown, which addressed the question of the need for regulatory consistency. Our concerns are no less than those of the author of that particular piece. Our concerns apply to future Congresses as well, but it is our hope that given loud, clear and unmistakable signals with regard to the national need for the gas from Alaska, these concerns will be ameliorated. United States lenders may make a judgment in this regard, and this judgment will be significantly affected by the undertakings of all creditworthy parties. However, regardless of any such undertakings, if foreign lenders are given reason to be concerned about the constancy and commitment of Congress with regard to debt service, they may have second thoughts about lending to the project.

With regard to early commencement of billing, it is inconceivable that lenders will put their money at risk without some assurance of a revenue stream being available to repay their debts in a timely fashion. Again the word is <u>timely</u> and since various amounts will be loaned to this project having widely differing maturities, the date certain of commencement of the

revenue stream is important. The waiver package calls for such a revenue stream after the completion of each of the Alaskan segments (the pipeline and the conditioning plant) without regard to the status of the other segment and we find that a most important and laudatory concept. Whether or not a lender will be willing to wait until the completion of each segment and a period thereafter for the beginning of the repayment of his debt is conjectural and for that reason we would hope that this Congress will accept the concept of the dynamic nature of this financing and be willing to hear and react to future needs should the global financial community find the early commencement of billing on these two segments, as presently defined, not sufficient.

With regard to evidentiary hearing requirements, I think that the history of regulation and the potential for further delay in the process of reaching a decision make it desirable for FERC to be granted discretion to hold hearings only when it deems such hearings appropriate. Time is important in the construction of this project and in the delivery of our own gas from Alaska. The more expeditious we can make the hearings before the regulatory commissions, the less will be the cost of the delivery system and the greater will be the benefits to the eventual consumer.

This will conclude my remarks before this committee. I would, of course, welcome any questions that you may wish to address to me. Thank you for your consideration.

STATEMENT OF

ROBERT H. GRAHAM
Vice President of Citibank, N.A.

BEFORE THE FOSSIL AND SYNTHETIC
FUEL SUBCOMMITTEE OF THE HOUSE ENERGY AND
COMMERCE COMMITTEE AND THE ENERGY AND
ENVIRONMENT SUBCOMMITTEE OF THE HOUSE INTERIOR
COMMITTEE OF THE UNITED STATES HOUSE OF REPRESENTATIVES

OCTOBER 22, 1981

AND

BEFORE THE COMMITTEE ON ENERGY AND
NATURAL RESOURCES OF THE UNITED STATES SENATE

OCTOBER 23, 1981

WASHINGTON, D.C.

CONGRESSIONAL TESTIMONY REGARDING THE FINANCING OF THE ALASKAN COMPONENT OF THE ALASKAN NATURAL GAS TRANSPORTATION SYSTEM

Mr. Chairman and Members of the Committee:

My name is Robert H. Graham. I am a Vice President of Citibank, N.A. and have responsibility for the Bank's lending activities to the regulated energy businesses located in the western two-thirds of the United States.

The prepared remarks in this statement are intended to briefly summarize the activities Citibank has participated in, with the other three Banks represented here, regarding the financing of the Alaskan Gas Pipeline Project since we were presented with a "financing plan" by the Alaskan Northwest partners in May of this year. This includes comments on the group of waivers submitted by the President. Together with Bank of America, we previously served as a commercial bank advisor on limited aspects of the Project. This advisory relationship was terminated by mutual agreement in January 1980.

My remarks represent solely the views of Citibank, as each of the other three participating banks will be providing its own prepared comments.

I. Role of the Banks

II. Financing Plan Review

III. Waiver Proposals

IV. Specific Waivers

V. Funding Availability

I. Role of the Banks

Alaskan Northwest has asked the four Banks represented here today to play two separate but related roles in the development of the financing of the Alaskan Natural Gas Transportation System (ANGTS):

First, each of the Banks has been asked to consider the concepts underlying the "financing plan" presented to it by the Alaskan Northwest partnership for the financing of the Alaskan component (the Project) of the ANGTS and whether, based on these concepts, it could participate in a significant way as a lender to the Project, and

Second, each Bank has been asked to consider and to advise Alaskan Northwest as to whether, in the Banks' view, the "financing plan" would serve as an adequate basis upon which to raise the amount of debt required by the partnership to finance the Project.

Implicit in our consideration of these issues was the understanding that the Banks would respond to Alaskan Northwest outlining fundamental conditions needed to finance the Project whether or not the "financing plan's" concepts were acceptable in their entirety; this response would be consistent to the extent possible with the private sector financing approach.

The Banks were not engaged as "financial advisors" to Alaskan Northwest as one may broadly define that role. Our "advisory" function has essentially covered the roles outlined above, although we have also suggested modifications to the "financing plan" related to the obtaining of bank debt financing for the Project.

Citibank views its role primarily as a prospective lender, and a significant one, to the Project; secondarily, and as a consequence of its possible willingness to be a significant lender to the Project, as a lead manager in the arrangement of financing for the Project from the domestic and international capital markets. We should not be viewed as an investor in the Project who would be expected to assume equity-type risks.

The concepts underlying the "financing plan" presented to us by Alaskan Northwest are embodied in a letter dated May 19, 1981 addressed by Northwest Alaskan to the three producers (Arco, Exxon, Sohio); it has essentially the following elements of significance to prospective lenders:

(1) The necessary financial commitments to the Project are calculated on the basis that capital costs, on an "as spent" basis, would be $27 billion.

(2) 70% of the equity would be contributed by the Alaskan Northwest partners (the "sponsors") and 30% would be contributed by the producers, with each group responsible for arranging an equivalent percentage of the Project's debt.

(3) The debt to equity composition would be 75% debt, 25% equity.

(4) Over and above the $27 billion there would be a "completion assurance pool" of $3 billion to be funded by the sponsors/producers on the 70%/30% basis. We were further advised that there was to be no completion support beyond the foregoing, such as traditional completion guarantees by creditworthy parties to assure debt repayment in the event of non-completion.

We have not yet been advised of the individual percentages of ownership to be held by each sponsor and producer.

We undertook the assignment asked of us knowing full well that the magnitude and apparent complexity of the financing is unprecedented. We also knew that the "financing plan" presented to us represented only a set of concepts outlining a financing approach to the Project agreed to by its principals. Our willingness to take on the assignment was conditioned to a large degree by the reputation of the companies supporting the Project and by the significance of the Project's natural gas supplies to the country's domestic energy resources.

We have been and we continue to be impressed with the significance of this Project in adding the North Slope natural gas reserves to the energy supplies of the United States. While we have not made a value judgment as to whether the Project is in the "national interest," others who are more competent to do so than I have made that judgment and have provided substantial encouragement to its development.

In addition, the sponsoring companies to this Project, and here I include the producers, are highly reputable concerns which have extensive experience in the development of major energy supply projects; they have made, and are prepared to make, a substantial financial commitment to the Project; while I will as a potential lender evaluate their respective financial capabilities to undertake their commitments to the Project, and test the premises on which the feasibility of the Project is based, I would only do this as part of a thorough and substantive review of their creditworthiness and of the Project's fundamentals. I view this as standard operating procedure for a prospective lender.

In summary, being asked by this group of companies to work on the financing of this Project is an opportunity and challenge which has been, and will be, responded to by Citibank's best endeavors.

II. Financing Plan Review

We understand that sometime in May, the sponsors and the producers concluded their discussions regarding the concepts underlying the "financing plan" which I have just described and agreed that it should be presented to the financial community.

Then, during the last week in May, Alaskan Northwest had separate meetings with each of the Banks to present a "project overview." The "project overview" included presentations by company people, as well as presentations by their financial advisors, engineering, marketing and other consultants.

It was at this meeting that each Bank was given the May 19th letter which set out the financing concepts agreed to by the sponsors and the producers, and was asked to consider a possible role as a lead lender to the Project. Shortly thereafter, each Bank was also given a draft of a proposed waiver package which the sponsors and the producers were in the process of considering, and was asked if it would review the waiver package and give Alaskan Northwest any comments that it might have on the proposal.

During the first two weeks in June, the Bank group held its first meetings, discussed how to proceed, and drafted a joint engagement letter which was sent to Northwest Alaskan on June 18th.

The engagement letter outlined the Banks' understanding of the Project, the purpose and scope of our proposed involvement, and the approach which we expected to follow in analyzing the material made available to us by the Project companies.

We proposed to divide our preliminary work into two phases:

During Phase I, we would conduct a preliminary review of world capital markets and present our initial assessment of the amounts and of the basic terms on which we believe funds from these sources might be available. We would begin to develop an approach to enable us to assess the project engineering, gas supply and gas marketability information developed by the Project companies, as well as the financial modeling work done by them. We would also identify

consultants to assist us in a detailed review of this information in Phase II of our work, briefly described below.

Phase I of our work was completed in August, and a letter summarizing our conclusions, which we are submitting to you today with the request that it be incorporated in the record of these proceedings, was sent to Northwest Alaskan on August 28, 1981. In September, we met with the companies to discuss the results of our Phase I work, including the conclusions reached in our preliminary study of world capital markets and of applicable funding conditions; these conclusions are:

(1) The financing of all segments of the Alaskan Natural Gas Transportation System must be viewed for credit purposes as an interrelated program and must be carefully coordinated. The System will be viewed by lenders as essentially comparable to a single borrower since it is our understanding that the financing for each segment will basically rely on a common source of repayment -- the tariff arrangements with the Alaskan gas shippers.

(2) There is approximately $12-18 billion of funding available for any one borrower that is considered by prospective lenders as the risk equivalent of A/Baa credit. This estimate contemplates an amount of $4.5 billion to $6 billion from the private U.S. capital markets.

(3) The bulk of the funds necessary for construction of the Project cannot be raised on the "completion pool of funds" basis as presented to the Banks for their consideration; this concept results in the Banks and other lenders essentially taking an "equity" risk and does not meet the credit criteria required.

(4) The Project, to be financeable in the private sector, will require:

- debt repayment assurances during the pre-completion phase from creditworthy parties; in our view these could be provided by a combination of the beneficiaries to the Project, e.g., sponsors, producers, royalty owners, consumers,

- after completion, acceptable tariff arrangements including tracking provisions approved by the Federal Energy Regulatory Commission, and

- technical and economic feasibility.

In summary, and I quote from the August 28th letter, "if the required credit support can be arranged, the Banks are of the opinion that a modified plan may well provide the basis for private sector financing of the Project."

The Banks are now meeting with Alaskan Northwest to review consultants and to commence Phase II of our work. Phase II would involve an in-depth study

by the Banks of gas supply, project engineering, gas marketability, financial modeling and funding with a view to developing a summary of terms and conditions which would be mutually agreeable and could be presented to potential lenders.

In addition, the Banks understand that intensive negotiations have taken place among the Project principals, dictated in large part by the expression of our views that modifications to the sponsors' financing concepts would be necessary. We are not in a position to advise you with respect to the details of the negotiations which have been, and we understand are presently being, conducted since we are not a party to those negotiations.

III. Waiver Proposals

I would like to refer to the sponsoring companies' request that, as a part of our considera' n of the proposed "financing plan," the Banks review and comment on th ivers.

At the end o ay, Alaskan Northwest gave the Banks a draft of waivers to review with the request that we give them any comments that we might have. We forwarded our comments on those waivers which we believed would be of particular concern to lenders to the Project to Alaskan Northwest in a letter dated June 3rd which we are submitting to you today with the request that it be included in the record of these proceedings.

During the months of June and July, at Alaskan Northwest's request, the Banks had several informal discussions with staff of the executive branch

and both houses of Congress to explain our views on the waivers. In that connection, we circulated a memorandum dated July 13th outlining our views on the billing commencement date issue because we felt that there was confusion regarding the Banks' position on this issue. Our July 13th memorandum is being submitted to you today with the request that it be included in the record of these proceedings.

In keeping with our role, we have analyzed the proposed waivers from the standpoint of their impact on the financing approach contained in the "financing plan" proposed by the sponsors and the producers. And, because of the preliminary nature of the concepts of the "financing plan" presented to us, and our initial response to it, our view of the waivers necessary to implement aspects of that plan must, as a practical matter, be a broad view which would permit maximum financing flexibility.

IV. Specific Waivers

There are four waivers in the group under consideration on which I would like to comment. These are the waivers which deal with:

(1) Producer ownership participation;

(2) Inclusion of the conditional plant in the overall system;

(3) Regulatory certainty; and

(4) The billing commencement date.

The need for the balance of the waivers appears to be sufficiently self-evident so as not to require our comment.

(1) Producer Ownership Participation

The Bank is of the view that the credit of the sponsors is insufficient to raise the amounts needed to fund the dollar magnitude of the Project, and therefore substantial producer participation will be required if the financing is to be arranged in the private sector. The proposal which the sponsors and producers have asked us to consider provides for an equity interest by the producers; we understand that producer participation is conditioned on their having an equity interest in the Project.

(2) The Conditioning Plant

The sponsoring companies have presented to us a financing requirement that is predicated on the conditioning plant being an integral part of the Alaskan segment of the Alaskan Natural Gas Transportation System and subject to the same financing conditions. As such, our view is that it should be covered by the certificate and tariff and tracking provisions ultimately determined to be appropriate by the Federal Energy Regulatory Commission (FERC) for the Alaskan facilities. Further, it is impractical to consider financing of the Alaskan pipeline if the conditioning plant is subject to uncertainties of ownership, financing and integration of construction and operation in the System.

(3) Regulatory Certainty

Regulatory certainty -- at two levels -- is necessary to the financeability of the Project;

First, to ensure that the Alaskan Northwest tariff which is put in place at the outset, and on which lenders and others will rely in making their commitments, will not be changed; and Second, to ensure that tracking provisions are in place from the outset which permit the shippers of Alaskan gas to recover their cost of gas and transportation charges from their customers on as current a basis as possible and that, once these provisions are in place, they will not be changed.

The opinion of the General Counsel to the FERC confirms the advice which we have received from our own counsel on the subject of the FERC's ability to alter regulatory decisions on which lenders and others may have relied. We would not accept the tariff arrangements proposed to us as the security for repayment of our loans to this Project without this waiver.

(4) The Billing Commencement Date

We have previously expressed our views on the desirability of providing for billing to commence under the tariff for the Alaskan segment of the Project prior to the "completion and commissioning" of the entire Alaskan Natural Gas Transportation System in a memorandum dated July 13th, entitled "Summary of Bank Views on Early Billing Commencement Issue."

As I understand the billing commencement waiver, it would permit the FERC to approve a tariff which would permit the commencement of billing for each of three segments -- the Canadian facilities, the Alaskan pipeline facilities, and the conditioning plant -- upon each segment's completion but not before a date established by the FERC as a reasonable date for completion of the

entire ANGTS system. Billing could commence for any one segment even if either or both of the other segments were not yet complete.

From our prior discussions with some of you and with your staff, and as you will note from our memorandum, we, as prospective lenders, would have preferred a billing commencement waiver with terms which would permit maximum flexibility and maximum discretion within the FERC to approve, or disapprove, tariff provisions which would accommodate the details of a private sector financing.

The proposed waiver will restrict our ability to finance the Project, but we understand the degree of flexibility which we have sought, and continue to feel is desirable, is not attainable.

While it is my considered opinion that the proposed billing commencement waiver will be of significant help in the continued development of the financing program for the Project, whether it will be sufficient remains to be judged from the outcome of the negotiations among the sponsors and the producers, and between the sponsors and prospective lenders.

Based on my current knowledge of the financing plan for the Project, and applying some realistic expectations, I can only say that having this billing commencement waiver is significantly better than not having it.

The added uncertainties - that is to say greater risks - which would be the result of not having this waiver are not likely to be readily or easily

borne by any of the private sector parties to the transaction.

V. Funding Availability

As part of Phase I of our work, we were asked to determine the amount of funds that might be available in world capital markets for any one project. Although we were asked to look at the financial requirements for the Alaskan segment of the Project, it became apparent to us during the course of our study that it would be necessary to consider the financing requirements of the Canadian segment and the "lower 48" segments as well.

The financing for each segment of the ANGTS, as well as the financing for the expansion of the "lower 48" segments and the refinancing of the prebuilt segments, will rely on a common source of repayment, i.e., the tariff arrangements. Lenders can therefore be expected to consider these financings as one credit for risk and funding allocation purposes.

The funding study was done by geographic region, namely the United States, Canada, Europe, Middle East, Asia and Latin America. It was based on an in-depth review of the legal and policy limits of the banking community in each geographic region, the potential interest of non-bank institutional lenders and the historical lending policies of the suppliers and export credit agencies in each country based on the potential equipment sourcing submitted to us by Northwest Alaskan.

The study was, of necessity, based on certain assumptions:

(1) The project/borrower was not identified, but was stated to be the risk equivalent of debt with a medium grade investment rating (A/Baa). A medium grade investment rating assumes adequate credit support, including completion guarantees from creditworthy parties.

(2) The pricing (i.e., interest rate) would be fully commensurate with the risk involved.

(3) There would be a high level of participation by U.S. commercial banks (in order to insure high commitment levels from other geographic sectors).

(4) Use of foreign sourced goods would be maximized to increase the total financing available from suppliers and export credit agencies. A correlation exists between the exports from a country and the amount of credit indigenous banks are willing to extend.

(5) The financing of the Alaskan and Canadian segments would be efficiently coordinated. Our findings indicate that the degree of Canadian participation in the financing of the Alaskan segment is directly related to the degree of U.S. and other non-Canadian participation in the financing of the Canadian segment.

(6) There would be some reduction in the amounts available from commercial banks to the extent that prime bank guarantees are required to obtain export credit facilities.

The study concluded that $12-18 billion may be available in world capital markets to fund any one project. These amounts are broken down by geographic area in Exhibit I, which is attached. The estimated amounts in the first column are based on a relatively conservative application of the assumptions described above, while the estimated amounts in the second column are based on a much more optimistic view of our assumptions.

The survey was initially structured to segment the market in terms of the amounts available for 5 year commitments, 5 to 10 year commitments and 10 to 15 year commitments. The study concluded, however, (1) that 10 years (and, in a few instances, 12 years) would be the maximum overall term available from the commercial banking market, and (2) that, within each market, it might be necessary to offer a variety of terms and average lives in order to obtain the maximum amount of funds. In addition, the study concluded that, in order to insure the maximization of funds from each market, the project must be perceived as possessing national interest status, preferably through formal U.S. governmental pronouncements. The significance of this is best appreciated when the $4.5 billion to $6 billion of funding estimated to be available from the private U.S. capital markets is set against the total capital requirements of the Project.

We found that improving the credit quality of the project/borrower would neither greatly increase the amount of available bank financing nor lengthen maturities significantly, whereas reducing the credit quality below an equivalent of A/Baa would substantially reduce both the amount of available funds and the average life of the financing.

This concludes my statement. I would be prepared to respond to any questions that you may have.

EXHIBIT I

FUNDING ESTIMATE SUMMARY
IN THOUSANDS OF U.S. DOLLARS

U.S.		
Commercial banks	$3,000,000	$3,500,000
Institutional lenders	1,500,000	2,500,000
Canada		
Commercial banks	2,500,000	3,000,000
Europe		
Commercial banks	3,500,000	4,000,000
Middle East		
Commerical banks	500,000	500,000
Asia		
Commercial banks	1,800,000	2,400,000
Latin America		
Commercial banks	150,000	250,000
	$12,950,000	$16,150,000
Export Credit Facilities	1,700,000	1,700,000
	$14,650,000*	$17,850,000

* Could be reduced by $2.5 billion if Canadian participation does not materialize See Assumption #5.

STATEMENT OF F. E. MOSIER
BEFORE THE FOSSIL AND SYNTHETIC FUEL SUBCOMMITTEE
OF THE HOUSE ENERGY AND COMMERCE COMMITTEE AND THE
ENERGY AND ENVIRONMENT SUBCOMMITTEE OF THE
HOUSE INTERIOR COMMITTEE

October 22, 1981

Mr. Chairman, my name is Frank Mosier. I am a Senior Vice President and a Director of The Standard Oil Company, in charge of its supply and transportation activities. My responsibilities in the transportation area include, among other things, Sohio's interest in this gas pipeline project, the trans-Alaska oil pipeline, and a fleet of ocean-going tankers transporting the Alaskan North Slope crude oil.

By way of background, following the discovery of the Prudhoe Bay oil field, the importance of the 26 trillion cubic feet of natural gas in this reservoir was recognized and studies were conducted to determine how best to move this gas to market in the lower 48 states. Sohio, as an owner of approximately 25% of the gas, participated in certain of these studies. We were convinced that this was an important future source of energy for the United States. Subsequent events have borne out that the production of the largest reservoir of natural gas yet discovered in North America is of vital importance to the United States. At a gas delivery rate of 2 billion cubic feet per day, this reservoir will supply approximately 5% of U.S. natural gas usage. Moreover, the availability of a transportation system will likely stimulate exploration on the North Slope of Alaska, which could result in additional significant natural gas discoveries.

Through the years we have been in a continuing process of evaluating alternative systems for the transportation and marketing of the Prudhoe Bay gas. We believe that the concept of a large diameter pipeline from Prudhoe Bay through Alaska and Western Canada to the lower 48 states is as good as any means to bring this gas to market. The Alaska Natural Gas Transportation System, frequently referred to as ANGTS, employs this physical concept. Other alternatives including an all-Alaskan line, conversion to methanol on the North Slope, and the use of ice breaking tankers, have several key characteristics in common with the ANGTS project. Initial investments of the same order of magnitude are indicated, and each of these projects has its own unique risks and regulatory problems. Selection of any of these alternatives would encounter similar problems in financing, and we would lose all the benefit of the far-advanced engineering and related work.

In testimony before Congress in 1977 when the President's Decision was under consideration, Sohio made it clear that we were not in the gas transmission business and had no desire to enter that business. We still have no desire to be in the gas transmission business. We also expressed the opinion that the project could not be financed without government participation, and we questioned the viability of the project under the conditions set forth in the President's Decision. However, in 1979 we were urged by the Department of Energy to consider becoming a part of this project because it could not be financed without the participation

of the Prudhoe Bay gas producers. In June 1980, Sohio, along with Arco and Exxon, signed a cooperative agreement with the gas transmission companies to carry out design, engineering, and cost estimation work on the Alaskan segment of the pipeline and gas conditioning plant on a shared cost basis. The producers also signed a Joint Statement of Intention with the sponsoring partnership, pledging to work toward a financing plan. We believe that the producers have carried out their obligations under these agreements. Sohio's share of costs under these agreements has totaled approximately $40 million to date.

We have indicated a willingness to take on a commitment of up to $2.25 billion which represents a share of the producers' overall 30% interest in the Alaskan segment of this project. Our share will be based on our percentage of gas reserves supplying this facility. This participation is subject to certain conditions and limitations. Two of the conditions are satisfied by elements of the waiver package which is the subject of these hearings. Sohio must have an equity interest in the project consistent with its level of investment, and the gas conditioning plant must be part of the transportation system. Other conditions and qualifications which must be satisfied include the following: the total project must retain economic viability; all necessary governmental approvals must be obtained on a timely basis; there must be assurance that the Canadian segment will be financed;

all funds for the Alaskan segment must be committed before construction commencement; and the financing must be on the same terms and conditions which apply to other investors in the project.

The fact that Sohio has agreed to commit over $2 billion to this project is a statement of our current attitude on its importance, the appropriateness of the physical concept and its prospective economic viability. However, if world events or governmental processes or decisions change the viability of this project, we would have to reassess our participation prior to major expenditure of funds.

This project is the second largest, upfront financial commitment that Sohio has ever made, exceeded only by our initial $4 billion commitment to the trans-Alaska oil pipeline and the Prudhoe Bay field development. During the next 5 years, while this project is under construction, Sohio's capital expenditures are anticipated to be about $20 billion. Over 80% of these expenditures are for domestic energy-related projects and programs. Approximately $6 billion represent expenditures to maintain the Prudhoe Bay oil production. No other single project will carry with it an upfront commitment as large as $2.25 billion. Unlike ANGTS, other projects and programs can be accelerated or slowed down as circumstances dictate. The lack of flexibility in a commitment of this size, and other risk factors such as uncertainty of

future gas prices, gas markets, capital cost overruns, and completion delays, make it less than prudent for us to commit more than $2.25 billion to this project. I want to emphasize that this commitment of $2.25 billion is the upper limit of our participation.

An additional condition to Sohio's participation in this project is that initial financing arrangements for the Alaskan portion must be for at least $30 billion. This amount, which includes a $3 billion overrun pool, is based on definitive estimates prepared by contractors at a cost to the participants of about $400 million. Our experience with high rates of inflation for construction on the North Slope of Alaska substantiates the need for the included contingencies and overrun pool.

As indicated above, two important elements of the waiver package are necessary to obtain our participation in the project. If we are going to provide financial support, we must have the right to be an equity owner, and the conditioning plant must be included as part of the transportation system in Alaska. Equity ownership is required because those who invest in a project are entitled to the full benefits of ownership. The conditioning plant must be included because it is necessary solely to prepare the gas for entry into the pipeline. The design basis selected for the pipeline dictates the degree of conditioning required. Alternative pipeline designs could have been selected at higher capital costs

and lower operating efficiency which would have eliminated the need for this facility. The conditioning plant is a part of the transportation system selected and should be included in the system for tariff and other purposes.

In conclusion, the equity and gas conditioning plant provisions of the waiver package are critical to our participation. Other provisions such as regulatory certainty and billing commencement are critical to the sponsors and bankers. It is not clear to us that a project of this magnitude can be financed without Federal government participation. However, it is clear that without the waiver package the project cannot go forward.

STATEMENT OF RADCLIFFE R. LATIMER

PRESIDENT, TRANSCANADA PIPELINE ALASKA, LTD.

Before
The Committee on Energy and Natural Resources
October 23, 1981

My name is Radcliffe R. Latimer. I am President and Chief Executive Officer of TransCanada PipeLines Limited and President of TransCanaa PipeLine Alaska Limited, which is a partner in the Alaskan Northwest Natural Gas Transportation Company. I appreciate this opportunity to appear before you today in support of the Alaska Natural Gas Transportation Sysytem (ANGTS) and the Waiver of Law Package submitted to the Congress by President Reagan.

