

ALASKA NATURAL GAS PIPELINE

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

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

TO RECEIVE TESTIMONY ON THE STATUS OF PROPOSALS FOR THE
TRANSPORTATION OF NATURAL GAS FROM ALASKA TO MARKETS IN
THE LOWER 48 STATES AND ON LEGISLATION THAT MAY BE RE-
QUIRED TO EXPEDITE THE CONSTRUCTION OF A PIPELINE FROM
ALASKA

OCTOBER 2, 2001



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ALASKA NATURAL GAS PIPELINE

TUESDAY, OCTOBER 2, 2001

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The committee met, pursuant to notice, at 10:03 a.m. in room SD-366, Dirksen Senate Office Building, Hon. Jeff Bingaman, chairman, presiding.

OPENING STATEMENT OF HON. JEFF BINGAMAN, U.S. SENATOR FROM NEW MEXICO

The CHAIRMAN. Good morning. The Senate is about to vote and let me just advise folks that my plan is to go ahead and make a short opening statement and then recess the hearing, unless there are some other Senators who show up at that point to make opening statements. We will recess the hearing, vote, come back, and then begin at that point with any additional opening statements if other Senators are here or Senator Murkowski is here.

We have a lot of witnesses, and a lot of testimony to hear today. I want to get going with the hearing.

The purpose of this hearing—and this is a hearing Senator Murkowski requested we have—is to receive testimony on the status of proposals for the transportation of natural gas from Alaska to markets in the lower 48 States and on legislation that may be required to expedite the construction of a pipeline from Alaska.

The committee held a similar hearing on this topic over a year ago. Frankly, I had hoped that by this time the witnesses, some of whom we will hear from today, would be involved with discussions of a commercial proposal and that we would have both the Federal and the State government working actively on legislation to expedite construction.

I am concerned that in fact we have made fairly minimal progress in the last 13 months toward the goal of adding Alaska's natural gas resources to our domestic energy supply. According to the Department of Energy, the gas reserves in the Alaska North Slope equal 20 percent of the total gas reserves both onshore and offshore in the lower 48 States. Bringing this gas to market would have huge energy security benefits for the United States.

In addition, it would be a multi-billion dollar construction project on the part of the private sector, requiring some 1,200 to 1,600 miles of steel pipe just to get from the North Slope to the hub at Alberta, Canada. The Arctic pipeline, plus the additional pipeline expansion needed to move the gas into end use markets, will pro-

vide a tremendous economic stimulus for the United States and Canada.

No matter what route it takes, the natural gas pipeline will bring substantial economic benefits to Alaska. I believe that we are at a critical energy security decision point today. Over the past year, interest in bringing liquefied natural gas to the United States has increased exponentially. With the planned reopening of two mothballed LNG terminals, expansion of existing facilities, and construction of new facilities, about 8 percent of our natural gas demand would be met by imported LNG in less than a decade.

By inaction, we start down a path to increased import dependence on natural gas, thereby losing the Alaska natural gas for a substantial period, if not forever. Without Alaska gas, the United States will end up importing more liquefied natural gas from countries like Algeria, Qatar, Nigeria, and Indonesia. Once those LNG facilities are in place, the Alaska gas pipeline may not be economic.

We will never be able to produce enough oil to be independent of the world oil market, but we have the potential to retain the security of a North American market. I believe we are at a critical energy security juncture here. It may be of interest to the members of this committee that this summer there were 11 gas-producing countries that met in Teheran to plan a new OPEC for natural gas.

As chairman of the committee, I am prepared to develop legislation to streamline the regulatory approval process needed to move forward with the pipeline. This legislation would need to be supplemented by a mechanism to reduce the financial uncertainty for the companies that undertake to build the pipeline, and I am committed to work with the Finance Committee to see what can be done in that area.

But a pipeline transporting domestic natural gas reserves from Alaska to markets in the lower 48 is a project that can provide real jobs across the country and in Canada and enable the United States to meet the growing demand for natural gas and prevent import dependence in this area of natural gas in the future.

As I indicated, we will go ahead and recess the hearing now while I go vote. We will return and proceed with the hearing after I return.

[Recess from 10:08 a.m. to 10:21 a.m.]

The CHAIRMAN. All right, the committee will come back to order. Let me call Senator Murkowski for his statement, and then we will hear from witnesses.

**STATEMENT OF HON. FRANK H. MURKOWSKI, U.S. SENATOR
FROM ALASKA**

Senator MURKOWSKI. Thanks very much, Senator Bingaman, and let me apologize for the delay. As you know, we have just completed a vote.

I want to welcome the Alaskans that are down here this morning and I want to thank again Senator Bingaman for scheduling this hearing. Some of you might recall it was September 14 of last year that we held our first hearing to consider the transportation of Alaska's North Slope natural gas to market. My objective in calling that hearing last year was to get a process under way that would move this project along. That hearing explored the economics of

marketing Alaska gas, the energy security implications and route alternatives for moving gas through Canada, as well as the issue of developing LNG from Alaska.

Many of the witnesses that were with us a year ago are back today, including the producers, Exxon, BP, Phillips, as well as the Department of Energy, the Department of the Interior, FERC, Yukon Pacific, Foothills, Arctic Resources, and others.

I think all would agree that last year's hearing accomplished its purpose and that the issue of developing Alaska gas will one day become a reality under certain conditions. We hope to learn today just what those conditions are.

Some may suggest that the Federal Government subsidize this project. Well, let me enlighten you a little bit on that. The comments of the Federal Reserve Chairman Alan Greenspan and former Secretary of the Treasury Bob Rubin when I posed that question at a Finance Committee meeting last week, their concern was that the gas pipeline would inevitably be built because natural gas is the energy of choice today and tomorrow. The issue is when the economics would justify the investment. In their view, to federally subsidize a project would set a bad investment precedent and draw down from the current surplus for an unreasonable duration.

As you know, a lot of pressure on that surplus as a consequence of the terrorist activities. They oppose any Federal subsidy, but they did not rule out allowing accelerated depreciation for all gas line projects.

I note that the producers in their testimony expressed concern that they need to have assurances from the State on long-term fiscal certainty. This may be one of the major threshold issues the Government and the legislature will have to deal with. A project of this magnitude must have the certainty, and the whims of State taxing authority are tied in real terms to the market price of gas. It would seem that, while attention has been directed to the proposed Federal pipeline legislation, the State needs to be prepared to address how it proposes to provide fiscal certainty regarding its taxing authority.

I would remind my colleagues that the gas we speak of developing and sending to market in the lower 48 lies beneath State lands. This is Alaska's gas, unlike ANWR, which is on Federal lands. While there is no question that the development of this resources is important to Alaska as well as the Nation, it must be done with an eye to the long-term effect its development will have on my State.

Today, we are presented with a number of proposals from petroleum and pipeline companies to bring Alaska gas to markets in the lower 48. While many of the proposals and suggestions are intriguing, many questions will remain. How can we reduce the cost of this project through technological advances and State and Federal incentives? And existing Federal law, is it really sufficient to expedite construction or is new Federal legislation really needed? How do we ensure development of secondary gas infrastructures in Alaska and active participation of all production companies in Alaska?

Yes, significant progress has been made since the last hearing we had on Alaska gas and a great deal, a great deal of money has been

spent by the producers to assess the economic viability of the gas project. But we still have not crossed the finish line.

At the conclusion of last year's hearing, I asked the producers to submit draft legislation, which they presented to our committee a few months ago. We are now prepared to address the recommendations in some detail. This committee has an obligation to hear from Alaskans, the Governor as well as the legislature, and those who will be directly impacted by the project. Their experience, their insight, and their role in this project must be part of the consideration.

In my letter to the witnesses, I stress that testimony from producers should address the economic incentives that might be required; further, to comment on the Governor's ten points and any proposals circulating from the legislature. I also asked that the Governor and legislative representatives be prepared to comment on what incentives the State might consider.

Because of the limited time for witnesses, some 5 minutes, I would encourage each statement to be as responsive as possible. It is my hope that by the end of this hearing we will have a much better understanding of the important issues that need to be addressed as this committee contemplates Alaska gas line legislation and that we have moved the process even further toward realization.

In the end, America cannot allow itself to become dependent on overseas sources of natural gas. The potential for disruption of supply makes this solution to our energy needs simply unacceptable. Getting North Slope gas to consumers in the lower 48 is vital to the energy security of the Nation.

Well, where do we go next? It is my hope that after today, after airing the respective conditions in some detail, we can come together again soon in a less formal setting either here or in Alaska to work directly and collectively to initiate the startup of an economically viable project to bring Alaskan gas to market via a southern route—a project as bold and as imaginative as any ever conceived, a project of scope to challenge America's technical skills and environmental sensitivities.

Thank you.

The CHAIRMAN. Thank you very much.

Our first witness today is Governor Tony Knowles, who is the Governor of Alaska. He has, of course, been a leader on this issue for some period here and spoke to me about it a couple of weeks ago. We are very pleased to have you here, Governor Knowles. Go right ahead.

Senator MURKOWSKI. Let me welcome the Governor as well. Thank you.

STATEMENT OF HON. TONY KNOWLES, GOVERNOR OF ALASKA

Governor KNOWLES. Thank you and good morning, Chairman Bingaman, Senator Murkowski, and distinguished members of the committee. For the record, I am Tony Knowles, the Governor of Alaska. I welcome this opportunity to testify on the vital national issue of my State supplying America with a secure, substantial, and long-term source of clean energy which is available today, Alaska natural gas.

Now, I have also long advocated the development of both the gas line and development of ANWR as being in the Nation's best interests. These projects meet separate, distinct national energy needs. I will not go into detail concerning ANWR development today, but I have attached my recent letter to this committee to my written testimony.

I especially appreciate the committee's willingness to consider development of Alaska natural gas when I know your attention as national leaders is rightly focused on America's recovery from the horrific acts of September 11. On behalf of all Alaskans, I extend to you and our President our gratitude for your strong leadership for America. Our thoughts and prayers and my generous acts of Alaskans are with the victims and families as we come together to mend our Nation.

As our President said, America must return to work. There is no single undertaking on the national horizon that will do more to put Americans to work than the Alaska highway natural gas pipeline project. At a time when this Nation may well be in a recession and the only news from corporate headquarters is the size of layoffs, this project will provide 30,000 construction, manufacturing, and transportation jobs with a payroll in excess of \$1 billion a year. This would all start as soon as the financing was under way.

At a cost estimated between \$15 and \$20 billion, it is the largest privately funded project in this Nation's history. This 3,500-mile pipeline from the Alaska North Slope to lower 48 markets would be the largest gas capacity pipeline in America as it pumps 4 billion cubic feet of natural gas a day into our homes, businesses, and electric generating plants for the next half century, tapping into America's largest known natural gas reserves of 35 trillion cubic feet.

It has been estimated that an additional 65 trillion cubic feet are waiting to be discovered. This long-term supply of affordable energy will obviously increase consumer confidence and business investment. The cumulative effect of this development economically is estimated at 160,000 jobs and \$300 billion addition to our gross domestic product.

The critical step in realizing this economic and energy boom is the strong, creative, focused national interest legislation that could come from this committee and this Congress. I respectfully suggest that there are three essential components of this vitally important legislation:

First, the route must be mandated along the Alaska Highway, as provided for in the 1976 Alaska Natural Gas Transportation Act;

Second, this legislation must build American industry and create American jobs;

Third, there must be economic incentives to attract the private capital to the project, which when completed will substantially add to the national treasury.

There are many reasons why the route of the gas line must follow the existing oil pipeline from the Alaskan North Slope to Fairbanks and then the Alaska Highway through Canada to Alberta. It is currently authorized in ANGTA and by presidential decision. It is part of an international treaty with Canada. It recognizes the environmental advantage of following existing transportation cor-

ridors. It allows vitally important access to the gas for the residents and businesses in Alaska.

For all of these reasons, this route has the broadest support among Alaskans of any major project in recent history. Additionally, there are serious objections to the proposed alternative route, commonly known as the northern, or over-the-top, route. This route would require 240 miles of pipeline buried under the ice-choked Beaufort Sea.

The first and perhaps the most significant opposition has come from the unanimous objection of the North Slope Inupiat Eskimos. At a recent public hearing, their corporate community and tribal leaders vowed that they would use every resource available to them to fight this route, which would threaten their cultural and nutritional dependence on marine mammals.

Second, Alaskans and national environmental organizations strenuously oppose this ill-conceived frontier route. Calling for previously untested technologies, this project could never be considered as a preferred alternative to an existing land transportation corridor.

Finally, our congressional delegation and business, civic, and bipartisan political leadership in Alaska steadfastly oppose the northern route. It ignores the vital needs of the very State that houses the resource.

Legislation already proposed to this committee by some North Slope producers is innocently advertised only to expedite permitting and to be route neutral. With all due respect, that is not the case. Their legislation puts the producers in the driver's seat, expediting Federal processing of the over-the-top route despite the fact that no comprehensive environmental analysis has been completed, as is the case with the Alaska Highway route.

The producers say their legislation does not preempt ANGTA, but in practice it would. Under their proposal, those who control the gas control the route. If the producers opt for this northern route, there would be years, if not decades, of fighting indigenous peoples, environmental groups, and Alaska's business and political leadership. There could also be potential litigation for claims of rights allegedly granted by Congress two decades ago in the ANGTA regime.

The second major component of any Federal legislation should be to build American industry and create American jobs. I would recommend three specific provisions: There should be priorities for the use of American and Canadian steel, subject to reasonable costs and in the public interest. After talking to several steel company CEOs recently, I can tell you they are excited about what the biggest steel order in American history would bring to their industry.

Second, I propose a project labor agreement to attract highly skilled workers and organized labor to build and maintain this pipeline. The Alaska Highway gas project will create about seven million job years over its half-century life in many industry sectors.

Third, Federal legislation should include provisions to address employment needs in Alaska, the State that will supply the Nation's resource. These would include a preference for the hiring of Alaskans, Alaska Natives, and the use of Alaska businesses in accordance with applicable State and Federal law.

The final component of Federal legislation should be economic incentives necessarily to attract private investment for the southern route. Four billion cubic feet a day of Alaskan gas flowing into the lower 48 will create market stability and lower prices, which is good for residential and industrial consumers and for the national economy. But uncertain gas commodity prices also make for razor-thin margins for investors. That is why I believe there are three key Federal economic incentives for the project:

First, accelerated depreciation at a 7-year rate, rather than the 15-year rate often granted;

Second, investment tax credits. A 10 percent investment credit, like that granted in previous Federally authorized projects, would save \$2 billion on a \$20 billion project.

Finally, a gas production tax credit, which would provide investor confidence by allowing a tax credit for natural gas production tied to a floor price of gas.

Mr. Chairman, the other key provisions of Alaska's proposal are summarized in a separate handout we have provided the committee. Since completion of the Trans-Alaska oil pipeline nearly 25 years ago, Alaska has been proud to be America's energy storehouse. By working with this committee, Congress and the national administration, Alaska will continue to help meet America's oil needs from the Arctic National Wildlife Refuge, the National Petroleum Reserve-Alaska, and other fields.

Yet, just a pipeline away, North American demand for natural gas for electrical generation, industry and transportation is growing. Alaska can help meet this demand while giving our sagging national economy a sorely needed shot in the arm.

To assist your efforts, the State of Alaska has developed draft legislation which we look forward to discussing in further detail with your staff. It is the result of an extensive public process and I believe represents about as close a consensus as is possible among Alaskans. For their contributions to this effort, let me commend the work of our Alaska Highway Natural Gas Policy Council and the State legislature, especially its Special Gas Pipeline Committee, whose chairman, Senator John Torgerson, you will hear from shortly.

Before I conclude, let me quickly add in response to questions from Senator Murkowski that the State of Alaska is prepared on many fronts to assist in the development of this project. Among other things, we have expressed our longstanding willingness to work with the project sponsors of the southern route in designing a fiscal regime that recognizes the need for stability and predictability.

In summary, Mr. Chairman and members of the committee, the State of Alaska and my administration stand ready to assist you and the national administration in crafting a sensible national energy policy that continues to rely on Alaska as our Nation's energy storehouse.

Thank you.

[The prepared statement of Governor Knowles follows:]

PREPARED STATEMENT OF HON. TONY KNOWLES, GOVERNOR OF ALASKA

Good morning, Chairman Bingaman, Senator Murkowski and distinguished members of the committee. For the record, I am Tony Knowles, Governor of Alaska.

I welcome this opportunity to testify on the vital national issue of my state supplying America with a secure, substantial, and long-term source of clean energy which is available today—Alaska natural gas.

I especially appreciate the committee's willingness to consider this matter when I know your attention as national leaders is rightly focused on America's recovery from the horrific acts of September 11th. On behalf of all Alaskans, I extend to you and our President our gratitude for your strong leadership for America. Our thoughts and prayers and many generous acts of assistance are with the victims and families as we come together to mend our nation.

I have advocated the development of both a gas line and development of ANWR as being in the nation's best interest. These projects meet separate, distinct national energy needs. While I will not go into detail concerning ANWR development at this time, I have attached my previous letter to all of you on this subject to my written testimony today.

As our President said, America must return to work. There is no single undertaking on the national horizon that will do more to put Americans to work than the Alaska Highway natural gas pipeline project.

At a time when this nation may well be in a recession and the only news from corporate headquarters is the size of layoffs, this project will provide 30-thousand construction, manufacturing and transportation jobs with a payroll in excess of a billion dollars a year. This would all start as soon as the financing is underway.

At a cost estimated between 15 and 20 billion dollars, it is the largest privately funded project in this nation's history. This 3,500-mile pipeline, from the Alaska North Slope to lower 48 markets, would be the largest gas capacity pipeline in America as it pumps 4 billion cubic feet of natural gas into our homes, businesses, and electric generating plants for the next half century.

Tapping into America's largest known natural gas reserves of 35 trillion cubic feet, it has been estimated that an additional 65 trillion cubic are waiting to be discovered. The cumulative economic effect of this development is estimated at 160,000 jobs and a \$300 addition to our Gross Domestic Product.

This long-term supply of affordable energy will increase consumer confidence and business investment.

The critical step in realizing this economic and energy boom is the strong, creative, focused national interest legislation that could come from this Committee and this Congress.

I respectfully suggest there are three essential components of this vitally important legislation. First, the route must be mandated along the Alaska Highway, as provided for in the 1976 Alaska Natural Gas Transportation Act. Second, this legislation must build American industry and create American jobs. Third, there must be economic incentives to attract the private capital to the project which when completed will substantially add to the national treasury.

There are many reasons why the route of the gas line must follow the existing oil pipeline from the Alaska North Slope to Fairbanks and then the Alaska Highway through Canada to Alberta.

It is currently authorized in ANGTA and presidential decision. It is part of an international treaty with Canada. It recognizes the environmental advantage of following existing transportation corridors. It allows vitally important access to the gas for the residents and businesses in Alaska. For these reasons, this route has the broadest support among Alaskans of any major project in recent history.

Additionally, there are serious concerns over the proposed alternative route commonly known as the northern or "over the top" route. This route would originate on the Alaskan North Slope then proceed 240 miles under the ice-choked Beaufort Sea to the Mackenzie River Delta and then up that river drainage to Alberta.

First and perhaps the most significant opposition to that route has come from the unanimous objections of the North Slope Inupiat Eskimos. At a recent public hearing, their corporate, community, and tribal leaders vowed they would use every resource available to them to fight this route, which would threaten their cultural and nutritional dependence on marine mammals.

Second, both Alaskan and national environmental organizations have said they too strenuously oppose this ill-conceived frontier route. Calling for previously untested technologies and risky ventures underwater, this project could never be considered as a preferred alternative to an existing land transportation corridor.

Finally, our Congressional Delegation and business, civic, and bipartisan political leadership in Alaska have steadfastly opposed the northern route. Among other ob-

jections it ignores the vital needs of the very state that houses the resource. Access to the gas for business opportunities and affordable energy in a state, that already pays higher energy costs than most Lower 48 states, is essential to Alaska.

Legislation already been proposed to this Committee by some North Slope producers which is innocently advertised only to expedite permitting and to be "route neutral." With all due respect, that's not the case.

Their legislation puts the producers in the driver's seat, expediting federal processing of the over-the-top route despite the fact that no comprehensive environmental analysis has been completed, as is the case with the Alaska Highway route.

While the producers say their legislation doesn't pre-empt ANGTA, in practice it would. Under their proposal, those who control the gas control the route.

If the producers opt for this northern route, there would be years if not decades of fighting indigenous peoples, environmental groups, and Alaska's business and political leadership. There also could be potential litigation for claims of rights allegedly granted by Congress two decades ago in the ANGTA regime.

The only route that can provide a timely beginning of this national interest project is the already approved Alaska Highway route and current legislation must reflect that.

The second major component of any federal legislation should be to build American industry and create American jobs. I would recommend three specific provisions.

First, incentives for the use of American and Canadian steel, subject to reasonable costs and in the public interest. After talking to several steel company CEOs recently, I can tell you they are excited about what would be the biggest steel order in American history 3,500 miles of specially designed, high-pressure 48- to 52-inch diameter pipe.

Second, I propose a project labor agreement to attract the highly skilled workers in organized labor to build and maintain this pipeline. The Alaska Highway gas project will create about 7 million "job-years" over its half-century life in many industry sectors.

Third, the federal legislation should include provisions to address employment needs in Alaska, the state that will supply the nation this resource. These would include a preference for the hiring of Alaskans, Alaska Natives and the use of Alaska businesses in accordance with applicable state and federal law.

The final component of federal legislation should be economic incentives necessary to attract private investment for a Southern route. Four billion cubic feet a day of Alaska gas flowing into the Lower 48 will create market stability and lower prices, both of which are good for residential and industries consumers. It will reduce the cost of living for American users and provide a needed boost to the national economy.

Yet at the same time, uncertain gas commodity prices make for razor-thin margins for investors. That's why I believe there are three key federal economic incentives for this project.

First, a provision that has been proposed by the Congress for other projects on a bi-partisan basis, accelerated depreciation, at a 7-year rate rather than the 15-year rate often granted.

Second, investment tax credits are an important component to propel this project forward. In previous federal projects, a 10 percent investment tax credit adopted by Congress in other contexts would save \$2 billion on a \$20 billion project.

Finally, a production gas tax credit which would provide investor confidence by allowing a tax credit for natural gas production tied to a floor price of gas.

Mr. Chairman, the other key provisions of Alaska's proposal are summarized in a separate handout we have provided the committee.

Since completion of the trans-Alaska oil pipeline nearly 25 years ago, Alaska has been proud to be America's energy storehouse. We have supplied up to a quarter of America's domestic oil production from the nation's two largest oil fields. By working with this committee, the entire Congress and the national administration, Alaska will continue to help meet America's oil needs from the Arctic National Wildlife Refuge, the National Petroleum Reserve-Alaska and other fields.

Yet just a pipeline away, North American demand for natural gas for electrical generation, industry and transportation is growing. The United States and Canada already consume about 24 trillion cubic feet of natural gas a year, with that projected to soar to 30 trillion cubic feet by the decade's end.

Alaska can help meet this demand, while giving our sagging national economy a sorely needed shot in the arm.

To assist your efforts, the State of Alaska has developed draft legislation which we look forward to discussing in further details with your staff. It is the result of

an extensive public process and I believe represents about as close a consensus as is possible among Alaskans.

For their contributions to this effort, let me commend the work of our Alaska Highway Natural Gas Policy Council and the state Legislature, especially its special gas pipeline committee whose chairman, Senator John Torgerson, you will hear from shortly.

Before I end I wanted to quickly add in response to questions from Senator Murkowski that the State of Alaska is prepared on many fronts to assist in the development of this project. Among other things, we have expressed our long-standing willingness to work with project sponsors of a southern route in designing a fiscal regime that recognizes the need for stability and predictability.

In summary, the State of Alaska and my administration stand ready to assist you and the national administration in crafting a sensible national energy policy that continues to rely on Alaska as our nation's energy storehouse.

The CHAIRMAN. Thank you, Governor. Thank you very much for that testimony. Let me just ask a couple of questions and then defer to Senator Murkowski.

You have indicated that the legislation or the draft legislation that was presented to us regarding expediting the permitting process is objectionable, that it is not in fact route-neutral. You have indicated that the State of Alaska has developed its own draft legislation as an alternative. Do you address this issue of expediting the permitting process as part of what you are proposing, or do you believe that that is not a necessary element of what we do? How do you deal with that subject?

Governor KNOWLES. Yes, sir, Mr. Chairman, we do believe that the expedited permitting process could take place on the southern route, as it has already been subject to an EIS statement, which does need to be renewed, but indeed has met all of those provisions. An expedited permitting process for the over-the-top route would be seen by many, and I think validly so, as a shortcut through important environmental considerations that have not been addressed through that route.

We do believe that the expedited permitting process should take place, but that the producers should not be put for the first time ever in the position of choosing who, where and when a route would be decided upon, that it is in the national interest to dictate the route, just as it was in 1976 with a presidential action and Congressional action, and would remain so today.

The CHAIRMAN. So the main difference between what you are proposing and what has otherwise been recommended is that you would have the Congress dictate the southern route as the way to go?

Governor KNOWLES. Yes, sir.

The CHAIRMAN. On the financial incentives, how do you respond to the position that Senator Murkowski summarized, that we heard from Chairman Greenspan and from former Secretary of Treasury Bob Rubin about how they did not believe the Government should subsidize the construction of a pipeline? What is your view? How do you counter that?

Governor KNOWLES. Mr. Chairman, there is no question that this project is unique, not only being the largest in American history privately funded project, but by the nature of the resource and the time period over which a return on the investment would have to be realized and a commodity price that fluctuates wildly, to say the least.

In order to do that, there does have to be fiscal regimes, both at the Federal and State level, that would attract the necessary capital to that. We believe it does have to be tailor-made for the project and, rather than a subsidy, would be really the opportunity to create a project which will add substantially to the national treasury, and not in the sense of a subsidy be a drain on it.

The CHAIRMAN. Let me defer to Senator Murkowski.

Senator MURKOWSKI. Thank you, Senator Bingaman.

Good morning, Governor. We are very pleased that you could be with us. My compliments on your testimony. Let us together share the dilemma. I have had the opportunity to read the testimony of the producers and they without exception generalize that currently neither the northern or southern route is economically viable.

Where do we go next? We can talk about your ten points. We can talk about the legislature's 12 points, I believe. Maybe there is 14. I am not sure. We can talk about the Federal proposal that the producers have submitted. But the price of natural gas is the price of natural gas today and this is a long-term project. I am wondering from the standpoint of the State what your thoughts are relative to where we go next.

Governor KNOWLES. Thank you, Senator Murkowski. I too have heard the interim or midterm report from the producers and, looking at it in a very positive light, I found it very productive and optimistic. The fact that they could look even at this mid-term report not yet finished and see that there would be a 10 to 12 percent return on investment, something that our mutual constituents would be glad to be receiving these days, I do not think is a hindrance.

What I do suggest that we need to do is work in a collaborative fashion between the public and the private sector to craft a project that does meet the needed investment needs to pull in, and if it is not the producers, perhaps it is pipeline companies and other investment opportunities that can be attracted to it. There certainly has been a lot of interest in it.

So I see the report that they have come up with, not saying that saying that neither route is economic, but that this still remains a very doable project. The advice that we have had from any number of industry experts and energy experts believes that this project, despite a current low price and commodity fluctuations, is not a hindrance to the long-term need of America for this project because of the fundamental change in the structural demand for natural gas, as you alluded to in your comments.

Senator MURKOWSKI. One more question, Governor, relative to your specific recommendations about what the Federal Government can do in regard to incentives, and I think the possibility of accelerated depreciation applicable to all gas pipelines might be a possibility as well. But when we are dealing with a business decision, as you and I know from our long experience in Alaska, the major corporations do not come to Alaska because they are in love with our State; they come because they want a return on investment to their shareholders.

We have provided I think a good business climate, but they want some certainty that indeed the State will maintain a fiscal continuity. As you know, that is pretty hard, to bind one legislature with another. But in my conversations time and time again I have

heard: Well, what assurances can the State provide that there is going to be a certainty associated with the taxing authority? I am going to ask the legislative representation here the same question as well.

But I think you generalize a little bit in your statement that the State is prepared to give that, but could you be a little more specific relative to just what you feel the State should do to provide that degree of certainty, which I think can make up to some extent for the evaluation. Maybe the return is 11 percent now, they are looking for 15 percent, and we are trying to obviously increase the and make it more attractive.

Governor KNOWLES. Mr. Chairman, Senator Murkowski, in response to what specific measures the State would take, indeed I think it would have to come down to the specific details in a wide universe of needs. It is not just the needs of producers. There are other companies that are interested perhaps in building a pipeline and we have not yet exhausted all of those opportunities.

The State has recognized the fact that the predictability and that current State laws are really more oriented toward an oil tax regime rather than a gas tax, which has different needs because of the length of the time that it requires to have a return on investment.

I do not necessarily accept the 15 percent investment return, nor do industries that are interested in developing a pipeline. I think that what we need to do is look specifically to a model on how the pipeline can be developed, with what safeguards need to be applied, to provide the necessary investor confidence. The State has certainly a history of working in partnership with the industry for this procedure and we would do the same.

But we would have to see first of all, concerning the route designation, as mandated along the southern route, which would then give us the basis upon which we could proceed with that in conjunction with Federal legislation.

Senator MURKOWSKI. I am going to ask the producers that same question because I think it is paramount: How do we get over the hump relative to their evaluation that it is currently not economic? There are obvious ways to tie taxation to a floating price structure for gas and taxes that would, in other words, correspond with whatever the price of gas was. If it went up higher, the tax would be higher, and if it went down it would be lower as well. Some assurances along that line might sooth some of the concern that the investors have with the project.

Thank you very much.

Governor KNOWLES. Mr. Chairman, if I might, Senator Murkowski, that would also comply with, I respectfully suggest, with the Federal tax legislation level of the industry also, with this being in the national interest in the form of jobs and a secure, clean source of affordable energy that residents and consumers of gas in the lower 48 would recognize. That would also indicate a responsibility for Federal legislation.

The CHAIRMAN. Senator Landrieu.