TransCanada is the major west-to-east pipeline and the largest pipeline company in Canada. Since it commenced operation in 1958, TransCanada has constructed 6,000 miles of large diameter pipeline. At present, the TransCanada system extends from the Alberta-Saskatchewan border in Western Canada to Montreal in Eastern Canada, a distance of 2,500 miles.

TransCanada has an annual thoughput of approximately 1.4 trillion cubic feet of natural gas, of which in excess of 250 billion cubic feet or approximately 18% is exported to the United States, making it the largest exporter of natural gas to the United States from all sources.

TransCanada, along with its United States partner American Natural Resources, were the sponsors and are equal owners of the Great Lakes Gas Transmission Company, which traverses the upper midwestern United States for a distance of approximately 1,200 miles and transports over 400 billion cubic feet of natural gas annually.

TransCanada believes that a significant portion of the natural gas resources of North America lies in the Arctic regions of the United States and Canada and that the full development of those resources will make a substantial contribution to the long-term energy security of both countries. The discovery of hydrocarbons on the North Slope of Alaska and the MacKenzie Delta, Beaufort Sea and Arctic Islands regions of Canada confirms our beliefs.

These discoveries demonstrated the need for an economical transportation system to bring Arctic gas to market. As early as 1969 TransCanada became a charter member in a consortium formed for the purose of developing a transportation system for the natural gas reserves at Prudhoe Bay in Alaska and in Canada's MacKenzie Delta. We firmly believe that transportation of natural gas from the Arctic is economically and technologically feasible but will require a substantial financial investment. TransCanada is committed and is prepared to participate as an investor in this financial investment.

In early 1980, TransCanada, through a U.S. subsidiary, became a partner in the Northern Border Pipeline "prebuild project" to bring Canadian gas to U.S. consumers prior to the later delivery of Alaskan gas. In doing so, TransCanada provided the assured gas throughput volumes that enabled the entire financing of the eastern leg prebuild. In August 1980, TransCanada, through another U.S. subsidiary and along with three other interstate pipeline companies, elected to become a partner in the Alaska segment of

the ANGTS. TransCanada's commitment to the project is based on a thorough review and analysis of TransCanada's interests and the economic and engineering feasiblility of the everall ANGTS system.

Our analysis shows that the ANGTS is a sound investment for TransCanda and its partners. Although unprecedented in its magnitude, it is technologically feasible and can be constructed within the time and range of costs currently projected. The ANGTS will provide producers with the incentive to undertake new exploration in frontier regions. New discoveries will enhance the energy security of both the United States and Canada. Clearly, the ANGTS will be a valuable asset for investors and gas consumers, as well as a secure source of domestic energy for the United States.

These substantial benefits will not come easily. The ANGTS will be the largest energy project in history. The credit of the pipeline sponsors will not be sufficient to assure the successful financing of a project of this magnitude. Innovative financing techniques will be required if the project is to be constructed through private financing and without government guarantees. Approval of the waiver proposal submitted by President Reagan is the essential first step to permit the sponsors and producers to develop such a financing plan.

The ANGTS is necessary in the development of Arctic natural gas resources. If the ANGTS is not constructed in a timely manner development of frontier energy resources will be set back many

years with substantial detriment to the United States and Canada. It is imperative that we continue to make progress on the ANGTS. Passage by Congress of the Waiver of Law package is critical to that progress.

STATEMENT OF F. E. MOSIER

BEFORE THE FOSSIL AND SYNTHETIC FUEL SUBCOMMITTEE

OF THE HOUSE ENERGY AND COMMERCE COMMITTEE

AND THE ENERGY AND ENVIRONMENT SUBCOMMITTEE

OF THE HOUSE INTERIOR COMMITTEE

October 21, 1981

STATEMENT OF F. E. MOSIER
BEFORE THE FOSSIL AND SYNTHETIC FUEL SUBCOMMITTEE
OF THE HOUSE ENERGY AND COMMERCE COMMITTEE AND THE
ENERGY AND ENVIRONMENT SUBCOMMITTEE OF THE
HOUSE INTERIOR COMMITTEE

October 22, 1981

Mr. Chairman, my name is Frank Mosier. I am a Senior Vice President and a Director of The Standard Oil Company, in charge of its supply and transportation activities. My responsibilities in the transportation area include, among other things, Sohio's interest in this gas pipeline project, the trans-Alaska oil pipeline, and a fleet of ocean-going tankers transporting the Alaskan North Slope crude oil.

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Through the years we have been in a continuing process of evaluating alternative systems for the transportation and marketing of the Prudhoe Bay gas. We believe that the concept of a large diameter pipeline from Prudhoe Bay through Alaska and Western Canada to the lower 48 states is as good as any means to bring this gas to market. The Alaska Natural Gas Transportation System, frequently referred to as ANGTS, employs this physical concept. Other alternatives including an all-Alaskan line, conversion to methanol on the North Slope, and the use of ice breaking tankers, have several key characteristics in common with the ANGTS project. Initial investments of the same order of magnitude are indicated, and each of these projects has its own unique risks and regulatory problems. Selection of any of these alternatives would encounter similar problems in financing, and we would lose all the benefit of the far-advanced engineering and related work.

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of the Prudhoe Bay gas producers. In June 1980, Sohio, along with Arco and Exxon, signed a cooperative agreement with the gas transmission companies to carry out design, engineering, and cost estimation work on the Alaskan segment of the pipeline and gas conditioning plant on a shared cost basis. The producers also signed a Joint Statement of Intention with the sponsoring partnership, pledging to work toward a financing plan. We believe that the producers have carried out their obligations under these agreements. Sohio's share of costs under these agreements has totaled approximately $40 million to date.

We have indicated a willingness to take on a commitment of up to $2.25 billion which represents a share of the producers' overall 30% interest in the Alaskan segment of this project. Our share will be based on our percentage of gas reserves supplying this facility. This participation is subject to certain conditions and limitations. Two of the conditions are satisfied by elements of the waiver package which is the subject of these hearings. Sohio must have an equity interest in the project consistent with its level of investment, and the gas conditioning plant must be part of the transportation system. Other conditions and qualifications which must be satisfied include the following: the total project must retain economic viability; all necessary governmental approvals must be obtained on a timely basis; there must be assurance that the Canadian segment will be financed;

all funds for the Alaskan segment must be committed before construction commencement; and the financing must be on the same terms and conditions which apply to other investors in the project.

The fact that Sohio has agreed to commit over $2 billion to this project is a statement of our current attitude on its importance, the appropriateness of the physical concept and its prospective economic viability. However, if world events or governmental processes or decisions change the viability of this project, we would have to reassess our participation prior to major expenditure of funds.

This project is the second largest, upfront financial commitment that Sohio has ever made, exceeded only by our initial $4 billion commitment to the trans-Alaska oil pipeline and the Prudhoe Bay field development. During the next 5 years, while this project is under construction, Sohio's capital expenditures are anticipated to be about $20 billion. Over 80% of these expenditures are for domestic energy-related projects and programs. Approximately $6 billion represent expenditures to maintain the Prudhoe Bay oil production. No other single project will carry with it an upfront commitment as large as $2.25 billion. Unlike ANGTS, other projects and programs can be accelerated or slowed down as circumstances dictate. The lack of flexibility in a commitment of this size, and other risk factors such as uncertainty of

future gas prices, gas markets, capital cost overruns, and completion delays, make it less than prudent for us to commit more than $2.25 billion to this project. I want to emphasize that this commitment of $2.25 billion is the upper limit of our participation.

An additional condition to Sohio's participation in this project is that initial financing arrangements for the Alaskan portion must be for at least $30 billion. This amount, which includes a $3 billion overrun pool, is based on definitive estimates prepared by contractors at a cost to the participants of about $400 million. Our experience with high rates of inflation for construction on the North Slope of Alaska substantiates the need for the included contingencies and overrun pool.

As indicated above, two important elements of the waiver package are necessary to obtain our participation in the project. If we are going to provide financial support, we must have the right to be an equity owner, and the conditioning plant must be included as part of the transportation system in Alaska. Equity ownership is required because those who invest in a project are entitled to the full benefits of ownership. The conditioning plant must be included because it is necessary solely to prepare the gas for entry into the pipeline. The design basis selected for the pipeline dictates the degree of conditioning required. Alternative pipeline designs could have been selected at higher capital costs

and lower operating efficiency which would have eliminated the need for this facility. The conditioning plant is a part of the transportation system selected and should be included in the system for tariff and other purposes.

In conclusion, the equity and gas conditioning plant provisions of the waiver package are critical to our participation. Other provisions such as regulatory certainty and billing commencement are critical to the sponsors and bankers. It is not clear to us that a project of this magnitude can be financed without Federal government participation. However, it is clear that without the waiver package the project cannot go forward.

Testimony of Richard E. Rowberg

Manager, Energy Program

Office of Technology Assessment

Before the Subcommittee on Fossil and Synthetic Fuels

House Committee on Energy and Commerce

And the Subcommittee on Energy and Environment

House Committee on the Interior and Insular Affairs

November 9, 1981

Thank you for the opportunity to testify today on this issue. With me is Dr. Tom Bull, Project Director of our current study on synthetic fuels. The rapidly increasing costs for the proposed Alaskan Natural Gas Transportation System (ANGTS) have renewed interest in alternate ways of delivering the Alaskan natural gas energy to the lower-48 states. The Office of Technology Assessment has recently carried out a brief analysis of two such alternatives. This testimony is an extension of a brief paper we completed in July 1981 describing the first phase of that analysis. In my testimony I will discuss the alternative of using the natural gas to produce ammonia or fuel grade methanol and transporting either of these chemicals to the lower-48 states by way of the existing Alaskan oil pipeline-tanker system.

Description of Alternatives

Both methanol and ammonia are logical choices to consider in a study of alternatives to ANGTS since they are by far the major chemicals currently being produced from domestic natural gas. Further, the conversion technology is well established and they are liquids which conceivably could be transported by an oil pipeline. Ammonia and methanol consumed about 2.6% of

STATEMENT OF

JOHN H. CROOM,

EXECUTIVE VICE PRESIDENT,

THE COLUMBIA GAS SYSTEM, INC.

BEFORE THE

UNITED STATES SENATE

COMMITTEE ON ENERGY AND NATURAL RESOURCES

ON

THE PROPOSED WAIVER OF LAW

SUBMITTED BY THE PRESIDENT

PURSUANT TO THE

ALASKA NATURAL GAS TRANSPORTATION ACT

October 23, 1981

The Columbia Gas System, Inc.
20 Montchanin Road
Wimington, Delaware 19807
(302) 429-5211

Mr. Chairman and Members of the Committee:

My name is John H. Croom. I am Executive Vice President of The Columbia Gas System, Inc. and President of Columbia Alaskan Gas Transmission Corporation, a wholly-owned subsidiary of The Columbia Gas System, Inc. and one of the sponsoring companies of the Alaskan gas pipeline project. I am here today to urge that you approve the Waiver of Law submitted by the President on October 15, 1981.

The Columbia Gas System is one of the largest integrated natural gas companies in the United States and last year delivered 1.2 trillion cubic feet or approximately six percent of the gas consumed in this country. Columbia supplies directly through its retail operations, or indirectly through sales to other utilities, the gas requirements of over four million customers in an area having a population of approximately eighteen million people. Columbia's customers are located in the states of Ohio, Pennsylvania, West Virginia, Maryland, Kentucky, Virginia, New York and New Jersey, and the District of Columbia.

The Need for the Proposed Waiver of Law

Columbia supports the Alaska Natural Gas Transportation System and the proposed Waiver because:

- the project is essential to the nation's as well as to our service area's long-term gas supply.

- the Prudhoe Bay gas represents 13 percent of the Nation's proven gas reserves. The building of the Alaskan pipeline can be expected to stimulate further development on the North Slope and increase these reserves significantly.
- while the delivered price will be relatively high in the early years, it will substantially decline in later years as the large rate base becomes depreciated. On the average, it will be below the price of imported oil.
- if the Waiver is approved, the Federal Energy Regulatory Commission will still have to implement it and the banks will still have to agree to finance the project. But without Congressional approval, the transportation system cannot be privately financed.

Columbia's Need for the Alaskan Gas

In the late 1960's Columbia recognized the need to look beyond its traditional sources of gas to assure an adequate supply for its customers. Included in studies of these nonhistoric sources were liquefied natural gas from overseas, deep domestic gas, synthetic natural gas from heavier hydrocarbons, gas from tight sands and Alaskan gas.

Following the discovery of the Prudhoe Bay Field in 1968, Columbia participated in studies which lead to the determination that it was technically and economically feasible to bring these reserves to the Lower 48 states.

Over the period 1971 through 1975 Columbia loaned 175 million dollars to Sohio for the rights to purchase a portion of Sohio's Prudhoe Bay gas reserves. Under the agreement with Sohio, the loan was repaid during the one-and-one-half year period after the crude oil pipeline was placed in operation. Columbia expects to obtain over 100 billion cubic feet annually which in 1987 will represent over seven percent of its gas supply.

The importance of the Alaskan gas to Columbia's customers cannot be overstated. The latest 10 year demand-supply projections, detailed in the attachment, indicate that Columbia must make a strenuous effort to replace declining volumes of committed gas supplies. Even with the inclusion of natural gas from Alaska, appreciable volumes must be sought and secured from reserves yet to be found and developed in such areas as the Rocky Mountains, Appalachian Basin, and the Gulf of Mexico.

The Marketability of the Alaskan Gas in Columbia's Market

Columbia strongly believes that the relatively certain assurance of a secure, consistent and domestic source of supply which this project promises for all of Columbia's customers outweighs any conjectural load loss due to possible temporary price increases. The magnitude of any price increase and resultant load loss is expected to be minimal on Columbia's system. Assuming continuation of the Natural Gas Policy Act, the expected delivered cost of Alaskan gas averaged with other committed lower-priced

volumes will result in a net gas cost to Columbia's residential, commercial and industrial customers below that of distillate oil, the principal alternate fuel for most of Columbia's high priority industrial loads. We expect the industrial customers will continue to use lower priced natural gas for some time, thus providing price and supply stability for all of Columbia's customers. Furthermore, the delivered cost of Alaskan gas declines over the life of the project. In real dollars, its cost will fall significantly below that of distillate oil after the first few years of the operation of the pipeline.

Conclusion

In addition to supplying long-term natural gas supplies at competitive prices, the Alaskan pipeline project will contribute to the economic and security interests of all of the Nation's consumers. Your approval of the President's Proposed Waiver of Law is an essential step toward this objective.

Attachment

COLUMBIA GAS SYSTEM
DEMAND-SUPPLY PROJECTIONS
(Billions of Cubic Feet)

Year*	Demand	Supply**	Alaskan Gas	Supply Deficiency
1982	1,327	1,493		(166)
1983	1,364	1,509		(145)
1984	1,378	1,465		(87)
1985	1,409	1,313		96
1986	1,420	1,212		208
1987	1,432	1,127	104	201
1988	1,449	1,053	104	292
1989	1,468	999	104	365
1990	1,492	958	104	430

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* Demand-supply years are from November 1 of the preceding year to October 31 of the year shown.

** Anticipated supply from identifiable sources.

Prepared Statement

Of

JOHN A. SPROUL

Executive Vice President
Pacific Gas and Electric Company

Chairman of the Board and Chief Executive Officer
Pacific Gas Transmission Company

Chairman of the Board
Calaska Energy Company

Before The

Senate Committee on Energy and Natural Resources

Washington, D.C.

October 23, 1981

I appreciate the opportunity to appear before this Committee on behalf of Pacific Gas and Electric Company (PGandE), its subsidiary Calaska Energy Company (Calaska), and its other affiliates participating in the Alaska Natural Gas Transportation System (ANGTS), to express our support for the President's proposed waiver of law under Section 8(g) of the Alaska Natural Gas Transportation Act of 1976 (ANGTA).

PGandE is a combined gas and electric utility, serving a population of more than 9 million people in northern and central California. Since 1972, PGandE and its affiliates have been working actively to create a direct pipeline system from Alaska, through Canada, to bring gas from Prudhoe Bay to California and the other lower-48 states. Our substantial and continuing commitment to the ANGTS reflects our view that its successful completion is essential to our ability over the long term to continue supplying our customers with reasonably priced and reliable gas supplies.

In my remarks, I wish to describe more fully the nature of our participation in the ANGTS, the importance of the project to PGandE's gas supply future, and the reasons why we believe Congressional approval of the proposed waiver of law to be vital to the timely and successful completion of the project, and to continued cooperation with Canada, which is the source of about 40% of PGandE's existing gas supply.

I. PARTICIPATION BY PGandE AND ITS AFFILIATES IN THE ANGTS

PGandE and its affiliates are participants in the Alaskan, Canadian and U.S. Western Leg segments of the ANGTS. Our involvement began in 1972, when we joined the Arctic Gas Project, which proposed construction of an overland pipeline from the Alaskan North Slope, through Canada, to the lower-48 states. After the Arctic Gas route was rejected by the Canadian and United States Governments in 1977, PGandE joined with Northwest Energy Company, the selected Alaska Highway Pipeline Project's original United States sponsor, and other gas transmission companies, including former Arctic Gas members, in sponsoring the Alaskan pipeline portion of the ANGTS. Through its subsidiary, Calaska, PGandE has been a member of Alaskan Northwest Natural Gas Transportation Company, the partnership which will build the Alaskan portion, since the partnership's formation in early 1978.

Our special contribution to the ANGTS is the construction of its western delivery leg. The U.S. Western Leg is the sole responsibility of PGandE and its 50%-owned subsidiary Pacific Gas Transmission Company (PGT), which were designated in the 1977 Decision and Report to Congress on the Alaska Natural Gas Transportation System (President's Decision) to construct, own and operate the new pipeline facilities that will assure direct delivery of Alaskan North Slope gas to markets west of the Rockies.

Direct and equal access of western consumers to the North Slope supplies was not always assured. We owe a special thanks to the many Senators and Representatives who saw to it that contemporaneous direct delivery of Alaskan gas to markets both east and west of the Rocky Mountains, and construction of the necessary new facilities, became a statutory mandate. The inclusion of that requirement in ANGTA made this project truly national in scope.

The Western Leg is a simple expansion of the existing PGT/PGandE pipeline system that has delivered Canadian natural gas to northern and central California and other western markets since 1961. The pipeline runs from the International Boundary near Kingsgate, British Columbia, to Antioch, California, in the San Francisco Bay Area. PGT owns and operates the facilities in the states of Idaho, Washington and Oregon. PGandE owns and operates the facilities within California. This 911-mile, 36-inch diameter pipeline delivers up to approximately 1 billion cubic feet per day of Alberta natural gas to PGandE. The pipeline facilities also transport for Northwest Pipeline Corporation (Northwest Pipeline) up to approximately 150 million cubic feet per day of Alberta natural gas, which is delivered by PGT at various points in Idaho, Washington and Oregon for distribution to gas consumers in the Pacific Northwest.

The Western Leg is a paralleling or "looping" of these facilities, through the installation of approximately 885 miles of additional pipe. With minor exception, the new facilities will be installed within the same right-of-way as the existing pipeline. No new compressor stations or compressor horsepower will be necessary for the volumes of North Slope gas expected to be initially available. The President's Decision left final determination of the pipe size and capacity of the ANGTS lower-48 facilities to the Secretary of Energy. As a result of decisions of the Secretary of Energy issued in 1980 and in January of this year, it now is planned that 42-inch diameter pipe will be used for the entire length of the PGT/PGandE expansion.

The Western Leg originally was proposed by PGT and PGandE in 1974, in connection with the Arctic Gas Project. However, because the PGT/PGandE proposal also was compatible with the competing and ultimately selected Alaska Highway Pipeline proposal, it was designated in the President's Decision as the project's western delivery leg. North Slope gas destined for California markets will be carried over the full length of the PGT/PGandE facilities to the San Francisco Bay Area, with gas destined for southern California delivered over southern portions of the PGandE system to Southern California Gas Company. Through interconnection with the Northwest Pipeline system, the Western Leg also will be able

to provide other western markets, in the Rocky Mountain area and the Pacific Northwest, with direct access to North Slope gas.

On October 1 of this year, the first portions of the ANGTS became operational. We are proud of the fact that this included 160 miles of the PGT Western Leg facilities, between Kingsgate, British Columbia, and Stanfield, Oregon, which were installed as part of the early construction or "prebuild" phase of the ANGTS, to deliver new Canadian gas imports to Southern California Gas Company. PGT's facilities went into service on time and within their approved cost estimate of $176 million. This was a major, but manageable, undertaking for PGT, which financed the facilities on a corporate credit basis, and which, through this expansion, has tripled the size of its pipeline investment.

PGT and PGandE will build the remainder of the Western Leg in the same general time frame as the Alaskan portion of the project. In "as spent" dollars, we currently estimate that the 431 miles of PGT's remaining Western Leg facilities will cost approximately $870 million, including AFUDC, and that PGandE's 294 miles of Western Leg facilities from the Oregon-California border to the San Francisco Bay Area will cost about $590 million, including AFUDC. A corporate credit form of financing is planned by both PGandE and PGT,

with PGandE to be responsible for raising all of the capital associated with its Western Leg facilities, and for 50% of the equity investment in the remaining PGT Western Leg construction. In total, PGandE's additional Western Leg investment presently is estimated at almost $800 million.

Finally, PGT's Canadian affiliate, Alberta Natural Gas Company Ltd (Alberta Natural), is a participant in the Canadian portion of the project. Alberta Natural is a 49% interest holder in Foothills Pipe Lines (South B.C.) Ltd., which is to construct a total of 106 miles of 36-inch diameter pipeline for the ANGTS in southeastern British Columbia, parallel to Alberta Natural's existing pipeline. Approximately one-half of these facilities were installed for the "prebuild" phase and are now in service.

II. THE IMPORTANCE OF THE ANGTS TO PGandE'S GAS SUPPLY FUTURE

Our participation in the ANGTS is key to our long-term strategy to assure a continuing, reliable and adequate supply of gas for the millions of people in northern and central California. PGandE's existing sources of gas supply are Canadian natural gas brought to California by PGT; gas, principally from the southwest, purchased from El Paso Natural Gas Company (El Paso); California-source natural gas,

and a small amount of Rocky Mountain gas produced by our gas exploration and development affiliates.

Although our natural gas requirements are projected to remain relatively stable, with moderate growth in our non-power plant requirements and a decline in fuel requirements for power plant use, our total existing supply is projected to decline significantly. Let me provide some statistics which illustrate this point:

1. Decline in El Paso supplies. In 1981, the gas supply from El Paso is projected to satisfy about 43% of PGandE's natural gas requirements. By 1987, however, when the ANGTS is scheduled for completion, available El Paso supplies are projected to satisfy less than 33% of such requirements, and by 1995, only about 21% of such requirements.

2. Decline in California supplies. Our California-source gas presents a similar case. In 1981, these supplies are projected to satisfy about 17% of our natural gas requirements, but by 1987 and continuing into the 1990's, available California gas supplies are projected to satisfy

no more than 9% of PGandE's natural gas requirements. Generally, with the exception of a recent, and what is projected to be short-term, upswing in available El Paso and California supplies, both our El Paso and California sources of supply have been declining since the early 1970's.

3. Expiration of existing Canadian gas export licenses. Since Canadian gas was first delivered to PGandE in 1961, it has been our most reliable source of gas supply, never having been curtailed or cut back. Nevertheless, without renewal of the gas export licenses issued to our Canadian supplier and subsidiary, Alberta and Southern Gas Co. Ltd. (Alberta and Southern), our available supplies from Canada will be reduced starting in late 1985, and they will be cut almost in half by 1987. By 1990, without license renewals, our Canadian supply will be reduced to about 20% of the currently authorized level, and by the end of 1993, all of Alberta and Southern's existing export licenses will have expired.

Simply stated, in addition to the decline in supplies from El Paso and California sources, PGandE stands to lose almost another 20% of its present gas supply by 1987. By that year, without renewal of the Alberta and Southern licenses, supplies from these three sources, which now satisfy more than 99% of PGandE's natural gas requirements, are projected to satisfy less than two-thirds of such requirements, and by 1995, less than 30% of such requirements.

Since the early 1970's, PGandE has been engaged in a number of endeavors to augment this decline in its existing major gas supply sources. Our Rocky Mountain gas exploration and development programs are one such effort, but the new supplies we expect to develop will be only a partial solution. There will still be a substantial and growing drop in total supply as our existing major sources decline. At this time, PGandE has no assured source of natural gas to make up for this drop in supply.

Our chances for a reliable gas supply future turn on the successful completion of the ANGTS. More of that future is at stake in this project than in any other gas supply

option on PGandE's drawing boards. There are several reasons why this project offers the greatest potential for continuing supply security for our customers.

First, the North Slope gas we expect to purchase from Exxon Corporation (Exxon) will satisfy almost 10% of our projected natural gas requirements. In 1979 PGandE contracted with Exxon to purchase one-third of its production from the Prudhoe Bay Reservoir under leases in the Prudhoe Bay Unit -- which is estimated at about 220 million cubic feet per day, assuming an average day Prudhoe Bay output of 2.0 billion cubic feet.

Second, the long-term prospects for development on the North Slope lead us to believe that the initial volumes are only a beginning, that this source of supply will be available for years to come, and that deliveries from Prudhoe Bay eventually will exceed the 2.0 billion cubic feet per day level. Therefore, we see the ANGTS as opening the door to North Slope gas supply opportunities which extend beyond the volumes and term of our existing contract with Exxon.

Third, and for us, most significant, we link our chances for continuation of our Canadian gas supply to the completion of the ANGTS. As I have explained, about 40%

of our existing gas supply is from Canada, and obtaining maximum available renewal of the Alberta and Southern export licenses is a top priority of PGandE.

Alberta and Southern now has on file with the National Energy Board of Canada (NEB or Board) an application to extend its licenses at currently authorized levels through late 1993, so that the Canadian gas available to PGandE would remain at the level of about one billion cubic feet per day through that period. In view of the Board's recently issued report, Canadian Energy, Supply and Demand 1980-2000, it is not clear whether, in the near term, the Board will be prepared to act favorably on Alberta and Southern's request. It is clear to us, however, that over the long term, our opportunity for export license extensions -- and indeed, the opportunity of this nation to continue to look to Canada as a major natural gas supplier -- will turn on whether we in the United States are in fact, and are perceived as, willing and able to proceed to completion of the ANGTS. There are many factors which could affect Canadian gas export policy, and our own prospects for extended export volumes, but, in our view, there is no single factor as significant as the ANGTS.

This project should allow Canada to connect its own sizable northern frontier reserves in the Mackenzie Delta-

Beaufort Sea area to market on an economic basis. Progress toward completion of the ANGTS should encourage further exploration and development in that area. It also should cause the NEB to modify its policy which now excludes Canada's established frontier reserves from the tests applied to determine whether there is a surplus of natural gas available for export -- a policy which the Board consistently has indicated will continue until it is satisfied that there is an assured means for bringing these reserves to market.

Most important, perhaps, are the consequences which we believe would flow if the ANGTS did not progress toward completion. This is a larger issue than access to the Mackenzie Delta gas. At stake is the credibility of the United States as an energy partner, and future Canadian gas export relations with the United States.

Our 20 years of reliance on Canadian natural gas and our long-standing relationship with Canada make us especially sensitive to this issue, and especially appreciative of the continued showing of good faith which the Canadian Government has made toward completion of the ANGTS, as best evidenced by its decision to authorize the prebuild phase of the project following the concurrent Congressional resolution and Presidential letter of support for the project

in July 1980. Without further progress on the project, we believe that the Canadian Government may be increasingly cautious over how much additional gas is to be exported and who is to receive it. Generally, even though gas exports to the United States are a major source of revenue to Canada, it may become more difficult to justify increased export volumes, given a perception within Canada that the increased availability of Canadian supplies would allow the United States to defer or abandon completion of the ANGTS.

III. WHY THE PROPOSED WAIVER OF LAW MUST BE APPROVED

For PGandE and its customers, it is essential that the Congress act favorably on the proposed waiver of law submitted by the President. However we in the United States may wish to characterize it, failure to do so will be viewed in Canada as a breach of commitment by the United States -- a commitment which our Canadian neighbors believe was made by the President and the Congress, to assure Canada that its authorization of the prebuild phase would be followed by favorable United States Government action on overall project completion. To repeat, at stake for us is not only our future North Slope gas supply, but also the long-term continuation of our Canadian gas supply.

More specifically, the proposed waiver of law presents this Congress with a make-or-break choice concerning the financing and eventual completion of the project. If there is to be any hope of satisfying the private financing directive of the President's Decision, this proposed waiver of law must be approved. Such approval cannot guarantee that financing for the Alaskan portion of the project will be achieved. However, without this waiver of law, private financing can be ruled out completely, with the future of the project left uncertain.

Since the time of the President's Decision, it has been a recognized fact that the project's gas company sponsors do not, by themselves, have the capability to finance the Alaskan segment. Participation by the major North Slope producers is essential, but, as we have learned, no producer participation will be forthcoming without their receiving an equity interest in the project and without incorporation of the Prudhoe Bay conditioning plant into the designated ANGTS.

The largest banks in the country, who we hope will be major lenders to the project, also have told us that it is essential that there be mechanisms in place which help assure that the project debt will be repaid. These mechanisms include the proposed waiver of law to limit certain future

regulatory action on the project, and the proposed provision on billing commencement.

It is undeniable that the billing commencement provision will impose some risks on our customers and other North Slope gas consumers which were not contemplated when the President and the Congress authorized this project in 1977. As a gas distribution company, we share the concern of our regulatory body, the California Public Utilities Commission, over the imposition of such risks. We would rather not ask that our customers bear such risks if there were another way to achieve private financing. However, we know of no such other way. Moreover, we are convinced that the risks to be shared are manageable and minimal. If, for some reason, it is actually necessary to use this provision to accommodate project delay, the short-term costs which are imposed will be far outweighed by the project's long-term benefits.

I firmly believe that this country will find a way to make this project a reality. It must. It is in the long-run best interests of the country's economy and security. When ideological disputes are set aside and the facts are examined, we believe that this proposed waiver will be seen as a rational and fair way to overcome a critical roadblock to the private financing of the project. Therefore, we

respectfully urge the approval of the waiver package submitted by the President. If approval is not forthcoming, the ANGTS will suffer a major setback, to the detriment of our customers' and this nation's future energy security.

Thank you for inviting me to submit this statement on behalf of PGandE and its related companies. I would be pleased to answer any questions which the Committee may have concerning my remarks.

Before The

COMMITTEE ON ENERGY AND NATURAL RESOURCES

of the

SENATE

October 23, 1981

Statement of Kenneth E. Kalen, Group Vice President
of Panhandle Eastern Corporation

Panhandle Eastern Corporation is a diversified energy company whose activities include the acquisition, transmission and sale of natural gas in interstate commerce. Its two gas transmission subsidiaries, Panhandle Eastern Pipe Line Company and Trunkline Gas Company, operate a gas transmission system consisting of 16,000 miles of pipeline and 1.2 million horsepower installed in field and mainline compressor stations. The systems supply natural gas to 130 investor-owned utilities and municipal distribution companies. The utility customers, in turn, supply gas to a market area of 24 million people in 12 states, primarily Michigan, Ohio, Indiana, Illinois and Missouri. The systems supply approximately 6 percent of the national total gas consumption. The assets devoted to natural gas transmission amounted to $1.982 billion at the end of 1980 and transmission employees number 4,245. The principal source of Panhandle Eastern Pipe Line Company's supply is the Anadarko Basin, the Denver-Julesburg Basin, the Powder River Basin and Green River Basins of Texas, Oklahoma, Kansas, Colorado and Wyoming. The principal source of Trunkline's supply is the on- and off-shore Gulf coast area of Louisiana and Texas. Attachment 1 shows the location of the pipeline systems and present sources of gas supply.

There is a clear and urgent need for the Prudhoe Bay gas, and in our view, the gas will be marketable in our service area when it comes on-stream. Transporation of natural gas by pipeline is clearly the most efficient and least costly method of getting gas to consumers. Further, as you gentlemen are well aware, the pipeline will offset the need to import 400,000 to 600,000 barrels of foreign oil per day. I will briefly discuss each of these points.

Need for the Prudhoe Bay Gas

Panhandle and Trunkline have long been actively seeking to develop new sources of gas through programs for both conventional and supplemental supplies. Generally, our share of national gas reserves has declined about the same as the decline for national reserves.

Attachment 2 shows the production, reserve additions and the reserve inventory for the lower 48 states during the period 1968 through 1979. The blue bars on the upper portion of the graph show the amount of natural gas produced each year from wells in the lower 48 states. You will note that production peaked at just over 22 trillion cubic feet during 1972 and 1973, and has declined to just under 20 trillion cubic feet during 1979. Production during 1980 amounted to 19.5 trillion. The yellow bars on the upper graph show the annual additions to proved reserves resulting from drilling in the lower 48 states. At no time since 1968 has industry in the United States been able to add proven reserves to inventory in volumes that come close to equalling annual production. The best performance in this period came in 1979 when approximately 14 trillion cubic feet of proved reserves were added as compared with 20 trillion cubic feet of production. During the five years ending with 1979, only 56 percent of production was replaced by additions to proved reserves. The lower portion of this chart shows the impact of producing more gas than is being found in the lower 48 states for the period 1968 through 1979 and clearly shows the tremendous need for Alaskan gas.

Attachment 3 shows the millions of feet of hole drilled during the period 1966 through 1980. The graph separates the drilled footage into three categories:

1. The top line connecting the circles represents the total feet of hole drilled. This includes both development and exploratory footage.

2. The middle line which connects the boxes shows the drilling footage for development wells.

3. The third line which connects the triangle shows exploratory footage drilled.

Attachment 4 records footage drilled in the lower 48 states. Again, the top line connecting the circles shows total footage drilled, both exploratory and developmental. The middle line connecting the boxes shows the total footage of hole in wells that were completed as producers of oil or gas. The bottom line connecting the triangles shows the footage of hole contained in all wells completed as gas wells during the years 1965 through 1980. Attachment 5 is a plot of natural gas

finding rates for the period 1966 through 1979. You will note that the finding rate is recorded in terms of "Mcf" (thousand cubic feet) of reserves per foot of successful gas wells drilled. During 1967, for each foot of successful gas wells completed, approximately 600 Mcf of new reserves were found. Since that time, the finding rate has declined steadily, and in 1979 only 120 Mcf was found for each foot of successful gas well drilled. The message of this chart is that gas is getting harder and harder to find.

Attachment 6 combines the footage and finding rate projections into a projection of proved reserve additions through the year 2000. The left hand side of this chart shows historical reserve additions averaging somewhere in the order of 10 trillion cubic feet per year during the last ten years. We forecast that reserve additions in the lower 48 states will increase to a level of 14 or 15 trillion cubic feet for 1985, and then will start to decline during the last 15 years of the century. Although we may have a few big years for reserve additions during the next 20 years, we do not think that, on the average, reserves can be added in the lower 48 states to continue to suppport production rates of 20 trillion cubic feet per year. In forecasting future reserve additions we assumed that the pricing incentives of the Natural Gas Policy Act of 1978 would remain intact.

Panhandle and Trunkline system anticipates (forecasts) that the annual deliverability from committed gas supply will decline from approximately 930 billion cubic feet to approximately 350 billion cubic feet in 1987 when Prudhoe Bay natural gas comes on stream.

Attachment 7 shows our forecast of the annual volumes available for sale from the combined Panhandle Eastern and Trunkline systems. Of course, the figures shown prior to 1981 reflect actual sales figures. Sales declined during the early 1970s to a low of 771 billion cubic feet during 1976, reflecting the serious shortage of gas in those years. Since that time sales have gradually increased to 951 billion in 1979 and 927 billion in 1980.

The yellow bars shown on this graph for 1981 and the future years are what we refer to as "committed supply". This reflects our estimate of the volumes that will be available for the Panhandle and Trunkline systems under presently existing gas purchase contracts covering conventional lower 48 production. This is all of the gas that the two companies presently have under contract in the lower 48 states. We have our work cut out for us if our companies are to serve a 900 billion cubic feet annual market requirement in future years, and we are totally committed to that objective.

The green bars reflect 450 million cubic feet per day of LNG we have contracted to purchase from Algeria.

The solid blue portion of the bars represents 150 million cubic feet per day of Canadian purchases. Approximately 50 billion cubic feet per year of this gas will be made available to our systems through Northern Border pipeline over the 12-year period commencing in 1983.

The cross-hatched blue portion of the bars represents 150 million cubic feet per day of Alaskan gas to be purchased from the Prudhoe Bay field on the North Slope. This gas will reach the Panhandle system through the Alaskan gas transportation system which we hope will be in service by 1987.

The stippled blue portion of the bars represents volumes we had expected from our proposed coal gasification project in Wyoming into our system. That project has been delayed at least two to four years. This is the lease certain of future supply because of the enormous cost involved, perhaps $2 billion.

The red portion of the bars represents the volumes of conventional gas that we must purchase. If the Alaskan gas and LNG does not come on stream as expected, the shortfall required to be covered will be substantially larger as indicated by the graph.

Panhandle and Trunkline's gas supply forecasts are quite representative of the interstate pipeline industry as a whole--particularly as regards presently committed lower 48 supplies of conventional gas.

The foregoing demonstrates the immense need by Panhandle and Trunkline for the Alaskan gas. Not only is the gas tentatively contracted for, but we need to have available an opportunity to contract for the additional Alaskan gas expected to be discovered and developed. We believe 100 trillion to 200 trillion of gas reserves may be discovered and developed. Further, we believe that there is a possibility that gas will be discovered at various points along the Overthrust Belt which is within reasonable distance of the pipeline; hence, making more gas available. We will be permitted to compete for a share of these expected discoveries.

Because of today's excess natural gas producing capacity in the lower 48 states, many people are losing sight of the country's long term gas supply situation. Clearly the current surplus of gas productivity will not be long lived. Those people would probably look on this gas supply presentation as being very pessimistic. Panhandle's forecasts of future gas supply are not out of line with the great

majority of definitive studies prepared by others. Attachment 8 shows the results of three of these studies. This chart compares forecasted natural gas demand to forecasted conventional gas supply for the years 1980 through 2000. The top graph represents Exxon's estimate. Of course, the difference between the demand line and the supply line represents Exxon's estimate of the shortfall in conventional domestic supply from meeting demand. The second graph shows the forecast of the Department of Energy. The third graph shows the forecast of the Gas Research Institute. Although each study differs somewhat, they all reflect a need for additional sources of gas if we are to meet the needs of the United States consumers.

Marketability

Jensen Associates, Inc. have prepared a marketability study for the pipeline group. That firm has for some time provided consulting services to Panhandle and Trunkline as to the demand for natural gas and alternative fuels. We believe that the Jensen report, covering the demand for the Alaskan natural gas, is conservative. The probability that the gas will not be marketable in the earlier years, unless it can be rolled in with the price of cheaper gas, is small. We believe the most likely scenario is that conditions by 1987 will be such that the gas will be marketable. If the conditions are not as expected, we would expect that the spread between the cost of Alaskan gas at the city-gate and the price at which it could be sold, will be small enough that a workable solution can be made through the regulatory process before the FERC.

Need for the Waiver of Law Package

Panhandle and Trunkline subscribe to the statements and presentation made by Northwest for the Partnership and subscribe to the statement of needs made by representatives of the lead banks with which the Partnership is dealing. The pipeline companies simply do not have the financial capacity to fund the Alaskan pipeline and the related gas conditioning facilities. Producer's equity and construction debt support participation will go a long ways towards creating conditions under which necessary capital can be raised.

We believe that the inclusion in the waiver of the provision which would permit the commencement of billing upon completion of a segment of the pipeline or a date certain, whichever occurs last, does not create an unreasonable risk assumption by consumer's groups. We believe that our customers want to be assured of a gas supply in the late 1980's and in the 1990's and want our companies to take action now so as to assure that supply.

Our companies cannot commit large amounts in an open-ended commitment to a project as large and risk-laden as the Alaskan project and be assured the companies remain financially viable so as to be able to continue to supply gas consumers' requirements. Further, the President's Decision in 1977 did not contemplate that the companies would support project debt. We believe that the greatest exposure to not completing the pipeline on a date certain would arise from actions of government including delays caused by litigation, not from the hostile environment through which the pipeline must be constructed. The waiver provision which would permit collection of billing upon completion of a segment of the pipeline will motivate the pipelines to complete sections on time by the date certain, and likewise, may afford some encourgement to governmental units to not unreasonably take any action which would delay completion of the project and placing it in service. It would, of course, permit collection of debt service revenues during such period of delay, and thereby, hopefully prevent the pipeline's Sponsors from being thrown into insolvency by reason of the money required to be paid during such delay.

The waiver seeking conditions of regulatory certainty for servicing debt, we submit, poses little if any risk to consumers. On the other hand, this waiver will provide assurance to potential lenders that a stream of income will always be there to repay debt and interest. This additional assurance, we hope and believe, will create necessary incentives to lenders to commit debt money to the project.

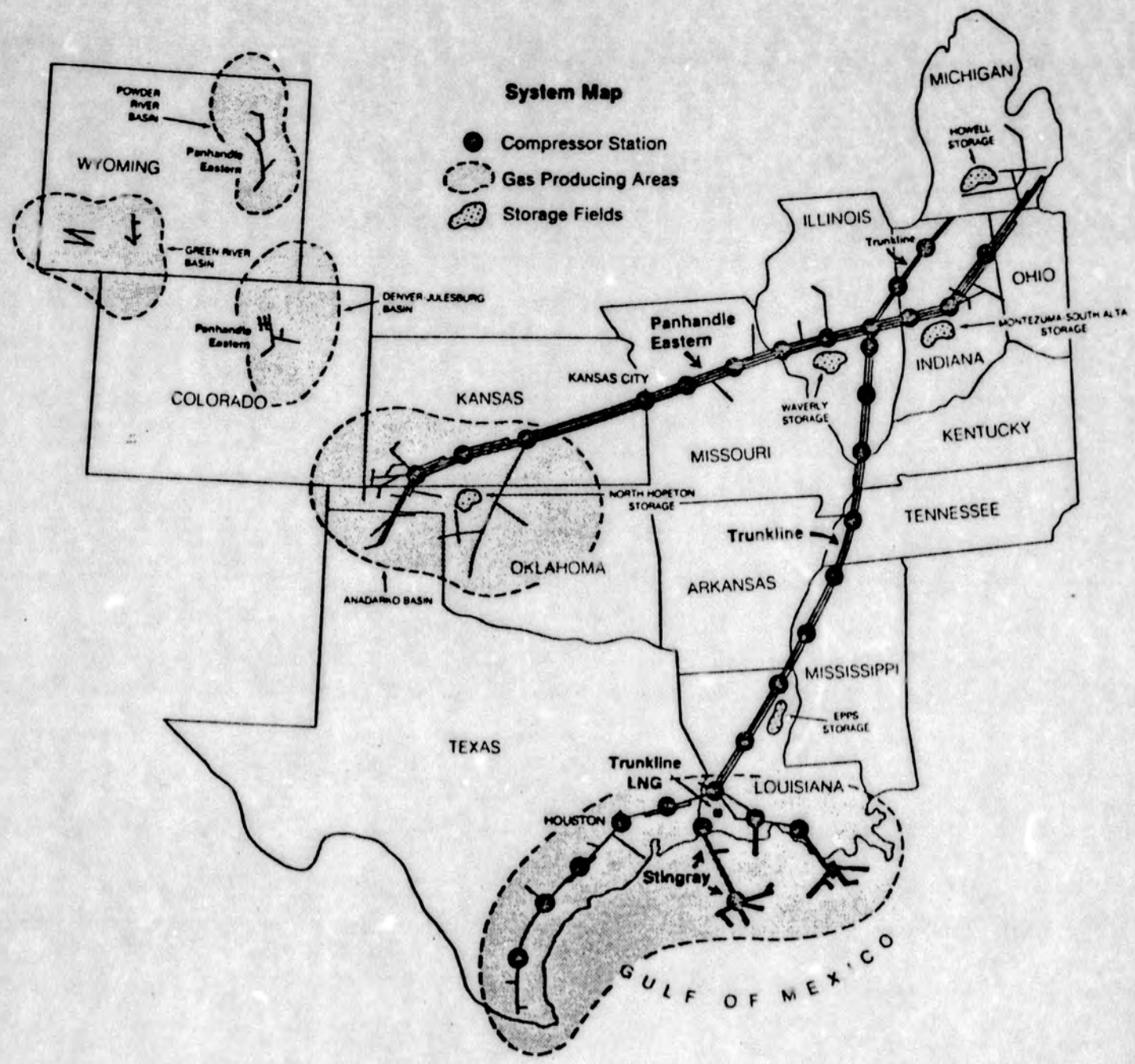
National Interests

The President, Secretary of State Haig and numerous others, in and out of government, have alluded to the enormous benefit to the nation by completion of the pipeline and the natural gas supplies it will make available. We agree. On the other hand, we must remain mindful of our duty to not place our pipeline companies in a position of financial vulnerability. We believe the pipeline will serve to strengthen ties between the countries of North America and will otherwise enhance security by reducing reliance upon foreign sources of oil and natural gas and improve this nation's balance of payments position.

Conclusion

Alaskan natural gas will be urgently needed in the late 1980's and thereafter. The proposed Alaskan pipeline offers the best mode of transportation of the gas to consumers. The proposed waivers of law are necessary for the obtaining of financing. We urge that the waivers be approved.

PANHANDLE EASTERN PIPE LINE COMPANY
AND
TRUNKLINE GAS COMPANY

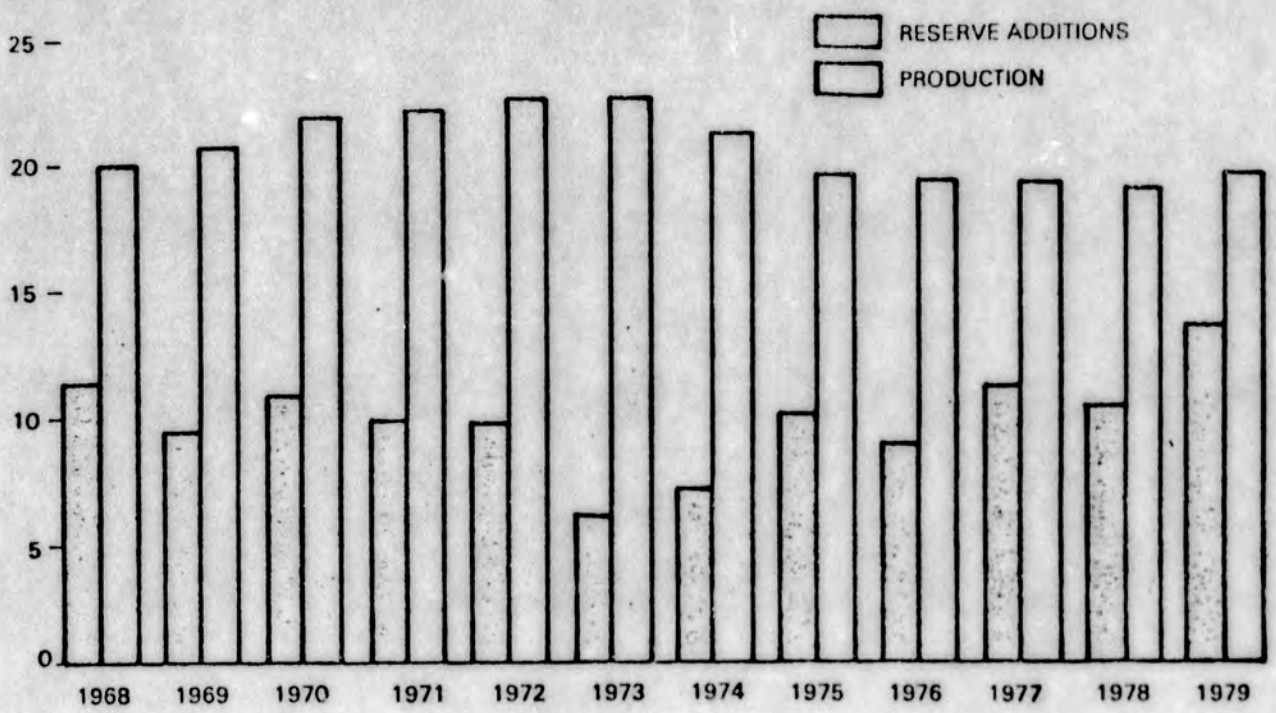


ATTACHMENT 1

NATURAL GAS—PRODUCTION AND RESERVE ADDITIONS

LOWER 48 STATES

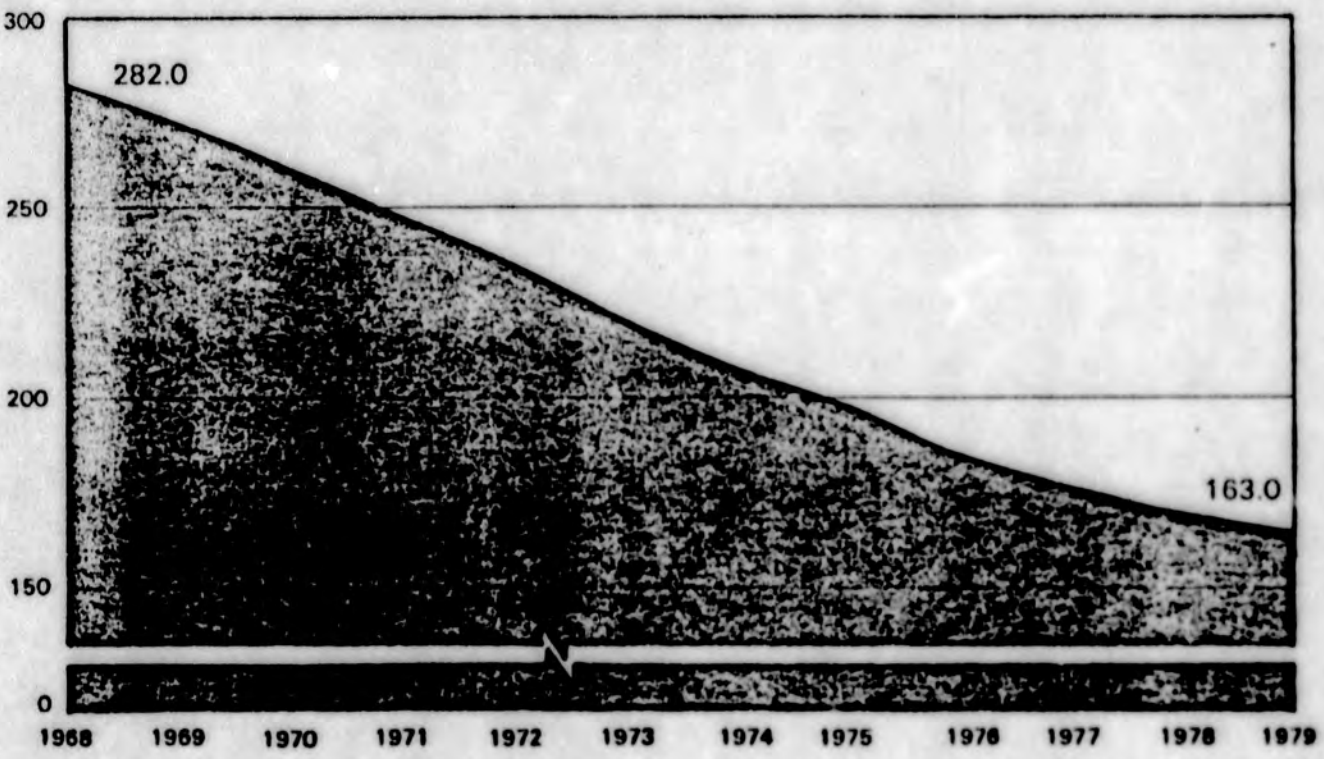
(TCF/YEAR)