**STATEMENT OF HON. MARY L. LANDRIEU, U.S. SENATOR
FROM LOUISIANA**

Senator LANDRIEU. Thank you.

Welcome, Governor. It is always a pleasure to have you before the committee. I want to acknowledge and thank you for your leadership in this area and so many important issues for our Nation. Let me just make a couple of comments and then just a brief question.

I really appreciate the chairman calling this hearing and recognize that when Senator Murkowski chaired this committee this was one of the focuses, about trying to move this gas from Alaska to be beneficial to our Nation. It was important before September 11. Now, post-September 11, it becomes even I think more important, more critical. The country is really focusing on our vulnerabilities, not just our military but our economic.

The energy policy of this Nation is one clear place where we need to refocus our efforts to try to make our country more self-reliant.

Second from self-reliance is reliance on allies we can count on in places in the world that are closer and safer than the areas that we find ourselves to be. So I, in the context of that, want to give my support in whatever way to speed up the development of this pipeline, thinking that it has been much too long in its development.

I would say that, as a producing State, that I would argue strongly that the Alaska delegation, the Governor and the delegation that is ably represented by Senator Stevens and Murkowski and Don Young in the House, that your views be given extreme importance or weight in terms of what is best for Alaska, as well as what is best for the Nation, because while you are producing the gas and it is economical for the private companies and hopefully beneficial to Alaskans, it is the Nation that needs the gas, not necessarily the people in Alaska, but the rest of the 48 States that need the gas, as well as the 500,000 or so people in Alaska.

The second point I want to make is that, while I generally support Federal-State partnerships and have found them useful, whether you are talking about housing developments or reconstruction of downtowns or gas, oil, energy delivery systems, I would just say, Mr. Chairman, that I think we have to be very careful about the nature of this subsidy, because we have a lot of energy to produce in this Nation at a lot of different ways, and the subsidy that we craft for this pipeline is going to set precedent for how we craft other subsidies for other pieces of this energy puzzle.

So I think we have to be very careful. While I normally want to be in partnership with industry and I am not saying that I would not give my vote along that line, I just think that we have to be careful.

So my question is, Governor, would you be specific with us about your ideas as Governor about trying to move a route that the delegation from Alaska favors, what the specifics of some kind of partnership or subsidy might be to get this project really moving and get the gas where we need it as quickly as possible?

Governor KNOWLES. Thank you, Mr. Chairman, Senator Landrieu, thank you very your comments. I certainly am very supportive of what you have established as important to the national

policy. In regard to the routing of the pipeline, the southern route, which has already been subject to congressional act, a presidential decision, and an international treaty, we believe has the broadest national and certainly State of Alaska support of any direction from all of the relevant perspectives.

We think we could immediately begin the successful start of this project. In relation to the subsidies, I do perceive this project to be unique, certainly in size. There is no project in the history of America that comes close to the \$20 billion that are estimated here, also going through two countries. I believe it does need to have some special consideration concerning the long-term relationship of the payback.

I make suggestions that certainly the State will be looking at similar types of partnerships and security to private investment. But I would note that there are only private investment dollars that are going into this project, that it will when completed substantially add to the national treasury and through the increased employment and prosperity will certainly add to the Federal treasury in that regard.

Senator LANDRIEU. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

I am advised that Senator Bayh wanted just a minute to make a statement and has to leave again. Could I interrupt and do that, and then Senator Campbell?

Senator CAMPBELL. Yes.

**STATEMENT OF HON. EVAN BAYH, U.S. SENATOR
FROM INDIANA**

Senator BAYH. Thank you, Senator Campbell.

I apologize, Mr. Chairman. I do have to preside on the floor at 11 o'clock and so it is not a meeting I can very well put off. I just very quickly want to say welcome to Governor Knowles. Governor Knowles and I, Mr. Chairman, had the pleasure of serving together as governors for several years, and it is good to see you again, Tony, and I look forward to working with you as best we can on this issue.

Mr. Chairman, I am struck by the fact that this issue was first visited by the U.S. Senate in 1976, I believe. It shows you how long this issue has been around that my father voted on this subject. So generations come and go in the U.S. Senate, but the issue of this gas pipeline remains.

But I am hopeful that we can make some progress on it. It is clearly an issue whose time has come. The gas spikes of last winter remind us of that. So, Governor, I just want to say that I am going to do what I can in being constructive in getting this project going, getting this gas on line. It is important for the American people, for consumers. As Senator Landrieu mentioned, there is an important national security issue here. So let us pick the route in a way that will expedite this, get on with it, and you can count on me to be a constructive supporter of that recommendation.

It is good to see you again.

Senator Campbell, thank you for your courtesy.

Mr. Chairman, thank you. I apologize for needing to get to the floor.

Senator CAMPBELL. Thank you, Mr. Chairman.

Welcome to the lower 48, Governor. I am a big supporter of any energy-producing systems and I know that, particularly when we have got ourselves into being more and more dependent with each passing year on getting our energy from countries who would like to bury us, it is not a good long-range plan for us.

I wanted to ask you two or three questions. I come from a State that has huge natural gas reserves, as you probably know, Colorado, as does Wyoming, my colleague to my left. To my knowledge, none of the companies that build transmission lines for the natural gas for our States get any kind of a government subsidy. I may be wrong, but I do not think they do for building their lines.

Let me play the devil's advocate and ask you, why should the Federal Government subsidize one from Alaska, which I am not opposed to doing? But I have to go home and explain that to my companies. Why should we do that when we are not subsidizing the companies in the lower 48 to transport natural gas?

Governor KNOWLES. Mr. Chairman and Senator Campbell, I believe that there are projects on the record where an investment tax credit has been given to companies for investments. There are situations—I believe it is currently being considered by Congress for gas infrastructure to be given accelerated depreciation.

Certainly because of the nature of the size of this particular project, which would have an enormous national interest impact, perhaps some type of security in regards to a commodity pricing that may well fall and hesitate to have investors put \$20 billion towards it, might indicate a need for some type of gas production tax credit. This I think should be judged in that light.

Certainly Congress would be looking at providing incentives for investment in all industries, particularly rebuilding our infrastructure, which I believe Felix Rohatyn has recently written some important articles on. There is nothing more important than getting this business and economic back on the positive direction of that type of investment.

So all of these I think are going to be closely considered and I would only represent this to this committee and the Congress in that light.

Senator CAMPBELL. Thank you.

There are several routes that have been proposed, as I look through the notes, and I have not read them line by line. But you prefer the one that is called the southern route that goes along the AlCan Highway, is that correct?

Governor KNOWLES. Yes, sir.

Senator CAMPBELL. I have not seen anything in here that compares the costs. Two things, actually: the cost of the different proposals, transmission proposals, number one; and the security of it. Obviously, since the 11th of the month we have all been concerned about security of everything here in Washington. Long transmission lines, long transportation lines, would seem to me offer great opportunity for people that would want to disrupt our energy policy.

Could you speak the both of those things, the comparative costs between the different proposals and the comparative difficulty of securing?

Governor KNOWLES. Yes, sir. Mr. Chairman, Senator Campbell. I used to work in your State, back working for a drilling company up in a place in Colorado.

Senator CAMPBELL. It is still there.

Governor KNOWLES. In regards to the cost of the pipeline, there has been an interim report to where some producers estimate there might be an approximately \$2 billion difference between the so-called over-the-top route and the southern route. But I believe you will hear testimony today perhaps that indicates that this may not exist at all, from producers and from other witnesses.

It is really unknown and untested technology, in reference to that section of the pipeline under the sea. Also, being a frontier route down the MacKenzie River, there are a wide number of both logistical questions that are not applicable to the route along the already existing Alaska Highway, as well as just unknowns in a frontier area, that would say that whatever cost estimates there are are going to be very inexact.

So it may not be any difference whatsoever. I do say, though, that in reference to the ability to get the project started, the enormous barriers that confront the over-the-top route from the indigenous peoples of the Alaska North Slope, who are adamantly opposed to it, as you will hear today, environmental concerns, again from groups both Alaskan and national the are adamantly opposed to it, as well as the Alaskan business and political leadership, would make, if time is money, the northern route I think extraordinarily expensive in regards to meeting the national interest.

Senator CAMPBELL. The northern route, is that the one that proposes that they bring the gas by pipeline a certain portion of the way, then liquefy it and put it on ships for the rest of the way? That is not the northern route?

Governor KNOWLES. Mr. Chairman, Senator, no, sir. that would be an LNG project that has been discussed from the Port of Valdez in Alaska with the LNG. This route would be one that would go from Alaska's North Slope 240 miles under the Beaufort Sea to the MacKenzie River Delta, then up the MacKenzie River to Alberta.

In reference to the question concerning security——

Senator CAMPBELL. How do we secure from sabotage?

Governor KNOWLES. Of course, the security of the existing oil pipeline was very first on the concerns of the State of Alaska. My Adjutant General during the events on and immediately after and continuing today of September 11, the security of the pipeline, the port facility and the production facility are critical and are shared jointly by both the private ownership of that pipeline as well as the State troopers of Alaska, the FBI, the Coast Guard at Valdez. We have a number of provisions, all of which, like everything else in America, are being reviewed.

I would suggest that the security even of a long transmission line within the confines of the United States and Canadian territories is certainly more secure than the tanker and facility traffic from far distant ports in other countries.

Senator CAMPBELL. Thank you, Mr. Chairman.

Just let me say, I also heard with interest that the Governor mentioned the use of American steel. Knowing the proximity of part of that northern part of Alaska to Japan, it is a lot closer than it is to here. I sure hope that we can preserve some jobs in steel and contracting contracts to build that with American labor and American supplies. But that is yet to be played out, I suppose.

Senator MURKOWSKI. Senator Bingaman, let me just make a very short reference to the issue of subsidies, which has come up here by at least two members. In reading over the producers' testimony, there is no request for subsidies. There is incentives relative to expediting permitting. There is a concern over the benefits of accelerated depreciation, taking it from 15 years to 7 years. One producer would like to see a floor and ceiling.

But I do not want the public or the press to be misled that producers are asking for subsidies. They are simply saying that the economics currently do not favor either route. But I do not want to be construed that we are talking about subsidies here for this pipeline.

The CHAIRMAN. Senator Feinstein.

Senator FEINSTEIN. Thanks, Mr. Chairman. Mr. Chairman, Senator Bayh said that he knew Governor Knowles. I also know him. We were mayors together and he hosted the U.S. Conference of Mayors in Anchorage. Tony, I think that was what, 16, 17 years ago?

Governor KNOWLES. Yes, Senator.

Senator FEINSTEIN. When I returned home there was a huge king salmon awaiting me. It was still the best salmon I ever had, I want you to know. I do not know if it will get you a pipeline, but it was the best salmon I ever ate. So it is great to see you again.

Governor KNOWLES. Thank you, Senator. As I recall that trip also, while you and I were mayor your husband was climbing Mount McKinley. Certainly, my great respect for his athletic prowess.

Senator FEINSTEIN. Well, yes. He is still doing those things today. But anyway, thank you very much. It is great to see you.

I wanted to follow up on something Senator Campbell said. That is, it is the price difference. I have the route options between the north and the south. If I understand it correctly, the southerly one is \$17.1 billion and the northerly \$15.1 billion, so there is a \$2 billion difference in cost.

Why in your view is there such a difference in cost?

Governor KNOWLES. Mr. Chairman, Senator, I think that you will hear today that that cost has not yet been determined. There are estimates as of the interim report. The studies have not been completed, and until that information is given the opportunity for scrutiny they will have to answer the question of the untested technology of heretofore never tried before span of 240 miles of pressurized pipe, which has never been achieved, without booster stations along the way.

They will have to address some of the other issues that will be certainly questioned about the routing up the MacKenzie River. So the difference of \$2 billion has yet to be established.

Even if it is, Mr. Chairman, Senator, at a level more from just a purely engineering perspective, there is certainly the consider-

ation that the people of the North Slope deserve regarding protection of their marine mammals, certainly the environmental concerns that we would all share, that would make a scrutiny of this project years, decades, if ever at all; and that, if time is money, I think would have to be part of the equation in determining the advantages of one route over the other.

Senator FEINSTEIN. I would assume that either route would have some environmental problems, not that they cannot be remedied. But who would be expected to pay that differential?

Governor KNOWLES. Of course, the cost of the pipeline will be reflected in the tariff which would be paid for by the consumer.

Senator FEINSTEIN. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Thomas.

Senator THOMAS. Welcome, Governor. Glad to have you here. Certainly interested in this pipeline, as we are a production State in Wyoming certainly.

Someone mentioned there is no need for legislation now. How do you react to that?

Governor KNOWLES. It is our belief that if there is to be legislation that will actually get this project moving, it has to be addressed by this committee and this Congress.

Senator THOMAS. Why could it not move without legislation? Why is this not a private sector operation?

Governor KNOWLES. It is a private sector operation. But just as there needed to be national legislation in 1976 which exists on the books, it does have to be, I believe, modernized to existing conditions today. All of the provisions under the existing national law of the Congressional Act of 1976 are not applicable today. So we would like to see—and it is in the legislative amendments that we have suggested—there are a couple points that do need to be addressed, certainly in terms of the regulatory structure and the franchise of it, that have not yet been satisfactorily answered.

So it is private sector-driven, but there does need to be, I think, national action, or there is national action already on the books and it would have to be, I think, brought up to date.

Senator THOMAS. Notwithstanding what you said before, in your testimony you asked for a tax credit for producing gas tied to a price floor. Do we have that same thing in Wyoming?

Governor KNOWLES. I do not believe so, sir.

Senator THOMAS. Why should they then have it in Alaska?

Governor KNOWLES. Well, in reference to the investment that is being made here, the amount of money is I think certainly a consideration that should be part of the equation in determining what would be necessary to attract all of the private sector dollars.

Senator THOMAS. I understand, but is not this gas going to be competitive with the rest of the country, or is it going to be treated separately?

Governor KNOWLES. I believe that it would be competitive with all gas. But it is determined that America needs an additional 6 trillion cubic feet by the year 2010 and there is a real question as to whether we can make up that supply. There is currently a 24 trillion cubic feet every year use in America. It is going to go to 30, and there is real concern as to whether we will be able to meet that gap.

Senator THOMAS. I agree with you entirely, but I do not see how you can kind of single out one development and one production area as opposed to others which are going to be in the marketplace. For instance, you say you would provide for Alaska hiring. Was that done when we built our pipeline to California? Did we hire Wyoming people?

Governor KNOWLES. I believe that all States do look to having—

Senator THOMAS. You can look to, but you cannot pass it in the legislation, can you?

Governor KNOWLES. I make reference to it, sir, that that is something that would be allowable under applicable current State and Federal law.

Senator THOMAS. It would be strange if it were, real strange. That is a little unusual, is it not, to say, look, you can only hire Alaskans for this job, especially if you want to kind of support nationally that you are asking for?

Governor KNOWLES. I believe that there are certain considerations for areas that have very wide unemployment. We have some remote rural areas where there are 50 percent unemployment, there is no private sector jobs. I think empowerment zones is something that has been embraced by this Congress to look to local hire.

Certainly there are provisions in national law for American Indian opportunities and the Alaska Native opportunity that we are doing has been reflected in previous national law with construction of the oil pipeline. So this does have precedent in law and we are asking for nothing more than could be provided to other projects.

Senator THOMAS. But you do agree that when this gas arrives at wherever, Chicago or wherever, it is going to be competitive with the gas produced in Wyoming and in Colorado and in Louisiana?

Governor KNOWLES. Yes, sir.

Senator THOMAS. Okay. I just am a little concerned that it is hard to be competitive when on the other end you provide unusual incentives. I am for this and I hope we can come up with something, but I am a little concerned that we are saying we are going to come into the marketplace, we are going to provide all of this, but here are the conditions that do not apply to the rest of the producers in the country.

Thank you very much.

The CHAIRMAN. Senator Dorgan.

Senator DORGAN. Mr. Chairman, thank you.

Governor Knowles, I missed your testimony. I have read it, however. But I have another Commerce Committee hearing on transportation security occurring right now, so I am trying to get to both of them, and excuse my absence while you were testifying.

The price of natural gas today is what, \$1.85, \$1.90?

Governor KNOWLES. Yes, sir.

Senator DORGAN. A dramatic change from 6 months ago or 9 months ago, 12 months ago. So when you in your testimony talk about certainty and about price floors and so on, you are making the point, I suspect, that in order to justify the kind of money that is necessary to build a pipeline to transport that natural gas. The market would have to feel some certainty with respect to income, is that the point you are making?

Governor KNOWLES. Yes, sir.

Senator DORGAN. My own view is that, while there are a lot of controversial issues in energy policy that we will come to grips with in this committee, I really feel that the issue of natural gas from Alaska is a question of not whether, but when and how. Your testimony I think is instructive for us. I think there are a lot of questions.

The folks in Alaska who will contribute substantially to our energy, present and future, are receiving State royalty payments and so on. We watch all that from down here. I guess the question I would ask you is, as we proceed to try to connect your supply to our demand as a Nation with a pipeline, what is the State of Alaska prepared to do to help provide that certainty that I just described earlier about price and economic return or financial return, rather, to those who will be involved in building the pipeline?

Governor KNOWLES. In reference to the fluctuation of the price, clearly the \$1.80, \$1.90 that it reflects today would not substantiate the building of the line. However, the gas that has stayed for 20 years in the ground has not had really a market. There was in the last 2 years a feeling that there was a dramatic change in the demand structure of the demand curve for natural gas in the future, even despite the current dip in the prices.

It has been my advice that this feeling remains strong. You will have witnesses coming up here to testify from both producers as well as pipeline companies that I think will also adhere to the fact that the long-term feeling that the price of natural gas will justify this development.

In regards to competing other gases much closer to market, there does have to be I think some collaborative measures taken both by the Federal Government and by the State of Alaska to ensure some type of security so that the investment dollars will go into this unprecedented transportation infrastructure which will be necessary to bring this gas to market.

Senator DORGAN. But do you have some idea as to what the State of Alaska's piece of that might be?

Governor KNOWLES. Yes, we are willing to talk about all aspects of the gas tax structure, to tailor it, not as a subsidy, as Senator Murkowski has said, but as part of the necessary incentives to attract the dollars to a market that previously has not existed. So we feel that, just as there are uniquely tailored tax structures throughout a tax code that is rather thick to address specific areas that are not done on a uniform basis, so will be this project.

Senator DORGAN. Mr. Chairman, I do not think the present price of natural gas diminishes the need at all for us to be working on this issue. I agree with Governor Knowles that our view of this in terms of energy security must be on the longer term, not the shorter term. We might want to learn from the period where oil went to ten dollars a barrel and people stopped looking for oil and gas and then we had really flat exploration and we needed supply and the price spiked way up.

It does not serve anybody, It certainly does not serve this country or its consumers, to have these roller-coaster rides on prices. We need more stability, stability in exploration, stability in supply. We need a lot of other things in energy policy, including conservation.

But I think the point of your testimony is very important for us to understand. That is, that current circumstances do not diminish the need for us to do this. The question is not whether, the question is how and when do we do it.

Mr. Chairman, thank you very much.

The CHAIRMAN. Thank you very much.

Senator Craig.

Senator CRAIG. I have no questions.

The CHAIRMAN. Governor, thank you very much for your excellent testimony. We appreciate it, and we will take your suggestions under advisement, as they say in the courts.

Governor KNOWLES. Thank you, Mr. Chairman and distinguished members of this committee.

The CHAIRMAN. Thank you very much.

Senator MURKOWSKI. Thank you, Governor.

The CHAIRMAN. We have a panel one. We also have one additional witness specifically representing a State senator from Alaska, who is chair of the Joint Committee on Natural Gas Pipelines, Mr. John Torgerson. If he would come forward with the first panel, and I will ask them each to testify before we start our next round of questions.

Mr. Kripowicz, who is the Acting Assistant Secretary for Fossil Fuel in the Department of Energy; Pat Wood, who is the Chairman of the Federal Energy Regulatory Commission; and Ms. Drue Pearce, who is the Senior Advisor for Alaska Affairs in the Department of the Interior. We are very glad to have all of you here.

Why don't we start with you, Senator Torgerson. We appreciate you being here and look forward to hearing your perspective, each of you. In each case, of course, we will take the full testimony into the record. If you could summarize the main points you think we need to be aware of in about 5 minutes, that would be great. Please go ahead.

STATEMENT OF JOHN TORGERSON, ALASKA STATE SENATOR AND CHAIRMAN, JOINT COMMITTEE ON NATURAL GAS PIPELINES, ALASKA STATE LEGISLATURE

Mr. TORGERSON. Thank you, Mr. Chairman. Good morning. Good morning, Senator Murkowski and members of the committee. My name is John Torgerson. I chair the Alaska State Senate Resources Committee and the Joint Committee on Natural Gas Pipelines, which is made up of equal members from our House and Senate. One of the responsibilities of this joint committee is to represent the legislature before this Congress on natural gas pipeline issues.

The committee met on September 19, where we discussed the Alaska gas producer pipeline team's proposed legislation. We unanimously oppose this draft legislation and voted in favor of requesting Congress to reaffirm the Alaska Natural Gas Transportation Act, ANGTA, as the prevailing law. Virtually everything the producers have proposed can be found in ANGTA.

One of our major concerns with the producers' legislation is the fact that it is route-neutral, giving them the opportunity to apply for a buried, underwater, offshore ANWR pipeline route, which Alaska is adamantly opposed to. Back in the mid-1970's there were three pipeline applications filed under the Natural Gas Act: the so-

called over-the-top route, the Alaska Highway or AlCan route, and an all-Alaskan or liquefied natural gas route.

To end the route debate, Congress passed the Alaska Natural Gas Transportation Act. Section 7 of this act required the President to prepare a decision on the Alaska natural gas transportation system, which he did, and which he submitted to Congress on September 22, 1977. The President's decision was approved by Congress in Public Law 95-158 and modified later on by Public Law 97-93. The Canadian Parliament then passed its own version of ANGTA, known as the Northern Pipeline Act.

So the President and Congress have not repealed their action on the Alaska highway route. ANGTA is still the prevailing law with respect to Alaska pipelines. Furthermore, an application should not be considered if filed under the Alaska Natural Gas Act since these very same proposals have already been reviewed and the route has been selected.

An Alaska Highway route authorized by Congress and the President is important for Alaskans for the in-State jobs and the creation of value-added industries along the line and along spur lines to tidewater, the stable revenue stream for our communities and to our State, and most importantly a clean-burning energy source for Alaskans to rely on for many years in the future.

A pipeline built in the Beaufort Sea greatly reduces the potential for Alaskans to reap the benefits from our gas. In addition, we believe, and the national environmental organizations agree, that the Alaska Highway route is more environmentally sound than the Beaufort Sea route.

In our support for ANGTA as the prevailing law, the Joint Committee recognizes that a few changes will be helpful to bring this project into the twenty first century. Therefore, we approve 12 proposals that I have submitted in my written testimony, and in the interest of time I would like to just highlight a few of those.

The first proposal we have already discussed. It is to reaffirm the Alaska Natural Gas Transportation Act as the prevailing law.

Second, to adopt the provisions in H.R. 4 to ban the over-the-top route to the Beaufort Sea as a legitimate pipeline route.

Third, create a joint board consisting of members appointed by the Federal Energy Regulatory Commission and the regulatory commission of Alaska, to ensure that Alaska has fair and reasonable access to the gas produced within our State.

The last two proposals I will highlight have to do with tax incentives. First, we support the language currently in H.R. 4 allowing for an accelerated depreciation schedule of 7 years. Our next proposal could be considered a tax disincentive. Since it is the policy of the United States to reduce our dependence on foreign energy sources, we believe Congress should not pass any law giving incentives to liquefied natural gas imported from outside North America. Rather, Congress should give incentives to gas from nonconventional sources in frontier areas within the United States.

As far as other tax incentives are concerned, the producers have not asked for any. They have not shared their financial projections with my committee. The only thing the producers have mentioned is a need for fiscal certainty in the State's tax regime. The Alaska legislature has funded the Department of Revenue to hire outside

experts to study our gas tax regime, to make recommendations to advance the project, and to offer market-based incentives.

We have also funded and hired experts to make recommendations regarding the possible ownership by the State or financing all or part of the line.

These reports are due back to the legislature January 2002. So we will be prepared to consider any necessary incentives when we have the data from the project's sponsors to justify the incentive. Right now I feel we should not begin our negotiations by leading with incentives until we at least verify the profitability of the project.

In closing, Mr. Chairman, I would like to mention this is important to Alaskans, that the provisions authorizing the exploration and drilling in the Arctic National Wildlife Refuge remain in H.R. 4. America needs more reliable energy sources. We have those resources available in Alaska. Alaska stands ready to assist you in delivering those to market.

Thank you.

[Attachments submitted by Senator Torgerson have been retained in committee files.]

The CHAIRMAN. Thank you very much.

We have Pat Wood, who is the Chairman of the Federal Energy Regulatory Commission. Very pleased to have you here. Go right ahead.

**STATEMENT OF PATRICK WOOD III, CHAIRMAN,
FEDERAL ENERGY REGULATORY COMMISSION**

Mr. WOOD. Thank you, Chairman Bingaman, Senators Murkowski, Craig, and Feinstein.

I think, as Senator Dorgan just pointed out, with regard to Alaska natural gas, it is not a question of if, but when. I should say that FERC or my fellow commissioners and I and our staff are ready and willing to move this as fast forward and as thoroughly forward as we need to once an application is filed. This is a national priority. In order to make the rest of all the integrated energy plans of North America work, Alaska natural gas has to be part of the equation.

Getting it to the entire North American market is a critical priority. In that light, I wanted to lay out the procedural paths that the Commission has before it. Attached to the back page of my testimony is a little one-page chart that lays out the concerns that we have got with the current state of play under the three different paths that are available and provide, as requested, some feedback to the committee as to issues that may arise that would tend to impede the swift processing of one or more applications to transport gas to the broader market.

Certainly, the issue we focused on so far this morning is in the middle box, which is the ANGTA from a quarter century ago. The pipeline that has been permitted under that, a lot of the work under that has already been done, as is pretty clear. A couple of the issues under that particular path were that if a revised application, also known I believe as the southern route, were to come back and be activated before the commission, there is some I think flexibility within the original act as to how much the original proposal

which had already been approved by President Carter can be modified and amended by the current applicants in light of new technology, the new market, new environmental conditions. That is a potential litigation point.

It would certainly be helpful for the committee to clarify that in fact flexibility does exist.

Similarly, on the environmental impact statement, it is over 23 years old and new environmental legislation has been passed by Congress since that time. I believe even the applicants acknowledge that it would have to be updated, certainly through at least a supplemental environmental impact statement. But a project of this nature certainly has some environmental issues that would be raised.

The second subpart of that question is, is that subject to judicial review or not? Then I think I would defer to certainly the Department of Energy, which has a broad role to play under the ANGTA application in actually administering the construction of the project as to what resources may be needed there. Certainly the Department can speak to that.

A second option that is available today is for an applicant to come in under the Natural Gas Act. There has been some I think fair questions raised as to whether the original ANGTA prohibits the Commission from moving forward at all on any filing under the Natural Gas Act. The Commission in the staff report submitted to the committee on January acknowledged that this is arguable, but that the better read is that a simultaneous application could move forward under the Natural Gas Act, and I share that view. But that has not been before the Commission for a formal ruling.

A second issue under the Natural Gas Act is true for many applications, and that is the ability of the Commission to coordinate the time lines of other different agencies, particularly on environmental issues, to expedite the swift processing of that type of application. So any ability to streamline that would certainly save months and perhaps years on the processing of an environmental impact statement.

The final path is not one that exists today, but it is a variation of the Natural Gas Act. It is the proposed Alaska Natural Gas Pipeline Act, I believe known as the producers' bill. In reviewing that, I think one of the concerns that we had was that, similar to the last one I mentioned under the Natural Gas Act, is the ability to coordinate the processing with a number of Federal agencies.

Then, importantly, there is a 180-day—I am sorry—an 18-month time line for processing an environmental impact statement for a new filing under that act. That is fine, but it has got to be off of a complete application. The legislation was not clear on that point, and we would certainly offer that it would be helpful if we as the commission had the ability to tell the applicant they must get everything to us before the 18-month time frame starts working.

In conclusion, there are a number of procedural paths. The commission has a really front-seat role to play here and we are committed to taking any or all applications that come forward and treating them as national priority projects.

[The prepared statement of Chairman Wood follows:]

PREPARED STATEMENT OF PATRICK WOOD, III, CHAIRMAN, FEDERAL ENERGY
REGULATORY COMMISSION

I. INTRODUCTION AND SUMMARY

Mr. Chairman and Members of the Committee:

Thank you for the opportunity to speak today on the status of proposals for the transportation of natural gas from Alaska to markets in the Lower 48 States and legislation to expedite the construction of a natural gas pipeline from Alaska. As an initial matter, I want to assure you that the FERC Commissioners and staff stand with President Bush and Congress in our commitment to ensure that America's energy markets function reliably and well at this crucial time and for many years to come.

Natural gas is an essential part of our Nation's energy future. The Department of Energy estimates that natural gas currently represents 24 percent of the energy consumed in the United States, and that demand may reach almost 35 trillion cubic feet (Tcf) by 2020, an annual level requiring a significant increase in production and delivery.

Against this backdrop, the importance of Alaska natural gas supplies, including those in the North Slope area, is clear. It is impossible to envision a 30-35 Tcf annual domestic market without Alaska natural gas. There has recently been renewed interest in the development of the transportation infrastructure necessary to move that gas to markets in the Lower 48 States. However, there are currently no applications before the Commission regarding an Alaska natural gas transportation project.

In this testimony, I will first describe the statutory schemes under which the Commission may consider applications filed with it for authorization for Alaska pipeline projects. I will then discuss issues that may be expected to arise under these laws and provide my thoughts on how these matters could be addressed through Congressional action. While I recognize that energy markets, like all markets, are subject to change, so that the economic viability of building an Alaska gas pipeline may vary from time to time, the need for Alaska natural gas in the Lower 48 market is only going to increase as the years go by.