NATURAL GAS—PROVED RESERVES

LOWER 48 STATES

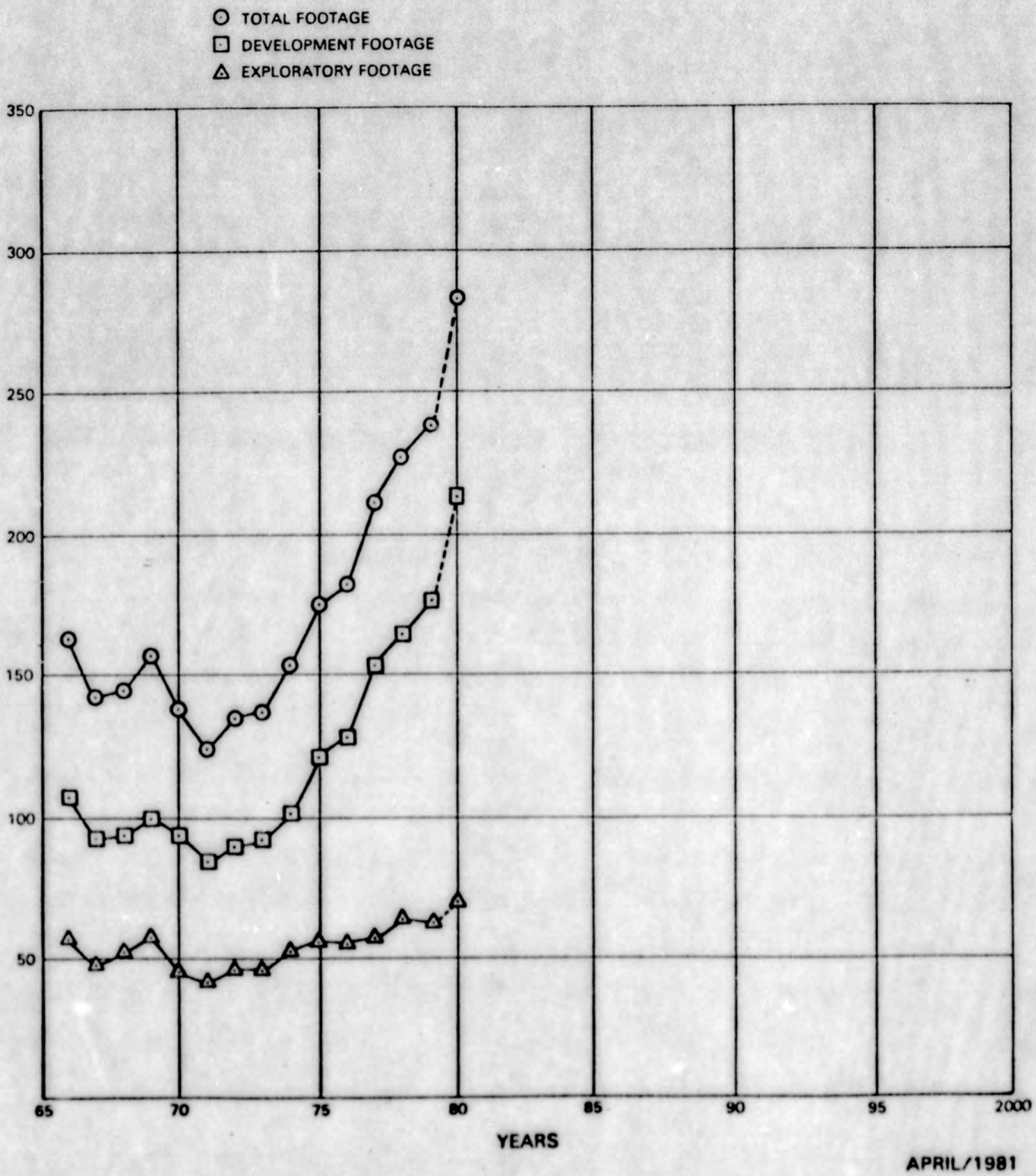
(TRILLION CUBIC FEET)



April 1980

ATTACHMENT 2

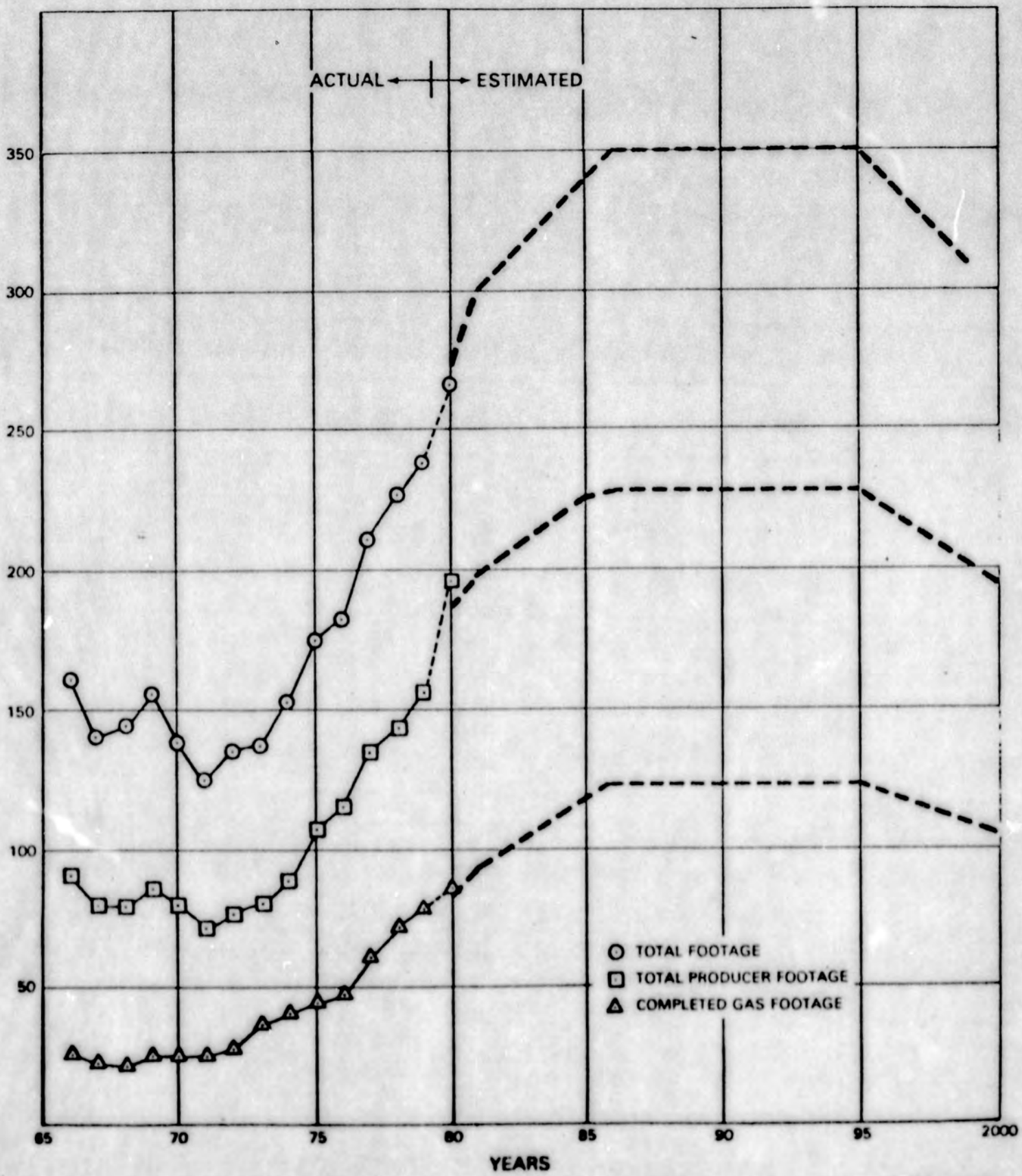
CONTIGUOUS UNITED STATES
DRILLING
MILLION FEET PER YEAR



APRIL/1981

ATTACHMENT 3

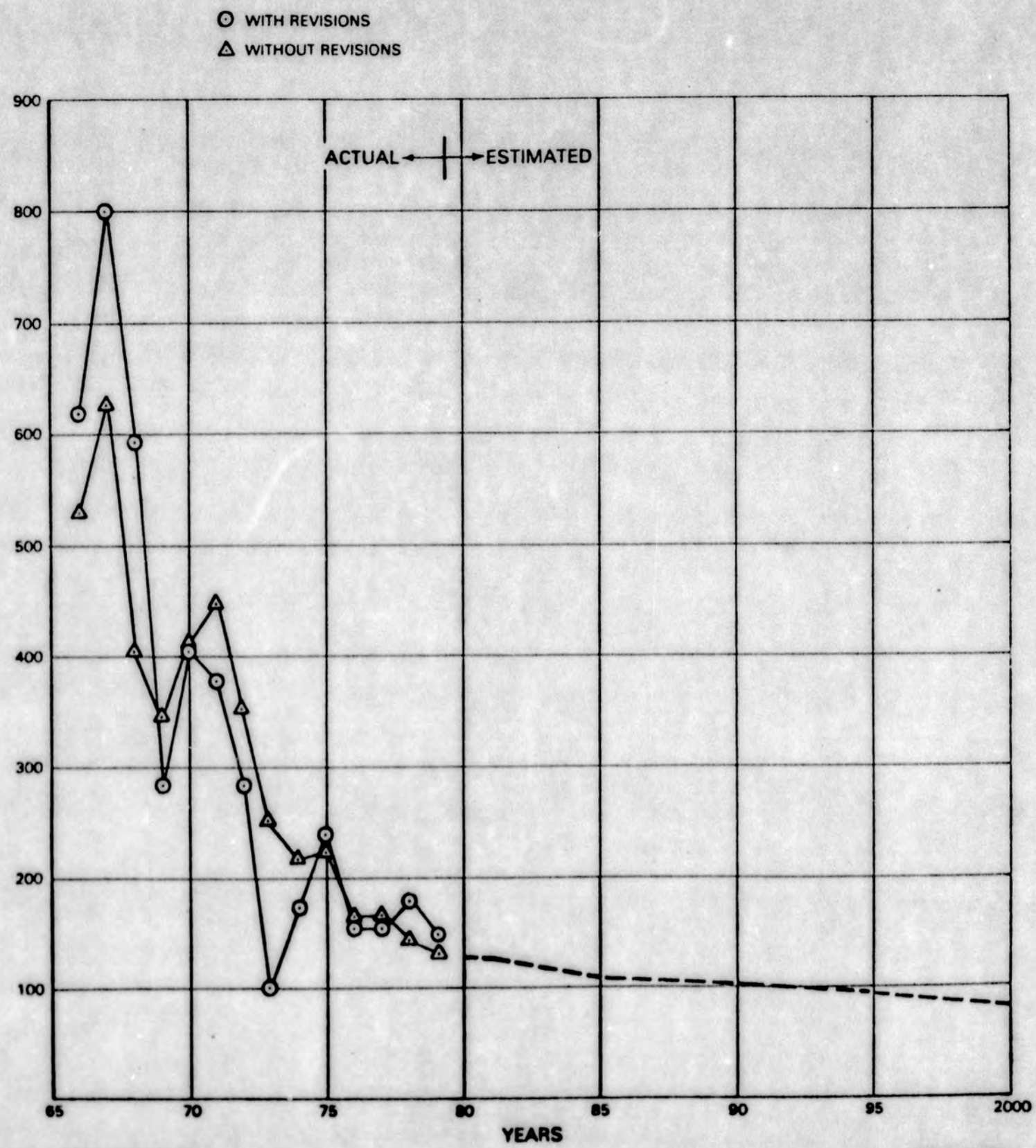
CONTIGUOUS UNITED STATES
TOTAL DRILLING
MILLION FEET PER YEAR



ATTACHMENT 4

APRIL/1981

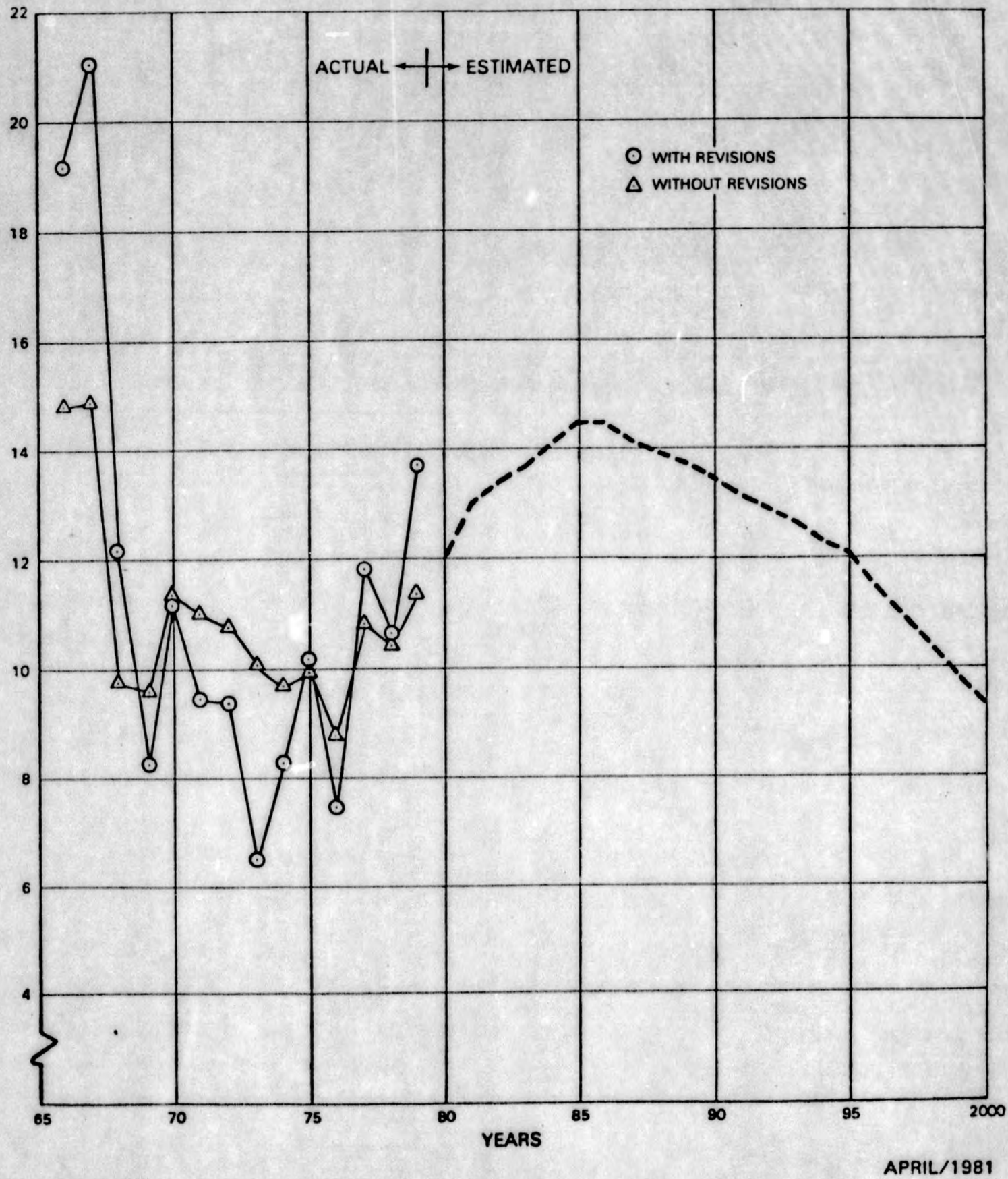
CONTIGUOUS UNITED STATES
NON-ASSOCIATED GAS ADDITIONS
MCF PER COMPLETED GAS FOOT
TOTAL DRILLING



ATTACHMENT 5

APRIL/1981

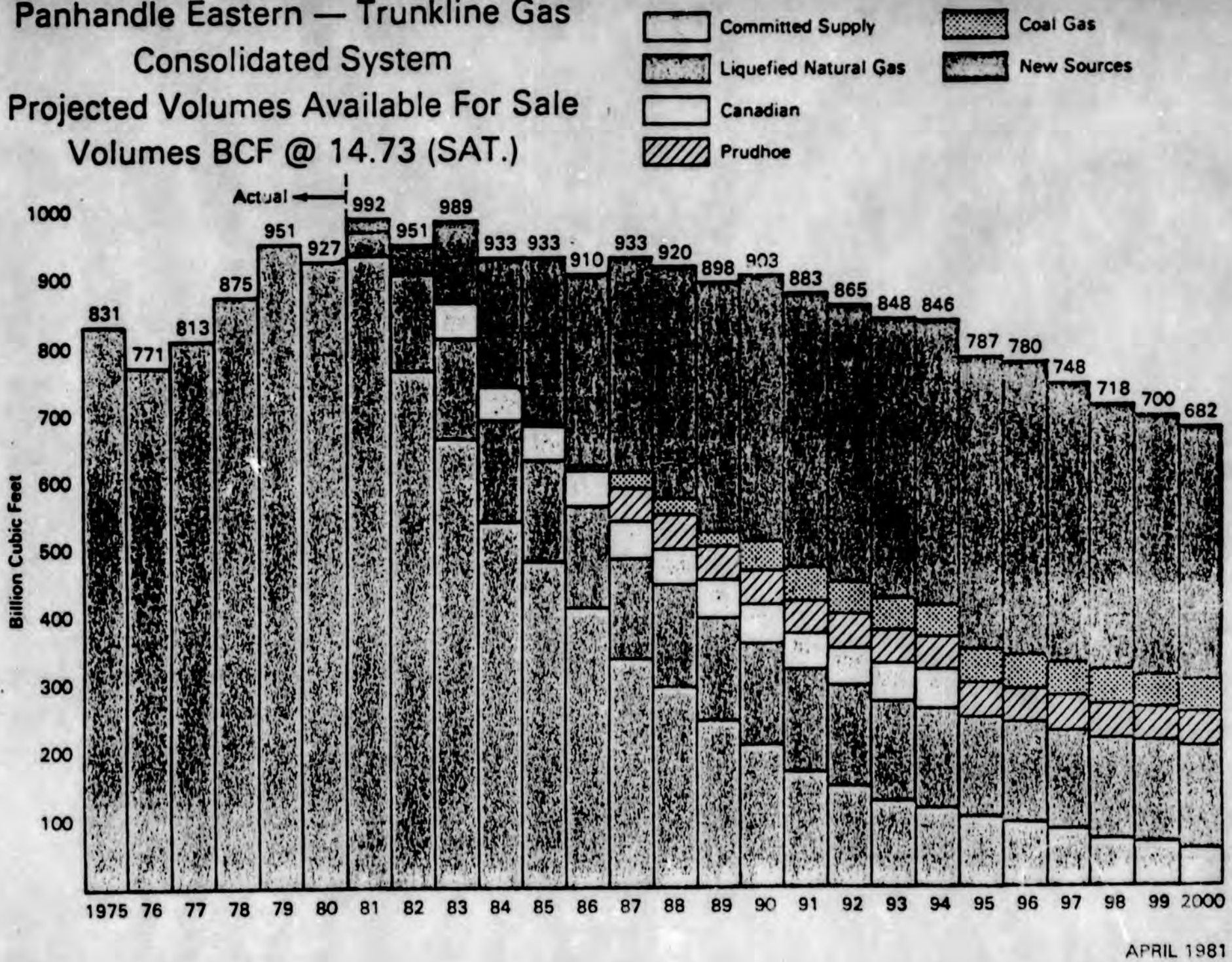
CONTIGUOUS UNITED STATES
ADDITIONS FROM TOTAL DRILLING
TCF PER YEAR



APRIL/1981

ATTACHMENT 6

Panhandle Eastern — Trunkline Gas
Consolidated System
Projected Volumes Available For Sale
Volumes BCF @ 14.73 (SAT.)

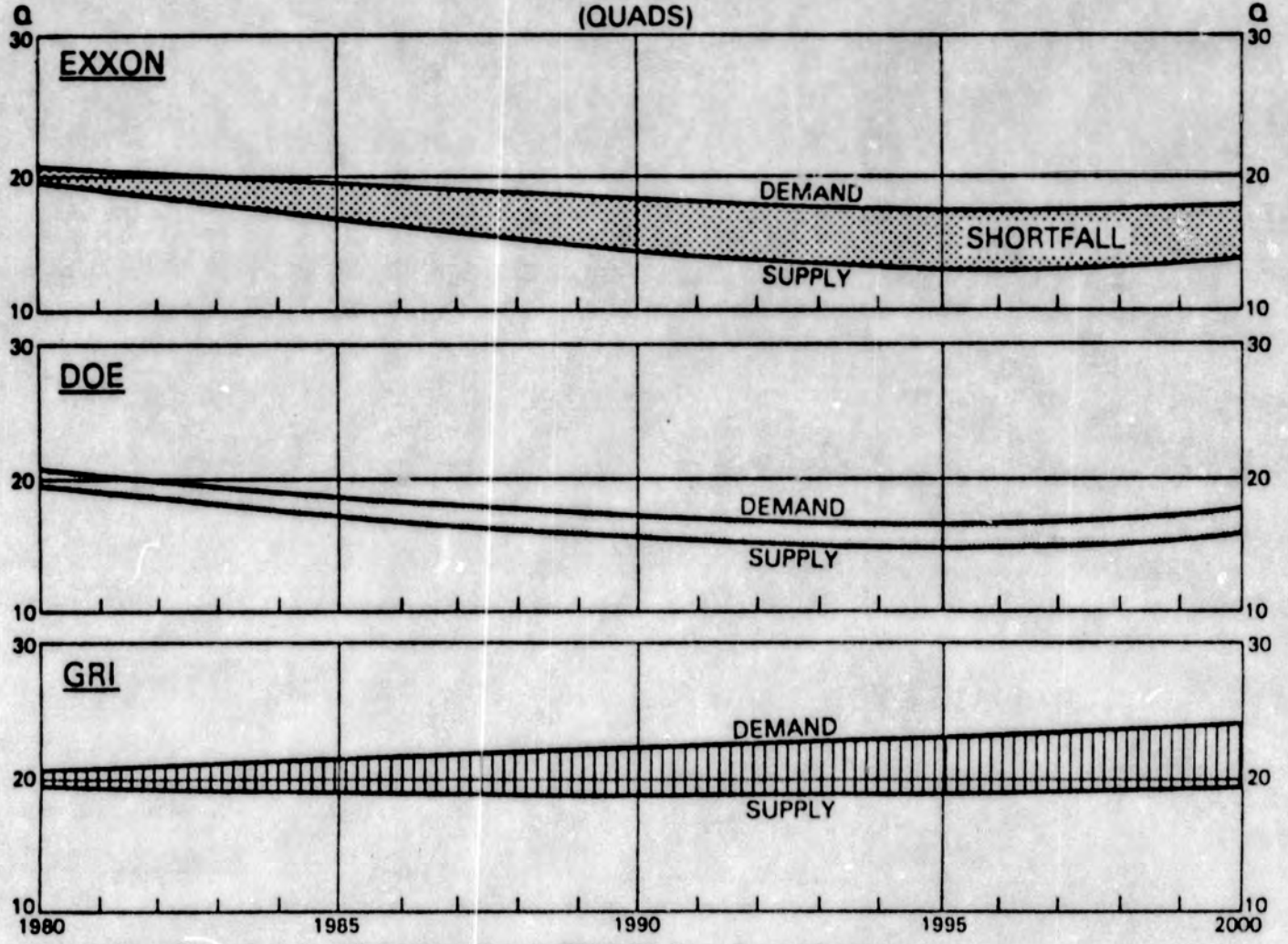


APRIL 1981

ATTACHMENT 7

ATTACHMENT 8

COMPARISON OF DEMAND WITH CONVENTIONAL DOMESTIC SUPPLY
1980 - 2000



Source: Exxon Energy Outlook, DOE Forecasts Through 2020 & GRI Future Demand Scenario

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Telephone (402) 691-2100

Northern Border Pipeline Company
New Natural Gas for America

BEFORE THE
SUBCOMMITTEES ON ENERGY AND ENVIRONMENT
OF THE
HOUSE COMMITTEE ON INTERIOR
AND INSULAR AFFAIRS
SUBCOMMITTEES ON FOSSIL
AND SYNTHETIC FUELS
OF THE
HOUSE COMMITTEE ON ENERGY
AND COMMERCE

STATEMENT OF NORTHERN BORDER PIPELINE COMPANY

SUBMITTED BY
HOWARD L. HAWKS

Washington, D. C.
October 23, 1981

Mr. Chairman and Members of the Subcommittee:

I am the President of Northern Plains Natural Gas Company. Northern Plains Natural Gas Company is the Managing Partner (Operator) for the Northern Border Pipeline Company. I am here today to describe the participation of Northern Border in the Alaska Natural Gas Transportation System (ANGTS) and to express the support of Northern Border for the President's proposed waiver of law under Section 8(g) of the Alaskan Natural Gas Transportation Act of 1976 (ANGTA).

Northern Border Pipeline Company is a General Partnership consisting of five Partners. The Partners and their parent companies are as follows:

1. Northern Plains Natural Gas Company is a subsidiary of InterNorth, Inc. Northern Plains Natural Gas Company is a Delaware corporation, with its principal office at 224 South 108th Avenue, Omaha, Nebraska. As I mentioned earlier, Northern Plains is the Managing Partner.

2. Northwest Border Pipeline Company, a subsidiary of Northwest Energy Company, a Delaware corporation, with its principal office at 314 East 200 South Street, Salt Lake City, Utah.

3. Pan Border Gas Company, a subsidiary of Panhandle Eastern Pipe Line Company, a Delaware corporation, with its principal office at 3000 Bissonnett Avenue, Houston, Texas.

4. TransCanada Border PipeLines, Ltd., a wholly-owned subsidiary of TransCanada PipeLines, with its principal office at Commerce Court West, Toronto, Ontario, Canada.

5. United Mid-Continent Pipeline Company, a subsidiary of United Gas Pipe Line Company, a Delaware corporation, with its principal office at 700 Milam Street, Houston, Texas.

Northern Border has been an active participant in the efforts to introduce Prudhoe Bay gas into United States markets since 1970. Northern Border was originally involved with the Arctic Gas Project which proposed construction of an overland pipeline from the Prudhoe Bay area of Alaska through Canada and into the lower 48 states. As a part of that project, Northern Border proposed to construct the U.S. Eastern Leg. In 1976, when the competing Alcan Project was proposed, the Sponsors of that project also proposed that Northern Border construct and operate the Eastern Leg of their project.

Subsequent to the passage of ANGTA, Northern Border was designated to construct and operate the lower 48 state portion of the "Eastern Leg" of the ANGTS as a part of the Alcan project. The Northern Border transportation system will receive Alaskan gas at the Saskatchewan-Montana border from the Canadian-owned portion of the ANGTS and transport such gas through 1,131 miles of 42-inch pipeline to be constructed along a route diagonally through the States of Montana, South Dakota, North Dakota, Minnesota, Iowa and Illinois terminating at a point near Dwight, Illinois.

Northern Border is presently engaged in constructing what is referred to as the "Prebuild Project."

The concept of a Prebuild Project first appeared both in the President's Decision on the ANGTS, issued in September of 1977, and in the companion National Energy Board (NEB) decision in Canada. Those decisions recognized that both countries might benefit from a new export of surplus Canadian gas to the U.S., and that such gas, if transported through prebuilt portions of the ANGTS in southern Canada and the lower 48 states, could

provide significant assistance to successful completion of the entire ANGTS. In pursuing this objective, Pan-Alberta Gas Ltd. thereafter contracted to sell 1.04 billion cubic feet per day (1.04 bcf/d) of Canadian gas to Northwest Alaskan Pipeline Company over a term of 12 years. Northwest Alaskan in turn contracted to resell such gas to the following purchasers:

1. Pacific Interstate Transmission Company, 240,000 Mcf per day (240 MMCF/d), for delivery to Southern California through "Western Leg" facilities;

2. (a) United Gas Pipeline Company (United), 450,000 Mcf per day reducible to 400 MMCF/d commencing with the third contract year;

   (b) Northern Natural Gas Company (Northern Natural), 200,000 Mcf per day (200 MMCF/d), increasing at Northern's option to 250 MMCF/d commencing with the third contract year; and

   (c) Panhandle Eastern Pipeline Company (Panhandle), 150,000 Mcf per day (150 MMCF/d).

   The total volume of 800 MMCF/d purchased by the above-named companies is to be transported by Northern Border through the U.S. "Eastern Leg Prebuild" facility.

Pan Alberta Gas Ltd. made application to the National Energy Board of Canada for authorization to export the volumes in accordance with the terms of its contract with Northwest Alaskan. However, the term of the license issued by the National Energy Board was not concurrent with the 12-year term of the contracts. The National Energy Board issued an export license authorizing the export of 800,000 Mcf per day for the period commencing November 1, 1981 through October 31, 1986 and 400,000 Mcf per day

during the period November 1, 1986 through October 31, 1987. In addition, the export license provides that to the extent that volumes are not exported during the first year (i.e. 11-1-81 through 10-31-82), such unexported volumes can be added to the 400,000 Mcf per day authorized for export in the year November 1, 1986 through October 31, 1987 up to a total of 800,000 Mcf per day in that year. Any unexported first year volumes not taken during the period November 1, 1986 through October 31, 1987 can be taken in the next contract year. However, this right of "make up" is conditioned upon a prior determination by the National Energy Board that the "make up" volumes to be exported are surplus to Canadian domestic requirements.

The practical effect of the above is that the term of the current export license is 5-1/2 years with a conditional right to add the volumes not taken at the beginning of the 5-1/2 year period to the end of the period. Northern Border has been advised that Pan-Alberta Gas, Ltd. has filed an application with the National Energy Board to firm up the export of the volumes which will not be taken in the first contract year and to extend the term of the license to coincide with the term of the contracts.

Concurrent with the proceedings before the National Energy Board in 1979, Northern Border made application to the Federal Energy Regulatory Commission for authority to construct and operate the Prebuild segment of the Eastern Leg. Specifically, Northern Border requested authorization to construct and operate 823 miles of 42-inch pipeline and one compressor station extending from a point on the U.S.-Canadian border to a point of interconnection with the facilities of Northern Natural Gas Company near Ventura, Iowa and for authority to transport 800,000 Mcf per day for the accounts of United, Northern Natural and Panhandle.

Additionally, applications were filed by Northwest Alaskan for authority to import the volumes to be purchased from Pan-Alberta Gas, Ltd. and for authority to resell the volumes to the

U.S. Purchasers. Also, Northern Natural Gas Company made application to construct and operate facilities to receive the Canadian gas into its system at Ventura, Iowa and for authority to transport and to exchange-displace the volumes in order to get the volumes purchased by Panhandle and United into their systems. By orders dated April 28, 1980 and June 20, 1980, the FERC issued the appropriate authorizations necessary to implement the Prebuild Project.

Subsequent to the issuance of these orders, orders were issued by the NEB and the FERC authorizing Northern Border to transport an additional 175,000 Mcf per day of Canadian gas and to construct and operate a second compressor station. Of this total, 100,000 Mcf per day will be transported for the account of Northern Natural Gas Company and 75,000 Mcf per day will be transported for the account of Natural Gas Pipeline Company of America. The licenses issued by the NEB for the export of these volumes expire on October 31, 1987.

Following the issuance of the FERC authorizations, Northern Border undertook the activities necessary to commence construction. As a part of these activities, Northern Border finalized the financing of the Prebuild Project by execution of a Loan Agreement dated December 15, 1980.

The source of the debt financing for the Prebuild Project is a consortium of 28 United States and Canadian banks which will provide up to seventy percent of the cost of constructing the Prebuild Project. The remaining thirty percent will be contributed by the Partners as equity.

The major terms and conditions of the Loan Agreement are as follows:

a) The Loan Agreement provides for the borrowing of up to $1.055 billion. The loan has two variable-rate price options. The first option is a domestic rate plus 3/4 percent. The domestic rate is the greater of (a) the

three-week moving average of 90-day certificates of deposit plus 1/2 percent or (b) the average prime rate for three designated banks (Canadian Imperial Bank of Commerce, Citibank and Morgan Guaranty Trust). The second option is the average London Interbank Offered Rate (LIBOR) for six reference banks (Canadian Imperial Bank of Commerce, Bank of America, Chase Manhattan, Citibank, Morgan Guaranty Trust, and Royal Bank of Canada) plus 1.125%. This rate is locked in for a period of either three or six months as elected by Northern Border.

b) The loan requires infusions of debt and equity equally until combined debt and equity total $772 million. Thereafter, additional debt ($515 million) is drawn until the total of debt and equity equals $1.287 billion. The next $129 million will consist of 70% debt ($90 million) and 30% equity ($39 million). The final $129 million, if required, would consist of 50% debt and 50% equity.

c) Repayment will begin six months after the initial billing commencement date. The first payment is anticipated in March, 1983. The amount of the repayment will be the debt percentage of the capitalization times depreciation and deferred taxes. The final payment of up to 40% will be in 1993. Also, prepayment is required when Alaskan gas flows or earlier at the Borrower's option.

d) TransCanada PipeLines, Ltd. has agreed that if, at maturity, the loan is not fully paid, TransCanada will contribute equity to Northern Border in an amount at least equal to all amounts due under the Loan Agreement or would purchase Northern Border's notes issued under the Loan Agreement for such amount. TransCanada and the

other Sponsors of Northern Border have agreed that in the event TransCanada is required to make an equity contribution, the other Sponsors have the right to participate in such equity contribution.

In addition to the above, TransCanada agreed to certain other undertakings. TransCanada is obligated to purchase the remainder of the equity in the Partnership under certain conditions. This purchase obligation is triggered if on the final day of the tenth year after the date of completion of the Prebuild Project the Management Committee of Northern Border has not determined that the additional facilities on the Northern Border system required for transportation of the Prudhoe Bay gas are to be constructed and the only gas being transported through the Prebuild line is Canadian gas ultimately destined for consumption in TransCanada's market area in Eastern Canada. In addition, TransCanada has agreed to a "backstop" by assuring the transportation of TransCanada gas should Canadian exports terminate prior to the shipment of Alaskan gas. If these exports terminate before Alaskan gas begins to flow through Northern Border, TransCanada would become obligated for payment of the full Northern Border cost of service.

Thus, the repayment of the debt and the return of equity is assured through the provisions of Northern Border's Tariff, TransCanada's backstop obligation, and TransCanada's obligations to repay the debt at maturity.

In May of 1981, mainline construction of the pipeline began in the States of Montana, South Dakota, Minnesota and Iowa. Commencement of construction in North Dakota was delayed until September of 1981 because of litigation over the route of the pipeline in North Dakota. As of this date, approximately 575 miles of the pipeline have been installed. The remaining 250 miles will be completed by the fall of 1982. We anticipate no overall delay in completion of the Prebuild Project, nor do we anticipate any cost overruns.

As demonstrated above, the completion of the Prebuild Project is being accomplished without the necessity for any special legal or regulatory treatment. Given that the Prebuild Project is only one segment of the entirety of the ANGTS, its complexities, uncertainties, and problems are obviously less than for the totality of the project.

With the completion of the Prebuild Projects, the first steps will have been taken in bringing the totality of the ANGTS to reality. This early building of both the Eastern and Western Legs of the ANGTS to transport a total of 1,215,000 Mcf of Canadian gas to United States markets (which is the equivalent of 190,000 barrels of oil per day) will not only supplement current energy supply, but more importantly, will facilitate the financing of the remainder of the project, will lessen the inflationary effects on cost and will ease the demand on labor and capital during the construction of the remainder of the Alaska Natural Gas Transportation System.

Northern Border will construct the remainder of the Eastern Leg concurrent with the construction of the Alaskan portion of the ANGTS. The facilities to be constructed to complete the Eastern Leg consist of 308 miles of 42-inch pipeline extending from Ventura, Iowa, to a point near Dwight, Illinois and the construction of 12 compressor stations. We now estimate that the cost of these facilities will be approximately one billion dollars. Under the provisions of the Partnership Agreement, the Partners are committed to contribute the equity requirements for completion of the additional facilities, and we are confident that we will be able to secure the debt financing.

When completed, the Eastern Leg will have capacity to transport 2.2 billion cubic feet per day without further expansion.

As a long time participant in the efforts to bring Alaskan gas to market, Northern Border cannot emphasize too strongly the nation's need for completion of the ANGTS:

1) The Prudhoe Bay proven reserves now approximate 26 trillion cubic feet, and the completion of the ANGTS not only gives access to these reserves but will also encourage exploration and development of additional North Slope reserves.

2) The completion of ANGTS will go a long way in leading to the connection of Canada's sizeable frontier reserves in the McKenzie Delta-Beaufort Sea Area. At the present time, the NEB is unwilling to include these frontier reserves in their calculations of available surplus. Access to these reserves through the ANGTS would be a most positive step toward causing the NEB to modify its policy.

3) Failure to complete the ANGTS, on the other hand, could very well jeopardize the future export of Canadian gas to the detriment of the United States as the Canadians will most certainly take into consideration our failure to complete the ANGTS as they set their national energy policy. It is in the best interest of the United States to continue to purchase and import Canadian gas as long as such purchases result in a positive net economic benefit to our nation.

4) Failure to complete the remainder of the ANGTS will most certainly have a detrimental effect on Northern Border, its shippers and the ultimate consumer. It would eliminate the major source of supply for Northern Border and a critical, long term source of supply for consumers of the United States. Furthermore, the most economical

operation of the system will not be realized if the Alaskan volumes are not transported. Generally, the unit cost of transportation through a pipeline is reduced as the volume transported increases. Additionally, a failure to complete the ANGTS due to problems which are rectifiable will most certainly be taken into account by the Canadian government in the determination as to whether or not to extend the term of the Pan Alberta export license beyond the current 5-1/2 years.

Northern Border strongly urges the Congress to act favorably on the President's proposed waiver of law.

Thank you for inviting me to submit this statement on behalf of Northern Border. I would be pleased to answer any questions which the members of the Committee may have.

STATEMENT OF

EDWIN ROTHSCHILD
Director
Energy Action Educational Foundation

BEFORE THE COMMITTEE ON ENERGY AND
NATURAL RESOURCES OF THE UNITED STATES SENATE

October 26, 1981

AND

BEFORE THE FOSSIL AND SYNTHETIC
FUEL SUBCOMMITTEE OF THE HOUSE ENERGY AND
COMMERCE COMMITTEE AND THE ENERGY AND
ENVIRONMENT SUBCOMMITTEE OF THE HOUSE INTERIOR
COMMITTEE OF THE UNITED STATES HOUSE OF REPRESENTATIVES

October 27, 1981

Mr. Chairman and members of the Committee. I appreciate very much the opportunity to testify today on the proposed waivers of law regarding the construction of the Alaska Natural Gas Transportation System (ANGTS).

The proposed waivers submitted to the Congress by the President on October 15, 1981 are designed to make the ANGTS a project that transfers a substantial portion of the risk from sponsors and lenders to consumers. In addition, the waivers would permit equity ownership in the pipeline by the gas producers of the Prudhoe Bay field, a situation the Justice Department in 1977 said should not be permitted. These waivers would curtail the rights of consumers to review financial and managerial decisions and determinations through an evidentiary hearing by leaving such a hearing up to the discretion of the Federal Energy Regulatory Commission. Finally these waivers would provide that the Commission could not change any final rules or orders under Sections 4, 5, 7, and 16 of the Natural Gas Act, despite changed financial, physical or technical circumstances. Consumers are being asked to shoulder the extraordinary financ risks, while the sponsors and their banks seek insulation from such risks as well as the substantial rewards. Based on these conclusions, we do not believe Congress should adopt the waiver proposal.

SOME HISTORICAL NOTES

Before examining in detail our objections to the proposed waivers of law, I think it would be useful to review how John McMillian's Northwest Energy Company's project, Alcan was selected as well as the representations made by Mr. McMillian and his company which were instrumental in persuading the Government to choose his proposal over the others. Three projects--Alcan, El Paso and Arctic--were before the Federal Power Commission in 1976 and 1977 proposing to construct a transportation system to deliver Alaskan gas to the lower 48 states. While there were criticisms of all the systems from varying points of view, one of the key elements for obtaining government approval was whether or not the transportation system could be privately financed.

In this regard all three of the original competing projects -- Alcan, El Paso and Arctic -- insisted that they needed an "all-events tariff." This tariff provided for consumer payment of the pipeline even if the pipeline never delivered a single cubic foot of natural gas. There was great opposition to this type of tariff both in Congress and among many of the potential consumers of this gas. Recognizing that an alternative to the "all-events tariff" would have a significant influence on the decision-making process, Alcan's chief financial advisor Mr. Mark J. Millard, a vice president of Loeb Rhoades, sent a memorandum to McMillian stating,

> There is sufficient credit support capacity among the primary beneficiaries of gas pipelines, excluding the consumer, to assure completion of the pipeline. This is the single, most important risk to be addressed in arranging a private financing. Such beneficiaries are the gas transmission companies, gas producers, and the State of Alaska. (Emphasis mine)

and

> The obligations of consumers to pay certified costs of the project can be limited to a minimum bill tariff commencing when initial gas deliveries are made. I do not believe legislation obligating gas consumers to an "all-events" tariff, which provides for payment of cost prior to the completion of construction, is a necessary condition of successful private financing if sufficient overrun funds are provided.[1]

---

[1]Memorandum to John G. McMillian from Mark J. Millard, August 10, 1977, pp. 2-3.

With El Paso and Arctic still insisting that such an "all-events tariff" was necessary and with Northwest Energy pledging its support for President Carter's National Energy Plan, the White House, after reaching agreement with the Canadian Government, submitted its Decision and Report on the Alaskan Natural Gas Transportation System to Congress.[2] On the same day Mr. Mcmillian told House members,

> The President's decision requires the Alcan project to be privately financed in its entirety. The United States and Canadian governments will not be called upon for financial guarantees. Nor will the consumer have to bear the hypothetical burden of the non-completion of the project. Instead, other primary beneficiaries of the project will be called upon to provide the necessary financial backing. We believe that Alcan can obtain the necessary project financing from Canadian and United States sources.[3] (Emphasis added)

These assurances were repeated by Mr. McMillian to the Senate Energy and Natural Resources Committee on October 11.[4] Mr. McMillian and his financial advisors also stated that they would not need the financial support of the Prudhoe Bay producers in the effort to obtain private financing.

But as we all know Mr. McMillian was wrong, so wrong that he and his cohorts are running around the halls of Congress trying to obtain support for the very things he said he would not need and the very things the sponsors of the other projects said were necessary. Clearly, Mr. McMillian changed his position on the financing of this pipeline in August 1977 to obtain the Government's approval, while knowing full well that private financing under those conditions would be improbable, if not impossible. But he must also have recognized that once he had received the Administration's approval, he would have his foot in the door. Now, four years later, Mr. McMillian is trying to force his way further in by using all of the work that has been done, the expectations that have been raised and the money already spent as justification for these extraordinary and unprecedented waivers.

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[2] Decision and Report to Congress on the Alaska Natural Gas Transportation System, Executive Office of the President, September 22, 1977.

[3] Joint hearings before the Subcommittee on Energy and Power of the Committee on Interstate and Foreign Commerce and the Subcommittee on Indian Affairs and Public Lands of the Committee on Interior and Insular Affairs, House of Representatives, 95th Cong., 1st Sess., on The President's Decision on an Alaskan Natural Gas Transportation System, p. 87.

ALLOWING PRODUCERS EQUITY PARTICIPATION

The first of the proposed waivers would waive Section 1, Paragraph 3, and Section 5, Conditions IV-4 and V-1, of the President's Decision to allow the gas producers --Exxon, BP/Sohio and Arco -- an ownership interest in the pipeline. The proviso to this waiver is that the Federal Energy Regulatory Commission approve any participation agreement only after considering "advice from the Attorney General" and making a finding that the agreement will not violate the antitrust laws, nor restrict access for nonowner shippers and capacity expansion.

While the current arrangement between the pipeline-owners and the producers limits the producers to 30 percent of the equity, there is nothing preventing the pipelines or Mr. McMillian from handing over 49.9% of the pipeline's ownership to the producers, if the financial backers insist that this is a necessary condition for the credit worthiness of the project. Once the Congress allows producers to become owners of the pipelines, then it is not unreasonable to assume that their ownership interest could expand.

This is a serious problem. It is one that has concerned the Justice Department for many years, particularly in reference to oil pipelines and oil ports. To allow the largest and only gas transportation system from Alaska to be acquired in whole or in part by the producers of the largest U.S. gas field is dangerous, especially in view of the Administration's likely effort to accelerate decontrol of natural gas prices. It was just such an eventuality that prompted the Justice Department's opposition. Thus, according to an August 9, 1977 letter to the White House, the Justice Department's

> recommendation concerning gas producer ownership and participation was based on the premise that such ownership or participation under a regime of deregulated or relaxed wellhead price regulation could lead to the evasion of effective pipeline regulation and create the opportunity for the earning of monopoly profits through anticompetitive activity.[5]

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[4]Hearings before the Committee on Energy and Natural Resources, United States Senate, 95th. Cong., 1st Sess. on S.J. Res. 82, Joint Resolution to Approve the Presidential Decision on an Alaska Natural Gas Transportation System, p. 102.

[5]Decision, Exhibit following p. 212.

This waiver does not provide the public with sufficient assurance that anticompetitive activity will not occur. In fact, the waiver permits the Federal Energy Regulatory Commission, whose chairman has already stated he is in favor of moving the project forward, to reject the Justice Department's recommendations concerning antitrust problems raised by producer ownership in the pipeline. It would seem to be more logical that, if nothing else, the Justice Department be required to approve producer participation, rather than just act as a consultant to the FERC. Such antitrust reviews are within the domain of the Justice Department's Antitrust Division, not within the FERC. To provide the FERC with decision making authority over antitrust matters is tantamount to giving the Department of Energy authority over Defense matters.

INCLUDING THE CONDITIONING PLANT AS PART OF THE TRANSPORTATION SYSTEM

It is the usual practice in the natural gas industry that a pipeline company is responsible for constructing a pipeline up to a producer's gas conditioning plant. The gas emanating from that plant receives a price from the pipeline company that contains in it a provision for the cost of the conditioning plant. Of course, the producer retains the ownership of the valuable products produced from that plant -- propane, ethane and butane, to name the most well known. In today's marketplace, these products command high prices for use as petrochemical feedstocks. Under regulation, the sale by producers of natural gas liquids often resulted in a "net liquid credit" against the costs incurred in the production of the gas. In other words, the wellhead price under regulation also reflected the revenue produced by the sale of these liquids. This benefited consumers by reducing the price of natural gas they received but at the same time benefited producers by giving them another secure source of revenue.

If consumers are going to be forced to pay for something producers should rightfully be paying for, then consumers should at least receive some compensation in return. After all, the price allowed at the wellhead for Prudhoe Bay gas incorporates the cost of conditioning the gas. In addition, the cost of Prudhoe Bay gas is, in reality, next to nothing, since it was found and developed in connection with crude oil. Clearly, the conditioning plant should not be part of the rate base of the pipeline project. It should be a cost borne by the producer. If, however, the Congress decides to allow such a dramatic shift in regulatory policy, then consumers must receive credit for the value of the gas liquids which the plant produces. In other words, the value of the plant liquids should be used to offset the rates charged to consumers for the conditioning plant.

BILLING COMMENCEMENT DATE

The waiver of Section 5, Condition IV-3 which would prevent consumers from being charged until the pipeline is completed and in operation represents nothing less than a variation of the "all-events tariff." Yet, Secretary Edwards interprets this waiver to mean that "the FERC could allow billing for transportation through the ANGTS prior to the time the whole system is completed and gas begins to flow, under certain specified, limited circumstances." Mr. Edwards' comment notwithstanding, it is obvious that what is being proposed is comparable to what is called under electric utility regulation,"construction work in progress" (CWIP). As Edward Petrini of the National Consumer Law Center has observed,

> ...the issue is the timing of ratepayer payment of capital costs on such plant--i.e., whether such payments should be made by ratepayers when the plant is actually serving customers or whether such payments should begin before that time, while the plant is still under construction.[6]

Mr. Petrini points out that CWIP "violates what accountants call the 'matching principle' (the principle which attempts to associate financing costs with earnings)" and also "discriminates against present ratepayers in favor of future ratepayers."

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[6]Letter to Rep. Philip R. Sharp, July 24, 1981.

Finally, argues Petrini, "Utilities have stronger incentives to complete capital construction projects quickly if they do not begin recovering the costs on their investment until the project is completed. By permitting early recovery of the costs of the project, this incentive is diluted. On a project as ambitious as ANGTS, such a change in the typical risk allocation could result in high escalations indeed."

By making consumers pay for segments of the pipeline before the pipeline is complete and operational shifts the financial risks from the sponsors and banks to the ratepayers. Such a tariff, if allowed, would effectively undermine what Secretary Edwards claims should occur -- "the private financing of ANGTS." Of course, it will be easier for the pipeline sponsors, the major oil companies and the banks to finance this project. Their exposure, their risks will be substantially reduced. Instead, consumers in California, Ohio, Michigan, Wisconsin, etc. will bear the risk. They will be putting up their capital, which is much more limited than the capital available to the aforementioned, for a project in which they will receive no equity, no interest, but only a promise in the future of some gas at an extraordinarily high price. I do not know what you call that arrangement, but it certainly is not free enterprise and it is not private financing.

A recent report, "Financing of the Alaskan Natural Gas Transportation System" by Hilary Sills, director of Energy and Environment Policy of the Government Research Corporation noted that

> The Administration views advance billing as imposing two obligations on consumers. First, consumers are forced to make a loan during construction. Second, there is a contingent liability in which the group who bears the risk of delay, in this case consumers, cannot influence the extent of the delay. While the waiver is not unique, it is unusual and confirms the fact that the economics of the project are so close that the sponsors have to resort to these unusual measures in order to obtain financing.

Again, the comparison to CWIP is noteworthy. It is precisely at times when electric utilities claim they are in financial straits "usually brought about by a combination of ongoing, large construction programs which have increased dramatically in cost, soaring fuel costs, and lagging demand,"[7] that they must resort to such risk-shifting proposals.

EVIDENTIARY HEARING

The proposed waivers would not require the use of a formal evidentiary hearing in proceedings related to applications for certificates of public convenience and necessity authorizing the construction or operation of any segment of the approved transportation system and would allow the FERC discretion in determining when such evidentiary proceedings will be held. It is clear that whoever drafted this waiver is quite familiar with the recent history of the FERC, because he knows that wherever the FERC has had discretion, it has, in most cases, eliminated the use of evidentiary proceedings. Without evidentiary hearings consumers will effectively be prevented from cross-examining testimony, submissions, economic analyses and witnesses. Fact finding will be restricted. By waiving this requirement, the sponsors are seeking not swift regulatory approval, but blind and unaccountable regulatory approval. There is no guarantee that the bureaucracy will protect the rights of individual citizens as they try to understand and assess the judgments and decisions of the pipeline sponsors. Without an evidentiary hearing on this most expensive, complex and unprecented project, there is a great probability, if not a certainty, that cost and technical data will be applied so as to favor the pipeline sponsors and to harm the ratepayer. What banker, what businessman would be willing to commit his scarce capital resources to a risky venture without access to full documentation and the right to an independent and thorough review of the cost accounting and technical designs? There is no such prudent businessman. So then, why should the ratepayer, who is putting up capital, be denied the same opportunity?

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[7]See Petrini letter to Rep. Sharp.

SECTIONS 4, 5, 7, and 16 OF THE NATURAL GAS ACT

The objective of this proposed waiver is to provide what the sponsors like to call "regulatory certainty." Specifically, they would like to have set in concrete the FERC's final rules and orders approving the pipeline tariff and the recovery of all costs related to the transportation of the gas under that tariff. Such a waiver is unprecendented. It is like saying Congress can not adopt these waivers because the pipeline sponsors have suddenly realized they cannot finance the pipeline under the Decision made by the President and affirmed by the Congress.

Suppose, for example, the sponsors for the purpose of the tariff have assumed that the depreciation life of the gas reserves is 20 years, but it turns out to be 40 years. The depreciation rate would be cut in half. Why shouldn't the ratepayer get the advantage of this? Why should the pipeline owners recover their depreciation expenses too quickly? Or, suppose there is a technological innovation that improves the efficiency of the gas compressors, thus reducing operation and maintenance costs? There are many more reasons why the FERC should reconsider a tariff under changed circumstances. What the sponsors and their banks are asking for is a condition which upsets the entire regulatory framework, but more importantly, further prevents the consumer from obtaining benefits of this project.

Sections 4 and 5 are the heart of the Natural Gas Act. These two sections empower the Commission to guarantee that rates charged by natural gas pipelines are just and reasonable. Without the operation of these two sections, ratepayers would have no protection against paying unjust and unreasonable rates. Section 5(b) affords ratepayers the added protection of permitting investigations by the Commission on its own motion or upon the request of any State commission to "determine the cost of production or transportation" where it cannot establish the rate. In fact, we would like to know from the project sponsors

the specific reasons for waiving each of these sections. These are answers Congress should demand and should examine thoroughly. We suspect that much more is at stake than simple "regulatory certainty."