My overall regulatory philosophy is to ensure that there are an adequate energy infrastructure, clear and balanced rules that allow efficient trading between market participants, and effective regulatory oversight. These key elements have led to robust competition in energy markets, with resultant benefits to customers. Toward that end, we will make every effort to process and act upon any applications for Alaska gas transportation projects as efficiently as possible, working with the applicants, other federal and state agencies, Native Americans, shippers, end users, and other interested parties, to ensure timely, reasonable decisions.

II. STATUTORY BACKGROUND

Applications for authorization to construct and operate an Alaska natural gas transportation project may currently be filed under either the Natural Gas Act (NGA) or the Alaska Natural Gas Transportation Act (ANGTA). I will address these statutes in turn. I will also review proposed legislation which I understand has been submitted to Congress for its consideration (the proposed Alaska Natural Gas Pipeline Act).

A. The Natural Gas Act

Under Section 7(c) of the Natural Gas Act, the Commission issues certificates of public convenience and necessity authorizing the construction and operation of natural gas pipelines. The Commission also establishes initial rates for new facilities.

Most natural gas pipeline facility construction is authorized under the case-by-case certificate review process embodied in Subpart A of Part 157 of the Commission's regulations. 18 C.F.R. Part 157 (2001). The Commission reviews numerous aspects of a proposed project, including the route, environmental impacts, engineering and design, gas supply, market, cost, financing, construction, operation, and maintenance, revenues, expenses, and income, and tariff and rate matters.

During the last fifteen years, the Commission has moved increasingly to promote competition in the natural gas industry. The Commission has strongly encouraged pipelines subject to its jurisdiction to unbundle their production, sales, and transportation functions, and to provide transportation on an open-access basis. Almost all have done so. Under the open-access policy, shippers are able to buy gas directly in production areas and separately obtain transportation on interstate pipelines on an equal footing with other shippers. Moreover, in response to competition, the interstate pipeline transportation grid has expanded significantly, offering shippers

more flexibility in their choice of supply areas, and creating new paths from supply areas to additional markets.

When the Commission receives an application under Section 7(c), it issues public notice of the application in the Federal Register, and notifies potentially-impacted landowners of the proposed project. Interested persons may file motions to intervene or protest. Generally, Commission staff requests from the applicant any additional information it needs to fully understand the application, considers issues raised by other persons, and conducts a thorough environmental review. A certificate order is then drafted, containing whatever terms and conditions are deemed necessary for the public convenience and necessity. The Commission can set an application for evidentiary hearing before an administrative law judge, if there are material issues of fact that cannot be resolved on the basis of the written record, although such hearings regarding construction applications are rare.

I am proud of the prompt manner in which the Commission in recent years has acted on natural gas pipeline applications. For major projects, we have been making every effort to act within 18 months of the time that the application is complete, which, given the complexity of these cases, is quick indeed. This requires a significant commitment of time and resources, but we know that swift regulatory action is necessary for properly functioning markets.

B. The Alaska Natural Gas Transportation Act

In response to the energy shortages of the 1970's, Congress passed ANGTA, in an effort to establish streamlined procedures for the consideration, approval, and construction of a natural gas pipeline to bring Alaskan natural gas to the Lower 48 States (the Alaska Natural Transportation System, or ANGTS).

ANGTA established a unique process for selecting an ANGTS and expediting its construction and initial operation. Under this process, the Commission was directed to recommend to the President a specific transportation proposal. The President then would submit a decision to Congress, and Congress would approve or disapprove that decision. Thereafter, the Commission was to issue an NGA certificate for any approved project. ANGTA also established other procedural mechanisms to assist in the completion of an ANGTS, including requiring all federal agencies to expeditiously grant necessary authorizations for the ANGTS, establishing the Office of the Federal Inspector to oversee the timely, efficient, and environmentally sound construction of the ANGTS and to coordinate federal efforts related to the project, and strictly limiting judicial review.

In 1977, in the *President's Decision and Report to Congress on the Alaskan Natural Gas Transportation System (President's Decision)*, President Carter designated the route and selected the project sponsors for construction of the ANGTS, running 4,787 miles from Prudhoe Bay, south to near Fairbanks, and then southeast along the route of the Alaska-Canadian highway to near Calgary, Alberta, where it would split into two legs, one continuing to California in the West, and the other to Illinois in the Midwest.

The President's designation of the ANGTS route and choice of sponsors to construct and operate it were closely coordinated with the government of Canada and followed adoption of an *Agreement Between The United States And Canada On Principles Applicable To A Northern Natural Gas Pipeline (Agreement on Principles)*. Pursuant to the Agreement, Canada enacted the Northern Pipeline Act, which is similar to ANGTA.

On December 16, 1977, the Commission issued a conditional certificate under ANGTA and the NGA to designate project sponsors. (The project sponsors have changed over the years and the certificate is currently held by the Alaska Northwest Natural Gas Transportation Company, a partnership between Foothills Pipelines, Inc. and Transcanada Pipelines Limited). This conditional certificate, which authorized the project sponsors to construct and operate the pipeline system to transport gas from Alaska's North Slope to the Lower 48 States, was actually the initial step in the process of issuing a more detailed final certificate. The conditional certificate was followed by extensive procedures to establish further conditions for the project, including the design specifications and initial system capacity of the Alaskan segment of the ANGTS and an interim rate of return mechanism applicable to the segments of the ANGTS located in the United States.

The ANGTS sponsors, in order to facilitate financing for what would be the largest privately financed construction project in U.S. history, proposed to build the project in two phases. Phase 1, or the "Prebuild," completed in 1982, is an approximately 1,500-mile segment, which presently delivers large volumes of Canadian gas from Alberta to Stanfield, Oregon in the Western Leg, and to Ventura, Iowa in the Eastern Leg.

At the time work on Phase I was being completed, the energy outlook of the United States and Canada changed substantially. Natural gas discoveries in Canada and in the Lower 48 States ballooned, and world oil prices moderated. With this changed natural gas market, the ANGTS sponsors announced in April 1982 that the Alaska portion of the project (Phase II) would be substantially delayed. No final certificate for Phase II was requested or issued before proceedings came to a halt in 1983.

On January 18, 2001, former Chairman James Hoecker submitted to Congress a report on ANGTA prepared by Commission staff. That report reviewed the background of ANGTA and discussed issues that might arise in the event of a renewed ANGTS application or of an Alaska gas pipeline application under the NGA.

C. The proposed Alaska Natural Gas Pipeline Act

The proposed Alaska Natural Gas Pipeline Act, as I understand it, is an effort to apply many of the streamlining aspects of ANGTA to a project filed solely under the NGA. To that end, the proposed legislation would, among other things: require the Commission to complete environmental review and issue a certificate to any proposal backed by an agreement with a shipper of Alaska gas, within 18 months of the filing of an application; establish a Federal Pipeline Director with sweeping authority to coordinate and control federal activities relating to a proposed project; establish the Commission as the lead agency for purposes of environment review; and, like ANGTA, strictly limit environmental review. The bill contains provisions relating to facilities constructed within Alaska and to those located in the Lower 48 States.

III. POTENTIAL ISSUES

In this section, I will discuss issues that may arise with regard to applications filed under each of the three potential statutory schemes. I have also attached to my testimony a chart which lists some of the key issues on a side-by-side basis, for ease of comparison.

A. Issues with Respect to an NGA Application

The NGA itself raises few issues. The Commission has been reviewing applications under Section 7 for more than 60 years, and that process is well-known and understood by all participants. I am confident that Commission staff would work quickly to complete its review of any NGA application for an Alaska natural gas pipeline, and that, if the Commission is presented with a complete application, including all necessary environmental documentation, the Commission would be prepared to act on the application in a timely manner.

Two key matters could nonetheless arise. First is the question of the effect of ANGTA on the Commission's authority to consider an NGA proposal. Arguably, ANGTA precludes the Commission from approving any other proposal for an Alaska gas pipeline until the ANGTS is complete. Chairman Hoecker and the staff report concluded that, while ANGTA provided that the Commission was required to give precedence to consideration of the ANGTS, nothing in ANGTA bars the Commission from considering competing NGA proposals. I agree with that conclusion. Nonetheless, it would eliminate delays occasioned by litigation if Congress were to clarify that, since the Commission satisfied the requirements of ANGTA by issuing an ANGTS certificate in 1977, nothing in ANGTA precludes, or requires delay in, Commission consideration of another Alaska pipeline proposal, filed under the NGA. Alternatively, Congress could establish that the Commission in fact is precluded from approving any other proposal for an Alaska natural gas pipeline until the ANGTS is either procedurally or physically complete.

Second is the question of the coordination of federal efforts. There is no doubt that coordinated federal action is necessary to avoid increased expense, redundant reviews, and delay. It would greatly assist the consideration and implementation of an Alaska gas pipeline proposal if Congress were to provide that the Commission has the authority to coordinate federal activities with respect to a proposal filed under the NGA. At a minimum, it would be helpful if Congress provided that the Commission has the authority to establish deadlines for action by other federal agencies with respect to an Alaska natural gas pipeline proposal, so that the Commission can ensure that it is able to act on any application in a timely manner.

B. Issues With Respect to an ANGTA Application

As I explained earlier, the Commission granted to the ANGTS sponsors a conditional certificate in 1977. Before the ANGTS could be constructed, the Commission would have to issue a final certificate. A renewed or revised ANGTS application

could raise several issues. These issues are discussed in detail in the staff report, but I will summarize some of the key questions here.

1. Ability to Deal With a Revised ANGTS Proposal

The *President's Decision*, which was issued pursuant to ANGTA and approved by Congress, contains a number of conditions that on their face seem to affect directly the Commission's consideration of a renewed application to complete the ANGTS. Among other things, the *President's Decision*, in addition to designating the sponsors and route for the pipeline, specifies many aspects of the design, provides for a variable rate of return as an incentive to limit costs, and determines that the required environmental impact statements relative to an Alaska natural gas transportation system have been prepared and are in compliance with NEPA. Completion of the certificate process more than twenty years after issuance of the conditional certificate could raise some questions about aspects of the *President's Decision* that could appear to restrict the applicants' and/or the Commission's ability to revise the project in light of changes in the market, technology and environmental circumstances.

ANGTA permits the Commission or another federal agency to amend the ANGTS (15 U.S.C. 719g(d)), but restricts agency discretionary revisions only to those that would not alter "the basic nature and general route" of the ANGTS. The staff report noted that these provisions leave it unclear as to what extent the project sponsors or the Commission or other federal agencies could propose or authorize changes to the ANGTS as outlined in the *President's Decision*. I observe, however, that the term "basic nature and general route" is sufficiently broad to encompass a number of update-related revisions that the sponsors, the Commission or another federal agency could take upon reactivation of the project. This becomes more difficult, however, if revisions were to reasonably vary from the "basic nature and general route" of the original project. In such event, Congressional guidance would assist prompt processing of a reactivated project.

2. Environmental Considerations

The original environmental impact statement (EIS) for the ANGTS project was prepared more than 20 years ago by the Department of Interior and supplemented by the Commission's predecessor, the Federal Power Commission. In 1980, the Commission prepared a second EIS to consider the environmental impacts of a gas conditioning plant that was proposed to be built, as part of the ANGTS, at Prudhoe Bay.

ANGTA provided that a decision by Congress approving the *President's Decision* designating an ANGTS was deemed conclusive as to the sufficiency of the underlying EIS and that the EIS was insulated from judicial review. Given that the ANGTS environmental documentation is now more than 20 years old, a supplemental EIS may need to be prepared before the Commission can issue a final certificate for Phase II. It would expedite Commission review of a reactivated project if Congress would clarify whether the original EIS is legally sufficient or if a supplemental EIS should be prepared and, if so, whether the supplemental EIS is also protected from judicial review.

3. Role of Other Federal Agencies

As noted above, coordinating the roles of the various Federal agencies that have responsibility over various aspects of such a proposal is critical to efficient, timely review of any Alaska natural gas pipeline proposal. During the original ANGTS proceedings, this coordination role was performed by the Office of the Federal Inspector. The Office of the Federal Inspector was abolished by Congress in 1992, and those functions and authorities were transferred to the Secretary of Energy. I defer to the Secretary with respect to any budgetary or other authority he might need to fulfill the coordinating and compliance functions if the original ANGTS proposal is renewed by the project sponsors.

C. Issues With Respect to the Proposed Alaska Natural Gas Pipeline Act

I have reviewed the proposed Alaska Natural Gas Pipeline Act. I support what I see as the overall thrust of the bill, which is to streamline consideration of an Alaska natural gas pipeline, and to ensure coordination of federal actions with respect to such a project. I do have two implementation-related concerns with the proposal:

First, Section 6 of the proposed bill would require the Commission to complete environmental review and act on an application for an Alaska natural gas project within 18 months of its filing. This 18-month time frame would be achievable only if the Commission were to receive a complete application (this is often not the case, requiring Commission staff to seek additional information from applicants), and if

all the other federal agencies were to complete their efforts in a timely fashion. Thus, any legislation should provide that any deadlines begin to run from the date that the Commission deems an application to be complete, and that the Commission is empowered to set deadlines for action by other agencies, including state agencies.

Second, while the proposed bill would establish an Office of the Federal Pipeline Director, it is not clear how the authority of the Director would mesh with that of the Commission, and who would control the timing and processing of an application. I believe that those decisions should rest with the Commission. Pipeline certification is what we do. I believe the pipeline certification record of the Commission in recent years demonstrates it is able to properly handle the required environmental, siting and other issues under the most aggressive of timetables.

IV. CONCLUSION

I cannot predict which, if any, applications for Alaska natural gas projects will be filed with the Commission. That is for the investors in those projects to decide. But, in my view, at least one pipeline carrying Alaska natural gas will need to be built in the near future. It would be most helpful for interested parties to collaborate on a single project of sufficient scope to enable our focus to be on getting the gas to the market rather than on spending time in litigation. In the event that settlement of issues is not forthcoming, it would be wise, in advance of such events, to clarify the statutory structure(s) governing the issue, so we don't spend more time in Court than in the field building the needed transportation. A quarter-century wait is long enough.

I can assure you that whatever application(s) is/are ultimately filed with the Commission, we will review it/them thoroughly, promptly, and fairly, with the public interest firmly in mind, and with a clear understanding of how important Alaska natural gas is to our Nation's long-term energy security.

The Commissioners and staff of the FERC are always available to assist the Committee in any manner.

RECOMMENDATIONS WITH RESPECT TO AN ALASKA GAS TRANSPORTATION PROJECT UNDER THREE POSSIBLE STATUTORY SCHEMES

Natural Gas Act	Alaska Natural Gas Transportation Act	Alaska Natural Gas Pipeline Act
<ol style="list-style-type: none"> 1. Clarify that ANGTA does not preclude, or require delay in, Commission consideration of an Alaska natural gas project under the NGA. 2. Grant the Commission the authority to coordinate federal activities with respect to an Alaska natural gas project under the NGA, or authorize the Commission to establish deadlines for action by other federal agencies. 	<ol style="list-style-type: none"> 1. Provide guidance as to the extent to which the original ANGTS proposal can be revised. 2. Clarify whether the ANGTS EIS is still legally sufficient and whether a supplemental EIS would be protected from judicial review. 3. Provide any necessary clarification and budgetary authority necessary to revitalize the Office of the Federal Inspector. 	<ol style="list-style-type: none"> 1. Provide that any deadline imposed on Commission action of an application begins to run from the date that the Commission deems the application complete, and empower the Commission to set deadlines for action by other federal and state agencies. 2. Provide that the Commission will control the timing and processing of any application.

The CHAIRMAN. Thank you very much.

Ms. Pearce, it is nice to see you here again. Why don't you go ahead.

STATEMENT OF DRUE PEARCE, SENIOR ADVISOR FOR ALASKA AFFAIRS, DEPARTMENT OF THE INTERIOR

Ms. PEARCE. Thank you. Good morning, Mr. Chairman and members of the committee. Good morning, Senator Murkowski. Thank

you for inviting the Department of the Interior to testify here today regarding an Alaska natural gas pipeline.

I am not here today to testify as a proponent for any particular pipeline proposal. Rather, I would offer the Department's expertise and experience of over 30 years of pipeline oversight in the State of Alaska.

Senator MURKOWSKI. I wonder if you could pull the microphone a little closer, please.

Ms. PEARCE. Okay.

The Department of the Interior is committed to the full development of the National Petroleum Reserve-Alaska, to opening the Arctic National Wildlife Refuge, and improving the energy infrastructure, of which a gas pipeline is a critical part. For more than 30 years, the State of Alaska, the Federal Government, and industry have studied and pursued development of an Alaskan natural gas pipeline. We began the first pipeline studies in 1969. But today that pipeline remains a pressing need for the Nation's energy infrastructure.

In May of this year, the pipeline was singled out as a priority in the President's national energy policy. The President directed the Secretaries of Energy and State, coordinating with the Secretary of the Interior and FERC, to work closely with Canada, the State of Alaska, and all other interested parties to expedite the construction of a pipeline to deliver natural gas to the lower 48 States.

The development of the natural gas pipeline ought to be part of a broad approach to energy development in Alaska for the United States. I recommend that we avoid a singular solution to the gas pipeline question that limits other North Slope energy development potential. We must model that infrastructure and increase energy supplies in the State for the Nation. The oil and gas potential for the entire North Slope is critical to meeting that challenge.

The Department of the Interior looks forward to being an active participant in the development of an Alaskan pipeline system, as we have a long and effective history in Alaska. The Bureau of Land Management currently administers three Federal rights of way in Alaska: the Trans-Alaska Pipeline System, or TAPS; the Alaska Natural Gas Transportation System, or ANGTS; and the Trans-Alaska Gas System. If the BLM receives an application from producers for an over-the-top offshore route, the right of way application will be adjudicated by the Minerals Management Service, also an agency of the Interior Department.

The Mineral Leasing Act placed in the Department of the Interior the authority and responsibility for granting pipeline rights of way through any Federal lands. This responsibility includes assessment of the technical and financial capability of a pipeline operator to construct, operate, maintain, and terminate a pipeline project. Through the execution of these duties, the Department has been involved in technical design, construction, operations, and maintenance oversight on the TAPS system throughout its history.

The Department of the Interior has through its several bureaus the oversight responsibilities for thousands of miles of offshore oil and gas pipelines in both the Gulf of Mexico and the Pacific Ocean. In exercising our responsibilities, the Department has a number of

pipeline employees who can assist in the Alaska natural gas pipeline project. In addition, we have numerous environmental and biological scientists with years of experience in Alaska who can assist in the review of the various proposals and permits that will be required.

The BLM is the lead Federal agency in the Joint Pipeline Office since its inception in 1990. The Joint Pipeline Office was administratively established to coordinate government oversight of the Trans-Alaska Pipeline System. The office is currently comprised of six Federal and seven State agencies, Interior being represented by both BLM and the Minerals Management Service. It allows for a single functional organization and the avoidance of duplicated resources and efforts.

The organization has the ability to tap the knowledge of member agencies, to share expertise, to coordinate permitting, technical reviews, and the issuances of leases and rights of way. The Joint Pipeline Office represents the type of multi-agency oversight that will be necessary for the design and construction of any Alaska natural gas pipeline.

One of the most significant recommendations to come out of the lessons learned exercise conducted after the construction of TAPS was to mandate the coordination of Federal and State agencies involved in any new pipeline projects of similar magnitude. The Alaska Natural Gas Transportation Act of 1976 authorized the appointment of a Federal inspector to oversee construction of the gas pipeline system in accordance with a joint Federal-State monitoring agreement. The Office of the Federal Inspector was an independent executive agency that received advice from an executive policy board comprised of the Secretaries of the Interior, Energy, Agriculture, Labor and Transportation, the Administrator of the Environmental Protection Agency, the Chairman of the Federal Energy Regulatory Commission, and the Chief of Engineers of the Army Corps of Engineers.

However, progress on the gas pipeline project ceased in the 1980's and in 1992 the Federal Inspector's Office was disbanded and those responsibilities were transferred to the Department of Energy.

There are many issues surrounding an Alaska gas project, such as Alaska Native hire agreements, special provisions for construction in Arctic and sub-Arctic regions, and unique environmental conditions that make the Department of the Interior's regional expertise a very real advantage to expedient government regulation. Given that the law transfers monitoring authority to the Department of the Interior 1 year after construction of the gas pipeline and because latent design and construction deficiencies can have a significant impact on pipeline operations, Interior's involvement in construction monitoring is essential for effective oversight throughout the life of a project.

As I have noted, the Department of the Interior has a longstanding partnership with the State of Alaska and years of experience in the Arctic. We stand ready to partner with our sister agencies in the coordination of the gas pipeline project.

This concludes my testimony and I will be happy to answer any questions that the committee may have.

The CHAIRMAN. Thank you very much.

Mr. Kripowicz, you are the Acting Assistant Secretary for Fossil Fuel in the Department of Energy. We welcome you. Go right ahead.

STATEMENT OF ROBERT S. KRIPOWICZ, ACTING ASSISTANT SECRETARY FOR FOSSIL ENERGY, DEPARTMENT OF ENERGY

Mr. KRIPOWICZ. Thank you. Mr. Chairman, members of the committee: As virtually every witness has testified this morning, Alaska's natural gas on the North Slope represents a large and potentially significant future energy resource for the United States. I have outlined in my testimony the Nation's growing demand for natural gas. Last year we consumed 22.8 trillion cubic feet of natural gas and by 2020 under a business-as-usual scenario gas consumption could jump to almost 35 trillion cubic feet, a 52 percent increase.

Even though we have large quantities of natural gas in the lower 48 States, demand for natural gas between now and 2020 will likely outpace supply, at least supply from those resources we are developing today. Especially in the power generation market, natural gas use is on the rise, largely because it can help generators meet increasingly stringent clean air requirements. More than half the projected increase in gas use will likely be in the electric power sector.

President Bush's national energy policy recognizes the importance of natural gas to our energy, economic, and environmental future. The policy emphasizes the need to develop a variety of new natural gas resources. It specifically calls attention to the prospects for producing and transporting Alaskan natural gas to markets in the lower 48 States.

One of the policy's recommendations which the President subsequently implemented has been to direct the Secretaries of Energy and State, along with the Interior Department and the Federal Energy Regulatory Commission, to be ready to expedite any necessary permitting for an Alaska gas pipeline. We have responded to the President's direction by creating a multi-agency task force. This task force is meeting regularly to get a head start on identifying impediments to ensuring that relevant agencies are communicating well with each other.

We also intend to work closely with the government of Canada to determine if existing bilateral agreements are sufficient or whether additional government to government agreements might be warranted. Obviously, however, we can only go so far before there is an actual proposal before us, and that in turn will depend upon business' decisions made by the private sector. The administration remains neutral regarding the specific project or projects that the private sector might undertake in order to develop and market North Slope gas. We believe the marketplace should determine when, how, and by whom North Slope gas is developed and transported.

In short, Mr. Chairman, the vast natural gas resources of the Arctic represent one of our largest, most promising, and most secure domestic energy supplies. America certainly needs the energy that Alaska's North Slope can provide. When or if a commercially

viable transportation project emerges, the President has made it clear that he expects the government to be ready and responsive to perform its duties as quickly as possible.

That completes my opening statement. I am pleased to answer any questions.

[The prepared statement of Mr. Kripowicz follows:]

PREPARED STATEMENT OF ROBERT S. KRIPOWICZ, ACTING ASSISTANT SECRETARY FOR FOSSIL ENERGY, DEPARTMENT OF ENERGY

Mr. Chairman and Members of the Committee:

One of the largest known reserves of natural gas in the United States is found in the Arctic, associated with the development of oil at Alaska's Prudhoe Bay. These proven gas reserves, likely totaling more than 35 trillion cubic feet, could make a significant long-term contribution to the Nation's energy supplies if delivered to the lower 48 states. There may also be an additional 100 trillion cubic feet of natural gas resources on the North Slope that, although currently more speculative, could potentially be a source of new energy supplies in the future.

Recently, as demand for natural gas has increased, interest has been renewed in tapping into Alaska's natural gas supplies. During the past year, producers on the North Slope have begun reexamining market and technical factors to determine whether transporting this gas is likely to be economically feasible in the near future.

Recognizing the resurgent interest in moving Alaskan natural gas to lower-48 markets, the President's National Energy Policy calls for a coordinated federal/state/private sector effort to expedite construction of the necessary pipelines. Specifically, the National Energy Policy recommended that:

. . . the President direct the Secretaries of Energy and State, coordinating with the Secretary of the Interior and the Federal Energy Regulatory Commission, to work closely with Canada, the State of Alaska, and all other interested parties to expedite the construction of a pipeline to deliver natural gas to the lower 48 states. This should include proposing to Congress any changes or waivers of law pursuant to the Alaska Natural Gas Transportation Act of 1976 that may be required.

Following release of the National Energy Policy in May, the Administration has responded to the President's direction. A multi-agency federal task force has been established to identify impediments to the expedited construction of an Alaskan natural gas pipeline and to advise the Federal Government on how best to respond to such impediments.

THE NEED FOR NORTH SLOPE NATURAL GAS

The prospect for increasing demand for natural gas in the United States has been the primary reason for the resurgence of interest in transporting Alaskan North Slope gas to market. Natural gas is an especially attractive energy resource due to its environmentally clean characteristics.

Currently it represents 24 percent of the energy consumed and 27 percent of the energy produced in the United States. In 2000, U.S. natural gas consumption totaled 22.8 trillion cubic feet. According to projections by the Department's Energy Information Administration (EIA), natural gas consumption is expected to grow by 2.3 percent annually, reaching 34.7 trillion cubic feet by 2020.

Spurred mainly by dramatic increases in the use of natural gas to generate electricity, the demand growth rate is faster than any other major fuel source consumed in the United States. More than half of the projected increase in consumption is expected in the electricity generation sector.

Between now and 2020, domestic natural gas demand is expected to increase more rapidly than supply. Much of the difference between U.S. gas consumption and lower 48 production will be made up by imports, primarily from Canada. Today, net natural gas imports account for 16 percent of total U.S. natural gas consumption, or about 3.5 trillion cubic feet. By 2020, the United States will likely be importing about 5.8 trillion cubic feet of natural gas, or about 17 percent of its projected consumption. However, these EIA projections do not include gas from the North Slope which, if made available to the lower 48 States, would probably reduce gas imports.

Natural gas prices will likely have an effect on private sector investments necessary to bring Alaskan natural gas to market. In the short-term, EIA projects that the average wellhead price of natural gas will be around \$2.65 per Mcf in 2002, while longer-term projections for the average wellhead price are around \$3.13 per

Mcf in 2020. Like any commodity, however, the actual price of natural gas oscillates frequently. Also, technological progress in pipeline construction practices and equipment, in pipe materials, in welding, and in telecommunications are reducing pipeline construction and operating costs. This, along with the normal business cycles in the natural gas industry, may support prospects for new pipeline construction linking the North Slope to lower-48 markets.

PIPELINE PROJECTS CURRENTLY ENVISIONED

The private sector is currently examining three general approaches for transporting North Slope gas to markets: (1) new gas pipelines linking to connection points in Canada, (2) liquefied natural gas, and (3) gas-to-liquids conversion that could utilize the existing Trans-Alaskan oil pipeline.

Some of the most widely-discussed natural gas pipeline proposals include:

- *The Alaska Natural Gas Transportation System (ANGTS)*—In September 1977, President Carter designated a specific transportation system known as the Alaska Natural Gas Transportation System, or ANGTS, for streamlined certification under the authorities of the 1976 Alaska Natural Gas Transportation Act (ANGTA). The proposal, selected by the President from three different projects then competing before the Federal Power Commission for certification, envisions a nearly 5,000-mile joint U.S.-Canadian overland pipeline following the Alcan Highway, capable of delivering up to 2.5 billion cubic feet of gas per day to markets in the lower 48 states. President Carter's decision was approved by a joint resolution of Congress.

Although only portions of ANGTS have been constructed—the “rebuild” segments extend 2675 miles along two legs from Alberta, Canada into the lower-48 states—its legal framework still exists.

- *Northern Gas Pipeline Project*—Arctic Resources Co.'s Northern Gas Pipeline Project would run eastward from Prudhoe Bay and come ashore in the Mackenzie Delta area in northern Canada, then follow the Mackenzie River south through the Northwest Territories to interconnect with pipelines in Alberta, Canada, providing access to lower-48 markets.
- *Producers' Alternatives*—The three producers that own nearly all of the North Slope gas currently are assessing the feasibility of different pipeline routes, including a northern route similar to the Arctic Resources proposal and a southern route that would either be the same as or similar to the ANGTS route.

THE FEDERAL ROLE IN EXPEDITING ALASKAN NATURAL GAS PIPELINE PROJECTS

Our National Energy Policy strongly supports the environmentally responsible development of Alaskan North Slope natural gas and the actions to expedite the delivery of that important energy resource to the lower 48 states. The Administration remains neutral regarding the specific project(s) the private sector might undertake to accomplish this task. The marketplace should determine when, how, and by whom the North Slope gas resource is developed and transported.

The Administration is also committed to an expedited, coordinated effort in permitting whichever commercial pipeline project or projects emerge as a viable candidate. As one of the implementations of the National Energy Policy, the Administration has created a task force involving various government agencies including the Departments of Energy, State, Interior, Agriculture, and Transportation, and the Federal Energy Regulatory Commission. These are the government agencies that have responsibilities related to a project to transport Alaskan North Slope gas to lower 48 markets.

The Task Force has been meeting regularly since July 2001, to establish a communication network within the various agencies, to disseminate information and ideas through this network, and to address issues related to permitting and pipeline construction.

CURRENT AND FUTURE LEGAL AUTHORITIES

The Administration could be faced with new or revised proposals to transport Alaska North Slope gas, filed under ANGTA or the Natural Gas Act (NGA). The Department of Energy has certain authorities under both legal frameworks.

In 1977 the Department of Energy Organization Act transferred authority from the former Federal Power Commission to the Secretary of Energy to regulate natural gas imports and exports under the NGA, including section 3. Section 3 requires persons seeking to import or export natural gas, including liquefied natural gas, to first secure an order from DOE authorizing the import or export. In reviewing the application, DOE must determine if the public interest standard in section 3 of the

NGA, as amended by the Energy Policy Act of 1992 (EPACT), is met. In addition, authorization must be granted if the import or export is with a nation with which the United States has a free trade agreement, such as with Canada, requiring national treatment for trade in natural gas.