And where is the"regulatory certainty" in allowing the waiver of Section 7, which authorizes the Commission to direct the extension and improvement of transportation facilities and the establishment of physical connections; to prohibit the abandonement of facilities or service without permission? This section provides "regulatory certainty" to consumers, who need such certainty in view of the monopoly nature of the enterprise they confront, an enterprise that could choose to avoid the requirements of Sections 4, 5, 7, and 16 and thereby adversely affect the lives of millions of ratepayers.

WHO IS WILLING TO BEAR THE RISKS AND WHO IS SHARING THE REWARDS

We think it is fascinating to observe the comments of the key financial advisors to the ANGTS project. H. Anton Tucher, vice president of the Bank of America, testified last week (as did three other bankers) that even with the adoption of the waiver package, the pipeline might still not be economically or financially feasible. Said Mr. Tucher, "We will not go forward until we have done a 'due diligence' investigation to satisfy ourselves on the technical, eocnomic, financial and regulatory feasibility of completing the whole system." Yet, neither the Administration nor Congress have such an investigation to help determine if this waiver package is sensible and cost-effective. Secretary Edwards has admitted "that the Administration has not performed a cost estimate of its own nor has it conducted a final evaluation of the sponsors' estimated costs." This has not been done, and yet the Administration is willing to risk consumer capital. If the banks are unwilling to make loans before they do a thorough study, why should the U.S. Government be so willing to allow consumer financing without a thorough investigation?

On top of all of this, on top of the waiver package, on top of all the support this Government has provided to the sponsors of the pipeline, they are still unwilling to commit themselves to the completion of the project if the waiver package is passed. Each of the sponsors was asked if the waiver package was sufficient to insure construction and completion, and none of them would state that it was. The bankers stated their doubts quite openly. Mr. Tucher wants "the waiver package [to] preserve flexibility to permit some form of pre-completion billing commencement in Alaska beyond that contemplated in the present waiver request that would provide some form of consumer risk-taking or actual tariff changes to commence prior to completion of the Alaskan segment." Robert H. Graham of Citibank isn't sure whether the waiver package "will be sufficient," while Stephen W. Jenks of Morgan Guaranty Trust states, "Whether or not this package will be sufficient to ensure such financing we are unable to say at this time."

This uncertainty is not surprising. I suspect that now that Mr. McMillian is close to getting his upper torso in the door, he's going to try to get all the way through and seek federal guarantees. In fact, a recent story in the Christian Science Monitor states that pipeline officials have already had conversations with administration staffers and have received optimistic signs that the Administration might consider such federal guarantees. I can even play out the scenario. Congress passes the waiver package. President Reagan proposes to accelerate decontrol. The bankers are now convinced that unless the Government helps the pipeline, decontrol will make Alaskan gas unmarketable. The Administration reluctantly agrees to propose a financial loan guarantee program to Congress.

Mr. Stanley J. Lewand, vice president of the Chase Manhattan Bank told you last week that "Lenders have indicated...that they are not willing to accept the risks that the delivery system might not be completed nor are they willing to accept the risk of a future regulatory body changing the conditions under which the tariff and tracking mechanisms have been allowed to be implemented...and that they must be assured of the timely repayment of their debt and the interest thereupon." If such prudent businessmen are unwilling to risk their money on this project, why should individual citizens be placed in even more jeopardy. I see no reason why Chase Manhattan Bank should be treated with more care and concern than an elderly couple on a fixed income living in a drafty apartment and wondering where their next gas bill payment is going to come from.

All of us would like to see the gas from Alaska produced and used for the benefit of the country. This pipeline may or may not be the project that does the job. The world has changed a great deal in four years. In September 1977, President Carter told us that the proposed Alcan system "will deliver Alaska gas at the lowest cost-of-service to U.S. consumers--probably below the cost of imported oil and substantially below the cost of other fuel alternatives." That is no longer true, if it ever was. The Department of Energy estimates that the 1987 imported Canadian natural gas price will be $13.10 per MMbtu. This compares with an estimate of between $15 and $20 for the delivered price of Alaskan gas. Undoubtedly, with or without decontrol, natural gas delivered by the ANGTS will be the most expensive fuel Americans can buy.

This pipeline, even unbuilt, has failed to live up to its glowing expectations. These waivers should be rejected. We should start the process of finding the most efficient and economic method of producing Prudhoe Bay gas again. Perhaps, the proposal to convert the gas to methanol and ship it down TAPS would make more sense. The time has come to stop trying to rescue John McMillian's $40 billion boondoggle and to start finding a better alternative.

STATEMENT OF JEROME J. MC GRATH
PRESIDENT, INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA
BEFORE THE
FOSSIL AND SYNTHETIC FUEL SUBCOMMITTEE OF THE
HOUSE ENERGY AND COMMERCE COMMITTEE
AND THE
ENERGY AND ENVIRONMENT SUBCOMMITTEE OF THE
HOUSE INTERIOR COMMITTEE

October 27, 1981

I am Jerome J. McGrath, President, Interstate Natural Gas Association of America, often referred to by its acronym, INGAA. We appreciate this opportunity to appear before your Committees to express our endorsement of and support for the Alaskan Northwest Natural Gas Transportation project. Final approvals for this project are long overdue, and favorable Congressional action on the waiver package is essential to development of a financing plan which will, hopefully, enable the project to go forward.

INGAA is a national trade association representing virtually all of the major interstate natural gas transmission companies in the United States. Our members account for approximately ninety percent of all natural gas transported and sold in interstate commerce. All of the U. S. pipeline partners in Alaskan Northwest are members of INGAA either directly or through affiliates or subsidiaries. You have heard testimony from most, if not all, of the partners, and INGAA certainly joins in their unified support of the project and request for approval of the waiver package.

Since these companies are much more familiar with the proposed waivers and are in a much better position to comment on them than we are, my statement will not address the waivers as such. What I do wish to stress is the importance the natural gas pipeline industry attaches to securing natural gas supplies from Alaska at the earliest possible time. The delays encountered by

the effort to bring Alaska natural gas to the lower forty-eight states have been endless. The first proposal to build a pipeline from Alaska to the upper Midwest was submitted to the Federal Power Commission in March, 1974 -- over seven years ago. Since that time, the cost has spiraled upward and today financing is the critical issue that must be resolved. Without approval of the waiver package, the economic viability of the project is in grave doubt and even further costly delays are sure to follow.

The long and short of it is, we sorely need the Alaskan gas in the lower forty-eight states, and the Northwest Alaskan project is the best available means to get this gas to market. Alaskan gas will be needed to offset the gradual decline in lower forty-eight reserves of gas which most forecasters predict will occur. As has been pointed out to you previously in these hearings, the U. S. is currently producing more gas annually than we are finding, although the discovery rate of new reserves has increased dramatically since passage of the Natural Gas Policy Act (NGPA) in 1978. Nevertheless, the largest single untapped reserve of natural gas in the United States is the Prudhoe Bay area in Alaska, containing some twenty-six trillion cubic feet of proved reserves. With lower forty-eight production estimated to decline from about 20 Tcf. in 1980 to about 16 Tcf. in 1990, it is apparent that Alaskan gas must be brought into the lower forty-eight as early in the 1980's as is possible. Without Alaskan gas, there will be a considerable shortfall in supply available to meet projected demand.

Most current estimates project Alaskan gas coming on stream in 1986 and gradually increasing to about eight to ten percent of total U. S. supply by

1990 and beyond. The line would have an initial capacity of 2.0 to 2.4 billion cubic feet per day (Bcf/d) with the capability for expansion to an average daily volume of 3.2 Bcf/d. These are significant amounts of gas to be introduced into the lower forty-eight states' market.

The U. S. pipeline partners in their own systems cover practically every area of the country -- from the East Coast to the West. These companies, after exhaustive study, have determined that not only will Alaska gas be needed to shore up declining supplies but that it will be marketable in their respective service areas. The cost of competitive sources of energy, principally fuel oil and electricity, are constantly rising in most regions of the country; and natural gas is still a bargain, even with higher supplemental sources such as high BTU coal gas and Alaskan gas. Moreover, as the cost of the Alaskan Northwest project is amortized over the project life, the cost per MMBTU becomes lower, enhancing its competitive posture. From the point of view of the interstate pipelines, the Alaska project presents a viable source of new supply; and the sooner it becomes available, the better off we all will be.

Finally, the Congress cannot overlook the fact that Alaskan gas can offset oil imports by a significant amount -- anywhere from 400,000 to 600,000 barrels per day, depending on the amount of gas delivered through the ANGTS. From the national security standpoint and certainly as a means of reducing our balance of payments, it makes eminent good sense to reduce our dependency on OPEC imports and increase our reliance on known sources of energy in Alaska and the North American Continent. The Alaskan Northwest project would be a major step in that direction.

The interstate pipeline industry, therefore, believes it imperative that the Alaska Northwest project go forward as expeditiously as possible. Congressional approval of the waiver package is essential.

I thank you for this opportunity to appear before your Committees to express INGAA's support for this important project.

FOR RELEASE ON DELIVERY
EXPECTED AT 10:00 A.M.
October 30, 1981

STATEMENT OF THE HONORABLE ROGER W. MEHLE
ASSISTANT SECRETARY OF THE TREASURY (DOMESTIC FINANCE)
BEFORE THE SUBCOMMITTEE ON ENERGY AND THE ENVIRONMENT
AND THE SUBCOMMITTEE ON FOSSIL AND SYNTHETIC FUELS
U.S. HOUSE OF REPRESENTATIVES

Messrs. Chairmen and Members of the Subcommittees:

I am pleased to have this opportunity to assist you in your consideration of the waiver of law submitted by the President to Congress on October 15 for the Alaska Natural Gas Transportation System (ANGTS). In proposing this package of waivers to Congress, the President aims to facilitate the private financing, and hence construction, of this multi-billion dollar energy transportation system. I urge Congress to adopt this waiver proposal in support of the expeditious completion of this important energy project on a privately-financed basis.

Background

By enacting the Alaska Natural Gas Transportation Act of 1976, Congress recognized the importance to our Nation of transporting the Prudhoe Bay gas to the lower forty-eight States. The Act provided a unique and comprehensive process to designate and approve a sound proposal for a natural gas transportation system, and to expedite its construction and operation. The Act required the President to submit to Congress a financial analysis of the system

designated for approval, along with a determination of whether the designated system could be privately financed, constructed and operated.

In response to this statutory provision, the Treasury Department prepared an extensive study in 1977 of the sources of funds available to finance the proposals for the ANGTS. The report concluded that an economically viable system to transport gas from Alaska to the lower forty-eight States could be privately financed -- that is, without Federal financial assistance. The report found, however, that a private financing would be difficult to arrange without prior resolution of a number of issues, such as determining a rate of return on the investment, forming a final consortium of equity investors in the project, and determining the extent to which benefited parties would provide financial support to the project. The feasibility of private financing could be determined only after these issues were resolved.

In 1977, President Carter reflected Treasury's findings in the Decision and Report to Congress on the Alaska Natural Gas Transportation System which designated the proposal of the Alcan Pipeline Company, predecessor to Northwest Alaskan Pipeline Company, to transport the natural gas from Prudhoe Bay to the contiguous forty-eight States. The Decision also specified terms and conditions under which the private financing would occur. These terms included:

1. a prohibition against gas producers' equity interest, voting power or management control in the Alaskan segment;
2. the exclusion of the gas conditioning plant from the pipeline system; and
3. a prohibition against the use of consumer charges prior to completion and commissioning the entire system.

As stated in the Decision, the terms and conditions were not meant to limit or foreclose their later modification, but were intended to begin the process by which a set of effective and workable guidelines evolved. Without a doubt, the Decision recognized the unprecedented physical size of ANGTS as an energy transportation system, and its enormous debt financing requirements. What few realized, however, was the magnitude of the project's need for funds as the proposal would approach reality.

Resolving a number of technical issues associated with the pipeline proposal required almost four years. In May 1981, the gas producers and pipeline sponsors reached agreement on a conceivable plan for financing the system on a private basis. Major provisions of the plan included:

- Capital costs estimated at $27 billion ($21 billion for the pipeline, $6 billion for the gas conditioning plant), with an additional $3 billion for a completion assurance pool
- a debt/equity ratio of 75%/25%

- an equity split of 70%/30% between sponsors and producers respectively, with each group responsible for an equivalent percent of the debt of the pipeline project.

The plan aims to accommodate the private financing of the pipeline the cost of which has escalated substantially during the past four years from an estimated $10-$13 billion to $30-$40 billion.

Waiver Proposal

Since the sponsors' financing plan for the system would require key modifications in existing statutes, President Reagan transmitted the proposed waiver of law to Congress in accordance with the Alaska Natural Gas Transportation Act.

The package of waivers submitted by the President proposes both substantive and technical changes to existing law to facilitate the private financing of the project. Three specific waivers which I would particularly like to discuss concern producer equity participation, the inclusion of the gas conditioning plant in the system, and billing prior to completion of the entire transportation network.

Producer Participation. As stated in the Decision in 1977, the strength of the sponsoring consortium of gas transmission companies was a significant element of the financing. In 1981, the strength of the consortium remains an important element in financing the project; but the substantial increase in credit support required to fund the system relative to the aggregate financial capability of the pipeline sponsors necessitates producer

equity participation. Creditors of the project will be concerned that the equity owners of the pipeline system possess the financial strength to complete the project and to help assure repayment of the debt. The participation of the gas producers on an equity basis will substantially add to the financial capability of the project participants to support the project, and thus facilitate its private financing.

Gas Conditioning Plant. ANGTS comprises four pipeline segments -- an Alaskan segment which will run from the Prudhoe Bay reserves southward to the Canadian border; a Canadian pipeline segment which will extend from the Alaska-Yukon border to Central Alberta; and from Central Alberta, Eastern and Western Legs which will transport gas to the Chicago and San Francisco areas, respectively. An integral part of the system also is the gas conditioning plant which prepares and readies the natural gas for shipment. The purposes and benefits of the pipeline and conditioning plant are intertwined -- both are required in the delivery of gas from Alaska to the ultimate consumers. In arranging the private financing, therefore, potential creditors of the system will evaluate the risks inherent in the entire project, including the conditioning plant. Before extending any funds, they will require assurance that all parties of the closely-integrated system have financial backing for its completion. An underlying regulatory and tariff structure comprising the whole system as one unit, as the waiver would allow, seeks to provide such assurance.

Billing Commencement. The waiver of law also includes a provision allowing the Federal Energy Regulatory Commission (FERC) to allow billing for transportation charges through the pipeline system prior to completing and commissioning the entire system. This provision would separate the ANGTS into three parts for billing purposes: an Alaskan pipeline segment, an Alaskan gas conditioning plant segment and a Canadian pipeline segment. For the Canadian segment, the full cost of service would be recovered upon completion of that segment, but no billing would begin on that segment prior to a date established by FERC. Upon completion and successful testing of the Alaskan pipeline segment, the waiver would permit recovery of a minimum bill consisting of actual operation and maintenance expenses, actual current taxes, and amounts to service principal and interest on debt. The billing, however, would not commence prior to a date established by FERC. Likewise, recovery of a minimum bill on the gas conditioning plant segment could begin upon its completion and successful testing, but not prior to the date established by FERC. This waiver would provide some assurance against the risk of not completing one of the Alaskan portions, or of the Canadian segment. This waiver, therefore, would protect potential lenders against the unlikely event of non-completion of related portions of the system, but lenders would bear the risk of non-completion of the segment financed by them.

Conclusion

The Alaska Natural Gas Transportation System is the largest construction project ever contemplated by private enterprise. Although the requisite financing is uniquely large, complex and difficult, private financial markets appear capable of providing the estimated funds required for the project. In the United States, between $400 billion and $500 billion of new credit is generated on an annual basis, and these amounts do not take into consideration the financial capacities of foreign markets which may fund a substantial portion of the needed capital for the project. Furthermore, the funding needs of the project will not be met at one point in time, but will probably be phased in over a number of years. Thus, the financing requirements of the pipeline project will likely have a minimal effect on the financial markets, interest rates, and financing of other energy projects. Since the waiver package aims to facilitate the private financing of the project, and since private investors will not provide funds if the project does not appear to be economically feasible, there will be a free market determination of the allocation of economic resources to the project. Resources will thus be diverted from other, less efficient energy projects. Adequate equity and debt capital should be available, given the market's judgment that the project is economically feasible. Under such circumstances, the project would be financed and would benefit the economy.

In this regard, the Economic Recovery Tax Act of 1981 will play a role in determining the project's feasibility. While the Investment Tax Credit may be available to project sponsors during the construction phase, this availability was not appreciably altered by the Economic Recovery Tax Act of 1981. The Act does provide more generous cost recovery than was available under prior law in that the cost recovery period is reduced. However, as under prior law, cost recovery is not allowed prior to the year in which the property is placed in service.

We concur in the judgment of private financial advisers to the pipeline sponsors and gas producers participating in the project that Congressional adoption of the waiver package is essential to developing any possible plan to finance the project privately. While we cannot be completely assured of private financing if these waivers are adopted, we are certain that the project will not be financed without the waivers. I therefore urge Congress to approve the proposed waivers.

I would be happy to answer any questions.

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STATEMENT OF JOHN T. RHETT
FEDERAL INSPECTOR
OFFICE OF THE FEDERAL INSPECTOR
FOR THE ALASKA NATURAL GAS TRANSPORTATION SYSTEM

Before the House Energy and Commerce Subcommittee
on Fossil and Synthetic Fuels
and the
House Interior and Insular Affairs
Subcommittee on Energy and Environment
October 30, 1981

Mr. Chairman and Members of the Committee, I am pleased to have the opportunity to appear before you today. I am John T. Rhett, Federal Inspector for the Alaska Natural Gas Transportation System. To assist in your evaluation of the proposal before you today, I would like to take this opportunity to explain the Office of the Federal Inspector (OFI) and its past and future relationship to the Alaska Natural Gas Transportation System. This project has received much attention and Presidential and Congressional support for the expeditious construction and initial operation of this vital, national energy project has been voiced on a number of occasions.

The Alaska Natural Gas Transportation System (ANGTS) is one of the most ambitious construction projects undertaken in modern times. It will be the largest privately financed project ever constructed and the first buried, chilled gas pipeline ever built in permafrost. Prudhoe Bay contains 26 trillion cubic feet of recoverable natural gas and is the largest U.S. reserve. The pipeline will deliver approximately 4 percent of the annual needs of the United States. Because the design of the Alaska Natural Gas Transportation System will allow it to carry up to 3.2 billion cubic feet per day with additional compression, production from other reserves can also be transported to further supplement our domestic supplies.

The project entails construction of approximately 4,800 miles of large diameter pipeline. The system is commonly divided into four segments: the Alaskan Leg, the Canadian Leg, the Western Leg, and the Eastern Leg. It will traverse eleven states and four Canadian provinces, from the north slope of Alaska to the Chicago and San Francisco areas. The pipeline route starts as Prudhoe Bay, Alaska and parallels the Trans-Alaska Pipeline System to Delta Junction, southeast of Fairbanks. From that point, it parallels the Alaska Highway through Alaska, the Yukon Territory, British Columbia, and Alberta. At James River, Alberta, it divides into two delivery legs. The Western Leg begins in Alberta and continues through British Columbia, Idaho, Washington, Oregon and California before terminating near San Francisco. From James River, Alberta, the Eastern Leg of the system crosses Alberta, Saskatchewan, Montana, North Dakota, South Dakota, Minnesota, and Iowa before terminating near Chicago, Illinois. This project is being constructed in two phases. Construction of Phase I, sometimes called "prebuild", has been financed and is underway. Phase I consists of construction of parts of the Canadian section south of James River and construction of parts of the Eastern and Western Legs in the United States. Phase I will deliver Canadian gas exported from the Province of Alberta to the West Coast and the mid-West.

On October 1, 1981, Alberta gas began flowing through the Western Leg of the Alaska Natural Gas Transportation System. Existing U.S. and Canadian pipelines were expanded, or looped, to carry this gas. This work represents successful completion of approximately 290 miles of the total project. An additional 395 miles were completed on the Western Delivery System, a related facility in the U.S. Some work on ancillary facilities remains on the U.S. portion of the Western Leg and the Western Delivery System, but

this did not impair the system's ability to transport gas on the scheduled operation date.

Construction of Phase I of the Eastern Leg is proceeding ahead of schedule in both the U.S. and Canada. Foothills Pipelines Company, Ltd., the sponsor of the Canadian portion, has completed construction of about 268 out of a total of 397 miles of pipeline. Clean-up activities, hydrostatic testing, and compressor and meter station construction are scheduled to be completed in 1982. On the U.S. portion, about 580 of the total 823 miles are finished. By the end of this year, it is expected that about 78 percent of the U.S. portion and about 68 percent of the Canadian portion will be completed. The Eastern Leg is scheduled to begin operations in September 1982. The Eastern Leg will carry 975 million cubic feet per day of Alberta gas to U.S. consumers in the midwest. When Phase I is finished, almost one-third of the mileage of the Alaska Natural Gas Transportation System will be completed. At this time, it appears that both the Eastern and Western Legs will be completed under budget.

The Office of the Federal Inspector (OFI) is a separate Federal agency created by Reorganization Plan No. 1 of 1979 solely to expedite and oversee the planning, construction, and initial operation of the Alaska Natural Gas Transportation System. It will cease to exist one year after initial operation of the pipeline system. In recognition of the specific problems encountered during construction of the Trans-Alaska Pipeline System, as well as the general difficulties encountered on many large energy projects, the President and the Congress gave the OFI broad authority covering every Federal regulatory responsibility related to the Alaska Natural Gas Transportation System.

First, although the Federal agencies retain the responsibility to issue the necessary permits, the OFI is charged with assuring that these permits are issued in a timely fashion. To manage this complex process for the Alaskan Leg, the OFI acts as the focal point, or "one window," during the permitting process, thus relieving the sponsors of the burden of dealing with many agencies. The OFI also reviews the permits to assure that no conflicting or unreasonable conditions are attached. Our efforts are focused on assuring that the process runs smoothly and that problems are identified and resolved early. Extensive coordination with the sponsors and the Federal and State agencies is necessary to achieve an equitable balance among all objectives. Through this process, three important objectives are being achieved. First, the regulatory burden on the sponsors is reduced. Second, the Federal permitting process does not delay work on the project. Third, through OFI's review, the potential for conflicting and unreasonable Federal requirements is reduced.

Obviously, achievement of these objectives requires extensive coordination with the Federal agencies. Through Reorganization Plan No. 1 of 1979 and Executive Order No. 12142, two special mechanisms were created to assure that this coordination occurs. First, an Executive Policy Board composed of senior policy-level representatives of the involved agencies was created to advise the Federal Inspector. Second, each agency was required to appoint an Agency Authorized Officer to act as the focal point for all agency activities on the project. To date, OFI has had extremely good cooperation from the Federal agencies involved in the project. The experience on Phase I has shown that, when the pace of the project accelerates, the agencies will put narrow interests aside and work constructively toward the common goal of expediting the project. I am confident that we can expect the same level of cooperation on Phase II.

To achieve its mission, the OFI must also work closely with the state governments involved in the project. Overall, we have been extremely pleased with our experience on Phase I. We have received outstanding cooperation and have been able to work with the states to minimize duplicative and conflicting monitoring efforts. Even though certain jurisdictional disputes between the Federal government and the State of North Dakota resulted in court actions, the State and OFI have since established very positive relations and we do not anticipate any difficulties during construction in that State. Due to the sensitive environment and large amount of State land crossed by the project, the President and the Congress recognized that special efforts should be taken to assure that the Federal Government's and the State of Alaska's monitoring efforts are compatible. Thus, the Alaska Natural Gas Transportation Act and the President's Decision directed the Federal Inspector to establish a Joint Federal/State Monitoring Agreement with the State of Alaska. In addition to conducting initial negotiations on this Joint Agreement, the OFI has established a number of special procedures to assure that the State's concerns are fully represented during the early planning, permitting, and design processes.

Before construction, the OFI is also required to approve the project sponsor's management plans, designs, final cost estimates, construction schedule, cost and schedule control systems, and quality assurance plan. These are unique requirements, designed specifically to achieve two objectives:

1) to assure that the necesary planning is complete before construction begins; and
2) to define--in advance and as precisely as possible--the conditions under which the project will be constructed.

The OFI is responsible for enforcing all Federal laws, regulations, and permits governing the project. This enforcement responsibility was transferred to the OFI by law and covers, among other areas, environmental protection, pipeline integrity, equal employment opportunity, and minority business enterprise participation. This centralization of authority is unique. During construction, only the Federal Inspector enforces the legal requirements imposed on the project by the Federal agencies' permit conditions. The Executive Policy Board may offer advice to the Federal Inspector, but the Federal Inspector is the sole Federal decision-maker for construction. Because the Federal Inspector is responsible for assuring that the sponsors build the project in a cost-effective and expeditious manner, in addition to the traditional governmental responsibility for public and pipeline safety and environmental protection, his decisions must reflect a careful balancing of all objectives. Moreover, because the Office of the Federal Inspector's authorities cover nearly every aspect of the project from the early planning stage through initial operation, its decisions will have a broader perspective and more continuity and consistency than those of an agency with a more limited focus of responsibility.

The OFI was established in July 1979. In December 1980, when construction began on the Western Leg, this experiment in public administration began to be tested. Although various refinements will have to be made to accommodate the complexity of the Alaskan Leg, I believe that our experience on Phase I of the Alaska Natural Gas Transportation System has shown that regulatory requirements and construction realities can be responsibly balanced, without unduly restricting industry's activities. The OFI's project oversight philosophy centers around my firm belief that the Federal government can work cooperatively with the sponsors and the Federal and

State agencies while still protecting the public interest by assuring that the pipeline is built safely and expeditiously in a cost-effective, environmentally sound manner. I firmly believe that cooperation is essential, but I have never believed that elimination of all conflicts is possible. When agreement cannot be reached through hard bargaining, OFI has the authority -- and the responsibility -- to assure that an acceptable solution is implemented. The responsibility for building this project lies with the sponsors; the OFI is responsible for overseeing their work to assure that it conforms to applicable requirements. This is an unusual role for the Federal Government and one that demands careful control to assure that the OFI's regulatory responsibilities are fulfilled and the public interest protected, without the Federal Government unnecessarily directing private enterprise's efforts to accomplish the job.