The Department of Energy also has ANGTA-related authorities. EPACT abolished the Office of the Federal Inspector (OFI) for the ANGTS and transferred its functions and authorities to the Secretary. The primary function of the OFI, which was created by President Carter through Reorganization Plan No. 1 of 1979, was to enforce terms and conditions relevant to the pre-construction, construction, and initial operations of ANGTS.

Regardless of whether an application is filed under the NGA or the ANGTA, we, in consultation with the Congress and in coordination with the Department of State and other relevant agencies, will work closely with the Government of Canada to review existing bilateral agreements and to determine if additional government-to-government agreements might be warranted.

CONCLUSION

In short, Mr. Chairman, as our National Energy Policy states: "America needs the energy that Alaska's North Slope natural gas can provide."

Natural gas will play an increasingly important role in providing secure, reliable, and environmentally clean energy to American consumers. We must recognize that the attractiveness of natural gas requires that we look seriously at all potentially viable gas supply sources while not creating an over-reliance on any one energy resource.

The vast natural gas resources on Alaska's North Slope are one of the largest, most promising and most secure domestic energy supplies that could become available to America's consumers. We are committed to working with the private sector and with Canada to ensure that any commercially viable proposal to bring this natural gas to market is processed as expeditiously as possible.

This completes my prepared statement.

The CHAIRMAN. Thank you very much.

Let me start first with a question to Mr. Torgerson. As I understand, in your position there in the legislature you have—you say in your testimony that: "As far as tax incentives are concerned, the producers have not asked for any. They have not shared their financial projections with your committee, with my committee. The only thing the producers have mentioned is a need for fiscal certainty in the State's tax regime. I feel we should not begin our negotiations by leading with incentives until we at least verify the profitability of the project."

That seems like a sound position to take. Why do you not recommend the same course of action to the Federal Government?

Mr. TORGERSON. Can I claim the Fifth Amendment? Well, sir, we have had discussions in general terms about tax certainty, but I have not seen either in-depth financial projections other than a couple slides that show profitability and some other things, but nothing in detail enough for us to make a decision on whether or not incentives were a good or a bad thing or if we need to do that.

The CHAIRMAN. It would be logical, then, for Congress to take the same basic position, that for us to be giving preferential tax treatment to investments interest in this particular line, pipeline or production going into this line would be foolhardy unless we know what the profitability of this project is before we act, would you not agree with that?

Mr. TORGERSON. I would, Mr. Chairman. I do not want to leave you with the impression that the State of Alaska is not ready to look at some incentives that come under our control. But it is my position not to until we are familiar with their financial projections. I would recommend that to this committee also.

The CHAIRMAN. Mr. Kripowicz, your task force, when was it established?

Mr. KRIPOWICZ. In July.

The CHAIRMAN. This is the inter-agency task force?

Mr. KRIPOWICZ. Yes, sir.

The CHAIRMAN. But the administration position, as I understand your testimony, is that the administration is neutral as to whether a southern route is chosen or a northern route?

Mr. KRIPOWICZ. That is correct, yes, sir.

The CHAIRMAN. Is the administration also neutral on whether Congress legislates anything on this subject? Because we are in this awkward position where we are being urged to complete action on a comprehensive energy bill, which of course is to a large degree an outgrowth of the commitment the President and the Vice President have had to move energy legislation in this Congress.

We are under pressure to move ahead with that, to complete action to deal with these issues. At the same time, we have no recommendation from the administration as to what should be done on this subject.

Is it your view that we should not legislate on this subject? Is that the position of the task force?

Mr. KRIPOWICZ. I think at this point, Mr. Chairman, we are uncertain also. We have identified all the relevant authorities either from ANGTA or from the Natural Gas Act. We have reviewed the possible problems that each one of those has and many of those problems are identified in Chairman Wood's statement to the committee. We have prepared some recommendations for the administration, which are now being looked at at levels above the task force.

But one of the problems with recommending legislation at this point is a lot of it would depend on what the application is. Currently, without an application it is very difficult to recommend the specifics of legislation that might be required. Many of these items may very well be able to be handled administratively without changes to the law.

The CHAIRMAN. So your basic view is, as I understand it, that it is premature for the Congress to be legislating on this subject until we know more about what the proposal is?

Mr. KRIPOWICZ. Because you might have to legislate again once you get a proposal, because the legislation might not fit the proposal that you receive or that we receive.

The CHAIRMAN. So would the recommendation be that we hold up action on a comprehensive bill until we have more information or that we go ahead with a comprehensive bill and then, if necessary, come back at some future date and deal with this issue legislatively? What is your thought there?

Mr. KRIPOWICZ. The administration, of course, is very anxious to move ahead on a comprehensive bill and I would not recommend holding that up for this particular piece of legislation.

The CHAIRMAN. So your thought is that the administration's position is that we should move forward, but we should not deal with this matter as part of this legislation, either by adopting the proposal of the producer group which has come forward or adopting

the proposal of the State of Alaska which was discussed by Governor Knowles?

Mr. KRIPOWICZ. Mr. Chairman, I think it would be very difficult for us to recommend specific legislation at this point absent a concrete proposal from the producers or from other parties who might submit an application.

The CHAIRMAN. Senator Murkowski.

Senator MURKOWSKI. Thank you, Senator Bingaman.

Perhaps we should go back to just what the producers are asking for so we can focus in on the reality. The purpose was to expedite the approval of construction and initial operation of one or more gas transportation systems from Alaska to the Canadian border and from the Canadian border to the lower 48 to markets.

Now, that means what it says. What they asked for was quite specific: expedited review of applications, single consolidated EIS review, the establishment of a Federal pipeline director, limited judicial review. Clearly, it was route-neutral. That is obviously contrary to the State and the legislative position and, for that matter, my own position and the delegation.

That has to stand alone relative to the proposal from the President and the administration for a national energy security legislation, which as proposed covers three titles: protecting critical energy infrastructure, which includes provisions from the administration on energy security about ports, about pipelines, transmission pipeline safety, electric reliability. There was another title concerning domestic suppliers, Price-Anderson, clean coal, renewable energy inventory, ANWR, hydro provisions, filling SPRO, alternative transportation fuels; and title III, reducing demand and increasing efficiency, State programs in LIHEAP, Federal energy management, appliance and building standards.

Now, I am not putting words in the mouths of the administration, but obviously this project is going to be determined on the timeliness of the economics that support it standing alone from the standpoint of the producers. Anything that would suggest some kind of an emergency action would have to be predetermined by the Congress with the support of the administration, because it would suggest that it would be expedited and if it is going to be expedited, why then, the economics to a degree would go out the window.

I want to be sure that we generally understand the parameters that we are considering. Now, I do not know if you are familiar, but I am going to pose this to the panel, the status relative to the role of the Corps of Engineers and where the Corps has evaluated this. I will just quote very briefly in the Corps' statement: "It should be noted that a permit already exists for the ANGS, or the Alaska Natural Gas Transportation System, which runs from the North Slope to Fairbanks, following the AlCan through Canada. This route is already permit-approved, which means work could begin immediately if this route is chosen."

Now, there is another route, the Trans-Alaska Gas Line, which would run from Prudhoe Bay to Valdez. This is a permit that was issued some time ago with the idea of LNG being shipped out of Valdez. Now, this route would require additional authorization for rivers and stream crossings, but it has been for practical purposes

approved and an abbreviated permitting mechanism has been granted.

Now, if neither of these are proposed the Corps indicates that there would be a requirement of an EIS. Now, we have heard from FERC relative to the suggestion that a supplemental EIS may be needed to be completed. Yet, in the proposal from Foothills the suggestion is an EIS would be a violation of the Federal law and Canadian treaty obligations.

I would ask the Chairman of FERC if he agrees that indeed an EIS would be unlikely since a project of this magnitude has already been addressed and that a pipeline can be built from the Alaska North Slope the existing infrastructures? What would be the purpose of an EIS? Would it be to re-examine another route, LNG transportation? Certainly it would not be applicable to the existing permit already available under the Alaska Natural Gas Transportation System.

Mr. Wood.

Mr. WOOD. Senator Murkowski, I think certainly that is one of the reasons why I mentioned in my testimony clarification would be helpful. But barring any clarification coming, I think what we would look at in any sort of supplemental EIS is the fact that there have been some additional environmental laws. For example the Coastal Zone Management Act may or may not be implicated by this.

Senator MURKOWSKI. It is pretty hard to reach out on that one.

Mr. WOOD. To do the original route—if the route deviates from the original route—the language as proposed is the general route. It is fine to deviate from that and those have already been done. I think it would be a relatively short process, but I think just the kind of gut reaction I have to reviewing the issues in these cases is it is a 23-year-old EIS and to go from a conditional certificate which was granted by the Commission as I think the Commission's first order back when it was first formed in 1978, to now the changes in the environmental laws and the changes in the technology that would be used and was originally approved, could be subject to some review.

Without seeing what they propose to do, Senator Murkowski, it would be difficult to know what, if any, environmental review is needed.

Senator MURKOWSKI. Well, that is a safe answer and I appreciate it. Thank you very much.

Let me ask one final question. This is also to Pat Wood. What is the usual return allowed on debt and equity for a large pipeline of this magnitude?

Mr. WOOD. Well, we have never seen one like this, but I think the larger pipelines, the equity return would generally be in the—it could be up to the low teens.

Senator MURKOWSKI. The low teens? Is 15 percent low teens?

Mr. WOOD. Well, let us say that is probably the upper end of where we would go.

Senator MURKOWSKI. Well, I am going to conclude with a reference from the Corps' statement and it will make some of my Alaska friends a little more pleased. It says: "Selection of some other route—other than the southern route of the Alaska Natural

Gas Transportation System; for example, another route would be the Beaufort Sea pipeline route to the Canadian MacKenzie Delta—would be expected to be dead on arrival and could not obtain State approvals unless the State were to change its position on the option. If the State would consider this option or another route, expect a minimum of 6 years to complete the process of the EIS and permit authorizations before construction could begin.”

Thank you.

The CHAIRMAN. Senator Carper.

Senator CARPER. Thank you, Mr. Chairman.

To our witnesses, welcome. It is nice to see some of you once again and to meet others for the first time. I have been over on the Senate floor and I have missed most of your testimony. We are working on the Department of Defense authorization bill. I needed to be there to attend a couple of amendments, so I missed a good deal of what you said.

I understand that Governor Knowles was here earlier and testified. He is my old colleague. He and I were governors together for I guess about 6 years or so, and I very much regret missing him. If there is anybody in the audience from the State of Alaska office who works with the Governor, give him my best and tell him to call Delaware; I would like to talk to him.

To Senator Torgerson: Do I understand that the land which the natural gas is believed to lie under is owned or controlled by the State of Alaska?

Mr. TORGERSON. Yes, sir, it is.

Senator CARPER. In its entirety?

Mr. TORGERSON. In its entirety.

Senator CARPER. Do I understand that so far—and this is to anybody on the panel—so far nobody has stepped forward from an energy company and said that they would like to help finance or build a natural gas pipeline? No one has deemed this to be a commercially viable project; is that correct?

Mr. TORGERSON. No, sir. They are in the process, the producers—BP, Exxon and Phillips—are currently in the process of a very intensive study, spending somewhere upwards of \$100 million seeing if it is profitable and trying to find out what barriers might be out there and other things.

Mr. WOOD. Senator Carper, I think the main thing is that there has not been a formal application filed, but there is quite a bit of activity.

Senator CARPER. Well, good.

Will the State of Alaska realize royalty payments from the extraction of the natural gas from your land?

Mr. TORGERSON. Yes, sir.

Senator CARPER. Give me some idea?

Mr. TORGERSON. 12.5 percent is the royalty for the State of Alaska.

Senator CARPER. Give me an example of how that would work? 12.5 percent of what?

Mr. TORGERSON. Of the market value. We could either take that in kind or we could take it in value. So we could have the producer sell it to wherever their market would be and we would be reimbursed 12.5 percent.

Senator CARPER. If the market value were, say, a billion dollars, 12.5 percent of that would be about \$125 million?

Mr. TORGERSON. Yes, sir.

Senator CARPER. Now, the U.S. Government, to what extent does the U.S. Government benefit from that, at least with respect to revenues?

Mr. TORGERSON. Nothing off the royalty, sir. But certainly off of income taxes and corporate taxes. I think I have seen one report that shows in the 25-year life of the project, which would be what we know is the reserves and not the potential for that area—the potential is a lot greater in the Prudhoe Bay area or in the basin, which we all have a shared ownership in—but it is up in the \$20 billion somewhere is the Federal potential, Federal take through your taxes on the life of the project.

Senator CARPER. The potential take for Alaska would be how large, using the same hypothesis or same assumptions?

Mr. TORGERSON. We are somewhat, as I believe, a little bit more than that with our royalty share, and we have a severance tax and also a corporate business tax, not as high as what the Federal Government is, but we are in that ballpark also.

Senator CARPER. Let me ask other panelists: What should the Federal Government do in order to encourage the construction or completion of the pipeline to ship natural gas from Alaska's land down to the 48 States? What should the Federal Government do?

Mr. KRIPOWICZ. We expect the market to determine whether it is economic to build a pipeline. But the Government has committed, the President has committed, once an application is tendered to the Government that we will move with the utmost speed in order to process it and not cause any delays in the process.

Senator CARPER. So on a permitting basis, we should try to expedite the process. What else should the Federal Government do?

Mr. WOOD. I think, just to build on Bob's point, the economics drive it and to move through the southern route, for example, to Chicago, from the gas coming out, paying all the bills all along the route, you have already taken about \$2.50 out of the gas stream. Today gas in Chicago is selling for less than \$2. So the economics there just are not there today.

Now, in 2006, '07, '08, I do not think anybody expects we are going to have \$2.00 gas. It will be higher than that. But at some point—I think the producers and shippers can tell you on the next panel there is an economic flip point at which it makes sense to do the project. But I think really, the way pipeline have worked in the last 15 years, they have been driven by the economics of supply and demand and that has resulted in a pretty robust grid in the lower 48.

This is different. It is huge. It is really one of the biggest projects you can imagine in the energy industry. Again, the economics are really the key driver, as Bob pointed out.

Senator CARPER. Other than expediting the permitting process, is there an appropriate role for the Federal Government to move this project along? Anyone?

Mr. TORGERSON. Could I? From the State of Alaska or from the legislature's position, you could verify that the Alaska Natural Gas Transportation Act is the prevailing law and that any other appli-

cations filed under any other, the Natural Gas Act or any other Act, would not apply to this.

That was in my earlier testimony, that it is our belief that the Federal Government went through a selection process back in the mid-seventies and you have not repealed your action on that. So therefore that law that you passed in 1977 did not expressly forbid someone from filing another application under the Natural Gas Act, but by not doing that we have left this cloud open that anybody could file under a previous law, although this body has already acted and so has the President of the United States.

Once we get that cloud clear, then all this starts falling into line.

Senator CARPER. Anybody else on the panel want to comment, respond to anything I have asked?

Ms. Pearce.

Ms. PEARCE. No, thank you.

Senator CARPER. Mr. Chairman, I thought I heard you in your questioning of the panel—I heard someone mentioning, one of the panelists mentioning, government incentives, Federal Government incentives to move this along. My thought, the first thought I had was, to the extent that the Federal Government provides those incentives, moves the project along and natural gas prices go through the roof, energy companies make out well, Alaska makes out well, and we will have obtained a new source of natural gas for the rest of the country, but we will not have participated in the profitability of the venture, unlike the State of Alaska and the producers.

To the extent that the Federal Government is asked to play that kind of role and provide some incentives, we may want to consider what we did with Chrysler, the Chrysler bailout about 20 years ago, where we did not just give Chrysler money, we did not just loan Chrysler money; we actually issued warrants, or they issued them, and we ended up not only providing the money and financial assistance to Chrysler, but in the end when it became profitable we shared in that success. The Government actually, maybe one of the few times in our history, we actually made money on the deal.

I do not know. We might take some of the lessons we learned from there and incorporate them here. But perhaps we could.

The CHAIRMAN. Thank you.

Senator MURKOWSKI. If I may just make a point, I would remind my friend of the reality that this particular gas is on State lands. Obviously, it belongs to the State of Alaska. The State of Alaska is entitled to a reasonable return for it, unlike ANWR, which the Federal Government would receive the benefit because ANWR is on Federal land.

Thank you.

Senator CARPER. Thanks, Mr. Chairman.

The CHAIRMAN. Thank you very much.

I thank this panel very much for their testimony. It is very useful to us. Let me ask the next two panels to both come forward: Mr. Marushack, who is the vice president of ANS Gas Commercialization; Mr. Terry Koonce, who is the president of ExxonMobil Production; Mr. Robert Malone, who is the regional president of BP America; and also Mr. Richard Glenn, who is with the Arctic Slope Regional Corporation; Mr. Patricio Silva, who is the Energy Projects Attorney with the Natural Resources Defense Council; Mr.

William Sullivan, who is the executive director or executive vice president of Anadarko.

We thank you all very much for coming today. Again, we will take everyone's testimony and include it in the record, and I would urge each witness to summarize the main points that you believe that the committee needs to be aware of.

Why don't we go in the order that I introduced people: Mr. Marushack, who is with ANS Gas Commercialization first. Is that the right pronunciation?

Mr. MARUSHACK. Yes, "MAR-ue-shack," sir.

The CHAIRMAN. Why don't you start out, please.

**STATEMENT OF JOSEPH P. MARUSHACK, VICE PRESIDENT,
ANS GAS COMMERCIALIZATION, PHILLIPS ALASKA INC.**

Mr. MARUSHACK. Thank you. Good morning, Mr. Chairman, Senator Murkowski, members of the committee. My name is Joe Marushack and I am vice president of Alaska North Slope Gas Commercialization with Phillips, Alaska, and I am based in Anchorage. I am pleased to be here today to discuss our efforts to develop an Alaska North Slope natural gas pipeline. We provided extensive written testimony for the record, so I will summarize our views briefly.

As background, the development of the natural gas resource on the Alaska North Slope is a priority for Phillips Petroleum and we recognize the strategic importance of this resource to the State of Alaska and the rest of the United States. We believe that it is possible to develop this important resource if all the stakeholders in the project work together to find solutions and to share the risks and rewards of this important project.

The benefits of developing the resource are immense. The ANS Gas project will allow the development of 45 TCF of natural gas resources over the next 40 years and provide infrastructure to potentially develop even larger volumes of domestic gas production. These production volumes are needed to meet the growing North America gas demand and will help prevent the United States from developing the same dependence on imports that currently characterizes our use of crude oil.

Using Energy Administration price forecasts, the project could generate over \$70 billion in government revenues over its life. The risks of developing this project are also high. With initial cost estimates approaching \$20 billion, the ANS gas project is one of the largest investments ever contemplated in North America. The project will require construction of the largest gas treatment plant in the world, the laying of about 3,600 miles of pipe from the Arctic North Slope to the North American market.

The project will need 5 to 6 million tons of steel. The type of materials and pipeline technology used will require the development of specialized equipment solely for this project. The challenges of timely permitting and implementation of a safe, environmentally sound project will be critical and unparalleled.

The project will be subject to considerable price risk, as evidenced by the fact that natural gas prices this year alone have fluctuated between \$2 and \$10 per thousand cubic feet.

There has been considerable debate on whether to use a northern or southern route for the proposed pipeline. A joint team from Phillips, BP, and ExxonMobil has been studying this and other issues for almost a year. Jointly, we will have spent almost \$100 million by year end, utilizing over 100 company employees and 500 contractors.

Unfortunately, the preliminary results show the project is not economically viable with either route, though we continue to improve the project's technical design and formulate legislative and fiscal proposals that will improve the project's viability.

While both routes have their own unique set of risks, on balance Phillips sees certain advantages to the southern route. Accordingly, if it is the opinion of the members of this committee that endorsement of a southern route would materially improve the prospects for passage of a bill granting fast track regulatory authority needed to move forward, then Phillips is prepared today to make that endorsement.

But we need and ask for your help, as well as that of the State of Alaska, in obtaining the following requirements: First, Federal enabling legislation that will result in a well-coordinated, streamlined regulatory process; second, Federal fiscal relief that will ensure the appropriate sharing of risks and benefits; third, Alaska fiscal certainty; and finally, the project must not be subject to mandated requirements that would diminish the viability of the project.

Phillips' assessment of the benefits of the southern route should not be interpreted as a departure from the joint work team. Rather, we recognize that for the project to progress most rapidly the State of Alaska's interests, as well as that of the other stakeholders and the producers, must come together. We hope the ongoing route debate can be positively settled so we can focus on ways to improve project viability.

Phillips, ExxonMobil, and BP have each provided draft Federal legislation to the committee that would provide an expedited process that is fair, simple, and efficient for obtaining permits and other approvals for the Alaska gas pipeline. The project would still be subject to FERC regulation and a full-scale environmental impact study would be required.

The proposed legislation is not exclusive. The legislation could be used by the current producer group, either with or without additional partners, by other pipeline companies, by the State, or even by the current ANGTS permit holders. The enabling legislation would permit market-driven competition, better assuring the project with the lowest cost will be allowed to prevail.

Indeed, we feel that a streamlined regulatory legislation encouraging projects is a cornerstone to making any Alaska pipeline project a reality. It is good for the consumer and it is good for the stakeholder.

Phillips has also submitted proposals to the committee to help manage the large financial risks associated with the project. They are intended to encourage increase of the Alaska natural gas pipeline and are specifically designed to provide relief only when marketplaces in the lower 48 fall to levels that would not otherwise support a level of this magnitude and risk.

In either case, the American public is the winner. If prices are lower, as might be the case when this substantial resource is brought to the market, the consumer benefit from lower gas prices far outweighs the proposed fiscal relief. If prices are as projected by the Federal Energy Information Administration, no tax relief would be provided.

In conclusion, we understand the ANS gas project's critical role in providing a new source of reliable, long-term energy. Phillips is extremely anxious to see the development of this project and we urge you to carefully consider our suggestions. We look forward to continuing our discussions of this exciting project with all potential stakeholders and we welcome the opportunity to answer any questions you may have at this time.

[The prepared statement of Mr. Marushack follows:]

PREPARED STATEMENT OF JOSEPH P. MARUSHACK, VICE PRESIDENT,
ANS GAS COMMERCIALIZATION, PHILLIPS, ALASKA INC.

Good morning Mr. Chairman and Members of the Committee. My name is Joseph P. Marushack. I am Vice President, Alaska North Slope Gas Commercialization, Phillips Alaska Inc. based in Anchorage, Alaska. Phillips Alaska is a major subsidiary of Phillips Petroleum Company charged with all exploration and production of oil and natural gas resources in Alaska.

Let me start by saying that Phillips understands that national energy security and economic revitalization have taken on a new priority in light of the tragic events of September 11. We would like to assure the Committee that the women and men of Phillips are committed to the maximum development of our Alaskan and Lower 48 resources while continuing to adhere to our enduring and high standards of safety and environmental responsibility and compliance.

ENERGY SECURITY & ALASKA GAS RESOURCES

National Energy Policy proposals recognize the importance of both national energy security and economic growth in developing reliable, economic, long-term domestic energy supplies. At the same time, consumers recognize the need to encourage the use of the most environmentally friendly sources of energy. Natural gas is the most efficient and most environmentally acceptable fuel currently serving consumers. Alaska has been blessed with abundant domestic resources that are readily available. Bringing gas from the Alaska North Slope to market in the Lower 48 states can provide a new source of reliable, economic, long-term energy that is consistent with the country's environmental desires, national security objectives, economic prosperity, and National Energy Policy.

The Alaska North Slope gas represents the largest known but untapped natural gas resource in North America. The demand for natural gas in the United States is expected to grow by 17% over the next decade. Our current domestic gas consumption out-paces domestic gas production by 14 billion cubic feet per day and this shortfall is expected to grow in the future. An Alaska gas project, sized at about 4.5 billion cubic feet per day (bcfd), could supply about 10% of the projected 2010 new gas supply required to meet domestic demand. Once an ANS gas pipeline is on stream, it will provide gas to the American consumer for at least 30 years and will be a stabilizing force on gas prices. As a point of reference, every \$1 per mcf in avoided gas price increase is worth \$30 billion annually to the U.S. economy consuming 30 trillion cubic feet of gas per year.

The ANS gas project will enable commercialization of at least 45 tcf of stranded natural gas resources over 30 years. This volume is equivalent to approximately 7.5 billion barrels of oil. With additional exploration and development efforts, total recovered resources may increase up to 100 tcf.

In addition to the direct economic benefit of developing ANS gas, there are also environmental and other indirect benefits. Natural gas is the fuel of choice for its environmental and energy efficiency attributes. Natural gas is highly versatile in that it can be used not only in the generation of electricity but also in residential and commercial space heating, in industrial uses, and as a transportation fuel. A project of this magnitude would also stimulate money flow through the economy through multiplier effects and through induced investments.

Currently, there are two routes being considered to deliver Alaska North Slope gas to the U.S. A southern route takes a southern direction parallel to the Alaska oil pipeline, then follows the Alaska Highway and thereafter traverses Canada to the Lower 48 states. A northern route takes a northern direction from the North Slope running under the Beaufort Sea for about 240 miles before landing just east of the Ivavik National Park in Canada. The route then turns south passing the Mackenzie Delta and thereafter continues through Canada to the Lower 48 states. The two routes merge roughly at Vegreville, Alberta before the line reaches the U.S. border.

The position of the three major gas owners on the North Slope continues to be that route selection should be determined by the economics of the project. This rule of thumb applies to all business decisions worldwide and, when not adhered to, usually results in sub-optimal financial results. We see an Arctic natural gas pipeline to the Lower 48 states as being no different. To date, the feasibility study clearly indicates that, in today's natural gas climate, this project is not economic, regardless of the route selected.

While the current environment shows the project to be uneconomic, we also recognize its strategic importance to the energy future of this country. Moving the project forward under the right circumstances is likewise a high priority for us. The debate over the selection of the pipeline route has obscured the need for adequate enabling legislation to allow fast-track regulatory authority for construction of the pipeline. While both routes have their own unique set of risks, on balance we see certain advantages to a southern route. Accordingly, if it is the opinion of the members of this Committee that the endorsement of a southern route would materially improve the prospects for passage of a bill granting the fast-track regulatory authority needed to move forward then Phillips is prepared today to make that endorsement, but only under certain conditions. These conditions include the following:

- First, federal enabling legislation is required that will result in a coordinated, streamlined regulatory process.
- Second, federal fiscal relief is required that will ensure the appropriate sharing of risks and benefits.
- Third, Alaska fiscal certainty is required.
- Additionally, while we will work in good faith to source both labor and products domestically, there should be no mandated requirement for Project Labor Agreements (PLA), nor any mandate to use steel solely from U.S. sources.

The balance of my comments further outline Phillips' position and explain measures we think must be taken to make this project a reality.

BACKGROUND ON PHILLIPS PETROLEUM COMPANY

Let me take a moment to help you understand our company, as we have changed significantly over the last two years. Phillips Petroleum Company is an integrated international petroleum company with worldwide operations, headquartered in Bartlesville, Oklahoma. In the last eighteen months, we have doubled our assets and reserve base, increased production by more than 70 percent, and become one of the nations' leading refiners and marketers. While we were one of the first producers in Alaska, having had operations in Alaska since 1952, our position there increased significantly when we purchased ARCO Alaska last year. Our Alaskan assets now represent 47% of our total production and employ about 950 of our 38,600 employees. Our North Slope gas resources, at 8 trillion cubic feet (tcf) or about 1.5 billion barrels oil equivalent, represent one of Phillips' largest untapped resources and are a key investment priority for us. Phillips is focused on the economic, technical and environmental merits of bringing Alaska North Slope gas to the Lower 48.

NORTH SLOPE GAS PIPELINE PROJECT

Phillips, ExxonMobil and BP formed a joint team last year to assess the economic viability of the project. Jointly, we will have spent over \$100 million by year's-end, utilizing over 100 employees and about 500 contractors. Preliminary results show that the project is not economically viable, and we are focusing on how we can improve technology and reduce risks to improve the project's viability.

With initial pipeline cost estimates approaching \$20 billion, the ANS Gas Project will be the largest private project ever contemplated in North America. Any project of that size will involve significant costs and risks that must be managed. The project will require construction of the largest gas treatment plant in the world, and laying of about 3600 miles of pipe from the Arctic North Slope to the Lower 48 markets. The project will need five to six million tons of steel. The type of materials

and the pipeline technology to be used will require development of specialized equipment solely for this project. Logistical arrangements of the construction will be enormous. The challenges of permitting and implementation of a safe, environmentally sound project will be critical and unparalleled. Yearly operating expenses of the project will exceed \$700 million.

Enormous spending requirements make the project uneconomic at low gas price scenarios. Gas prices in the US have fluctuated between \$2/mcf and \$10/mcf within the last year, and this price uncertainty and volatility poses substantial downside risk for the project. The attached chart showing gas price volatility in the U.S. illustrates the size of the risk.*

The project, which spans over two sovereign nations, encompassing several states and provinces, requires alignment of interests and support of many stakeholders. Implementation of the project will also require resolution of diverse political interests.

ROUTE SELECTION

While a northern route is significantly shorter, given the uncertainty regarding the capital cost of the project we do not believe either route can realistically claim a meaningful cost advantage. Both routes would sell natural gas to the same markets and receive the same prices, so neither route would have an advantage in marketing. As capital costs and natural gas prices are the largest factors in determining the economic benefit of the project to the producers and as both projects are exposed to these factors, we do not believe relative economics can necessarily be used to decide between the two routes.

A southern route may have certain technical, expandability, environmental, and timing benefits. From a technical perspective, a southern route's ability to use existing infrastructure over much of the Alaska segment of the project is a benefit, particularly given the harsh Arctic environment. A southern route would follow the Alaska oil pipeline for a portion of its route, and would generally follow the Alaska Highway for the remainder of the route. By contrast, a northern route would have no access to infrastructure, and would have the additional technical challenge of having to construct a pipeline under the Beaufort Sea. We believe these factors place more of a construction and environmental risk on a northern route.

The ability to expand the pipeline to meet the country's future energy needs favors a southern route. Both routes would use the largest pipeline size currently practical, so increases in capacity would come from addition of compressor stations along the pipeline route. Addition of these compressor stations will be built into the design of either route, but for a southern route additional compression has the advantage of existing infrastructure related to pump stations on the oil pipeline or access from the Alaska Highway. Capacity increases are somewhat more problematic for a northern route because a compressor station would need to be placed in the environmentally sensitive Beaufort Sea. The Alaska North Slope has tremendous potential for additional resource development, with some estimates of future resources as high as 100 tcf, and the ability to expand the pipeline is a significant consideration.

Construction of a southern route does not preclude development of the Canadian gas in the Mackenzie Delta. Gas from both the North Slope of Alaska, as well as gas from the Mackenzie Delta in Canada will be needed to serve North America's growing demand for natural gas. We believe that if the ANS pipeline is built using a southern route that the Mackenzie Delta producers will separately decide to build a pipeline from that area to serve their needs. As a result, Canada and the U.S. will benefit from both sources of gas in the future. Two separate lines will create the infrastructure to allow both of these potential sources of energy to be developed to their full potential and ultimately provide more gas supplies from strategically secure sources than would be the case with a single line.

Advantages from an environmental perspective are another feature of a southern route. Since a pipeline following the southern route will use land that is adjacent to either an oil pipeline or a highway over much of its length, the incremental change in the environment will be minimized. Environmental issues associated with the southern route are easier to manage and therefore less likely to cause delays in the construction of the pipeline.

The State of Alaska has endorsed a southern route. Alaskans' preference for a southern route is based on the ability to provide the State's natural gas to key areas in Alaska, the opportunity to develop natural gas related industries, and the increased opportunity for construction and operations employment that would result

* The chart has been retained in committee files.

from more of the pipeline being built through Alaska. The active support from Alaska will expedite the realization of the benefits of the project for the rest of the U.S.

In summary, we believe a southern route has a distinct timing advantage over a northern route. A southern route has the benefits of fewer environmental issues, less construction risk due to the availability of existing infrastructure, support from the State of Alaska, and a less difficult permitting process. Timing is an important consideration. Delays will hurt the economics of the project, and will create uncertainty in natural gas markets as to when this vital source of energy will be delivered.

FEDERAL LEGISLATION

Federal Enabling Legislation. Phillips, ExxonMobil and BP have provided draft federal enabling legislation to the Committee that would provide an expedited process that is fair, simple and efficient for obtaining permits and other approvals for an Alaskan gas pipeline. Under that proposal, a federal director would be appointed to expedite the coordination of all federal agency activities. However, regulatory agencies would still have to be satisfied that tariff rates and terms are equitable and that there is full compliance with environmental laws. A full scale Environmental Impact Study (EIS) would be required.

This new enabling legislation would not impact the provisions of the Alaska Natural Gas Transportation Act ("ANGTA"). Although enacted in an era of regulation, ANGTA would remain in effect, just not as the exclusive means of implementing an Alaska gas pipeline project. The prospects for development of a successful pipeline project would be significantly enhanced under our proposal because it is free and clear of the constraints and mandates of ANGTA.

It is essential that the lowest cost projects be allowed to compete utilizing the proposed federal enabling legislation. The provisions of the enabling legislation would be available to anyone sponsoring the construction of an Alaskan gas pipeline who has reached an agreement with one or more shippers (including the State) for the transport of Alaskan North Slope gas to the Lower 48 markets. The legislation could be used by the current producer group with or without additional partners, or by other pipeline companies, the State of Alaska, or even the current ANGTS permit holders. This enabling legislation would promote market-driven competition, better assuring that the project with the lowest cost and corresponding lowest possible tariff to prevail.

Mandates will decrease the chance a project will be developed. We would discourage Congress from including language mandating Project Labor Agreements (PLAs), any sole sourcing requirements for steel, or any other mandates. These are business decisions that the federal government must allow the private sector to decide through normal competitive processes.

In some cases, these mandates are impossible to meet. For example, a requirement that all steel used in the pipeline come from American mills would be impossible to meet. We have visited with the major steel and pipe mill companies in the U.S. and have found only one currently capable of providing the pipe milling specialization that this project will require. The sheer size of this pipeline will require steel supplies from many sources, both domestic and foreign. The pipeline developers will certainly favor domestic supplies whenever it is economically feasible to do so.

On the issue of Project Labor Agreements (PLAs), it is very probable that any pipeline built will require the use of a PLA, as was the case with the Trans-Alaska Pipeline. This project will require a vast trained labor pool, and one of the issues for the project will be finding the required number of skilled laborers to allow timely completion of the project. A key factor in the economics of any project is the cost of labor and a mandate to utilize a PLA up front gives an unfair advantage to one side in the labor negotiations. The result will be a more costly pipeline. Congress should leave it to the private sector and labor to negotiate an agreement and not mandate a PLA, thereby tipping the negotiating scale.

Federal Fiscal Incentives. Any pipeline from Alaska to the Lower 48 states will be the most expensive project undertaken in North America and will involve a natural resource whose price history is extremely volatile. (See attached chart) The risk of this pipeline will be significant.

Phillips has submitted two proposals to the Committee that help manage these risks. Both are intended to encourage construction of an Alaska gas pipeline and the second one is specifically designed to provide relief only when market gas prices in the Lower 48 states fall to low levels that would not otherwise support a project of this magnitude and risk.

The first proposal is an acceleration of the depreciation recovery period for that part of an Alaska North Slope gas pipeline infrastructure that is located within the United States. Specifically, such gas pipeline infrastructure should be treated as 7-year recovery property instead of 15-year recovery property. There is widespread agreement that this provision makes good tax sense. A similar provision is in the House energy bill, applicable to all domestic gas gathering and distribution pipelines.

The second proposal is a credit against federal income tax that would provide downside price relief only if natural gas prices in the Lower 48 states are at low levels. That is, relief under this provision would be contingent because it would be available only when gas prices are low and, even then, the amount of the relief would be capped when gas prices are extremely low. For example, using government EIA forecasted gas prices, there should be no relief given under this proposal. The contingent nature of this relief provision means the potential relief would be small particularly when compared to the significant benefits to the American consumer and economy (see above).

Unlike Section 29, marginal well and other tax incentives being pursued for producing properties located in the Lower 48 states, this incentive is not automatic and may never be utilized. For a project of this size and cost and located so far from market in a frontier area, we believe this credit mechanism is fair and will help in our efforts to move this huge gas supply to market.

We believe that \$1.25/mmbtu is an appropriate initial base line for this credit. However, such base line amount should be adjusted annually for inflation in much the same way as is currently done in existing tax relief provisions.

Essentially, this relief mechanism, as proposed, would equal the amount by which a "netback" value for Alaska gas sold in the Lower 48 markets falls below the base line. The "net back" value would be an amount equal to the market price for gas in the Lower 48 markets minus the actual cost of treating Alaska gas and transporting it from the Alaska North Slope to the Lower 48 states. The relief available under this provision would be capped at the base line. As noted above, there would be no relief where the "netback" value equals or exceeds the base line.

These legislative proposals should provide a necessary environment for the sponsors to fully commit their resources to the project. Coupled with timely regulatory review, this will expedite the process of completing engineering studies on time, going to open season in the first half of 2002 and starting construction of a pipeline to bring first gas to the market as soon as possible.

CONCLUSION

We understand the ANS Gas project's critical role in providing a new source of reliable, economic, long-term energy that is consistent with the country's environmental desires, economic prosperity and national security objectives. We believe that the Alaskan gas can be brought to the U.S. markets by either a southern or a northern route in an environmentally sound way with similar cost structures. However, we are concerned about capital expenditure uncertainty with a northern route and that potential opposition may cause significant delays in its construction. Additionally, a southern route offers more flexibility for future expansions. Accordingly, Phillips is prepared to commit to a southern pipeline route if the necessary support mechanisms are provided.

Our proposed Federal enabling legislation will result in a coordinated, streamlined regulatory process and is an essential element in making a competitive national interest project a reality. The federal fiscal relief will ensure the appropriate sharing of risks and benefits. The project's enormous benefits for the U.S. economy justify the need for Federal support.

Eliminating the uncertainty around route selection should be a major step forward for the project and will focus all of the stakeholders on the next steps and provisions for successful implementation of this project, which is key to the future energy security of the U.S. Phillips wants to make an Arctic gas pipeline to the Lower 48 states a reality. We would be happy to meet and discuss the project with any and all stakeholders who share our vision of providing improved energy security through the development of the unique resource of Alaskan natural gas.

The CHAIRMAN. Thank you very much.
Mr. Koonce, why don't you go right ahead.

**STATEMENT OF K. TERRY KOONCE, PRESIDENT, EXXON-MOBIL
PRODUCTION CO.**

Mr. KOONCE. Thank you, Mr. Chairman. Senator Murkowski has left the room, I guess, and there are no other members of the committee present, so I will address these comments, Mr. Chairman, to you.

Good morning. My name is Terry Koonce. As president of the ExxonMobil Production Company, I am responsible from ExxonMobil's worldwide production operations, including our extensive oil and gas holdings on the North Slope of Alaska. As the largest holder of natural gas on the North Slope, ExxonMobil has a keen interest in commercializing that resource.

ExxonMobil has diligently pursued commercializing Alaska North Slope gas since the startup of the Prudhoe Bay field in 1977. However, in spite of significant efforts over the years, no economically viable project has been identified.

Beginning late last year, ExxonMobil, BP, and Phillips have been working together to evaluate and address a potential pipeline project to serve gas markets in Canada and the lower 48 States. We are examining multiple routes and the attributes of those routes in an effort to identify an economic project. Our preliminary cost estimates are in the range of \$15 to \$17 billion for what would be one of the largest North American projects in history.

There are clearly many risks associated with a project of this magnitude, including cost, the market, and regulatory issues. Acquiring all the necessary permits and authorizations will take time and could result in major delays and increase the cost of the project. This is an important area where Congress could take action to improve the prospect of an economically viable project being built to supply additional energy to our country.

The legislation that ExxonMobil, BP, and Phillips have proposed would simply provide a level playing field. It creates a market-driven expedited regulatory process for any viable project or projects for the delivery of Alaska natural gas to the lower 48 States. A project would be subject to FERC regulation, including fair and reasonable terms, and provide for open access consistent with FERC rules. The project would be subject to all environmental laws and regulations.

The provisions of the producer-proposed legislation are available to any project, not just one sponsored by producers. Also, this legislation does not affect the existing provisions of the Alaska Natural Gas Transportation Act, or ANGTA, that was passed by Congress over 25 years ago. Those would remain in place and be unchanged.

As I mentioned, a major risk that we face is cost, being able to hold the line on the investment associated with a project of this magnitude. Of course, cost is a major factor in determining whether a project is economically viable. It is important not to have any mandates, including route, that could raise the cost of a project and possibly preclude a project from being built. A project that stays on the drawing board benefits no one, while an economic project would provide significant benefits in the form of energy for U.S. consumers, jobs, and government revenues.

Some have suggested that the government provide incentives for an Alaska natural gas pipeline project. However, ExxonMobil is not

asking for anything specific for this project. If a project is determined to be economic in a normal market environment, no special incentive or subsidy is necessary. If a project is not economic, our preference is to try to improve it through our own actions or wait until market conditions support the project. ExxonMobil does not support the concept of subsidies, but prefers a level playing field that allows the market to operate unencumbered.

ExxonMobil, BP, and Phillips are spending over \$100 million this year on a work program that involves about 100 company personnel drawn from the three companies, along with significant contractor support. The areas of focus include conceptual design, project costing, permit considerations, commercial structure, and the overall viability of the pipeline project.

Based on our preliminary cost estimates, our current analysis has not identified a project that is presently economic. Our work remains on target for completing technical and engineering studies and having updated cost estimates by early year end—by year end or early next year. The continued expenditure of significant sums of money in continued joint producer study is only justified if the way forward from a regulatory perspective is clear. This clarity is provided by the producers' proposed enabling legislation that would be route-neutral and give some assurance that a project can be permitted in a timely manner.

We urge your favorable consideration of this draft legislation. Thank you, Mr. Chairman. We would be glad to answer questions at the appropriate time.

The CHAIRMAN. Thank you very much. Thank you for that testimony.

Mr. Robert Malone, who is the regional president for BP America. We are glad to have you here.

**STATEMENT OF ROBERT A. MALONE, REGIONAL PRESIDENT,
BP AMERICA, INC.**

Mr. MALONE. Mr. Chairman, Senator Murkowski. It has been just over 12 months since I provided this committee's with BP's views on Alaska's gas. This morning I am pleased to have an opportunity to provide the committee with a brief update on our activities and developments since the last time we met.

Since discovery of Prudhoe Bay some 33 years ago, the energy industry has sponsored a number of efforts to identify commercially viable means to bring Alaska's 35 trillion cubic feet of natural gas to market. In fact, BP has participated directly in the majority of these studies, including the gas pipeline studies that were encompassed in the ANGTA process over 20 years ago.

BP, Exxon, and Phillips are spending more than \$100 million on the only current study to determine the viability of transporting Alaska gas to North American markets. The study is almost complete. Our work to date indicates the costs are extraordinary and the project is not presently economic.

Now, this is not the final answer and I do not want to leave the impression that it is. This is clearly work in progress. With our partners, we will be completing this work and we will have better information by the end of the year. We hope as this work progresses that additional efficiencies and technological advances can

be found. At the same time, we hope that other possible project sponsors will be making similar efforts.

Mr. Chairman, governments have asked what they can do. There are areas where governments can help this process and they are being clearly communicated to. First, in Alaska we communicated the need to develop simple, clear, and predictable State fiscal terms for major gas development.

The Federal Government can provide regulatory clarity that will help reduce risk. This is an area where this committee can help. The producer team has prepared draft legislation and we believe it provides a positive regulatory foundation from which to develop a fully competitive Alaska gas pipeline project. But it is simply draft legislation. It is not etched in stone. BP stands ready to discuss viable improvements or alternatives that serve the same purpose.

We are aware that Governor Knowles also called for Federal legislation to facilitate construction of an Alaska gas pipeline. While we have not had the opportunity to view any specific legislation language, I can speak, as this committee requested, to some of the Governor's points. The Governor has proposed expanding opportunities for other investors to participate in the pipeline. This principle is consistent with the draft legislation, whose framework is available to any project and any investor.

However, let me assure you, pipeline ownership and control are not driving motivators for BP. We have no precondition on pipeline ownership and indeed we would expect that if we identified an economic project we would seek other investors or pipeline companies to participate in this construction of a line. If others are able to develop a lower cost or more efficient proposal, we would ship our gas on that pipeline. That is how the market is meant to work.

We support the use of local hire, native hire, and the use of local businesses in Alaska and Canada. It is how we do business today and we stand by our track record. In addition, a project of this magnitude will require the in-migration of labor and business to support the project and we should be careful not to impede the free flow of goods and labor across lines.

We support the principle of access both for communities and now exploration, but we believe existing FERC regulations address these issues. We could not agree more that Alaska gas into the North American market is good for the United States and Canada, and we support the use of U.S. and Canadian steel. It is critical, however, that it be competitively priced and that free trade principles are honored. We have to recognize that a project of this scale is going to stretch global steel capacity.

A project of this magnitude is going to require union labor and BP recognizes this. We have a long and productive relationship with organized labor and we are confident that we would be able to address issues between us without the need for Federal legislation.

Finally, let me turn to route. Alaskans have made clear their desire to see a pipeline built along the Alaska Highway, while the producers have suggested that no route decision should be taken until all the facts are in. I think we all agree that, first, the project has to be economic, but let me assure you the gas pipeline that BP

will support will be the pipeline to which Alaskans, Canadians, and the Federal Government can all agree.

Mr. Chairman, BP believes the time has come for government and industry to sit down collectively to collaborate on what tangible steps can be taken to actually progress this project forward. This process needs to be open, transparent, and constructive in order to advance a highly competitive and economically viable project. BP stands ready to be an active participant in any such effort, around the following principles:

A project must be economic to attract investor support under a stable and predictable fiscal framework; any solution must create a level playing field; embracing competitive free market principles, no single party can be perceived as having monopoly rights to build a pipeline; a project must have a competitive tariff. This is critical not only to the producers, but to the State of Alaska through its percentage ownership of the gas, and the United States with its taxing policies.

Finally, any solution must have active support of all governments—Alaska, United States, and Canada.

So in closing, let me assure you that BP remains fully committed to progressing this important project, and I thank you for allowing us to participate today.

The CHAIRMAN. Thank you very much.

Mr. Glenn, why don't you go right ahead.

**STATEMENT OF RICHARD GLENN, VICE PRESIDENT OF LANDS,
ARCTIC SLOPE REGIONAL CORPORATION**

Mr. GLENN. Thank you, Mr. Chairman, committee members, Senator Murkowski. First of all, let me begin by thanking the chairman for taking the time to visit the North Slope of Alaska in the past year. Our region was proud to host you, and Senator Murkowski's work in bringing other members of Congress to the place where this discussion is coming from is well worth the cost and I would like to thank you for that.

The CHAIRMAN. I hope it has warmed up a little since I was there.

Mr. GLENN. It is getting cooler. It is getting cooler right now.

My name is Richard Glenn and I am the vice president of lands for Arctic Slope Regional Corporation, or ASRC. This is the Native regional corporation established pursuant to the Alaska Native Claims Settlement Act. Our corporation represents more than 8,000 Inupiat Eskimos of Alaska's North Slope. Our shareholders, who are the Inupiat Eskimos, own surface and subsurface title to more than 4 million acres of North Slope lands and by virtue of this title ASRC represents the largest private landowner on the North Slope.

As a slight correction to the earlier discussion, we talked about ownership of resources, oil and gas. The more than 35 trillion cubic feet of natural gas identified at Prudhoe Bay and Point Thompson does belong to the State, but the lands surrounding Prudhoe Bay are owned by the Native corporation, our Native people, and also by the State of Alaska. These lands, located just south of the Prudhoe Bay area, are in one of America's premier natural gas provinces and could hold as much as 60 trillion cubic feet of gas.

We urge the committee not to overlook this significant resource when discussing routing or any other structures, cost structures, tariff structures, and capacity structures for any proposed natural gas pipeline.

Much of the discussion documents drafted by the producers that has been presented to your committee covers these topics and we would like to provide additional discussion of these topics just to make sure that the interests of our people and the significant resources that we own as a people are not neglected.

As it stands now, the producers' document needs to consider a capacity allocation that looks to the resources outside of the Prudhoe Bay. In addition, assumptions regarding secondary treatment services, the design and cost structure of these services, and the shippers' bidding schedule and structure also need to take this into account.

Now, it is said that the existing FERC regulations have made provisions for this. But we urge the committee not to overlook these items when discussing any Alaska natural gas pipeline, because to overlook them now has the potential to condemn the more than 60 trillion cubic feet of natural gas that sits on these important lands.

In addition to access to capacity, we request access to opportunity. As you know, there is no industry in the rural parts of Alaska save for resources extraction. It is for reasons like this that title 29 of the Trans-Alaska Pipeline Agreement was developed, to support native hire. We supported this provision, but we also know that the results fell a little bit short of the intent. Alaska Natives were aggressively recruited during the construction of the Trans-Alaska pipeline, but for purposes of operations of the pipeline some of that original intent seemed to fade with time.

We urge this committee to learn from the mistakes of the title 29 or from the disappointing results of title 29 for a renewed look at this effort should an Alaska natural gas pipeline be constructed.

Regarding jobs and job allocations, this project is huge. There are enough jobs to go around and we hope that our Native people living in rural parts of the State will also have access to these jobs.

We would like to stress that there is no linkage one way or another between this issue for our people and the issue of developing the oil in the Arctic National Wildlife Refuge. Both are critical to the country. One is not being done for purposes of the other. In fact, they both answer different needs that America currently has for its energy supply.

Finally, I would like to convey the wishes of the people of the North Slope in supporting an overland route for an Alaska natural gas pipeline. The issues of offshore development have received strong objection from our people and we see more benefits than disadvantages for the overland route. It does not avoid the resources—it does not condemn the resources located in the lands to the south. The greater environmental safety factor has also been mentioned. We are aligned with our Governor in this position.

Finally, Mr. Chairman, I carry with me the statements of the CEO's of Alaska's Native Claims Settlement Act regional corporations, who made statements similar to this presentation and to the Governor's supporting an overland route for transportation of Alas-

kan natural gas. I hope that you will find the opportunity to accept them as testimony at some point and I give them to you for use at your discretion.

[The prepared statement of Mr. Glenn follows:]

PREPARED STATEMENT OF RICHARD GLENN, VICE PRESIDENT OF LANDS,
ARCTIC SLOPE REGIONAL CORPORATION

My name is Richard Glenn and I am Vice-President of Lands for Arctic Slope Regional Corporation ("ASRC"). Arctic Slope Regional Corporation ("ASRC") is the Alaska Native-owned Regional Corporation, established pursuant to the Alaska Native Claims Settlement Act of 1971 ("ANCSA"), representing more than eight thousand Inupiat Eskimos of Alaska's North Slope. The shareholders of ASRC own surface and subsurface title to more than four million acres of North Slope lands. By virtue of this title, the ASRC represents the largest private North Slope landowner. The ASRC ownership stems from an earlier claim of aboriginal title—covering the entire Alaskan North Slope—that was eventually settled in part by ANCSA.

A large percentage of ASRC's current land holdings are in the Central Arctic region of the North Slope, an area that extends from the foothills of the Brooks Range north to the Colville River. ASRC's Central Arctic lands are located between the National Petroleum Reserve—Alaska on the west and the Arctic National Wildlife Refuge on the east. This is an area of high probability for large natural gas discoveries which, if found, will allow ASRC to succeed in its mission to enhance the cultural and economic freedoms of its shareholders, who are the North Slope Inupiat Eskimos.

Mr. Chairman, we are at a point in our history where there is a very strong national need to access Alaska natural gas for the lower 48 market at a reasonable price. ASRC supports the development of an Alaskan Natural Gas Pipeline.

In addition to granting the access to much-needed energy for the nation, the proposed pipeline would greatly benefit the State of Alaska by providing in-state energy infrastructure, generating new capital investment and creating new jobs. It would allow for in-state access to natural gas that would otherwise be unavailable. It would allow the State to realize economic benefits through royalties, severance taxes, and property taxes. This additional revenue to the state benefits all Alaskans through statewide capital improvements. Closer to home, our local borough, the North Slope Borough, would benefit via property tax assessments on local natural gas facilities, allowing for an improved quality of life for North Slope residents. Because it would provide the only vehicle for bringing North Slope Alaskan gas to market, the proposed natural gas pipeline has the potential to allow ASRC and the State to realize the economic benefits of continued gas exploration and development on our lands and on adjacent State leases.

ASRC's requirements related to North Slope natural gas exploration and development can be summed up in one statement: "We require access—access to capacity, access to opportunity, and access to the planning process."

ACCESS TO CAPACITY

As stated above, ASRC is the largest landowner on the North Slope, outside of the federal government, with title to more than four million acres of surface and subsurface estate. ASRC's lands include more than three million acres in the central Arctic foothills, one of America's premier natural gas provinces. Together with State-owned lands in the central Arctic, there are 11 million acres of land there that may contain more than sixty trillion cubic feet of natural gas, which we strongly believe should have an avenue to market. Said another way, ASRC believes that any natural gas pipeline leaving the North Slope should provide capacity to accommodate areas of new natural gas production, such as in the central Arctic, in addition to the significant identified natural gas reserves around Prudhoe Bay. In this respect, we are in agreement and supportive of Governor Knowles' efforts to ensure access to "future" gas owners.

For ASRC, and our industry partners currently involved in gas exploration, access to a gas pipeline is critical. If we cannot be assured of fair and reasonable access to space on a pipeline to carry new gas to market, our partners will not explore for or develop natural gas outside of Prudhoe Bay, Point Thomson and related fields. This outcome would, in effect, condemn more than 11 million acres of highly prospective Native- and State-owned lands from future exploration potential.

As it now stands, ASRC is concerned that the three owners of 90 percent of the existing proven natural gas reserves on the North Slope could use the power of this ownership, and presumably ownership of a natural gas pipeline, to restrict pipeline

access to other potential gas shippers. The three owners might utilize excessive capacity “hold backs” whereby the owners would set aside more pipeline capacity than is necessary for their own internal purposes. In addition, the three owners would have the opportunity to make transportation capacity either completely unavailable or unreasonably expensive to shippers who are not able to secure firm capacity under the initial open season bidding process. They might also force shippers to sell their “stranded” gas at distressed prices to those that control the firm transportation. Finally, the three owners might unnecessarily delay or forestall an expansion that would provide additional pipeline capacity for new producers who have made new gas discoveries.

ASRC believes that any new legislation regarding the Alaska gas pipeline must look at the capacity requirements of the known stranded gas, as well as at the requirements of companies holding acreage that is potentially significant to natural gas exploration and development in the future.

ASRC is also concerned the gas-owners could set a high tariff structure that would deter any future gas producers from effectively purchasing capacity if they were not able to reserve capacity during the initial open-season process. Unbundling secondary services, such as the CO₂ conditioning plant, would allow for a fair tariff structure by not burdening low CO₂ gas with the cost of conditioning. ASRC opposes the creation of special or preferential rate schedules that favor the Prudhoe Bay and Pt. Thomson gas owners, thereby removing existing incentives for other gas exploration on the North Slope. Again, shutting out future natural gas shippers through a high tariff condemns our lands from future exploration and development.

ACCESS TO OPPORTUNITY

The construction and eventual operation of a natural gas pipeline presents many opportunities to all Alaskans. Jobs in construction, engineering, operations and the support of natural gas-related processing industries all will be welcomed by all Alaskans along the pipeline route.

We agree with and support Governor Knowles’ point that special emphasis be placed on recruitment, training and employment of Alaska Natives. ASRC, as an Alaskan Native Corporation, with established subsidiaries in oilfield construction, surveying and engineering, and pipeline operations, has much to contribute to the construction and operation of a natural gas pipeline. ASRC and other Alaskan Native Corporations have the unique ability to provide a highly skilled, Alaskan Native workforce. ASRC is already contributing, for example, in the “front-end engineering and design” for the gas conditioning plant and the pipeline along its proposed route through Canada. We seek continued participation in the design, construction, and future operations of this major development project. Our companies are competent, we have proven ourselves in the industry, and most importantly we seek to put our people to work.

Native hire was also incorporated as a term within the Trans-Alaska Pipeline System (“TAPS”) Agreement. Title 29 of that Agreement prioritized Native hire. However, as history has shown, the implementation of Title 29 fell very short of its intent. Very few Alaskan Natives were hired to work on TAPS. ASRC applauds the Governor’s goal of Native hire and feels that the previous disappointment of the TAPS Title 29 experience will be instructive for developing similar, but improved, provisions for the Alaska Natural Gas Pipeline.

ACCESS TO THE PROCESS

In addition, we do not wish to foreclose any opportunities related to an equity position in the Alaska Natural Gas Pipeline or any of the related systems. To this day, there has been little discussion on who will own the pipeline. While it is assumed that the three majority gas owners—ExxonMobil, BP, and Phillips—will be the owners of the proposed gas pipeline we feel this is an area still open for discussion. Although ownership is still unclear, as it is defined and developed, ASRC wants to participate.

While ASRC is in favor of and supports the development of the proposed Alaska Natural Gas Pipeline, we wish to make it clear that our support of this important project is independent of our on-going support for the opening of the Arctic National Wildlife Refuge (“ANWR”) to oil and gas leasing. Both the Natural Gas Pipeline and the opening of ANWR are important, yet distinct, issues for our Corporation and we wish for this Committee to treat them as such. ASRC recognizes that while natural gas development is important to the energy needs of our country, it will not replace our dependence on foreign oil in the long-term and that only development of the ANWR coastal plain will help solve that piece of America’s energy puzzle.

Finally, ASRC would like to join the North Slope Borough, the whaling captains of our villages, and many others in supporting an overland route for the Alaska Natural Gas Pipeline. In addition to avoiding the placement of a pipeline in the Beaufort Sea, a route from the North Slope paralleling the Trans-Alaska pipeline would provide access to the significant resource base of the central Arctic, opening up a significant hydrocarbon province, and provide jobs and revenue to all Alaskans. This southern route would also provide natural gas to communities dependent on high cost diesel in the interior of the State. By routing the pipeline through the State, our urban centers of Anchorage and Fairbanks would not only benefit from low cost natural gas but also be able to attract other industries to the State allowing for diversification of the State's economy. ASRC is confident that the oil producers will come to the same conclusions after reviewing all of the issues related to gas development in Alaska.

We respectfully encourage the Committee to review all the issues related to proposed legislation, and not just the interests of a few gas owners, to better understand the impacts that any legislation might have on State of Alaska and this important national energy source.

The CHAIRMAN. Thank you very much.
Mr. Silva, why don't you go ahead.

**STATEMENT OF PATRICIO SILVA, ENERGY PROJECTS
ATTORNEY, NATURAL RESOURCES DEFENSE COUNCIL**

Mr. SILVA. Thank you, Mr. Chairman and Senator Murkowski, for the opportunity to appear before you today on the status of proposals to facilitate transportation of natural gas from Alaska to the market in the lower 48 States. My name is Patricio Silva and I represent the Natural Resources Defense Council, which is a nonprofit organization of scientists and lawyers and environmental specialists serving a membership of over 500,000.

The key recommendations we would like to share with the committee this afternoon are: NRDC can support the proposed Alaska Natural Gas Transportation System route following the Trans-Alaska Pipeline System and the Alaska-Canadian Highway right of ways if a thorough new environmental impact statement that complies with all U.S. and environmental laws is prepared. The pipeline system must incorporate the best pipeline safety and environmental measures. NRDC opposes other pipeline routes outside of existing right of ways and development corridors, including the over-the-top gas pipeline routes.