Because Phase II of the project is of critical concern in these proceedings, I would like to discuss the status of design and planning for the Alaskan Leg. Before they may begin construction, the project sponsors need three major permits. One, the Department of the Interior's Right-of-Way Grant which authorizes the crossing of Federal land, was issued on December 1, 1980. The State of Alaska must also issue a Right-of-Way Lease to authorize the crossing of State land. The OFI will continue to assist the State's and the sponsor's efforts to work out the detailed provisions of this Lease. Work on the Federal Energy Regulatory Commission's (FERC) Certificate of Public Convenience and Necessity, is underway. In July 1980, when the project sponsors filed the cost estimate for the Alaskan Leg, a special process was established to review this estimate. This included a joint FERC/OFI staff review. This review is now complete and the FERC has received comments on the report. In addition to a final decision

on the cost estimate, the Certificate proceedings will include review of the sponsor's tariffs, financing plan, marketability analysis, and net national economic benefit and cost-of-service calculations. The sponsors have not yet filed these elements of their Certificate application.

As you may know, in July 1980, the sponsors and the producers agreed to jointly fund the design of the Alaskan Leg and the gas conditioning plant. The effort expended to date will help avoid future problems and ultimately assist in achieving cost-effective design and construction. This effort has included a substantial amount of money spent to conduct a number of field programs designed to gather geotechnical and environmental data necessary for design. These field programs have included pipe stress tests, borehole drilling programs, fisheries surveys, endangered species studies, trench stability tests, blasting studies and detailed alignment surveys. This pre-design work is essentially completed thus enabling the sponsors to finalize the design criteria and proceed with the detailed pipeline design. Design of the Compressor Stations and the gas conditioning plant has progressed far enough to allow the sponsors to develop detailed specifications and assemble the initial procurement documents.

The ability to develop a design that will adequately protect the pipeline from the effects of frost heave has been the major technical concern from the beginning. Because this will be the first buried, chilled pipeline and because it will pass through frost-susceptible soils, this is the first time that this problem has been encountered. During the past two years, industry, government, and academic permafrost experts have worked on this problem together. The basic scientific problems have been resolved and only development of the detailed engineering remains. These efforts have demonstrated that the sponsors possess the technical capability

to resolve difficult problems and that a cost-effective frost heave design can be developed.

The safety of the existing oil pipeline has also been of serious concern. The Department of the Interior's Right-of-Way Grant required that, wherever possible, the gas and the oil pipelines be separated by at least 200 feet. This requirement has not solved the entire problem, but it has made it manageable. One of the more serious remaining problems is the small stretch through Atigun Pass in northern Alaska. Everyone recognizes that construction through Atigun Pass will be difficult. To allow adequate time to resolve any unforeseen problems, the sponsors plan to construct this portion one year earlier than the rest of the pipeline. In addition, plans now include construction of major river crossings, including the Yukon River, before the rest of the pipeline. This early construction of difficult areas should help assure that schedules can be met.

The current schedule for the Alaskan Leg calls for completion during the winter of 1986-1987. This schedule is still viable, but it is tight. Although there is usually room to adjust a schedule, the demanding arctic conditions add substantial constraints which are not present in more typical construction projects, thus limiting the sponsor's ability to compress certain elements of the schedule. For example, there are only about six weeks during the year in which modules for the gas conditioning plant may be shipped through the Beaufort Sea. Three such sealifts -- in 1983, 1984, and 1985 -- will be required. Another constraint is the fact that long lead times are necessary to procure equipment, fabricate modules for the conditioning plant, and build the compressor units. The sponsors are presently planning to make these commitments in the second quarter of 1982 in order to meet the 1986-1987 completion date.

The technical and engineering aspects of the Alaskan Leg and the gas conditioning plant have been developed sufficiently to assure that not only can the project be built, but its costs can be accurately predicted.

Finally, I would like to offer a few comments on the proposal before you today. The OFI is a technical agency, responsible for construction oversight. Only two of the elements of this proposal will affect OFI's operations and these effects are manageable.

If the conditioning plant is included as a certificated part of the project, the OFI will have almost the same responsibilities for the plant as it has for the pipeline. The major difference would be the absence of the Incentive Rate of Return mechanism. While the addition of the conditioning plant will increase the workload of the agency, we have planned for this change and do not believe that we will have any difficulty meeting the additional requirements.

The element of this proposal which would allow billing of charges upon completion of either the Canadian segment, the Alaskan segment, or the gas conditioning plant segment will require that the OFI work very closely with its Canadian counterpart, the Northern Pipeline Agency, and the sponsors to assure that the schedules for each segment are well-coordinated. Although such international coordination already exists and has been outstanding to date, this will require an additional effort from the OFI to assure that the schedules continually mesh and that the chances of large variances in completion dates are minimized. The need for this additional effort is also well-recognized by my Canadian counterparts. I have discussed various approaches with the Northern Pipeline Agency and the National Energy Board and we agree that a satisfactory mechanism can be established.

The scheduled completion date will be established by the Federal Energy Regulatory Commission, in consultation with the Federal Inspector. As the agency overseeing construction, the Office of the Federal Inspector will be able to provide a broad perspective on the construction issues and schedule. This governmental coordination will supplement the Alaskan sponsor's efforts to assure that the resource needs and schedules of the Alaskan pipeline and conditioning plant remain compatible. From an engineering and construction viewpoint, I believe that the risk that the various elements of the project will not be completed together is not great. Of course, there could be an unexpected event. The major uncertainty over the conditioning plant lies in the potential that ice conditions in the Beaufort Sea may affect the scheduled sealifts. If this happens, there would obviously be technical, schedule, and cost implications.

In summary, I would like to emphasize two things. First, this is an extremely complex project. It is often compared to the Trans-Alaska Pipeline System and, in many ways, that comparison is valid. However, there are many very important differences. I believe one of the most significant differences lies in the creation of the Office of the Federal Inspector. The Office of the Federal Inspector was given a unique set of authorities and a unique opportunity to demonstrate that the Federal government can protect the public interest while still working in a cooperative manner with private industry. Special requirements have been established to assure sound advance planning and early agreement on the conditions under which the pipeline will be built. The sponsors will be rewarded for cost-effective construction through the Incentive Rate of Return mechanism and the Office of the Federal Inspector has been charged with assuring cost-effective and timely completion of a safe and environmentally sound pipeline. The centralization of Federal authority will help assure balanced decisions and reduce

STATEMENT BY

MYER RASHISH

UNDER SECRETARY OF STATE

FOR

ECONOMIC AFFAIRS

BEFORE

A JOINT HEARING OF THE

SUB COMMITTEE ON ENERGY AND THE ENVIRONMENT

OF THE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS

AND THE

SUBCOMMITTEE ON FOSSIL AND SYNTHETIC FUELS

OF THE ENERGY AND COMMERCE COMMITTEE

WASHINGTON, D.C.

OCTOBER 30, 1981

IT IS A PLEASURE TO BE HERE TODAY TO TESTIFY BEFORE YOUR TWO SUB COMMITTEES ON BEHALF OF SECRETARY HAIG. I REGRET THAT THE DEPARTMENT OF STATE WAS UNABLE TO ADDRESS THESE COMMITTEES LAST WEEK BECAUSE OF MY PARTICIPATION IN THE CANCUN SUMMIT. I APPRECIATE YOUR GIVING ME THE OPPORTUNITY AT THIS TIME TO PRESENT YOU WITH OUR VIEWS ON THE WAIVER TO EXISTING LAW WHICH THE PRESIDENT HAS SUBMITTED TO FACILITATE THE PRIVATE FINANCING OF THE ALASKAN NATURAL GAS TRANSPORTATION SYSTEM (ANGTS). IN PARTICULAR, I WOULD LIKE TO DESCRIBE WHAT WE BELIEVE ARE THE KEY BENEFITS THAT ANGTS WOULD PROVIDE THE UNITED STATES.

IN ORDER TO ASSESS THE ROLE THE ANGTS MIGHT PLAY IN THE U.S. ENERGY PICTURE, IT WOULD BE USEFUL TO BEGIN BY NOTING SOME OF THE FACTORS OVER THE PAST DECADE THAT HAVE LED POLICY MAKERS AND PRIVATE ENERGY PLANNERS ALIKE TO URGE THE EARLY COMPLETION OF A NATURAL GAS DELIVERY SYSTEM PROVIDING ALASKAN GAS TO THE LOWER 48 STATES.

THE IMPETUS OF ANGTS HAS ITS ROOTS IN THE TURBULENT GLOBAL ENERGY DEVELOPMENTS OF THE PAST DECADE. IN THE EARLY 1970'S, THE GROWTH IN AMERICAN ENERGY CONSUMPTION QUICKLY OUTSTRIPPED THE CAPACITY OF OUR DOMESTIC ENERGY PRODUCERS. IMPORTS NATURALLY FILLED THE GAP. IMPORTED ENERGY WAS STILL RELATIVELY CHEAP, EASY TO PROCURE, AND SEEMINGLY FREE OF POLITICAL RISKS.

BY SEPTEMBER 1973, OIL IMPORTS ALONE CONSTITUTED 38.3 PERCENT OF TOTAL OIL CONSUMPTION, UP FROM JUST 21.2 PERCENT IN 1968. WITH THIS RAPID GROWTH IN ENERGY IMPORTS

CAME INCREASED VULNERABILITY TO ENERGY IMPORT CUTOFFS. UNFORTUNATELY, MOST DID NOT RECOGNIZE THE SERIOUSNESS OF SUCH A DEVELOPMENT.

THE OIL EMBARGO OF 1973-1974, AND THE RESULTING ENERGY SHOCK HERE AT HOME, AWOKE THE AMERICAN PUBLIC AND POLICY MAKERS ALIKE TO THE DANGERS OF FURTHER INCREASING OUR DEPENDENCE ON FOREIGN OIL. SOARING ENERGY PRICES AND LONG LINES AT THE PUMP DROVE HOME IN A TANGIBLE WAY THAT INCREASING DEPENDENCE ON FOREIGN SOURCES FOR OUR ENERGY NEEDS WOULD ONLY MAKE THE UNITED STATES INCREASINGLY VULNERABLE IN TIMES OF UNCERTAIN SUPPLY. THE GLOBAL ENERGY CRISES IN 1979 AND 1980 AS A RESULT OF THE REVOLUTION IN IRAN AND THE IRAN-IRAQ WAR ONLY UNDERSCORE THE FACT THAT SUPPLY UNCERTAINTIES MAY BE INCREASINGLY COMMON IN THE FUTURE.

IT WAS AGAINST THIS BACKDROP THAT A VARIETY OF ALASKAN GAS PROPOSALS WERE CONSIDERED AND FROM WHICH ANGTS WAS ULTIMATELY SELECTED. FROM THE OUTSET, THE PRIVATE SECTOR WAS EXPECTED TO ASSUME THE CENTRAL ROLE REGARDLESS OF THE KIND OF TRANSPORTATION SYSTEM ULTIMATELY SELECTED. WHILE SUCCESSIVE ADMINISTRATIONS RECOGNIZED THAT THE GOVERNMENT HAD A LEGITIMATE OVERSEER ROLE, EACH STEADFASTLY MAINTAINED, AS THIS ADMINISTRATION DOES TODAY, THAT THE PRIVATE SECTOR SHOULD BE RESPONSIBLE FOR UNDERTAKING ALL PHASES OF THE PROJECT, INCLUDING ITS FINANCING.

WE BELIEVE EARLY COMPLETION OF ANGTS WILL ADD SIGNIFICANTLY TO THE ENERGY SECURITY OF THE UNITED STATES AND HELP

US REDUCE THIS VULNERABILITY TO WHICH WE HAVE BEEN EXPOSED IN THE PAST. WITH DIRECT ACCESS TO APPROXIMATELY 13 PERCENT OF U.S. GAS RESERVES, IT IS ESTIMATED THAT ANGTS WILL REPLACE APPROXIMATELY 400,000 BARRELS OF OIL A DAY, THUS FURTHER REDUCING U.S. VULNERABILITY TO INTERRUPTIONS OF OUR ENERGY IMPORTS. ON AN ENERGY EQUIVALENT BASIS, GAS SHIPPED VIA THE ALASKAN PIPELINE WOULD REPRESENT NEARLY 10 PERCENT OF TODAY'S CRUDE OIL IMPORTS. AS OUR NEED FOR ADDITIONAL GAS GROWS ANGTS IS EXPECTED TO PROVIDE AN ENERGY EQUIVALENT OF 600,000 BARRELS PER DAY OF IMPORT OIL.

COMPLETION OF ANGTS, AND THE READY ACCESS TO THE 48 THAT IT REPRESENTS, WILL ALSO SPUR EXPLORATION. THIS WILL UNDOUBTEDLY RESULT IN A SUBSTANTIAL INCREASE IN PROVEN RESERVES THAT GEOLOGISTS BELIEVE ALASKA HOLDS. WITHOUT THIS ACCESS, HOWEVER, EXPLORATION ACTIVITY WILL BE SIGNIFICANTLY LOWER, AND PROGRESS IN SUBSTANTIATING PROVEN RESERVES SIGNIFICANTLY REDUCED.

ANGTS WOULD ALSO PROVIDE AN INDIRECT BENEFIT TO OUR EUROPEAN ALLIES. BY GREATER USE OF DOMESTIC GAS RESOURCES, THE UNITED STATES WILL REDUCE ITS NEED FOR IMPORTED GAS IN THE YEARS AHEAD. WITH ASSURED ACCESS TO ALASKAN GAS, WE WOULD NOT NEED TO COMPETE WITH OUR EUROPEAN FRIENDS FOR ACCESS TO GAS SOURCES ELSEWHERE IN THE FREE WORLD NOTABLY IN AFRICA, THE MIDDLE EAST AND EVEN IN THIS HEMISPHERE. MAKING ADDITIONAL GAS AVAILABLE TO EUROPE WILL BE ESSENTIAL IF THE EUROPEANS ARE TO LIMIT THEIR VULNERABILITY TO ENERGY CUTOFFS FROM THE SOVIET UNION AND EASTERN EUROPE.

I WOULD ALSO LIKE TO EMPHASIZE THAT APPROVAL OF THIS WAIVER PACKAGE WOULD HAVE IMPORTANT FOREIGN POLICY BENEFITS IN OUR RELATIONS WITH CANADA. ENERGY PLANNERS HAVE LONG RECOGNIZED THAT CLOSE COOPERATION WITH OUR CANADIAN NEIGHBORS WOULD BE ESSENTIAL IN PROVIDING THE LOWER 48 STATES WITH SECURE, DEPENDABLE ACCESS TO ALASKAN GAS. CANADA, FOR ITS PART, KNOWS THAT A STRONG, ENERGY INDEPENDENT UNITED STATES IS IMPORTANT FOR THE SECURITY OF THE FREE WORLD. CANADIANS RECOGNIZE, MOREOVER THAT U.S. ACCESS TO ALASKAN GAS WOULD PROVIDE CANADA WITH GREATER FLEXIBILITY IN MANAGING ITS OWN ENERGY RESOURCES BY LIMITING FUTURE U.S. DEMAND FOR CANADIAN GAS. FINALLY, MANY CANADIANS BELIEVE THAT DEVELOPMENT OF ANGTS WILL PROVIDE IMPORTANT BENEFITS TO THE CANADIAN GAS INDUSTRY AND FURTHER CANADA'S RESOURCE DEVELOPMENT.

BILATERAL COOPERATIVE EFFORTS TO BRING ALASKAN NATURAL GAS THROUGH CANADA WERE FORMALIZED BY TREATY IN SEPTEMBER 1977. THIS TREATY AND THE COMMITMENTS IT REPRESENTS HAVE BECOME AN IMPORTANT SYMBOL OF ENERGY COOPERATION BETWEEN OUR TWO COUNTRIES. WE HAVE CONTINUED TO BUILD ON THIS TREATY THROUGH NUMEROUS DIPLOMATIC EXCHANGES THAT HAVE EXPANDED THIS INITIAL EFFORT.

FROM THE BEGINNING OF OUR DISCUSSIONS, CANADA HAS STRONGLY SUPPORTED THE PIPELINE PROJECT DESPITE ITS COMPLEXITIES AND UNCERTAINTIES. IN 1980, IN ORDER TO GIVE IMPETUS TO THE PIPELINE PROJECT, THE U.S. URGED THE CANADIAN GOVERNMENT TO AUTHORIZE THE CONSTRUCTION OF TWO SOUTHERN LEGS OF

THE PIPELINE (THE "PREBUILD" PORTION) THROUGH SOUTHERN ALBERTA, SASKATCHEWAN AND BRITISH COLUMBIA. WE ALSO URGED THE APPROVAL OF THE EXPORT OF CANADIAN GAS THROUGH THOSE SEGMENTS UNTIL THE ALASKAN GAS BEGAN TO FLOW. DOMESTIC OPPONENTS IN CANADA, HOWEVER, PRESSED THE CANADIAN GOVERNMENT NOT TO APPROVE THE CONSTRUCTION OR GAS EXPORT AUTHORIZATION IN VIEW OF THEIR OPINION THAT THE PROJECT WOULD NEVER RECEIVE THE PRIVATE FINANCING NECESSARY TO COMPLETE THE REMAINING SEGMENTS. CANADA, THE OPPONENTS CLAIMED, WOULD BE STUCK WITH THE SOUTHERN PORTION IN PLACE BUT GOOD ONLY FOR CARRYING ALBERTA'S GAS TO THE U.S. -- GAS WHICH MANY IN CANADA ARGUED CANADA WOULD NEED FOR ITS OWN MARKETS.

PRIME MINISTER TRUDEAU MADE THE DIFFICULT DECISION TO PROCEED WITH THE SOUTHERN LEGS ON THE BASIS OF ASSURANCES FROM BOTH THE ADMINISTRATION AND THE CONGRESS. PRESIDENT CARTER SAID IN A LETTER TO THE PRIME MINISTER THAT THE U.S. GOVERNMENT WAS COMMITTED TO THE PROJECT, WAS SATISFIED THAT IT WOULD BE COMPLETED, AND WOULD TAKE "APPROPRIATE ACTION" DIRECTED AT MEETING THE OBJECTIVE OF TIMELY COMPLETION. CONGRESS, FOR ITS PART, PASSED A CONCURRENT RESOLUTION SAYING "IT IS THE SENSE OF CONGRESS THAT THE SYSTEM...ENJOYS THE HIGHEST LEVEL OF CONGRESSIONAL SUPPORT FOR ITS EXPEDITIONS CONSTRUCTION AND COMPLETION..." THANKS TO THESE EXPRESSIONS OF SUPPORT, THE CANADIANS DID AUTHORIZE THE PRE-BUILD. THE WESTERN LEG WAS RECENTLY COMPLETED AND WORK IS ON SCHEDULE ON THE EASTERN LEG.

IT WOULD BE DIFFICULT TO OVEREMPHASIZE THE NEGATIVE IMPACT ON U.S.-CANADIAN RELATIONS IF THE U.S. GOVERNMENT DID NOT HONOR ITS ASSURANCES TO REMOVE STATUTORY IMPEDIMENTS TO PRIVATE FINANCING. THE CANADIANS WOULD UNDOUBTEDLY FEEL BETRAYED AND THE BILATERAL RELATIONSHIP WOULD SUFFER.

PRESIDENT REAGAN HAS REAFFIRMED HIS COMMITMENT TO THE PIPELINE'S CONSTRUCTION BASED ON PRIVATE FINANCING. THE WAIVER PACKAGE BEFORE THE CONGRESS TODAY IS THE CONCRETE EXPRESSION OF THIS GOVERNMENT'S WILLINGNESS TO LIVE UP TO THE ASSURANCES GIVEN TO PRIME MINISTER TRUDEAU AND THE CANADIAN GOVERNMENT. IN OUR VIEW, THIS WAIVER PACKAGE REMOVES UNREASONABLE RESTRICTIONS THAT WOULD UNNECESSARILY COMPLICATE THE PRIVATE SECTOR'S ROLE IN MAKING ANGTS A REALITY.

IN CONCLUSION, THE DEPARTMENT OF STATE BELIEVES THAT EARLY COMPLETION OF ANGTS THROUGH PRIVATE MEANS WILL PROVIDE IMPORTANT ENERGY SECURITY BENEFITS THAT THE UNITED STATES CAN ILL AFFORD TO REJECT. IT ADVANCES BILATERAL ENERGY COOPERATION WITH CANADA, YET PROTECTS THE FUNDAMENTALLY PRIVATE NATURE THAT HAS BEEN A PREREQUISITE FOR THIS ADMINISTRATION'S SUPPORT. WE BELIEVE THE PRESIDENT'S WAIVER PACKAGE ELIMINATES UNNECESSARY RESTRICTIONS THAT CAN ONLY COMPLICATE THE SPONSORING COMPANIES' ATTEMPTS TO ATTRACT FINANCIAL BACKING FOR THIS IMPORTANT PROJECT.

THIS CONCLUDES MY PREPARED TESTIMONY. I WILL BE HAPPY TO ANSWER ANY QUESTIONS THAT YOU MAY HAVE.

Testimony of Richard E. Rowberg

Manager, Energy Program

Office of Technology Assessment

Before the Subcommittee on Fossil and Synthetic Fuels

House Committee on Energy and Commerce

And the Subcommittee on Energy and Environment

House Committee on the Interior and Insular Affairs

November 9, 1981

Thank you for the opportunity to testify today on this issue. With me is Dr. Tom Bull, Project Director of our current study on synthetic fuels. The rapidly increasing costs for the proposed Alaskan Natural Gas Transportation System (ANGTS) have renewed interest in alternate ways of delivering the Alaskan natural gas energy to the lower-48 states. The Office of Technology Assessment has recently carried out a brief analysis of two such alternatives. This testimony is an extension of a brief paper we completed in July 1981 describing the first phase of that analysis. In my testimony I will discuss the alternative of using the natural gas to produce ammonia or fuel grade methanol and transporting either of these chemicals to the lower-48 states by way of the existing Alaskan oil pipeline-tanker system.

Description of Alternatives

Both methanol and ammonia are logical choices to consider in a study of alternatives to ANGTS since they are by far the major chemicals currently being produced from domestic natural gas. Further, the conversion technology is well established and they are liquids which conceivably could be transported by an oil pipeline. Ammonia and methanol consumed about 2.6% of

the total natural gas supplied for domestic use in 1980. This amounted to 500 billion cubic feet which is about two-thirds of the total projected for delivery upon completion of ANGTS. In 1980, the U.S. produced about 18.5 million tons of ammonia and about 1.5 billion gallons of methanol. Ammonia is used almost exclusively to produce fertilizer while methanol is used for a variety of chemical products, chief of which is formaldehyde. In addition a very small but growing amount of fuel grade methanol is being used by hundreds of automobiles throughout the U.S.

If the natural gas projected to be delivered by ANGTS - about 2.1 billion cubic feet per day - were to be converted to ammonia or methanol, it would produce 30 million tons per year of ammonia or 8.1 billion gallons per year of methanol. Both totals would be in substantial excess of current domestic production levels. To produce that much ammonia, it would be necessary to construct the equivalent of 90, standard sized 1000 ton per day ammonia plants. For methanol, the equivalent of 36, standard 2000 metric ton per day plants would be needed. In each case we have assumed that natural gas would be used to fuel the chemical plant as well as for the feedstock. Because of this a certain fraction of the Alaskan natural gas would be consumed at the site which would reduce the amount of natural gas energy that eventually would reach the lower-48 states. In considering these conversion losses, of course, it is necessary to note that any use to which Alaskan natural gas would be put upon arrival in the lower-48 would also involve conversion losses. Further, as we shall note later, it would be possible to effectively recover some of the conversion losses if methanol is used to fuel motor vehicles.

Up to this point I have been considering both ammonia and methanol as alternatives to the ANGTS. There are a number of problems with ammonia,

the total natural gas supplied for domestic use in 1980. This amounted to 500 billion cubic feet which is about two-thirds of the total projected for delivery upon completion of ANGTS. In 1980, the U.S. produced about 18.5 million tons of ammonia and about 1.5 billion gallons of methanol. Ammonia is used almost exclusively to produce fertilizer while methanol is used for a variety of chemical products, chief of which is formaldehyde. In addition a very small but growing amount of fuel grade methanol is being used by hundreds of automobiles throughout the U.S.

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Up to this point I have been considering both ammonia and methanol as alternatives to the ANGTS. There are a number of problems with ammonia,

however, which effectively preclude it as a choice. First, it is not possible to use the oil pipeline system in its current condition to transport ammonia. Ammonia forms an emulsion with crude oil and could not be batched in the pipeline with the oil. Ammonia must also be transported under a pressure of at least 10 atmospheres if it is to remain a liquid at normal temperatures. Further, new tankers would have to be built since the vapor pressure of ammonia would exert excessive force on the walls of crude oil tankers. None of these problems exist with methanol. For these reasons methanol is a clearly superior candidate and we will focus on it for the remainder of the testimony.

Capital Costs

There appears to be no major technical uncertainty in developing a large scale methanol conversion facility on the North Slope. There are considerable cost uncertainties, however. The hostile environment and limited access will greatly increase the cost of any facility built on the North Slope compared to building it on the U.S. Gulf Coast. Various estimates have been given for this cost differential by engineering firms and chemical companies which have some experience with Alaskan conditions. The current consensus is that a chemical plant built on the North Slope will be 2.5 to 3.5 times more costly than one built on the Gulf Coast. The scarcity of detailed engineering designs and absence of extensive construction experience, however, leaves this estimate somewhat uncertain. The principal reasons for the differential are the extensive transportation costs, the need to provide labor camps, the much higher labor rates, and the limited accessibility by ship, rail and truck.

In addition to the uncertainty about the cost differential, there are

other uncertainties about the cost estimate of building methanol plants on the North Slope. The first concerns the auxillary equipment needed. For example, there is insufficient fresh water to supply the steam needed in the first step of the conversion process. Therefore, desalinization equipment will probably be needed. Second, although cost estimates for building individual, 2000 metric tons per day methanol facilities are well known, there is much less knowledge about any economies of scale that may be attributable to building several of these units at once as would be the case if the entire 2.1 BCF were to be processed. Third, building several plants would greatly extend the construction time compared to just one or a few plants. In a recent study by Jensen, Associates, it is estimated that these two factors - economy of scale and extended construction time - effectively cancel one another. A fourth uncertainty concerns the effect of using new construction concepts such as barge-mounted process plants. Preliminary estimates suggest that barge-built plants would cost 50 to 70 percent as much as standard plants. The limited access to Prudhoe Bay, however, may greatly reduce any of these savings.