NRDC believes that additional authorizing legislation for an Alaskan natural gas pipeline is unnecessary. The Alaska Natural Gas Transportation Act is adequate even though ANGS has not been completed. Any attempts to expedite permitting of an Alaska natural gas pipeline through parallel processes may delay, rather than expedite, bringing Alaska natural gas to market. Consistent protections must be maintained for sensitive onshore and offshore Federal areas, including prohibitions against drilling in the Arctic National Wildlife Refuge, the existing moratoria on the Alaska outer continental shelf, and we also believe that additional moratoria are required for other OCS areas off the coast of Alaska.

The benefits of existing natural gas supplies should be maximized by increasing efficiency in end use consumption, including incentives for the construction of energy efficient buildings and for manufacturing energy efficient heating and water heating equipment.

With that, I am actually going to end my testimony and be happy to answer any questions you may have at the end.

[The prepared statement of Mr. Silva follows:]

PREPARED STATEMENT OF PATRICIO SILVA, ENERGY PROJECTS ATTORNEY,
NATURAL RESOURCES DEFENSE COUNCIL

Thank you for the opportunity to appear before you today on the status of proposals for the transportation of natural gas from Alaska to markets in the lower 48 States and legislation that may be required to expedite the construction of a natural gas pipeline from Alaska. My name is Patricio Silva, and I represent the Natural Resources Defense Council.

The Natural Resources Defense Council is a national nonprofit organization of scientists, lawyers, and environmental specialists, dedicated to protecting public health and the environment. Founded in 1970, NRDC serves more than 500,000 members from offices in New York, Washington, Los Angeles, and San Francisco.

Natural gas is a critical part of an environmentally and economically sound national energy policy. Natural gas demand in the United States is expected to grow in response to increased demand for gas-fired electric generation, in addition for commercial and residential heating and cooling and as feedstock for petrochemical manufacturing. Natural gas use in the United States has grown approximately 2.0 percent each year over the past decade. In 2000, natural gas consumption reached almost 23 Tcf (trillion cubic feet) with gas demand for industrial use representing about 60 percent of the new growth.

According to the Energy Information Administration's (EIA) Annual Energy Outlook 2001, by the year 2020, gas demand in the United States is projected to increase to 34.7 Tcf per year. Gas consumption used to generate electricity is expected increase from 16 percent of generation in 2000 to nearly 36 percent in 2020 according to EIA. Additional gas gathering, transmission, and distribution infrastructure will be required, including infrastructure to bring Alaskan natural gas to market.

Domestic natural gas exploration has rebounded from historic lows in early 1999, when 371 natural gas drilling rigs were reported in service as gas futures prices fell below \$2 per mmBtu. Natural gas exploration has surged with 1,032 rotary gas-drilling rigs reported in service in August 2001, a 32 percent increase over August 2000.¹ Rising natural gas prices are driving the renewed interest in natural gas exploration in existing production regions in Oklahoma, Texas and Kansas.² Shortages of skilled labor and reluctance to invest in new drilling equipment currently are limiting natural gas production, indicating that access to public lands is not a constraint.

Now that gas futures prices have settled back below \$3 per mmBtu, it is unclear what this will mean for gas demand, pricing and drilling activity in the short term. The long-term forecast of increasing natural gas demand appears to remain accurate.

NRDC believes that pipelines should be constructed and operated in an environmentally sensitive manner, with strong safety measures and oversight, and, whenever possible, along existing routes. If Prudhoe Bay gas supplies are needed to serve markets in the lower 48 states, any Prudhoe Bay natural gas pipeline should follow the Trans-Alaska Pipeline System and the Alaska-Canadian Highway right-of-ways; undergo a thorough, new environmental impact statement; comply with all U.S. and Canadian environmental laws; and incorporate the best pipeline safety and environmental measures. Plans to construct an offshore pipeline off the Arctic National Wildlife Refuge coastal plain should be rejected.

EXISTING LAW SUFFICIENT

Additional authorizing legislation for an Alaskan natural gas pipeline is unnecessary. In the mid 1970s, rising natural gas demand in the lower 48 states led energy producers to explore the feasibility of bring Alaskan natural gas to market through various natural gas transportation projects with several filings proposed under the

¹Baker Hughes, Inc. North American Rig Counts (<http://www.bakerhughes.com/investor/rig/rig-na.htm> accessed October 1, 2001) See also Energy Information Administration, *Annual Energy Outlook 2001*, DOE/EIA-0383(2001) (December 2000), pp. 30-32.

²Jim Yardley, "Oil Patch Comes To Life As Natural Gas Prices Climb," *New York Times*, December 16, 2000 pp. A1, A16. In December 2000 some 1,090 drilling rigs were reported in service, with more than 800 drilling rigs exploring for natural gas, a significant increase over a year ago when fewer than 400 drilling rigs were reported in service, but still modest in comparison to the 1970s and 1980s when more than 4,500 drilling rigs were reported in service.

Natural Gas Act.³ Responding to a perceived need for expedited review and approval, Congress enacted the Alaska Natural Gas Transportation Act (ANGTA), 15 U.S.C. § 719, to “provide the means for making a sound decision as to the selection of a transportation system for delivery of Alaskan natural gas for construction and initial operation by providing for the participation of the President and the Congress in the selection process, and if such system is approved under this chapter, to expedite its construction.”

Under the procedures provided under ANGTA, the President selected an Alaskan gas pipeline proposal (ANGTS gas pipeline), which Congress approved on November 8, 1977.⁴ To date only portions of ANGTS have been constructed and placed into service. It appears that disagreements between producers and pipeline proponents over economic and market conditions have contributed to the lack of activity in completing ANGTS.

ANGTA remains adequate to address all of the issues regarding transportation of Alaskan natural gas to market in the lower 48 states, despite that ANGTS has not been completed. Any attempt to expedite permitting of an Alaska natural gas pipeline by creating other permitting processes may result in considerable delay in development and construction. Pipeline proponents with existing or potential stakes in competing projects would likely litigate their claims, likely resulting in significant additional delays, rather than expediting construction. It is also unclear what effect additional legislative action would have on the two related international agreements between the United States and Canada governing international pipeline projects and ANGTS in particular.⁵

EXPEDITING ENERGY PROJECTS UNNECESSARY

While some have proposed streamlining permitting regulations to expedite construction of energy projects, natural gas pipeline operators have not found existing environmental and public safety regulations to be an obstacle to energy development. According to the Energy Information Administration, natural gas pipeline operators have been adding natural gas transmission capacity across the United States at a fevered pitch with 1,895 miles of new pipeline constructed in 2000, 4,300 miles to be completed by end of 2001, and 4,650 miles in 2002.⁶ There is no indication that the existing environmental and public safety regulations have prevented construction and operations of ANGTS. Attempts to expedite natural gas transmission pipeline approvals by abbreviating or eliminating public review and regulatory oversight could lead to unnecessarily compromising public safety and environmental protections.

MANAGING SUPPLY BY REDUCING DEMAND

Increased energy efficiency in homes and factories not only would lower consumers’ energy bills; it would free up large amounts of natural gas to help meet the needs of new highly efficient combined-cycle (combustion and steam turbine) power plants. Stronger and better-enforced building codes augmented by tax incentives for constructing buildings that exceed code requirements would pay a double dividend: lower heating and electric bills, and less pollution. For example, tax incentives for the construction of energy efficient buildings and for manufacturing energy-efficient heating and water-heating equipment could save 300 Tcf of natural gas over 50 years.⁷

³Staff Report of the Federal Energy Regulatory Commission on the Alaska Natural Gas Transportation Act to the United States Senate Committee on Energy and Natural Resources (January 18, 2001).

⁴H.R.J.Res. 621 Pub.L. No. 95-158, 91 Stat. 1268, 95th Cong., 1st Sess. (1977).

⁵Agreement Between the Government of the United States of America and the Government of Canada Concerning Transit Pipeline (Transit Pipeline Treaty) entered into force October 1, 1922, and Agreement Between the United States of America and Canada on Principles Applicable to a Northern Natural Gas Pipeline (Agreement on Principles), signed on September 20, 1977.

⁶Joseph Kahn & Jeff Garth, “Energy Industry Raises Production At A Record Pace,” *The New York Times*, May 13, 2001, p. 1, 15. See also Energy Information Administration, *U.S. Natural Gas Markets: Recent Trends and Prospects for the Future* SR/OIAF/2001-02 (May 2001) pp. 16-20.

⁷Interlaboratory Working Group, *Scenarios for a Clean Energy Future* (Oak Ridge, Tennessee; Oak Ridge National Laboratory and Berkeley, California, Berkeley National Laboratory (ORNL/CON-476, LBNL-44029)) (November 2000). The “Advanced” electricity scenario shows total gas demand increasing from current levels of about 22 Tcf to 26 Tcf in 2010, while total CO₂ emissions are reduced.

PRESERVING THE ARCTIC REFUGE AND ALASKA OFFSHORE

It is important to point out that with natural gas the issue is less about the need to find new supplies, than the need to develop the infrastructure to deliver these supplies to market. Increasingly, it is getting the existing gas supplies to the market that is the biggest challenge. Development of a safe and environmentally benign pipeline infrastructure is critical. NRDC believes that pipelines should be constructed and operated in an environmentally sensitive manner, with strong safety measures and oversight, and, whenever possible, along existing routes. With a thorough environmental impact statement, ANGTS fulfills these requirements.

Some have also suggested that natural gas production is a reason to drill in the Arctic National Wildlife Refuge. In reality, industry interest in the Arctic Refuge is driven by its desire to produce oil, not gas. The Arctic Refuge is estimated to contain less than 7 Tcf of natural gas resources; about a three-month supply by the time the resources could be developed.⁸ By comparison, the Prudhoe Bay production area is estimated to contain 32 Tcf to 38 Tcf of natural gas resources.⁹ Associated gas produced at Prudhoe Bay fields is re-injected into the oil field for enhanced oil recovery, or used as fuel at production facilities because there is no way to transport it to market.¹⁰

NRDC is concerned that other Alaska gas pipeline routes may endanger sensitive wildlife habitat, including offshore in the Beaufort Sea. The Alaskan Outer Continental Shelf (OCS) is home to a rich variety of marine life, and lies adjacent to some of the most important and spectacular terrestrial public resources in the United States, including national parks, wildlife refuges, forests and wilderness areas. The Arctic Ocean's Beaufort Sea is home to polar bear, walrus, seals, migratory birds, threatened spectacled and Steller's eiders and the endangered bowhead whale. This unique natural resource is also a place dominated by ice, where temperatures can plummet to -60 degrees F, where relatively stable land-fast ice and a mobile icepack interact violently in the ice shear zone, and where wind and fog can make air or boat travel impossible.

The Arctic National Wildlife Refuge, with its incomparable wildlife and wilderness, lies landward of the eastern portion of the Beaufort Sea in the United States. Critical bowhead whale spring migratory pathways are located east of Barrow, and fall migratory pathways and feeding areas are located offshore the Arctic National Wildlife Refuge. These unique natural treasures are sensitive to disturbances caused by industrial activities and infrastructure.

Development off the coast of the Arctic Refuge poses risks to fish, polar bears, and migratory birds using the refuge coastline, lagoons, and barrier islands. Internationally important polar bear habitats are at risk, both within the refuge and off its coast. Protection of polar bears and their habitats is a specified purpose of the Arctic Refuge, and the Refuge provides the most important onshore denning habitat in the U.S.

Similarly, the National Petroleum Reserve—Alaska (NPR-A) possesses extensive critical habitat areas for many species of mammals, migratory birds and fish. Until these areas can be fully inventoried and appropriately protected we urge that there not be any more oil and gas leasing in the NPR-A.

NRDC is concerned about increasing industrial encroachment across the North Slope and Beaufort Sea despite the U.S. commitment to protect feeding, denning, and migratory areas in the international treaty, Agreement on the Conservation of Polar Bears. Offshore exploration and development would cause pollution, aircraft and vessel noise and related industrial activity, and potential oil spills would degrade the Refuge and threaten the integrity of this protected conservation unit, even if there were no construction of infrastructure within its boundaries.

CONCLUSION

NRDC can support the proposed Alaska Natural Gas Transportation System route following the Trans-Alaska Pipeline System, and the Alaska-Canadian Highway right-of-ways already conditionally certificated under ANGTA, if a thorough, new environmental impact statement that complies with all U.S. and Canadian environ-

⁸John Schuenemeyer, USGS, *Assessment Results, The Oil and Gas Resource Potential of the Arctic National Wildlife Refuge 1002 Area, Alaska*. USGS Open File Report 98-34 (1999). Chapter RS Table RS14.

⁹T.J. Glauthier, deputy secretary of energy, testimony before the Senate Committee on Energy and Natural Resources, September 14, 2000.

¹⁰Emil D. Attanasi, USGS, *Economics of Undiscovered Oil in the 1002 Area of the Arctic National Wildlife Refuge, in The Oil and Gas Resource Potential of the Arctic National Wildlife Refuge 1002 Area, Alaska*. USGS Open File Report 98-34 (1999). Chapter EA p. EA-12.

mental laws and incorporates the best pipeline safety and environmental measures is prepared. To ensure that adequate sources of natural gas are available in the future, NRDC urges the adoption of aggressive efficiency measures that lower the amount energy required for everyday activities from heating and ventilation of home and buildings to manufacturing and generating electricity. NRDC opposes, and sees no need for, natural gas development in sensitive areas or any expedited permitting processes.

The CHAIRMAN. Thank you very much.
Mr. Sullivan.

**STATEMENT OF BILL SULLIVAN, EXECUTIVE VICE PRESIDENT,
EXPLORATION AND PRODUCTION, ANADARKO PETROLEUM
CORP.**

Mr. SULLIVAN. Mr. Chairman, Senator Murkowski, Anadarko appreciates the opportunity to testify today on these important issues. At Anadarko we are explorers and we have been exploring aggressively and successfully in Alaska for many years. Our people are among the best in the business and we use the latest technology to focus exclusively on exploration, development, and production of oil and natural gas.

As the world's largest independent, we are working hard to supply America's energy needs. We are one of the most active drillers in North America and we are the fifth largest producer of natural gas in North America. One of the most promising areas for significant new natural gas finds is Alaska, with estimates ranging from 60 to as much as 100 trillion cubic feet of undiscovered gas on Federal, State, and private lands on the North Slope. That is more than three times the estimated proven discovered reserves in existing fields.

Anadarko has a huge acreage position of Federal, State, and private lands with tremendous natural gas potential. We have made significant investments in technical, geologic, and seismic work over many years and we are ready to explore for natural gas, but the costs of exploration and development are high without the assurance that we will have access to pipeline capacity on equal terms and conditions that do not place us at a competitive disadvantage. We may not be able to justify that investment.

That brings us to why we are here today. We understand the committee is considering the need for legislation to facilitate construction of a pipeline to transport Alaskan natural gas to the lower 48. Congress passed such legislation in 1976 when it enacted the Alaska Natural Gas Transportation Act. It may be that, given the passage of time, further or updated legislation is required. In fact, we have three particular concerns which should be addressed with new legislation:

First, that access must be available on equal terms to any person seeking to transport natural gas;

Second, that the tariffs for transportation are nondiscriminatory;

And third, that the pipeline be expanded as supply and demand dictate in the future.

In enacting ANGTA, Congress recognized these principles as essential to ensure that Alaska's significant natural gas resources, not just those in Prudhoe Bay, would be developed and transported to markets through what will undoubtedly be the only gas pipeline to transport gas from the North Slope to the lower 48. In the inter-

est of time, let me very simply say that a lot has changed in natural gas marketing and in transportation since ANGTA was passed in 1976. So these three principles must be updated in new legislation whether or not the pipeline is constructed under ANGTA.

It is important to know that three producers hold more than 90 percent of the proven Alaskan natural gas reserves. This gives them the position of joint negotiating power to structure the open season, the contracts, the tariff terms, potentially to competitive advantage. Obviously, unless access to the pipeline is made available to all shippers on equal terms and unless rates and conditions of service are nondiscriminatory, the economics of exploration and production on the North Slope may be tilted against companies like Anadarko.

This would inhibit the exploration and development of Alaska's natural gas resources and adversely affect the supply of that gas to the U.S. economy and the consumer. We hope that these concerns will be resolved by FERC under the Natural Gas Act. We are not convinced. At the present time, FERC does not try to control the terms and conditions under which capacity is allocated on new pipelines during the open season. Clear and fair rules must be in place before, not after, capacity is awarded.

FERC has no authority to order an expansion of facilities under the Natural Gas Act and, although Congress recognized the need for pipeline expansion in ANGTA, it is unclear how FERC is to handle such a situation.

Again, for these reasons we believe the committee should consider legislation that: first, directs FERC to issue clear rules governing the open season process in which the capacity is to be allocated; second, require that tariffs be nondiscriminatory so as not to inhibit competition and exploration; and third, grant FERC the power to order an expansion of pipeline facilities where economically and technologically feasible.

There are those who say that the market should decide who will obtain pipeline capacity and what rates will be charged. In circumstances where there is open competition, I would absolutely agree. However, in this unique circumstance where only one pipeline will ever be built and three producers appear to be in control of the process, legislation and regulation are required to ensure long-term competition.

U.S. consumers and the economy will benefit from that competition, and at Anadarko we intend to be that competition. We have the acreage, we have the expertise, we have the financial resources, and we have the commitment to explore on the North Slope, and we are ready to drill. We need clear legislation that ensures a level playing field and access on equal terms and conditions.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much.

Let me just ask a few questions. Let me first start with any of the three producer representatives from the producing companies here. The administration's position as I understand it from the previous panel is that they believe it is premature for Congress to do anything on this subject. They have no position in favor of legislation, they have no position opposed to legislation, but they think

until actual proposals are on the table, it is too early for us to legislate.

What is your response to that?

Mr. MARUSHACK. Senator, we are trying to move this project along and, speaking for Phillips right now, we are trying to move this project along as quickly as we possibly can. Certainly we see some economic hurdles there. So we have talked about the enabling legislation and fiscal legislation, but we think it is critical to have a process for the permitting of this pipeline well defined and well understood.

We are spending collectively about \$100 million, Phillips about \$35 million, which is a large amount of money for us. To move to that next phase, we need to have a clear regulatory process so that we can move this along as quickly as we possibly can.

We heard Chairman Wood speak earlier this morning and we clearly understand that he needs a complete EIS. We intend to comply with all the requirements that are out there, but we have to have the certainty and the timing so we can move forward with this project and continue to spend the kind of money to bring this gas to the lower 48 as quickly as possible.

The CHAIRMAN. Mr. Koonce, did you have a comment?

Mr. KOONCE. Yes, Mr. Chairman. The issue here is one of risks, I think. We have severe risks in costs. We have talked about that. We have risks in the market and we have risks in permitting. Those are kind of the major areas. Permitting obviously affects timing, which in turn affects the economics.

So what we have said was we need this legislation to take away and mitigate one area of those risks. We continue to work on the cost side to try to lower the costs. We continue to monitor the market side. There is not a lot we can do about the market side, except we continue to study it.

Now, another factor that is a deterrent to us reducing the cost, I think, is the mandating of any route. So we have recommended route neutrality in this legislation. Let me just bring out a factor, too, about the so-called northern route that has not been brought out yet in this hearing. The \$2 billion difference between the north and the south has been mentioned and that derives primarily because the northern route is about 300 miles shorter than the southern route if you are just delivering Alaska gas to the lower 48 and you ignore anything going on in the MacKenzie Delta.

What I would like to bring forward here is the fact that there is gas in the MacKenzie Delta. There is a gas project that is looking at the feasibility of bringing Canadian gas to the lower 48, to Alberta and to the lower 48, and that project, which we are part of, appears to be economically viable.

Now, if that pipeline is built, then here is the scenario that can conceivably develop. Now, all you have to do is expand that pipeline from maybe 36 inches to 52 inches, build a bigger line to accommodate Alaska gas, and lay about 400 or 500 miles of line instead of 2,100 to the south. That takes \$3.5 billion out of the project, more than the \$2 billion if you are just considering Alaska gas.

Now, I say that only to say that that is why we are route-neutral. We just think it is premature to rule out any options until we

have had the opportunity. We and everyone interested in these options has had the opportunity the fully explore them. It can even be said of the one I just described that the incremental footprint that you are dealing with environmentally is only 400 or 500 miles instead of 2,100 miles, and the emissions that would be accompanying that scenario would be considerably less. So there are even some environmental advantages that need to be further explored.

So I think these are the reasons I think we need some legislation to take away that risk of permitting. We will continue—we would like to be able to continue to work on the cost side and the market side.

Thank you.

Mr. MALONE. Mr. Chairman, may I add one comment to that of my colleagues?

The CHAIRMAN. Yes, go ahead.

Mr. MALONE. For 25 years now, Alaska gas has remained in the ground rather than coming to market. There has been a routing out through ANGTA which has not been economic to commercialize the gas. It is very important as part of the studies that we have been doing is to not say that ANGTA is not a valid process, but rather allow for others to be able to compete to build pipelines that could move this gas to market. It is very important to us in order to be able to commercialize this that competition, a level playing field, be created.

The CHAIRMAN. My time is about up. Why do you not go ahead, Senator Murkowski.

Senator MURKOWSKI. Thank you, Senator Bingaman.

We talk—I am talking to producers now primarily—relative to the necessity of the proposed legislation, and obviously expedited review of the application, a single consolidated EIS, establish Federal pipeline director, limited judicial review, all of which are certainly reasonable in the request.

“Route-neutral” reminds me of, if there is anything wrong in this it is a parallel to the issue of a national energy security bill. It is always about ANWR. This particular issue is about route selection and route specificity relative to the attitude prevailing by action of the House of Representatives, which has designated a southern route, and the State of Alaska. Clearly, what is in the long-term interest of the State, is it more revenue or is it the ability to try and develop that gas within the State?

The problem I have, gentlemen, is we have been advised that we have an uneconomic project before us at this time. That is significant in the sense that you are saying it is not economic. What are we to expect to hear at the end of the year? We will simply have to wait until the end of the year while you progress with your studies, and that is certainly reasonable.

You want regulatory clarification. You want assurances from the State. Those are negotiated at a time that the State and you folks see fit, but as we look at where you are now we can consider the merits of a stand-alone legislation on what you have requested relative to your proposed legislation and then the question is whether the Senate's going to take a position on a route such as the House has done.

But in any event, gentlemen, we do not have an application now. When are we going to get an application? That application is going to be very definitive relative to the obligation that we have to move on the application. We have got a request here for legislation to expedite, which is certainly reasonable. Do we want to get into the route selection and dictate that, too? I have already given you my preference on route selection as a consequence of what I feel is in the long-term and best interests of the State, and you have heard the Governor.

From my point of view—and I am speaking from the minority position on this—I am willing to take up your proposed legislation, but clearly the intent of Alaska is the southern route and that is contrary to the position that is taken by one of the producers certainly.

I do not see the necessity of adding this action to a national energy security bill which we are promoting separately. I think the two should be separate. I am not suggesting that gas is not in the national energy security interests of the country, but I think we have to take this systematically, and until we have the results of your evaluation at the end of the year I would think it would be very, very difficult to move, if you will, on even your proposed legislation now.

But I am open to that depending on the progress, because if you reach the end of the year and this thing is still economic or there is still more time needed for more evaluation of scarcity of capacity or increases in price, I think it would be premature to suggest that the Senate take this up until we have a little more clarification relative to the points I have made.

I have a couple more questions. I am going to take the prerogative of the minority, which I used to take as the prerogative of the chair, and, since the producers are seldom together, I would like to ask you two questions. I would like you to respond quickly and I do not think you need a lot of detail.

But this involves the realization that you are the major holders of gas and also the major holders of oil and as a consequence there is discussion that it would take 10 years to develop oil from ANWR. I am going to ask you the question that, if you were allowed to go in under an expedited permitting process and a major discovery was made, how long it would take you to move the oil over the existing Trans-Alaska Pipeline or use the Badami line?

The second question is the allegation that these reserves are only a 6-month supply for the Nation, yet the indication that the reserves are somewhere between 6.5 and 15 billion barrels, how significant is that to the Nation's supply? You can take it in any order you want, or is there any volunteers or do you want me to call on somebody? There we go, Exxon is first.

Mr. KOONCE. I will take it, Senator Murkowski. I will take the second one last. I think any quantity of oil is important to our Nation today and the best thing we can possibly do for our energy security is find additional sources of domestic crude oil. So whether it is 6 billion or 16 billion to my way of thinking is not the relevant question. If it is there, we ought to be going after it.

Now, in terms of timing, you have to start with exploration, of course. If we had a lease sale next week, the first thing that would

have to be done is to have some modern seismic running across ANWR. That would have to be interpreted, prospects identified, wells drilled, discoveries made. That process would take I would say a minimum of 2 years. It could well take 3.

So 2 to 3 for evaluation, discovery, delineation, appraisal. Then if you had a project, if you had a discovered reserve that was commercial, it typically takes about 2 years to construct the field facilities required in the lower 48 and then, as you well know, those have to be brought up around Point Barrow in the third year, the construction year. So between engineering, construction, engineering design, construction in the lower 48, and construction on the North Slope, that will probably be 3 or 4 years.

So now we are talking from now until the time you could have something built, in the range of 5 to 7 years. But the factor that I have not mentioned at all is permitting. It is the same one we are here to discuss today for Alaska gas. Now, you have got to add permitting into that equation for all the activities.

Senator MURKOWSKI. You are asking for expedited permitting on the gas line.

Mr. KOONCE. I am just saying that if Congress and the State could expedite the permitting associated with the activity that I just described, then you maybe could be in production in 6 to 8 years. If you, say, had a very expedited permitting process and it took only about 12 months, the normal process—and my colleagues can comment on this if they choose, but the normal process—we probably allow 3 to 4 years for that permit, which would put you up in the 10-year range.

Senator MURKOWSKI. Well, if you went over the existing Badami line that would cut that time down.

Thank you. Anybody else.

Mr. SULLIVAN. Senator Murkowski, if I could briefly. Anadarko is maybe not well known as a producer from the North Slope, but in fact we are. We have been proud to be a partner with Phillips in the exploration and development of the new Alpine field, the newest field to start production on the North Slope. It was discovered in 1994 and began production in late 2000, a 6-year time frame from actual discovery to development, and, notably, in a unique and new development model that mitigated the impact on the surface and the overall environment.

I think there is one window on the potential time frame of development in ANWR. On the question of the 6-months supply or ultimate potential, the resource potential of ANWR is well understood to be significant and I would say, without wanting to be cavalier, if as an industry we cease exploring for anything that did not have more than a 6 months potential supply for the United States we would rapidly cease exploring altogether.

The incremental production potential from ANWR is a significant supply source for the United States' security for a long time to come.

The CHAIRMAN. Mr. Malone.

Mr. MALONE. Senator Murkowski, Alaska is blessed to be rich in energy sources—coal, natural gas, and oil, all of which fit into the national energy plan that is being developed and that is being dis-

cussed. All three are needed in order to meet the needs of this country.

Also, I would concur with my colleagues that the volumes are needed and that if we based all our economic decisions on a finite time frame many fields would not be developed. It is the incremental amount that would enter the United States we support.

As to the time to bring the field on line, again I think all our exploration and development experience would be similar, but, Senator, if you were to have your seismic and your exploration and development and engineering done and then you approached this as a Nation the same way we did when we tried to put somebody on the moon, when all resources were brought to bear, with those two areas completed you could get oil to the pipeline and down in 2 to 3 years.

Senator MURKOWSKI. Thank you.

Mr. MARUSHACK. Senator, 99.5 percent of my work is commercializing gas. But just in general, on the ANWR assumption we would use to the extent that we could the Alpine model and your assumption is that all the permitting is in place already and the discovery has been made, so I would agree with my BP colleague that it would take from 3 to 4 years just to do the production delineation and production and bring that gas on line, which we think is similar to the Alpine model which was state of the art.

Senator MURKOWSKI. Mr. Chairman, I have one more question, either on a second round—

The CHAIRMAN. Let me do this. Vice President Cheney is going to be speaking to the Democratic caucus at 1 o'clock, and I need to excuse myself to attend that. Why do I not just turn the hearing over to Senator Murkowski. You go ahead. You have one additional panel of witnesses and you can go ahead with this panel as long as your questions dictate.

Senator MURKOWSKI. They have been waiting a long time. I appreciate that, Senator Bingaman. Thank you.

I am curious to know, from the standpoint of the three producers what your reserve holdings of natural gas are on the MacKenzie Delta? And I am going to follow that up by the question, if the northern route were built when and how much of that reserve would be developed prior to going into the Alaska reserve?

Any order at all would be sufficient for me.

Mr. MALONE. Just from BP's perspective, we hold no delineated reserves in the MacKenzie Delta. We have acreage, but it has not been drilled and developed.

Mr. MARUSHACK. Phillips the same answer. We have no reserves in Canada.

Senator MURKOWSKI [presiding]. Exxon?

Mr. KOONCE. Senator, we estimate there are about 9 trillion cubic feet discovered and ready to be developed in the MacKenzie Delta, and we hold 60 percent of that interest.

Senator MURKOWSKI. 60 percent of 9 trillion?

Mr. KOONCE. Yes, sir.

Senator MURKOWSKI. If the northern route were built, when and how much of that reserve would be developed prior to pulling down your share of the Alaska reserves?

Mr. KOONCE. Well, we anticipate that the MacKenzie gas can be developed, as I indicated in my earlier statement. So we think that project will stand alone and will go forward with or without Alaska gas. My point was, if they went forward together there would be some obvious synergies to both projects.

Senator MURKOWSKI. You are familiar with the Corps' relative generalization concerning the difficulty of permitting the northern route and the discussion that has taken place from time to time suggesting that merely, is it, 230 miles of marine pipeline, or is it 320?

Mr. KOONCE. 240, I think.

Senator MURKOWSKI. 240, that would be offshore of ANWR, and that would be buried 15 feet deep beneath the bottom. Is there any place else where we have got that technology, where we have the dynamics of ice scouring and the long period of time where the ice gives you a situation where you can not pull your pipeline or you cannot address it, that there is a long framework between compressor stations, with the necessity of having total reliability?

I have heard that you might have to loop that line to ensure that you had a backup. Are these considerations that you have evaluated?

I would also like to hear your views on, realistically, the difficulty of permitting. We are making some progress, but it reminds me of a crab walking down the beach on the issue of ANWR. We are moving, but the directions are questionable. I am curious to get your evaluation of the realism of permitting.