These uncertainties may only be satisfactorily eliminated by actually constructing plants in the North Slope. In the absence of any such information we will confine ourselves to cost estimates of currently built methanol plants adjusted by the cost differential factor we presented earlier. Currently, a 2000 metric ton per day methanol plant built on the Gulf Coast costs $205 million in 1980 dollars. The cost of a facility capable of processing the projected Alaskan natural gas production would then range from 18.5 to 25.5 billion dollars using the cost differential range of 2.5 to 3.5. In addition, chemical companies generally add about 25% of the investment cost to account for construction outside of the plant boundary that is needed for complete operation. This construction, referred to as

construction outside the battery limits, includes such things as connections to the fuel, feedstock and electricity, product delivery connections, and auxillary buildings. In the Alaskan North Slope case this construction would also have to include any desalinization facilities. If we include this adjustment, the total becomes 23 to 32 billion dollars for the entire methanol production facility in 1980 dollars.

Methanol Costs

Of course, this is only one contributer to the selling price of the methanol. To determine this price we need to add working capital, operation and maintenance expenses, fuel and feedstock costs, and any other capital investments necessary to produce the methanol. The major contributer to the last point is the gas processing plant which is needed to remove the natural gas liquids from the Alaskan natural gas before it enters the methanol conversion plant. The gas processing plant is estimated to cost six billion dollars according to a design study by the Ralph Parsons Company. Because the gas liquids have a value in themselves, however, one cannot assign all of the cost of the processing plant to the methanol. The fraction assigned to the methanol facility depends, in turn, on the construction of a chemical processing industry to make use of the liquids. Although there are no firm plans for doing this, a large study of what such an industry would require has just been completed by a Dow Chemical Company and Shell Oil Company group.

Once the costs are determined, the selling price of the methanol can be calculated given various financial parameters such as return on equity, interest rate, book life and tax rate, and the operating efficiency of the plant. To arrive at our results we assumed that operation and maintenance

costs were equal to 10% of the plant investment and working capital 7.5% of this investment. These are characteristic of domestic methanol plants now operating. We used $2.00 per MCF for wellhead price of the natural gas which is the 1987 NGPA price expressed in 1980 dollars. Because we were unable to determine how to assign the costs of the natural gas processing plant, we assumed that none of these costs would be attributed to the methanol complex. Finally, we assumed a conversion efficiency of 70% for the methanol plants. Although no methanol plants currently operate at this level (the average is around 55% to 60%), advances in operating technology are expected to increase conversion efficiency over the next few years to close to 70%. If, however, efficiencies remain around 60% the methanol prices we are about to present should be increased by 10%. The cost data, financial parameters and operating conditions are summarized in Table I. We have carried out our calculation for two sets of financial parameters, one describing the current ANGTS and the other characteristic of current chemical process plants. We obtain a plant gate price of $0.80 to $1.03 per gallon ($12.60 to $16.20 per MMBTU) assuming ANGTS financing and $1.25 to $1.63 per gallon ($19.70 to $25.65 per MMBTU) assuming chemical industry financing. These are in real, 1980 dollars. In other words we have removed the effect of inflation between now and the time such plants might be built. Therefore, they can be compared with the 1980 price of methanol and other fuels with which the Alaskan methanol would compete.

Transportation

To deliver the methanol to the lower-48 states it will be necessary to increase the capacity of the Alaskan oil pipeline system if crude oil flow is not to decline from its current 1.5 million barrels per day. Full scale

methanol production would amount to about 525,000 barrels per day. The pipeline could accommodate 2 million barrels per day with additional pumping capacity. In addition more tankers and storage facilities would be needed. The cost of these additions, however, are small compared to the cost of the conversion facilities. In an analysis carried out by Dr. Carl Thomas of the University of Tennessee in 1974, these transportation modifications added less than 10% of the total price of the methanol.

Another estimate of transportation costs can be made from the current tariffs for the Alaskan crude oil. These are about $6 per barrel which includes, of course, the fixed charges of the oil pipeline. It is not clear how these charges would be apportioned to any methanol, if at all. If we assume a similar tariff for the methanol, however, an additional 14¢ per gallon would be needed which is less than 15% of the production cost.

Discussion

The major issue affecting the success of any Alaskan methanol concept is whether the methanol could be marketed once delivered to the lower-48 states. This issue has two significant parts: 1) can the market for methanol be expanded to accommodate the six-fold increase in methanol production the Alaskan natural gas could provide, and 2) if so, how will the cost of Alaskan methanol compare with other potential sources of methanol. Currently, methanol produced in the U.S. for chemicals is priced at about 75¢ per gallon. The chemical market for methanol will grow but is not expected to expand at the rate needed to absorb the 8 billion gallons per year that could be provided during the next two decades from Alaska. Therefore, there would have to be a very large growth in fuel methanol demand. The technical

problems of using methanol as a substitute for conventional liquid fuels are relatively minor and readily soluble. Methanol's highest value uses as a fuel are probably as a substitute for gasoline and light fuel oil used in combustion turbines. New cars can be constructed either to accept pure methanol or gasoline blends containing methanol as an octane booster. Currently, engines designed to run on pure methanol can be 10 to 20% more efficient than a comparable gasoline engine. Future developments could utilize methanol's properties to increase the efficiency of methanol engines even further. Many existing gas turbines could also be easily retrofitted to use methanol.

In a study of synthetic fuels for transportation that we are currently completing, we have found that the major barriers to widespread use of methanol as a fuel are institutional. Producers are reluctant to invest in fuel methanol production facilities without ready markets, and potential users will not convert to methanol unless there are convenient outlets for the fuel. This apparent dilemma will probably only be overcome if the methanol is introduced on an incremental basis and if dedicated automobile fleets are converted. Thus an increase in demand for fuel methanol will be difficult but no fundamental barrier exists, and we believe it has a good future as a fuel.

The other concern, competition from other sources, presents more of a problem for Alaskan methanol. In our synthetic fuel study we have calculated the cost of fuel methanol from coal which would be the major domestic competitor to any fuel methanol from Alaskan natural gas. The cost of methanol from coal can vary considerably depending on, among other things, the cost of constructing the coal to methanol plant and the credit assigned to any byproducts such as synthetic natural gas. We have estimated that the capital

cost of a coal-to-methanol facility that could produce 525,000 barrels of methanol per day is about 15 billion dollars in 1980 dollars. Based on these costs and the best available estimates for operating costs, and assuming no byproduct credit, we calculate that the real, plant gate price of methanol (in 1980 dollars) would range from $0.52 per gallon ($8.20 per MMBTU) to about $0.87 per gallon ($13.70 per MMBtu) depending on the type of financing used. These parameters are shown in Table II and are the same as we used for the Alaskan methanol case. The prices we calculate for methanol from coal are considerably below the range of estimates of the Alaskan methanol concept. Although there are more technical uncertainties with the coal to methanol than with the Alaskan proposal, they do not appear to be sufficient to eliminate the cost advantage coal-derived methanol would have over Alaskan methanol.

Conclusion

The Alaskan methanol concept offers some apparent advantages over ANGTS in producing the Alaskan natural gas for lower-48 state use. First of all, it can be done incrementally. Although we have calculated costs for the entire system, it is not necessary, of course, to build the entire facility at once. Such an approach would best fit in with developing methanol fuel markets. Second, it can use the existing crude oil pipeline system with only modest additions. On the other hand, the capital costs of the full methanol system are very high and are comparable to the current ANGTS estimate. There is considerable uncertainty about the methanol system costs, however, and favorable developments in construction techniques for chemical plants on the Alaskan North Slope, such as successful delivery of barge mounted assemblies, could lower these costs. More important to the success of the system, however, is the potential competition with methanol derived from coal. Even

if the cost differential between the Gulf Coast and North Slope were as low as two (rather than 2.5 to 3.5), it does not now appear that Alaskan methanol will be less costly than methanol from coal. Therefore Alaskan methanol will face great competition for any lower-48 fuel market. Since marketability will ultimately determine whether an Alaskan methanol concept would succeed - as indeed it would for Alaskan natural gas itself - the future of synthetic methanol from coal will have a strong effect on the ultimate financial success of any Alaskan methanol project.

This concludes my testimony and I will be happy to answer any questions.

Table I

Parameters for Cost Calculations

Alaskan Methanol

Capital Cost	23.0 to 32.0 Billion Dollars
Production	22.2 Million Gallons Per Day
Natural Gas Requirements	2.1 Billion Cubic Feet Per Day
Natural Gas Price	$2.00/McF ($1.96/MMBtu)
Operation and Maintenance	2.3 to 3.2 Billion Dollars Per Year
Working Capital	1.7 to 2.4 Billion Dollars Per Year

Return on Equi	Case I[1]	Case II[2]
Return on Equity (Real)	0.08	0.10
Interest on Debt (real)	0.05	0.05
Debt/Equity	75/25	0/100
Income Tax	0.555	0.555
Other Tax	0.02	0.02
Tax Credit	0.10	0.10
Tax Life	10 years	10 years
Book Life	25 years	25 years

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(1) ANGTS Parameters

(2) Chemical Industry Parameters

Table II

Synthetic Methanol From Coal

Capital Cost	15 Billion Dollars
Production	22.2 Million Gallons Per Day
Coal Requirements	105,800 Tons Per Day
Coal Cost	$30/Ton ($1.50/MMBTU)
Operation and Maintenance	1.5 Billion Dollars Per Year
Working Capital	1.1 Billion Dollars Per Year

Return on Equity	Case I	Case II
Return on Equity (Real)	0.10	0.10
Interest on Debt (Real)	0.05	0.05
Debt/Equity	75/25	0/100
Income Tax	0.555	0.555
Tax Credit	0.10	0.10
Tax Life	10 years	10 years
Book Life	25 years	25 years

BEFORE THE
UNITED STATES SENATE
COMMITTEE ON ENERGY AND NATURAL RESOURCES

Prepared Statement
of
ROBERT L. PIERCE
President and Chief Executive Officer
of
Foothills Pipe Lines (Yukon) Ltd.
on Behalf of the Canadian Sponsors
of
The Alaska Natural Gas Transportation System

Mr. Chairman, my name is Robert L. Pierce, and I am President, Chief Executive Officer, and a member of the Board of Directors of Foothills Pipe Lines (Yukon) Ltd., the Canadian company which is responsible for the Canadian segment of the Alaska natural gas transportation system ("ANGTS"). I am also Executive Vice President and a member of the Board of Directors of NOVA, AN ALBERTA CORPORATION, which owns fifty percent of the outstanding shares of Foothills' capital stock.

Appearing with me today are Mr. S. Robert Blair, who is Chairman of Foothills, as well as President and Chief Executive Officer of NOVA, and Mr. Edwin C. Phillips, who is Vice Chairman of Foothills and Chairman and Chief Executive Officer of Westcoast Transmission Company Limited, which owns the other half of Foothills' stock.

Together, we are appearing before this committee to support the expeditious passage of a joint resolution approving the waiver package which was submitted to Congress by President Reagan on

October 15, 1981. Like our American co-sponsors, we believe that favorable action on the waiver package has become essential for this project to achieve private financing in 1982 and successful completion by 1986. Such a completion schedule is already four years behind the schedule set out in the United States/Canada agreement entered in 1977.

We also remind you of the commitment which the United States made to Canada in July of 1980 at the time of Canadian government approval of new gas exports and the commencement of construction on Phase I of the project, which is also referred to as the "prebuild" phase. You will recall that, in order to allay Canadian fears that the entire project would not be completed if the "prebuild" phase went forward, Congress passed a bipartisan and practically unanimous joint resolution on July 1, 1980, declaring that the entire system remained "an essential part of securing this Nation's energy future", and that it would be given "the highest level of Congressional support for its expeditious construction and completion ...".

In addition to this commitment, President Carter sent Prime Minister Trudeau a letter on July 18, 1980, reassuring Canada that the United States stood "ready to take additional steps" to insure the completion of the entire system.

One of the specific steps proposed in President Carter's letter was the initiation of proceedings before Congress to remove any impediment to the ability of the Canadian sponsors to collect their full cost of service from U.S. shippers as soon as

the Canadian segment is completed and capable of rendering service for the benefit of American consumers. In making this commitment, President Carter recognized that the Canadian sponsors have a "reasonable concern ... that they be assured recovery of their investment in a timely manner if, once project construction is commenced, they proceed in good faith with completion of the Canadian portions of the project and the Alaskan segment is delayed". 1/

The waiver package submitted by President Reagan on October 15th honors and supports that previous White House commitment. Specifically, it proposes that the Federal Energy Regulatory Commission ("FERC") be authorized to approve shipper tracking of Foothills' full cost of service "upon completion and testing" of the pipeline in Canada, provided that such date is "not before a date certain"; as determined by the Commission, in consultation with the Federal Inspector, "to be the most likely date for the approved transportation system to begin operation".

Although the arrangements for tracking upon completion and its necessity have been described thoroughly in our testimony before the United States and Canadian authorities for many years, I am advised that we should review it again today, for completion of your record, and describe why it is essential to the private financing of the

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1/ The full text of President Carter's letter to Prime Minister Trudeau is appended to my prepared statement.

Canadian segment. Before addressing this matter in detail, however, it may be helpful to briefly describe the role of the Canadian project sponsors, review some of the significant contributions which we have already made, and summarize the regulatory progress which has occurred in Canada since the selection of the project. Viewed in this context, we believe the tariff arrangements which the Canadian sponsors require remain fair, reasonable, and consistent with the long-term interests of all concerned.

The owners of Foothills -- namely, NOVA and Westcoast -- own the main gas transmission systems in western Canada. During the past twenty-five years, we have constructed more than 16,000 kilometers of mainline and gathering pipelines which currently provide service to both domestic and export markets. These systems presently gather and transport in the West virtually all of the gas which is marketed in Canada, as well as the substantial volumes which are exported daily to the United States.

Because of our experience as builders and operators of gas pipelines in western Canada, it was only logical that NOVA and Westcoast should involve themselves in the transportation of Alaskan gas to markets in the lower forty-eight states. Accordingly, through Foothills, as our project company, we joined with a subsidiary of Northwest Energy Company in 1976 to co-sponsor the pipeline project which was ultimately selected by our two countries as the Alaska natural gas transportation system. It was our opinion then -- and it is our opinion now -- that a conventional

overland pipeline which follows the TAPS oil pipeline corridor and then the Alaska Highway, and which utilizes the resources and expertise of existing Canadian companies, is the most economic and environmentally sound means of transporting Alaskan gas to markets in the lower forty-eight states.

In 1977, following many years of regulatory litigation and exhaustive review in both Canada and the United States, our two countries consummated an Agreement on Principles relating to the construction and operation of the project. That agreement, among other things, committed both governments to the expeditious completion of all remaining regulatory proceedings. As you are aware, however, the targeted completion date of January 1, 1983, has now fallen behind. Primarily as a result of delays associated with the Alaskan segment, the completion date for the project has now slipped approximately four years to November of 1986. This delay, in turn, has increased the total cost of the project greatly and has naturally imposed an additional financial load upon the sponsors.

Notwithstanding these delays and their resultant cost impacts, the Canadian sponsors have steadfastly continued their work on the project, and they have continued to invest their money and resources toward its successful completion. Indeed, through Foothills, the Canadian sponsors have already invested a total of approximately 560 million dollars in the project, as of the end of August. With this level of investment responsibility in Canada, it

is clear that we have extended ourselves in total faith that the project is valid and committed. This has not always been easy for us to do and we have on many occasions faced questions on that total faith, particularly measured against the delays which we have endured, but to date we have been absolutely steadfast in "hanging in there".

Based upon the assurances given by the President and the Congress in the summer of 1980, we have devoted a substantial portion of this investment to Phase I, comprising approximately 25% of the length of the Canadian segment of the project, in order to transport new gas exports of more than one billion cubic feet per day to the United States. For the western delivery leg, the prebuild facilities have already been completed and are presently flowing gas. The eastern delivery leg is presently under construction and will be completed and ready for service by the fall of next year.

Concurrent with Phase I, Foothills has made substantial progress on Phase II, which comprises the remainder of the system. In this regard --

- detailed route location work for the entire pipeline has been completed;
- pipe burst tests have been successfully concluded;
- geotechnical, frost heave, and environmental studies have been undertaken; and
- design work is at an advanced stage.

In performing this work, Foothills has used the services of more than 700 people, 630 of which are employed directly, and the remainder of which are consultants.

Substantial progress has also been made during the past four years by the Canadian government. Indeed, within five months after Congressional ratification of the President's 1977 decision selecting the project, the Canadian Parliament passed the comprehensive Northern Pipeline Act, which gave full force and effect to the agreement which had been reached by our two countries. Among other things, that act granted final certificates of public convenience and necessity to Foothills; it established procedures and standards for the filing and review of Foothills' tariff; and it restricted judicial review of decisions issued by the National Energy Board in connection with the pipeline.

The Northern Pipeline Act also established the Northern Pipeline Agency, and vested it with both the responsibility and the authority to oversee the construction of the pipeline in Canada. Pursuant to that authority, the agency commenced operations at a very early date, and has already issued final terms and conditions on the technical, socio-economic, and environmental aspects of most of the pipeline.

The National Energy Board has also worked assiduously to expedite the Canadian regulatory process. It has issued necessary approvals for Phase I of the project; established an incentive

rate of return mechanism pursuant to the Agreement on Principles; and issued orders on both the mainline and prebuild tariffs of Foothills.

In short, Mr. Chairman, the Canadian sponsors and the Canadian government have worked diligently to fulfill every commitment made thus far in connection with the ANGTS. It is against this background that we ask you to consider the waiver package which has been submitted by the President.

Let me now turn from the general to the specific and concentrate on the billing commencement issue, which is the focal point of our concern. In this regard, it is important to focus upon the physical and financial requirements of the task which lies ahead for the Canadian sponsors. Given the size of our investment responsibility, Foothills must be paid its full cost of service upon completion of the Canadian segment.

In sheer physical terms, the 2,000 mile Canadian segment will be the longest of the four pipeline segments which comprise the ANGTS. It will be approximately twice as long as either the eastern or western delivery leg, and almost three times the length of the Alaskan segment.

The financial requirements for the Canadian segment are also considerable. As the owners of Foothills, NOVA and Westcoast start with the responsibility to invest about $1.5 billion (Canadian) each in order to provide the equity component of the Canadian

capital costs, which will total approximately $17.6 billion on an escalated basis in Canadian dollars. For comparison, each of the thirteen pipeline and producer sponsors of the Alaskan segment will be required to invest an average of approximately $460 million (U.S.), in order to generate the equity component of the total Alaskan pipeline and plant costs of $24 billion.

As well as furnishing equity funds, the Canadian sponsors must demonstrate corresponding credit strength to raise a substantial amount of debt. In this connection, we recognize that the Canadian segment is supported by the other two major Canadian pipelines, TransCanada Pipelines Limited and Alberta Natural Gas Company Ltd., both of whom will participate in the ownership of certain portions of the line. Thus far, however, the basic core of investment has stayed with our two companies.

To justify the investments required for Phase II, the Canadian sponsors, as well as the lenders of their debt funds, must be sure that Foothills will be in a positive cash flow situation as soon as the project which is the subject of <u>their</u> investment -- i.e., the Canadian segment -- is successfully completed. A positive cash flow at this point in time is absolutely essential in order that the equity sponsors of Foothills can compensate their shareholders, retire their debts, and finance their ongoing business operations. In addition, Foothills must be able to maintain the line upon completion, service its own debts, and proceed with work on the Dempster Lateral, which will connect the ANGTS with the

Mackenzie Delta region of the Canadian Arctic. In this regard, you may recall that the National Energy Board required Foothills to proceed with an application for the Dempster Lateral as a condition to receiving a certificate for the mainline.

In considering these future needs, the Canadian sponsors must face the fact that they will receive absolutely no cash flow benefits during the construction of the Canadian segment. Unlike the situation in the United States, in general, law on taxation in Canada will not permit NOVA and Westcoast to claim tax credits for their investments in the project. Moreover, Canadian law does not permit Canadian corporations to file their income tax returns on a consolidated basis, and thereby reduce their taxes through the deduction of expenses attributable to subsidiaries or affiliates. As a result, NOVA and Westcoast will receive no tax advantages from the interest paid by Foothills on its debt.

It is imperative, therefore, that the Canadian sponsors be placed in a positive cash flow situation as soon as they have completed their segment of the project and are ready, willing, and able to transport gas to U.S. consumers. Neither the Canadian sponsors nor their lenders can assume any construction, political, or regulatory risk present, or which might occur in the future, for the American segments, since those are matters completely beyond our experience, control, or ability to influence. In this connection, recoupment of investments made thus far by the Canadian sponsors has already been delayed approximately four years, primarily as a

result of regulatory proceedings in the United States. Under these circumstances, our companies cannot continue to make additional investments in the project without firm assurances that they will begin to recover their investments, plus a reasonable return, at a certain point in time.

For these reasons, Foothills' position on the billing commencement issue has been candid and unequivocal since the inception of the project. In our testimony before the National Energy Board, the Federal Energy Regulatory Commission, and various Parliamentary and Congressional committees, we have stated -- and we can reaffirm today -- that the Canadian sponsors cannot participate in the project unless Foothills is permitted to collect its full cost of service, including a return of and on equity, as soon as all Canadian segments are completed and leave to open has been granted by the NEB. This assurance is absolutely essential in order for NOVA and Westcoast to invest in the equity of the project. Moreover, it is a fundamental link in the credit strength which must be demonstrated to lenders before they will advance the required debt.

In making this point, we do not expect that the Alaskan facilities will be delayed, thereby making it necessary for Foothills to commence billing prior to the flow of gas. To the contrary, we believe, especially in light of our experience on Phase I, that careful planning of construction will lead to coordinated completion of all segments. For purposes of financing, however, the Canadian equity sponsors and lenders must be protected against the unexpected

event of a delay in the completion of the Alaskan pipeline or the conditioning plant.

In view of such considerations, the National Energy Board has approved the billing commencement provisions and other aspects of Foothills' proposed tariff. Standing alone, however, the NEB's approval does not guarantee that Foothills will, in fact, be paid upon completion of the Canadian segment. To complete the necessary "economic lifeline", U.S. shippers must contractually agree to pay all charges approved by the NEB under Foothills' tariff. The shippers will not enter into such agreements, however, unless they are permitted by the FERC to automatically track such charges through to their customers.

It is for this reason that Condition IV-3 of President Carter's 1977 decision is currently an impediment to financing. As interpreted by the FERC, that condition would prohibit the tracking of any payments made to Foothills until all pipeline segments of the entire project are completed and commissioned for service. If the proposed waiver is approved, however -- as we think it should be -- the Commission would have authority to permit automatic tracking of Foothills' charges upon completion and testing of the Canadian segment, provided that such date is not before a targeted completion date for the entire project. Assuming that the targeted completion date established by the FERC does not significantly depart from our present construction schedule, we believe that the waiver would pave the way for privately financing the Canadian segment.

That completes my testimony, Mr. Chairman. If the Committee has any questions, my colleagues and I will be more than happy to respond.

ATTACHMENT A

EMBARGOED UNTIL AFTER THE BRIEFING JULY 18, 1980

Office of the White House Press Secretary

THE WHITE HOUSE

TEXT OF A LETTER FROM THE
PRESIDENT TO THE
-PRIME MINISTER OF CANADA

July 18, 1980

Dear Mr. Prime Minister:

Since you last wrote to me in March, the United States Government has taken a number of major steps to ensure that the Alaska Natural Gas Transportation System is completed expeditiously.

Most significantly, the Department of Energy has acted to expedite the Alaskan project. The North Slope Producers and Alaskan segment Sponsors have signed a joint statement of intention on financing and a cooperative agreement to manage and fund continued design and engineering of the pipeline and conditioning plant. The Federal Energy Regulatory Commission recently has certified the Eastern and Western legs of the System.

The United States also stands ready to take appropriate additional steps necessary for completion of the ANGTS. For example, I recognize the reasonable concern of Canadian project sponsors that they be assured recovery of their investment in a timely manner if, once project construction is commenced, they proceed in good faith with completion of the Canadian portions of the project and the Alaskan segment is delayed. In this respect, they have asked that they be given confidence that they will be able to recover their cost from U.S. shippers once Canadian regulatory certification that the entire pipeline in Canada is prepared to commence service is secured. I accept the view of your government that such assurances are materially important to insure the financing of the Canadian portion of the system.

Existing U.S. law and regulatory practices may cast doubt on this matter. For this reason, and because I remain steadfastly of the view that the expeditious construction of the project remains in the mutual interests of both our countries, I would be prepared at the appropriate time to initiate action before the U.S. Congress to remove any impediment as may exist under present law to providing that desired confidence for the Canadian portion of the line.

Our government also appreciates the timely way in which you and Canada have taken steps to advance your side of this vital energy project. In view of this progress, I can assure you that the U.S. government not only remains committed to the project; I am able to state with confidence that the U.S. government now is satisfied that the entire Alaska Natural Gas Transportation System will be completed. The United States' energy requirements and the current unacceptable level of dependence on oil imports require that the project be completed without delay. Accordingly, I will take appropriate action directed at meeting the objective of completing the project by the end of 1985. I trust these recent actions on our part provide your government with the assurances you need from us to enable you to complete the procedures in Canada that are required before commencement of construction on the prebuild sections of the pipeline.

In this time of growing uncertainty over energy supplies, the U.S. must tap its substantial Alaska gas reserves as soon as possible. The 26 trillion cubic feet of natural gas in Prudhoe Bay represent more than ten percent of the United States total proven reserves of natural gas. Our governments agreed in 1977 that the Alaska Natural Gas Transportation System was the most environmentally sound and mutually beneficial means for moving this resource to market. Access to gas from the Arctic regions of both countries is even more critical today as a means of reducing our dependence on imported petroleum.

Successful completion of this project will underscore once again the special character of cooperation on a broad range of issues that highlights the U.S./Canadian relationship.

I look forward to continuing to work with you to make this vital energy system a reality.

Sincerely,

JIMMY CARTER

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