You heard the Corps of Engineers reference that, unless the State changes its mind, it is going to be dead on arrival.

Mr. KOONCE. Senator, I did not mean to imply that we think the northern route or the southern route is without problems. They both have a lot of problems that need to be worked through by all the constituencies that are interested in them. The comment was made earlier about technology and I do not think that was an accurate comment. We know how to bury pipeline as deep as we need to below ocean bottoms and we do it all the time and oftentimes in much deeper water than we are dealing with here.

I am not aware of it having been done in an ice regime to this length. We are considering similar kinds of pipelines offshore Sakhalin Island in Russia, for example, ExxonMobil is, which have similar ice regimes. So we believe the technology exists to do this and we think it exists to do it reliably and that there would be certainly no need to loop a line. If ice scour were the concern, laying two lines would not be any better than laying one.

Basically, if ice was going to scour that line it would catch them both. So we do not really see that as a significant issue. We think the line can be buried deep enough to get away from the ice scour and that the ice scour can be identified quite well scientifically.

Senator MURKOWSKI. Would the three producers be satisfied if the committee went ahead separately on the course of regular business before the committee to take up the proposed legislation covering review and EIS and the pipeline director and limited judicial review, subject to your evaluation at year end on the status of the project? Because it would be a little difficult and highly unusual to approve something that is not economic at the end of your study

and lends itself to a recognition that we still do not have an application, which I will leave you with a last question: Do you anticipate anything to occur between now and the time you finish your study that would lead you to submit an application for this pipeline?

Mr. Marushack.

Mr. MARUSHACK. Phillips believes that we have tried to take a systematic approach to seeing what we need to move the pipeline forward as quickly as possible and we have tried to be very realistic. The numbers you have seen quoted out there are just reference case numbers. They will change, they will absolutely change. Maybe the two routes will come together, maybe they will fall apart.

But one thing is for sure. It is going to be in the upper billions of dollars no matter what. So what we have tried to do then, given that it is going to be very costly very risky, we have tried to chip away and find areas where we could reduce that risk, and we tried to do it as early in the process as we can so we can get the gas on stream as quickly as possible.

Our hope is that the combination of the legislative package that is available to other parties with the complete understanding that a brand-new EIS has to be put together, that we hope that there could be enabling legislation, the fiscal legislation would be passed so that we could move directly into finalizing our preliminary work, our feasibility work, if you will, keep our team in place, address all the other concerns, and see if there is any other partnership issues we have to do, but work forward in a seamless fashion, moving toward an open season concept and a filing of the application as quickly as possible.

What you are suggesting, Senator, would probably be a delay in some period of time and we would hope that that would not be the case. Having said that, we are going to try to work with this committee on everything we need to move forward.

Senator MURKOWSKI. I am not ready to acknowledge a full EIS. That depends on route selection. Nevertheless, you are telling me that in your recommendation we should go ahead and pursue in general the proposed legislation and you would deal with the State independently on what you feel the incentives there.

Of course, one of the difficulties that is not usual for a committee or a role of government to ascertain is the particular request that you folks have to provide relief only when market gas prices in the lower 48 fall below the levels that would not otherwise support a project of this magnitude, and that is a condition of your company as opposed to BP and Exxon.

Mr. MARUSHACK. Sir, Senator, we think it is a realistic understanding that this project is still going to be extremely risky and extremely difficult to do. What we are trying to do is, again if we could have a tax proposal that we think shares the costs and benefits amongst all the constituents out there, we think that works.

One thing about our proposal—I wish Senator Thomas was still here. He asked about other proposals out there, other incentives. There are section 29 credits available. There is coalbed methane. There are other things out there for difficult reserves. We think this helps make our project also competitive.

The thing we have done is, it only costs the Federal Government any money at times when it benefits the consumer. If prices were very, very low because of bringing on this huge amount of gas, the consumer and the government benefits, and we have put a mechanism in there to stabilize that. Under high-priced scenarios there is no payment from the government, no credit from the government whatsoever. So we think it is a win-win and it does not cost anything in times when prices are high. We think it actually gets the project done.

Senator MURKOWSKI. Mr. Malone, are we going to get an application at the end of the year?

Mr. MALONE. Did you say my name?

Senator MURKOWSKI. We have everything else.

Mr. MALONE. Senator Murkowski, right now I think the answer is no. There is going to have to be a lot of work done in order to meet that deadline. In my statement I mention that we have an opportunity to maybe get all the interested parties together and begin to try working to make this an economic project and address the many concerns that are out there.

I think there is a great deal of misinformation. There is a lot of rhetoric out there, and at a time when the Nation needs to be looking at its energy sources I think the catalyst by this committee to get us together and see what we can do to make this an active project, that may still allow for time to move this in legislation, and maybe we could have an answer, a more positive answer to having an application by the end of the year if we could all get together and see if we can resolve this.

Mr. KOONCE. Senator, I would say it is unlikely that there will be an application by the end of the year. However, I would encourage this committee to continue to consider this legislation. It gets to be a little bit of a chicken and an egg problem. If the legislation is in place, then that at least eliminates the risk associated with permitting. If it is not in place and it takes someone a year or 2, 3, to find an economic project, then when that happens we have to start this process all over again.

I think as long as the legislation is route-neutral that it makes some sense, because it allows us, it allows the private sector whoever that may be—producers, pipeliners, whoever—to try to find an economically viable project that can move forward, and the permitting then does not stand in the way and actually the view of these economics improves with that legislation in place, because you now know within some much more prescribed limits how long that permitting process will take.

Mr. SULLIVAN. Senator Murkowski, I might make one brief comment about timing, with your permission. We hope, like you do and I think like most people do, that the pipeline will go ahead, and we believe that it will in one form or another; and absent updated or new legislation to address some of the more commercially oriented terms that I mentioned earlier, those frameworks may be set very, very early in the process, potentially to the disadvantage of companies like Anadarko that hold significant potential for reserves yet to be discovered.

So that we would suggest some attention be given to those issues as tariffing, open season access to capacity, and expandability be considered earlier in the process rather than later.

Senator MURKOWSKI. I want to thank the panel. It would be my intention to encourage the leadership, Senator Bingaman and the majority to bring this legislation before the Energy Committee, recognizing it as a step in the continued and necessary progress of bringing this gas line into a real project.

I think it is an investment and a responsible investment in the process, and the recognition of the testimony here relative to your continued review, continued work and expenditure of money in addressing the economics. Probably 3, 4 months ago the economics were a little different because the price of gas was different. As we pull down available gas, why, the price may go back up again. So the economics cannot change, but some will want to end the necessity of pursuing this without an application.

But I can certainly see the justification for it as part of the process. I hope we have cleared the air pretty much on the issue of subsidies, because I do not want my colleagues to reflect on this as a subsidy issue for the industry, because that is not going to fly and we all know it.

So again, it would be my hope—and I indicated this earlier in my opening remarks—at the end of this hearing that we will have advanced the process by this hearing today and that work with the legislature, the Governor, and hopefully we can work collectively, again in perhaps a less formal manner, to advance the process, as I said before, either here or in Alaska. I pledge to you my willingness to help in any manner I can.

Thank you very much, gentlemen.

I would call on the next panel and you can come up slowly because I am going to be right back.

[Recess from 1:13 p.m. to 1:15 p.m.]

Senator MURKOWSKI. I want to thank you for staying with us and I apologize for the delay. We are not going to have one of these every day and we are very pleased at that.

You may proceed in any manner that you wish. I have got the second page of the witnesses here somewhere. I got it, I got it. Anybody have to catch an airplane?

[No response.]

Senator MURKOWSKI. I guess not. National is still closed, so everyone does not have to worry about that.

I guess Mr. Mark Aron of CSX is listed first here. If you want to proceed. We are alphabetical, so let us do it that way. Is that fair enough? Please proceed.

STATEMENT OF MARK ARON, VICE CHAIRMAN, CSX CORPORATION, ON BEHALF OF YUKON PACIFIC CORPORATION

Mr. ARON. My name is Mark Aron. I am vice president of CSX Corporation. By way of background, CSX has long involvement with Alaska. We own and operate CSX Lines, formerly Sealand, which we believe is the premier Jones Act carrier for Alaska. It has been a wonderful relationship. We are proud of our service and the dedication of our many people in Alaska.

In addition, for about the last 15 years we have also been the proud sponsor and the driving force behind the Yukon Pacific project, which is intended to bring gas via pipeline from the North Slope, liquefy it at Valdez, and then transport it by ship either to Asia or the West Coast. We have accomplished a lot. We have assembled the blueprint for the project, all the major permits, in addition to accumulating a massive storehouse of knowledge about this pipeline.

We are not here to cast stones on any alternative project. For the sake of the Nation, for the sake of Alaska, we would like to see the gas move, regardless of whether it is to our project or to another. Obviously, we would like to see it move over our project, but I think economics and other broad considerations will decide what route it will take.

But my main point here is that if the Congress moves forward with legislation we simply ask that we not be forgotten or disadvantaged. We simply would like a level playing field that would apply to all projects, whether it be the northern project, the southern project, or the Yukon Pacific project.

I will say with all due respect there are aspects of our project, the Yukon Pacific project, that make us attractive. We are an all-American pipeline in an existing corridor. That makes us quite secure.

Secondly, we have the flexibility to serve both foreign and domestic markets. I know the committee is aware that the economics of those markets differ. By being able to serve both markets, you increase the viability of the project.

Thirdly, we serve the local Alaskan population. I believe our project would pass by about three-quarters of the population of Alaska. I have included some cost studies in our testimony and we believe we are at least cost competitive.

Lastly, we have completed the great majority of the permitting process and therefore we could expedite construction.

In summary, we are here, we are ready to serve and ready to cooperate to make the gas flow.

Thank you.

[The prepared statement of Mr. Aron follows:]

PREPARED STATEMENT OF MARK ARON, VICE CHAIRMAN, CSX CORPORATION

Mr. Chairman, Members of the Committee:

My name is Mark Aron. I am Vice Chairman of CSX Corporation.

I am here today to testify on behalf of Anchorage-based, Yukon Pacific Corporation, a business unit of CSX and sponsor of the TransAlaska Gas System ("TAGS"). You have asked for an update on the status of TAGS and for comments regarding proposed legislation that may be required to expedite the construction of a pipeline from Alaska to the lower 48.

Our business unit, Yukon Pacific Corporation was formed in 1982 to sponsor the TransAlaska Gas System. This system is designed to transport conditioned North Slope natural gas from Prudhoe Bay to Valdez via an 800 mile, chilled, high pressure pipeline buried in the existing Congressionally-dedicated TransAlaska Pipeline Corridor. This corridor currently supports that TransAlaska oil pipeline. In Valdez the gas will be chilled to its dew point at 260 degrees and thereby converted to liquid form. It will then be shipped as LNG to markets in Japan, The Republic of Korea and The Republic of China on Taiwan and, if needed, to the West Coast of North America. Because it would be wholly-within Alaska TAGS offers the benefits of supplying needed-gas to Alaskan communities and optimum pipeline security.

Yukon Pacific holds the major permits, authorizations and licenses for the construction and operation of TAGS. These include Presidential Approval to export

Alaskan natural gas pursuant to the Alaska Natural Gas Transportation Act, a Department of Energy Export License, the Federal Right-of-Way required to cross federal land, a conditional Right-of-Way from the State of Alaska, Federal Energy Regulatory Commission approval of the export site in Valdez and a clear definition of FERC's role and jurisdiction and a Facilities Air Permit (PSD) for the LNG and marine facilities. TAGS has undergone two full-blown NEPA reviews.

In sum, TAGS has completed almost all of its major permitting work. A more detailed description of all of the various permits and approvals held by Yukon Pacific is attached as an exhibit.* The remaining major permit is the Corps of Engineer 404 permit and Yukon Pacific is currently engaged in a three-year field program to obtain that permit.

As a result of the considerable information and engineering required to obtain these permits and authorizations, Wilbros Engineering, a major international engineering firm, has produced an investment grade quality cost estimate for the pipeline and Kellogg, Brown and Root, which designs and constructs over 95% of the world's LNG facilities, has produced a cost estimate for the LNG and marine facilities. I have included with my written testimony a chart that shows the costs in relation comparison to ultimate project size. Thus, the cost for the Alaskan facilities to produce 9.2 million tons of LNG per year is 6 billion dollars and to produce 18.4 million tons per year of LNG will cost 8.3 billion dollars.

More important, however, are the cost of service figures for delivering Alaska North Slope natural gas to West coast markets and to Asian markets. One of the advantages of TAGS is the capability of serving multiple markets. This has the advantage of allowing the project to base its economics on long term 25 year contracts with its Asian customers (who traditionally pay much higher prices than we do in the United States) while still being able to meet the needs of the much less stable and relatively short term West Coast natural gas demands. West Coast markets can be served via LNG tankers to western Mexico with a portion of that gas moved via pipeline to southern California. In the alternative, tankers could deliver LNG directly to the western United States. Several major companies have recently proposed building new LNG receiving terminals in California. In either case, LNG can be delivered to the U.S. on a cost-effective basis.

Comparing a four billion cubic foot a day LNG project with a four billion cubic foot a day overland pipeline yields the following results: The cost of service for the overland line to the US/Canadian border is approximately \$2.07 MMBTU. Similarly, the cost of taking LNG to the west coast is \$2.01 MMBTU. I have included as an exhibit to my testimony a discussion of the methodology for reaching these cost of service numbers.

In short, Mr. Chairman, the demand of natural gas in the Asia markets we seek to serve in the form of LNG is approximately 60 million tons per year. We see an additional 30 million tons per year potential demand in Baja and western Mexico and the western United States. While TAGS is not an overland pipeline through Canada, we believe it has markets which enable it to meet economies of scale and that it will make a major contribution to providing natural gas to Americans via a shorter, all American system.

CSX and Yukon Pacific are not opposed to any of the other proposed projects being discussed and believe that the marketplace will and should decide which project will proceed. Nor are we asking for specific legislation as we believe TAGS is ready to go and can stand on its own. However, it is important that TAGS not be placed at an artificial competitive disadvantage vis-à-vis other proposals, including overland pipelines. In this regard, I urge that the Committee ensure that any legislative incentives developed to encourage commercialization of Alaska's North Slope natural gas apply to and allow for the option of delivering that gas via an LNG project such as TAGS.

Senator MURKOWSKI. Thank you very much for that statement.

Mr. Heyworth, the Chairman, Citizens Initiative for the All-Alaska Gasline.

STATEMENT OF SCOTT HEYWORTH, CHAIRMAN, CITIZENS INITIATIVE FOR THE ALL-AMERICAN GASLINE

Mr. HEYWORTH. Thank you, Senator Murkowski. I wish to thank you and Senator Bingaman for inviting me to testify here today.

*The exhibits have been retained in committee files.

My name is Scott Heyworth. I was born in Alaska. I am currently serving as a public safety commissioner for the municipality of Anchorage under our mayor, George Wuerch. I am a former port commissioner under then-mayor Tony Knowles. I am also the chairman of the Citizens Initiative for the All-American Gasline, which is the subject of my testimony here today. I have been a member of the Anchorage Independent Longshore Union for 28 years and all my fellow union brothers and sisters mourn the losses of our fellow union policemen and firefighters, along with military and civilian casualties, and strongly support the work of the construction crews, the fire, medical, police and rescue volunteers, as do all Alaskans.

We have our corporate boardrooms, our economic forecasts and the various gas pipeline scenarios, our hearings, our jurisdictions, our political parties. Yet we also need to look at our rock-bottom principles of democracy which brought forth this great country, this capital, and this very room at this precise moment in time.

One of those principles which our forefathers fought and died for is the right of citizens to petition their government. The Alaska State Constitution, section 6, Declaration of Rights, reads as follows: "The right of the people peaceably to assemble and to petition the government shall never be abridged."

Giving oil companies Federal incentives, tax breaks, tax credits, accelerated depreciation, special interest considerations, are not the answer to the United States' energy problems. Changing the ANGTA treaty is just one of the myriad problems. It is not an answer.

The answer is to build the one project you have heard so little about today, the all-American LNG route to Valdez paralleling the Trans-Alaska Pipeline System, which this committee has the jurisdiction over. Which would you rather have control over, a 3,000-mile gas pipeline in a foreign country, Canada, or two parallel 800-mile pipelines going down the exact same corridor in the United States of America? It is simple, defensible, and in the best interest of all Americans.

Alaska State Constitution, article 8, section 2, gives Alaskans a say in the commercialization of their State's natural resources, and Alaskans are strongly saying they want their natural gas to be commercialized in their State and therefore in America, not Canada.

In March, May, and June of this year, I commissioned three statewide polls and they all show that the majority of Alaskans support the all-American route to Valdez by over a two to one margin. In our largest city alone, Anchorage, they favored the all-American route by a 65 percent margin. I am told that a new poll has just come out last week that shows the statewide number is now in the high sixties.

Alaska's Lieutenant Governor Fran Ulmer recently certified our citizens initiative petition that allows us to begin gathering signatures to place the initiative on the November 6, 2002, ballot. The petition to have the State of Alaska build and secure financing for this all-American project is now circulating statewide. In the first 18 days since certification, we have collected over 25 percent of the

necessary signatures. The citizens of Alaska are signing it in record numbers. The response can only be deemed phenomenal.

Alaskans have this issue patriotically figured out. Despite being distracted over concerns over the threat of terrorism this country is now facing, building a gas pipeline in America, not Canada, is their choice. They support the one project that is already permitted, already engineered, is environmentally sound, and has signed project labor agreements with most Alaskan unions. It brings the most jobs to Americans, provides the most revenues to our State treasury, provides in-State gas use of our own resource, something any Canadian route does not do, and provides gas to our own U.S. West Coast cities where the real energy shortages are.

El Paso Natural Gas has proposed five LNG receiving terminals on the West Coast which could receive Alaskan LNG. There are no gas shortages in the Midwest or Chicago. Cheaper Canadian and domestic gas is closer to that area than any 3,900-mile gas pipeline from Alaska.

These are extraordinary times and it takes extraordinary vision to see past ancient political myths. It is time to reevaluate oil industry special interest legislation, sever our dependence on Mideast natural resources, and protect oil and natural gas reserves on the North Slope. We cannot build this gas pipeline through Canada just because it is economically beneficial to the oil companies. We need to put Alaska's energy interests first.

Unlike the Governor's or the producers' proposed legislation, the Citizens Initiative, which establishes a State gas authority, does not need any Federal legislation to build this all-American project because it would be a publicly owned entity.

Finally, Senators, if any of us advocating to open ANWR to lessen our dependence on foreign or Mideast oil and gas supplies, then I am sure, using the same logic, that we would also advocate to build the all-American gasline to Valdez to avoid going through a foreign country for security reasons. I believe Americans today understand this very simple concept.

Thank you very much.

[Attachments submitted by Mr. Heyworth have been retained in committee files.]

Senator MURKOWSKI. Thank you, Mr. Heyworth.

Our next witness is Mr. Mike Stewart and Dennis McConaghy, co-chair executive officers of Foothills Pipe Line. We have brought up Foothills a good deal today. We look forward to your statement and testimony and some clarification. Particularly, I would like you to address the status of the alleged \$4.2 billion liability associated with your filing with FERC, and where is it and what is the disposition of it likely to be, because it seems to have continually come up in numerous discussions and I have yet to hear a resolve finally being put to bed one way or the other.

**STATEMENT OF MICHAEL STEWART AND DENNIS
McCONAGHY, CO-CHIEF EXECUTIVE OFFICERS, FOOTHILLS
PIPE LINES LIMITED, ON BEHALF OF THE ALASKA NORTH-
WEST NATURAL GAS TRANSPORTATION COMPANY**

Mr. STEWART. We will try to do that, Senator. Thank you for the opportunity to appear in front of you today. I am co-chief executive

officer of Foothills and also an executive vice president with Westcoast, Inc. With me is Dennis McConaghy, the other co-CEO of Foothills and an executive vice president of Trans-Canada Pipelines. I will deliver the oral statement and Mr. McConaghy will take the lead on any Q's and A's.

Foothills is jointly owned by Westcoast and Trans-Canada, the two major pipes in the Canadian natural gas business. Foothills is the operator of the Alaska Northwest Natural Gas Transportation Company, a U.S. partnership formed to construct and operate the Alaska portion of the Alaska Highway pipeline project. Foothills and Trans-Canada are the two current active owners of the Alaska partnership.

In addition, Foothills is the Canadian sponsor of the Alaska Highway project and the majority owner and operator of the Canadian portions of the pre-built eastern and western legs of the project. I would just note that today those pre-built legs are delivering over 30 percent of the natural gas that comes from Canada into the United States today.

I would also note that we are the company that has kept the Alaska Highway pipeline project alive over these past few years.

Senator, at the outset I want to state something emphatically: No new Federal legislation is required to expedite the construction of a pipeline to deliver Alaskan natural gas to markets in the lower 48 States. A comprehensive legal, regulatory, and diplomatic framework specifically designed to expedite construction of the pipeline is already in place. That framework consists of ANGTA, President Carter's decision and report of 1977 to Congress selecting the Alaska Highway pipeline project as the superior project to deliver Alaska gas to market, the agreement on principles between Canada and the United States, which has the force and effect of an international treaty, the joint resolution by which Congress approved the President's decision, and the U.S.-Canada agreement, the Northern Pipeline Act in Canada which granted certificates of public convenience and necessity to Foothills for the construction and operation of the Canadian segment of the project, and finally, the certificate of public convenience and necessity issued by FERC to the Alaska partnership.

The ANGTA framework has not been modified, repealed, or diminished in either the United States or Canada. It is as viable today as it was when it was initially enacted. It provides a regime that is flexible enough to accommodate the expeditious construction of a competitive, efficient, and modern natural gas transportation. Simply put, ANGTA ain't broken, so do not try to fix it.

The next point I want to emphasize is, not only is new legislation not required, any legislation that attempts to create an alternative or parallel regulatory process to ANGTA will delay increase of the pipeline for several years by reopening contentious debates over routes and projects. Such legislation will take the progress of developing an Alaska gas pipeline back to square one.

Let me amplify. New legislation will require FERC to spend substantial time to determine whether or not to issue certificates to new applicants, it is inconsistent with the existing Canada-U.S. agreement and more than likely will invalidate that treaty. If a new project or route were selected, new legislation would have to

be enacted in Canada and a new agreement between the United States and Canada would have to be negotiated.

New legislation will require the time-consuming preparation of new comprehensive environmental impact statements, as opposed to updating the substantial environmental assessment work that has already been done for the Alaska Highway project.

Finally, new legislation would allow the filing of an application for alternative projects that will not have the level of support of the Alaska Highway project.

The next point I want to make is, while we are opposed to legislation that attempts to create a parallel or alternative regulatory regime, we do not oppose other legislation intended to improve the economics of the project or address concerns of other stakeholders. We believe that the Alaska Highway project can be financed in the capital markets without incentives or support from the Federal Government. However, such support, if properly structured, could improve the economics of the project to the degree that the producers would be willing to commit the gas to the marketplace.

Likewise, we are not opposed to legislation that addresses labor, source of steel, access to the pipeline for new gas producers, or other similar issues, provided such legislation does not undermine the ANGTA framework or does not impair the ability to develop and/or finance a viable project.

As the holder of the priority right to construct the Alaska natural gas pipeline, we are proceeding on several fronts to remobilize the project. Over the past 3 years we have undertaken a comprehensive effort to modernize all aspects of the project based on the extensive engineering, terrain, environmental and other information available from prior work. This effort has convinced us that a fully modern and economically viable project is doable.

We are engaged in a concerted effort to re-enlist several major U.S. energy companies who were formerly partners in the Alaskan partnership. The negotiations with these companies have been productive and are ongoing.

Finally, Mr. Chairman, we have pursued discussions with the producers of North Slope gas for the last several months and are currently in the process of developing a commercial proposal to present to them before the end of the year.

Senator, if this committee's objective is to expedite construction of the Alaska natural gas pipeline, then the most important thing that you can do is to endorse the ANGTA framework and the Alaska Highway project. The ANGTA framework was specifically adopted by the United States and Canada to expedite the construction of the Alaska Highway project when market conditions justified the cost of delivering Alaska gas. We believe those market conditions will soon be in place.

We implore you and the committee from considering legislation that would undermine this framework. We share Chairman Wood's sentiment that it would be most helpful for the interested parties to collaborate on a single project of sufficient scope to enable our focus to be on getting the gas to market than on spending time on litigation.

Our goal remains as it has been for the past 25 years, and that is to get this pipeline built. Thank you.

[The prepared statement of Mr. Stewart and Mr. McConaghy follows:]

PREPARED STATEMENT OF MICHAEL STEWART AND DENNIS MCCONAGHY, CO-CHIEF EXECUTIVE OFFICERS, FOOTHILLS PIPE LINES LIMITED

INTRODUCTION

Mr. Chairman, Senator Murkowski and Members of the Committee, thank you for the opportunity to appear today before the Committee.

We are the Co-Chief Executive Officers of Foothills Pipe Lines Ltd. ("Foothills"). Foothills is jointly owned by Westcoast Energy Inc. ("Westcoast") and TransCanada PipeLines Limited ("TransCanada"), the two major players in the Canadian gas pipeline business. Foothills is the operator of the Alaskan Northwest Natural Gas Transportation Company (the "Alaska Partnership"). The Alaska Partnership is a U.S. partnership formed to construct and operate the Alaska portion of the ANGTS. Foothills and TransCanada are the two current active owners of the Alaska Partnership. In addition, Foothills is the Canadian sponsor of the ANGTS, and the majority owner and operator of the Canadian portions of the Eastern and Western Legs of the ANGTS.

We are appearing today on behalf of the Alaska Partnership and Foothills.

Our testimony today will discuss the current status of the Alaska Natural Gas Transportation System ("ANGTS" or "Alaska Highway Project") and will address the question of whether any federal legislation is required to expedite the construction of a natural gas pipeline from Alaska.

NO NEW REGULATORY LEGISLATION IS REQUIRED

Legislation To Expedite Construction Already Exists

No new federal legislation is required to expedite construction of a pipeline to deliver Alaska North Slope natural gas to markets in the lower-48 states. A comprehensive legal, regulatory and diplomatic framework, specifically designed to expedite construction of the pipeline, is already in place. This framework provides the most effective means to ensure expeditious development of the pipeline.

This framework consists of the following:

- *Alaska Natural Gas Transportation Act of 1976* ("ANGTA"). The express purpose of ANGTA is to "provide the means for making a sound decision as to the selection of a transportation system for delivery of Alaska natural gas to the contiguous States . . . and . . . to expedite its construction and initial operation . . ." To that end, ANGTA established a process through which the Alaska Highway Project was designated by the President and approved by the Congress as the superior project for the delivery of Alaska gas. The Alaska Highway Project was selected after an exhaustive consideration of several alternatives, including a project which would have proceeded east from Prudhoe Bay connecting with a Mackenzie River Valley pipeline in Canada and an LNG project proposing to deliver LNG to southern California. In addition, ANGTA imposes specific requirements on federal agencies to expedite decision making on permit applications for the Alaska Highway Project and places limits on judicial challenges to agency decisions.
- *Decision and Report to Congress on the Alaska Natural Gas Transportation System*, ("President's Decision"). The President's Decision advised the Congress of the President's selection of the Alaska Highway Project as opposed to the other competing projects, detailed the reasons for that selection, and enumerated comprehensive terms and conditions for the construction and initial operation of the project.
- *Agreement Between Canada and the United States of America on Principles Applicable to a Northern Natural Gas Pipeline* ("U.S.-Canada Agreement"). The U.S.-Canada Agreement designates the Alaska Highway Project as the superior project and states specific terms and conditions under which the project would be built with the joint cooperation of the U.S. and Canadian governments.
- *Public Law 95-158*. Through this Joint Resolution, the Congress approved the President's Decision and the U.S.-Canada Agreement.
- *Northern Pipeline Act* ("NPA"). Through the NPA, the Canadian Parliament granted certificates of public convenience and necessity to Foothills for the construction and operation of the Canadian segment of the ANGTS. The Act also established the Northern Pipeline Agency and gave it the authority to oversee the construction of the system in Canada.

- *FERC Certificate.* A certificate of Public Convenience and Necessity was issued by the Federal Regulatory Energy Commission to the Alaska Partnership for the construction and operation of the Alaska Highway Project.

Pursuant to the ANGTA framework, the Alaska Partnership has acquired a right-of-way across all federal lands in Alaska, the necessary Clean Water Act Section 404 wetlands permits for the pipeline, and numerous permits, authorizations and rights-of-way for the construction of the pipeline in Canada. In addition, a significant amount of environmental assessment work has occurred for the ANGTS.

The ANGTA framework has not been modified, repealed or diminished in either the U.S. or Canada. It is as viable today as it was when initially established. It provides a regime that is flexible enough to accommodate the expeditious construction of a competitive, efficient and modern natural gas transportation system.

New Legislation Will Delay Construction

Because of the ANGTA framework and the actions that have already been taken pursuant to the framework, no new federal legislation addressing the authority of federal agencies is required to expedite construction of the Alaska gas pipeline. In fact, any new legislation that attempts to create an alternative or parallel regulatory process to ANGTA would have the opposite effect.

Consideration of any legislation that would create an alternative or parallel regulatory regime to ANGTA will have a significant detrimental impact on the efforts to expeditiously construct an Alaska natural gas pipeline. It is our view that such legislation will undermine the ANGTA framework and will delay construction of the pipeline for several years by triggering a new competition between different projects and routes.

FERC would have to spend substantial time and effort to determine whether to issue certificates to new applicants. Such legislation will be inconsistent with the U.S.-Canada Agreement and, more than likely, invalidate that treaty. If any new project or route were selected, new legislation would have to be enacted in Canada, and a new agreement between the U.S. and Canada would have to be negotiated. Likewise, updating the environmental assessment work that has been done for ANGTS will be far less time consuming than preparing new comprehensive Environmental Impact Statements for any new project or route.

Such legislation could also result in the filing of an application for alternative projects that will not have the level of support that the Alaska Highway Project enjoys. For example, an "over the top" route through the Beaufort Sea would encounter significant opposition from the State of Alaska, Alaska Native groups, the Yukon Territory and all of the national environmental organizations. A project over this route may not be able to acquire necessary environmental permits.

Any federal legislation that establishes a new regulatory regime for the construction of an Alaska gas pipeline will take the whole process of developing such a pipeline back to "square one" by reopening the contentious debates over routes and projects. In addition, it is highly unlikely that the expedited permitting and limited judicial review provisions of ANGTA could be replicated in federal legislation enacted today. As such, any project developed under a new regime would encounter significant delays in the permitting and authorization stage.

Any New Legislation Should Do No Harm to the ANGTA Framework

Proposals have been made for legislation that would provide federal fiscal support to improve the economics of an Alaska natural gas pipeline. Moreover, different stakeholders have called for federal legislation addressing other related issues, such as the use of Alaska and union labor, the use of North American steel, and access to the pipeline for new gas producers. This Committee may determine that legislation addressing some or all of these issues will help expedite construction of the Alaska gas pipeline.

With respect to fiscal legislation, we believe that the Alaska Highway Project can be financed in the private markets without incentives or support from the federal government. However, such support, if properly structured, could indeed improve the economics of the transportation system in a way that generates a greater net back to the producers of the gas. A greater net back could result in more willingness on the part of the producers to commit the gas to the marketplace.

The Alaska Partnership is not opposed to legislation that addresses labor, source of steel, access to the pipeline for new gas producers or other similar issues provided such legislation does not undermine the ANGTA framework and does not impair the ability to develop and/or to finance a viable project.

STATUS OF THE ALASKA HIGHWAY PROJECT

As the holder of the priority right to construct the Alaska natural gas pipeline, the Alaska Partnership has been focused on several related areas of activities as it proceeds to remobilize the ANGTS—Project Design, Engineering and Development; Partnership Expansion; and Producer Engagement.

Project Design, Engineering and Development

Over the past three years, the Alaska Partnership has undertaken a comprehensive study aimed at modernizing all aspects of the project. This study was possible because of the extensive amount of engineering, terrain, environmental and other information available along the route of the pipeline as a result of the prior work of the sponsors. This work has convinced us that a fully modern and economically viable project is doable. In part, as a result of this effort the Alaska Partnership decided earlier this year to request the State of Alaska to continue its review of the application for right-of-way on state lands in Alaska. We are now working closely with the Joint Pipeline Office established by the State of Alaska to update the information previously filed with the State so the authorities can complete their analysis and issue the grant of right of way.

Partnership Expansion

In the initial stages of the Alaska Highway Project, numerous U.S. energy companies were partners in the Alaska Partnership. However, during the decades of the 1980's and 1990's when the producers of Alaska natural gas were unwilling to commit that gas to lower 48 markets because of the generally low energy prices, all of the U.S. partners withdrew from the Alaska Partnership. Now that long-term market conditions, primarily projected supply and demand balances, appear to be favorable, Foothills and TransCanada, as the two remaining partners, have offered to the current holders of the withdrawn partner interests an opportunity to rejoin the Alaska Partnership. The negotiations with these companies have been productive and are ongoing.

Producer Engagement

An important first step toward commercial viability of an Alaska gas pipeline is a commercial agreement between the producers and potential shippers who, in turn, enter into transportation contracts with the owner and operator of the transportation system. In this regard, the Alaska Partnership has pursued discussions with the producers for the last several months. After several discussions with the producers over the last year, it has been agreed that we will develop a commercial proposal to present to the producers before the end of this year.

CONCLUSION

Mr. Chairman, we share this Committee's objective to expedite construction of the Alaska natural gas pipeline in order to make Alaska's immense natural gas resources available to consumers in the lower 48 states. As the holder of the priority right to construct and operate that pipeline, the Alaska Partnership is doing everything possible to make this project a reality.

The Alaska Highway Project is economically and environmentally superior to any alternative project. Since it parallels an established transportation corridor, construction will present far less environmental risk and disruption than a pipeline through undisturbed areas and will be much less challenging from a technological perspective. The ease of access to the right-of-way, less environmental risk, and lack of technological challenges translate directly into lower costs of construction for the Alaska Highway Project. In addition, we have acquired many of the major certificates, authorizations and permits needed to begin construction.

These are not the only advantages we enjoy, however. Unlike any other project, the Alaska Highway Project has been designated and approved by the Congress and the Government of Canada after careful consideration of competing projects and routes. By virtue of that status, we have available to us all of the expedited permitting provisions of the ANGTA framework.

No new federal legislation is required to expedite construction of the Alaska Highway Project. All of the necessary legal, regulatory and diplomatic provisions already exist in the context of the ANGTA framework. Any legislation that attempts to create a parallel framework or to create so-called competition to the ANGTA approach will only confuse, complicate and delay the project.

The ANGTA framework was specifically adopted by the United States and Canada to expedite the construction of the Alaska Highway Project when market conditions justified the cost of delivering Alaska gas. We believe those market conditions will

soon be in place. We implore you and the Committee to refrain from considering legislation that would undermine this framework.

Senator MURKOWSKI. I gather, Mr. McConaghy, you are going to respond to the questioning. I asked a question relative to the filing that you have done with FERC. You have accumulated about \$4.2 billion relative to—I assumed that was going to be in the response, but it did not come about.

Mr. McCONAGHY. Let me be more specific about exactly where we sit in that presently. I am happy to inform you that we have the agreement of all the former withdrawn partners to be in a process to have them re-enlist back into the Alaskan partnership that is specifically cited within the ANGTA statute. We are on a time frame to have that re-enlistment, as represented by an MOU, a memorandum of understanding, completed ideally within the next month, and with that as a foundation the commercial proposal that Mike referred to, we would hope to be able to generate and have placed before the producers before year end. That is an ambitious schedule, but that is the process that Foothills, Trans-Canada, Westcoast, and the six others, one of whom is also represented here this afternoon, Williams, is part of.

That is where we sit in the specifics of solving that. The condition of their re-enlistment, of course, would be essentially release from that accumulated liability, and we have some confidence that we will be successful in that. That would set the ground for the commercial coming together of the holder of the certificates and the producers, a long-awaited event.

Senator MURKOWSKI. If you were to initiate that, would that result in re-filing with FERC and basically releasing that filed liability, which is now considered to be a cost of the project by some producers?

Mr. McCONAGHY. What I would anticipate is that, with the re-enlistment completed, we would engage with the producers to look for a commercial basis with a negotiated tool. That would be the subject of the filing. It would be my expectation that that historic cost would not form part of that.

Senator MURKOWSKI. What I am getting at is obvious. This 4.2 has been filed. Would that filing be dropped?

Mr. McCONAGHY. That is our goal, to have that done, yes.

Senator MURKOWSKI. Mr. Hوجلund and then Mr. Bailey.

STATEMENT OF FORREST HOGLUND, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, ARCTIC RESOURCES COMPANY

Mr. HOGLUND. Mr. Chairman, I am here representing Arctic Resources, a special purpose company that has been formed to build a natural gas pipeline from the North Slope of Alaska to the Mackenzie Valley in Canada and then bring the gas to U.S. and Canadian markets. We are proposing this as the shortest, most economic, and most environmental route, and under the right conditions certainly it can be the fastest. This is also the one that will tap into most of the future reserve potential in both countries.

We are not asking for any subsidies or tax breaks in our project, just help in getting the right route picked and a speed-up in the environmental process. This route also clearly fills the need of our Canadian neighbor to the North.

I think, as you will also see, I am here representing the interest of every U.S. energy consumer, every U.S. taxpayer, and, maybe surprising to some people, even the economic interests of the State of Alaska. Let us look at the options. You heard a lot today about the currently preferred route of the State, the ANGTS route. One of the main problems with that route is that a second pipeline is needed to tie in the Canadian reserves, so we call this the two-pipeline option. This approach immediately creates conflict between the United States and Canada: Which line is going to go first? The first line can lower the value of the reserves connected by the second line, delaying the need for the gas, possibly for a long time.

The Alaskans have always assumed that their line would go first, but two-thirds of their line goes through Canada and Canada will most likely have the ultimate say in which line goes first. I think it is hard to imagine Canada making a decision that is going to lower the value of their resources.

Now, let us look at the best solution. This is the one-pipeline solution, so-called "over-the-top route," because from Prudhoe Bay offshore to the MacKenzie Delta, then up the MacKenzie Valley to the pipeline interconnects starting near Edmonton, Alberta. Our approach calls for laying a 36-inch pipeline from the MacKenzie Delta to Edmonton, followed by a 36-inch line from Prudhoe Bay to the MacKenzie Delta. That would be followed by a second 36-inch pipeline up the MacKenzie Valley and a second 36-inch pipeline offshore to Prudhoe Bay.

This approach has great cost and market advantages. Since the equipment to construct a 36-inch pipeline is available, many mills, including those in the United States and Canada, can supply that pipe. Also, the volumes would be staged into the market rather than come all at once. This route certainly gets away from the Canadian conflict also.

Well, let us compare the economics and environmental impact of the two pipeline options versus the over-the-top route. We have a chart that we are putting up. Based on comparative third party analysis, the capital construction cost of the ANGTS route is in the \$10 billion range. It has to go 2140 miles to get to Edmonton. The route goes through 900 miles of mountains. It also does not traverse any future major exploration potential areas. It is supposed to be 48 inches in diameter and carry 4 BCF per day.

The MacKenzie Valley line would be 1,350 miles long and would cost \$3.5 billion to get to Edmonton. It would be 30 inches in diameter and carry 1.2 BCF. So together the two pipelines cost \$13.5 billion and cover some 3,500 miles.

Our route, the over-the-top route, would be only 1,700 miles long and would not go through any mountains and would go close to or through the future major exploration areas and would cost \$7.8 billion. About 90 percent of the line would be in Canada, where costs are lower and utility corridors and pipeline right of ways are in place on a lot of the route.

The most telling difference in the approaches is the producer realization after all transportation costs are deducted. This is what really sets the value of the resources. In my testimony in front of this committee last September I said that the high gas prices at

that time would not hold and that we need to look at this project in the \$2 price range.

This illustration shows a netback closer to today's price, \$2.50, which is more like the futures price in Chicago. The ANGTS route is clearly uneconomic, with very little to no value at the wellhead under this scenario. It would take very large subsidies, probably in the \$5 or \$6 billion range, to make it attractive and you would still have the Canadian conflict situation. The producer netback in the over-the-top route is in the 75 to 90 cents per MCF.

Now, Alaska's preference towards the ANGTS route is easily understood. If all things were equal, it is more desirable politically to have the pipeline come down through the State, provide gas to Fairbanks, provide more short-term construction jobs within Alaska. The problem is that all things just are not equal. Two pipelines at twice the cost cannot beat one.

Also, the State will make about \$100 million more per year off the taxes and State royalties with the over-the-top route, and they will receive the maximum possible value for their reserves. That is what will help to create permanent jobs in the State and provide a big boost to the Alaskan economy.

There is a clear choice for the best way to do this project and it is the most important energy project that we have in North America. One pipeline at half the cost of the alternative is the best approach and a political consensus between the United States and Canada and eventually Alaska can be achieved. It is a truly international project and joint discussions between the United States and Canada as to which project should be considered, along with what is the best way to get the project moving.

How does the United States benefit? The over-the-top route provides the largest supply of natural gas at the lowest cost, and it can be the fastest project constructed. It will not be shut in periodically due to high tariffs, thereby denying the consumers of the much-needed gas, and the U.S. Treasury alone should make \$5 to \$10 billion more in income taxes off that route due to the higher value of the reserves.

We have seen our country come together in the past few weeks and I think we can see it come together on this project. It is about the future of the United States and Canadian economies, and the best answer for the U.S. Senate would be not to take any actions that would artificially limit U.S. support of this project. I feel Canada will play a pivotal role in the decision and I am sure they would find that kind of action either puzzling or threatening.

We fought this same battle 25 years ago and did not get a project built, and we cannot afford to do that again. Mr. Chairman, we are only asking for a fair playing field, a provision to speed up the regulatory and review process, and the equivalent of any economic support that might be offered to any other pipeline.

Thank you.

[The prepared statement of Mr. Høglund follows:]

PREPARED STATEMENT OF FORREST HØGLUND, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, ARCTIC RESOURCES COMPANY

Mr. Chairman, Members of the Committee:

I am here representing Arctic Resources Company (ARC), a special purpose company formed to develop and build a natural gas pipeline connecting the natural gas

reserves of the North Slope of Alaska and the Canadian Northwest Territories for delivery to Canada and the lower 48 states. The route we are proposing is the shortest, fastest and most economic option. This route, which is often referred to as the "Over-the-Top" route, will also tap into the enormous future reserve potential of Alaska and the Canadian Arctic, and is the most environmentally responsible route to achieve that objective.

I understand from your letter of invitation, Mr. Chairman, that the purpose of this hearing is to receive testimony on the status of proposals for the transportation of natural gas from Alaska and on legislation that may be required to expedite the construction of a pipeline from Alaska. I will provide the Committee with a status report on our project; but first, let me address the second expressed purpose of this hearing.

To expedite the construction of a natural gas pipeline from Alaska, I suggest that Congress pass legislation to set timetables for regulatory and environmental approvals and consider legislation for a government guarantee of debt to allow for additional capacity to be built and to give incentives for producers to commit their gas to the project. I firmly believe that we can complete the "Over-the-Top" route without either of these actions; but, that type of legislation would undoubtedly speed the process and lower the risks of the project.

ARC does not need subsidies or tax breaks to implement the northern gas pipeline project. We need more than legislation from Washington. What we need and what the country needs is for government to let the markets work and allow the natural gas and associated industries in Alaska, Canada and the lower-48 United States to develop the pipeline project in an economically rational manner. We need those who would mandate routes to stand down from their efforts, and instead, focus on providing a clear opportunity for expeditious permitting of the most cost effective route.

Current market conditions should foster the expeditious development of an economic pipeline. We believe that the market will support the development of the "Over-the-Top" route and that route can fulfill the needs of Alaskans, the needs of our Canadian neighbors, and help meet the growing natural gas demand in the lower-48. To be successful however, the U.S. and Canada must work closely together. The two governments must be committed to the lowest cost system and accessing the largest supply base. Government decision-makers and business, civic, social and environmental leaders must not limit their perspective to a 25-year-old, second best answer. We must be open to consideration of a third party consortium of interested parties to oversee the project in order to overcome the many real and imagined challenges to this project.

As you will see in my testimony, we have been working hard in the development of our project to take into consideration the interests of every U.S. energy consumer, every U.S. taxpayer, the economic interests of Alaskan citizens and the State of Alaska, the interests of our Canadian neighbors, the interests of non-governmental organizations that are concerned with social and environmental issues, and even the interests of natural gas producers at Prudhoe Bay and in northern Canada. I realize that some of these interested parties may have some questions about our efforts, but I urge each of you to give the "Over-the-Top" route the opportunity to succeed. It is the only route that is economically viable in the foreseeable future.

How important is the project? The reserves are enormous and constitute the only major proven new supply of natural gas that has a chance of growing our natural gas supply. Let's look at the numbers: proven reserves of 35 Tcf on Alaska's North Slope and up to 9 Tcf in the Mackenzie Delta region of Canada. That gas was found roughly 30 years ago looking for oil. The exploration potential for each area is very large: 100 Tcf in Alaska and 60 Tcf in Canada.

[Chart 1]*

How can we tap that potential? The most economic pipeline system must be built. The lower the cost of the system, the more natural gas will be found and produced. The "Over-the-Top" pipeline is today the only pipeline project that is economic. This is the most important energy project that we know of to supply significantly larger volumes of clean-burning natural gas within the next 7 to 15 years. Without these new sources, the U.S. economy will most likely have to endure short supplies of natural gas and rely on coal, imported oil and LNG to meet new demand. I have often likened the importance of this project, the first transportation system for Arctic natural gas, to the first railroad built to California for the U.S. or to the West Coast for the Canadians. Let's look at the options.

Two-Pipeline Option

[Chart 2]

*The charts have been retained in committee files.

You will hear a lot today about the currently preferred route of the State of Alaska, the Alaska Natural Gas Transportation System (ANGTS). That system parallels the Alyeska oil pipeline right-of-way to Fairbanks then follows the Alaska Highway to northeastern British Columbia. That is not far enough to get to the main hub of existing gas pipelines for take-away capacity, so it will need to extend to interconnects near Edmonton, Alberta. One of the main problems of the ANGTS route is that a second pipeline will be needed to tie in the Canadian reserves. This immediately creates conflict between the U.S. and Canada. Which line goes first? The first line can lower the value of the second line by delaying the need for the gas, possibly for a very long time. The Alaskans have always assumed that their line would go first, but think about this—approximately two-thirds of their line goes through Canada and you can be assured that Canada will have the ultimate say in which line goes first. It is hard to imagine our Northern friends making a decision that would lower the value of their own natural resources.

“Over-the-Top” Route

Now let’s look at the best solution. That is the one pipeline solution, the so-called “Over-the-Top” route, or as we refer to it as the Northern Gas Pipeline Project (NGPP). This one pipeline solution enables both Prudhoe Bay gas and Canadian Arctic (NWT, Yukon and Nunavut) gas to be tapped. The line goes from Prudhoe Bay, offshore [Chart 3] to the Mackenzie Delta, and then up the Mackenzie Valley to the pipeline interconnects near Edmonton, Alberta. Our approach calls for a phased implementation of the project. In Phase 1 we would lay an initial 36-inch pipeline from Edmonton, Alberta north to the reserves in the Mackenzie Delta. In Phase 2 we would extend the initial 36-inch line over to the Prudhoe Bay unit allowing staging of the volumes into the markets. That would be followed by Phase 3—a second 36-inch pipeline from Edmonton up the Mackenzie Valley. In Phase 4 we would lay a second 36-inch line over to the Prudhoe Bay unit, allowing for a full deliverable capacity of 4 BCFD. This would be an open-access line with spare capacity for the volumes from new exploration finds. This project has great cost, supply reliability and market advantages, since materials, equipment and construction services are available to construct 36-inch pipelines and many pipe mills, including mills in Canada and the U.S., can supply this size of pipe.

Economics

Let’s compare the economics and environmental impact of the two-pipeline option versus the “Over-the-Top” route, using released or third party numbers.

[Chart 4]

The capital construction cost of the ANGTS route is estimated at \$10 billion and it is 2,140 miles long from Prudhoe Bay to interconnects near Edmonton and crosses approximately 900 miles of pristine mountains. Furthermore, it does not go through the major future exploration potential areas. Current industry proposals suggest a pipeline 48 inches in diameter carrying 4.0 BCFD. The associated and necessary Mackenzie Valley only line would be an additional 1,350 miles long with an added cost of \$3.5 billion to get to pipeline interconnections near Edmonton. It would have a diameter of 30 inches with a design capacity of 1.6 BCFD. Together, the two pipeline projects would cost \$13.5 billion and would have a combined length of 3,500 miles, leaving two environmental footprints.

The “Over-the-Top” route would be approximately 1,700 miles long—approximately 350 miles offshore and 1350 miles onshore—and would not cross any mountains. Furthermore, it would go close to or through all present and future exploration areas in the regions. Approximately 90% of the line would be in Canada.

The most telling difference in the two approaches is how much of the eventual proceeds will be available to the producer. That is defined as the wellhead netback, proceeds after all transportation costs are deducted. In my testimony before this Committee last October, I said that the high gas prices of that time would not hold and that the project needed to be looked at in a \$2.00/Mcf price environment. Illustration No. 4 shows the wellhead netbacks at today’s futures price that are closer to \$2.50/Mcf in Chicago. Spot prices have slumped even further in recent weeks. The ANGTS route is clearly uneconomical, as is the Mackenzie only pipeline, with essentially no wellhead netback. It would take very large subsidies—perhaps \$5 to \$6 billion—to make the two pipeline approach work financially. And, you still have the Canadian conflict situation and there remains a higher chance of cost overruns. It has been estimated that if both of the pipelines were to be constructed at the same time, construction costs would be 20% to 30% higher due to lack of construction resources, materials and equipment. The bottom line: economics do matter and they point overwhelmingly to “Over-the-Top”.

Alaska's Situation

Alaska's preference of the ANGTS route is easily understood. If all things were equal, it is clearly more desirable to have the pipeline come through the state, provide gas to Fairbanks and other communities along the Alaska highway, and possibly even to Anchorage some day, and to provide more short-term construction jobs in Alaska. The problem, though, is that all things are not equal. Alaska is pushing for a system that is uneconomical, will require two pipelines to be built, and creates conflict with Canada, where approximately two-thirds of their pipeline and additional takeaway capacity lines must be approved by and go through that nation. I do not believe Canada will approve the ANGTS route, lower the value of Canadian reserves and require the construction of a second line to deliver the Mackenzie Valley gas to market.

I cannot understand why Alaska desires to trade short-term economics when it knows that at today's prices, it will make about \$100 million or more per year off of higher taxes and state royalties with the "Over-the-Top" route. The "Over-the-Top" will enable the State to receive the maximum possible value for their existing and future reserves. That should be the overriding objective of the State of Alaska.

It is quite clear to us that the one pipeline approach is the best on all counts. We have noticed that Alaska has tried to use its Congressional political muscle to outlaw the "Over-the-Top" route, but that may work against them in the end and U.S. consumers and the citizens of Alaska will suffer as a result.

The Myths of "Over-the Top"

The major myths associated with the "Over-the-Top" route fit in the following categories:

First Myth: Arctic offshore construction is unproven and risky environmentally. There are currently offshore pipelines in similar environments, and more recently off Prudhoe Bay, and no major construction companies or major oil companies have said it is not feasible. Canada already has regulations in place for pipelines of this nature. The present design calls for the pipeline to be buried approximately 15 feet below the ocean floor. Historical ice scour data for the proposed area of construction is in the 1 to 2 foot range. This will be a conditioned natural gas pipeline. If a leak or rupture ever occurred, the gas would vaporize into the air and would not leave a spill like an oil pipeline. It is important to note that with current metallurgical and pipeline test standards, it is unlikely that a pipeline carrying conditioned natural gas would suffer such a structural failure.

The real environmental problems lie with the two-pipeline approach. Two environmental footprints, scarring of 3,000 miles versus 1,700 miles, while also scarring 900 miles of mountains, rather than a single purpose pipeline from Prudhoe Bay up the Mackenzie Valley, would occur with this approach. The major environmental problem is not getting the gas to flow due to economics, thereby requiring the U.S. to use more coal and imported oil rather than clean-burning natural gas.

Second Myth: It will hurt the whaling industry.

Migratory Bowhead whales pass through this area twice each year. Present construction methodology has the offshore portion of the pipeline being laid during the winter and summer seasons. When summer construction is carried out, it would be scheduled around whale migration and other wildlife or subsistence issues. The line would be buried below the ocean floor, with no surface structures to impede the movements of the whales or other mammals in the area. Once laid, the pipeline is out of sight and out of mind.

Third Myth: The pipeline is a step toward opening up ANWR for drilling.

This project has no bearing on the ANWR question. One is either in favor of or against the development of ANWR. This pipeline project is designed to connect existing Prudhoe Bay reserves and related future exploration areas where leases are available.

Fourth Myth: Existing regulatory and international agreements prohibit the "Over-the-Top" route.

The Federal Energy Regulatory Commission and the Department of Energy have testified that that is not true.

How To Do the Project

The real question is not which route. The real question, I believe, is what is the best way to get the project built? There are basically two approaches, the ARC approach or a project led by the major oil companies. Let me first discuss the ARC approach.

Twenty-five years ago, the same two routes were considered. The industry fought for 3 years and spent around \$750 million in this effort. The major oil companies wanted an "Over-the-Top" onshore route similar to the "Over-the-Top" offshore

route, but the Canadian Government placed a ten-year moratorium on pipelines up the Mackenzie Valley and blocked it, due to unsettled Aboriginal land claims. I was Vice President of Natural Gas for Exxon at that time and in that effort learned a lot about how not to get projects done.

ARC at this time is the only company sponsoring the “Over-the-Top” route. Our approach is twofold: create the most economical project, and eliminate as many roadblocks as possible. We know this approach is not conventional, and do not expect to get the immediate support of the major reserve holders. However, it is the best way to do the project. The 4 main features of our proposal are: (Chart 5)

1. The best route—best economics. This feature has been covered.
2. Significant Northern Canadian Aboriginal ownership. This is perhaps one of the most controversial parts, but we consider it very important. The Northern Canadian Aboriginals own part of the lands through settlement of their land claims with Canada and they are in a position to help the project considerably. We wanted to include them up front and in a meaningful and significant way. They have formed a 100% Aboriginal owned Pipeline Company, which is named Northern Route Gas Pipeline Corporation (NRGPC). This company would issue the debt for the pipeline. Arctic Resources Company (which is planned to be a consortium of the founders, the major reserve holders, the major gas customers, and the Aboriginal for profit groups, pipeline companies, NGO's and other interested parties) through its Canadian affiliate, ArcticGas Resources Corp., would be the program manager for NRGPC. ARC would oversee the project development, financing, engineering, construction, and ongoing operations; and would be in place to manage the repayment of the bond obligations.
3. Our financing concept is to use municipal type, taxable, non-recourse revenue bonds, with the revenue stream guaranteed by shippers throughput agreements at a negotiated toll level agreed to by U.S. and Canadian regulatory authorities. This is very similar to many infrastructure projects in place today. Some examples are toll ways, stadiums and airports. This will be 100% debt financed and by not having the more costly equity component, the project is able to pay the Aboriginal land-owners sufficient land use fees and still keep the overall toll low. This approach is the best way to eliminate roadblocks and keep the lowest toll possible. It has the added benefit of creating a revenue stream for the Aboriginals that will end up helping their progress dramatically. The same type of approach can be used in Alaska, also.
4. The major oil companies have said on several occasions that this is a world-class project and a world-class company is needed to run it. Once they and others join the consortium, ARC will truly become a world-class company and a world-class international consortium. In the meantime, we are telling our story, gathering Aboriginal support, and preparing to file our project with the NEB in Canada.

Summary

There is only one clear choice for the best way to do this project the most important energy project of this new century for North America. (One pipeline at half the cost is the best approach.) (Say this upfront also.) A political consensus between the U.S. and Canada, and eventually Alaska, can be achieved. It is truly an international project and we believe that joint discussions between the U.S. and Canada as to the best project, and the best way to get it approved, should be encouraged. The “Over-the-Top” route provides U.S. consumers with the opportunity to benefit from the largest supply of natural gas from both Alaska and Canada. It can be the fastest project because it will not be shut in due to high tariffs as gas prices fall. Additionally, the U.S. will make at least \$5 to \$10 billion more on income taxes. Alaska will also benefit by \$100 million or more per year for the same reason.

We have seen our country come together in the past few weeks after a terrorist attack and we should see it come together with our Northern ally on this project. This is about the economic future of the U.S. and Canada. It is about the best answer for U.S. and Canadian gas consumers and taxpayers. We ask that the U.S. Senate not take any actions that would artificially limit our options for delivering Alaskan and Canadian natural gas to market. The recent adoption by the House of Representatives of an amendment prohibiting a “certain pipeline route” in the Saving America’s Future Energy Act (SAFE Act), H.R. 4, was an affront to our neighbor Canada and, if ultimately enacted, a financial roadblock to the delivery of Arctic natural gas to U.S. markets.

We are only asking for a fair playing field, a provision to speed up the regulatory and review process and the equivalence of any economic support that might be offered to any other project. The U.S., Canada and Alaska will all benefit from the most economic project that will provide for the greatest exploration incentive for new reserves.

Senator MURKOWSKI. Thank you very much. I appreciate that statement, Mr. Hoglund.

Mr. Keith Bailey, we appreciate your participation and the fact that you have come down on relatively short notice, and, hopefully, having sat through this process, you have either reaffirmed or testimony or changed it. So please proceed.

**STATEMENT OF KEITH E. BAILEY, CHAIRMAN,
THE WILLIAMS COMPANIES**

Mr. BAILEY. Well, I will try to be brief in my oral comments and appreciate the fact that the pretrial testimony will be incorporated in the record.

Senator MURKOWSKI. Without objection.

Mr. BAILEY. Obviously, in light of the hour and the fact that much of what can be said has been said, I am going to try also not to retrace too much of the path that we have been around.

Williams certainly is not at odds with the producer point of view that whatever answer comes out of this, if the private sector is going to be involved, will have to be market-driven, it has to meet the economic tests that stimulate the capital investment necessary to build the facilities. But our bottom line at this point is that we question the need for additional legislation. Again, that is at this point in time. Obviously, there may come a point in time when some targeted legislation would make sense. We simply do not believe that that is now.

Frankly, when and if that time comes, it would be our hope that the legislation is just enough and not too much. I will come back to that thought in a moment.

We also believe that as a practical matter, for all of the reasons that have been recited today, the original ANGTS route is the one and the only one that is being considered which offers as a practical matter a timetable that has the potential for completion to have gas in the lower 48 when it is needed to sustain the country's economic growth.

Finally, we would urge caution in consideration of any legislation that is prescriptive in nature as to the sourcing of either materials or labor.

I want to flush out each of these thoughts. You have heard the producers talk about their preliminary assessment that indicated that, based on current estimates, the pipeline would only return a 10 to 11 percent return, which from their perspective was inadequate economic incentive to move forward on the project, and if at the end of the day that in fact is the sort of return being offered we would share their view.

But what they did not say, but what I suspect they would conclude, is that if those expected returns were in the 13 to 14 percent range that the conclusion that they reached would be the same, simply because the rates of return that companies like Phillips and Exxon and BP look for typically are in the high teens.

But for those of us in the regulated gas pipeline business, returns at or slightly below 15 percent can be acceptable so long as we have appropriate balancing of the risk and the project structure, and that is what we would be working to achieve in meeting that market-based test.

So it would seem to us to make sense to concentrate on a route that already enjoys the support of a broad spectrum of the pipeline community, simply because much of the investment we believe will need to come from the pipeline community because of the economic realities of the project. Again, that project is the original ANGTS route.

There is a second reason, and again it has been talked about to some degree today, to a lot of degree today: because much of the time-consuming preliminary work with regard to permitting and siting the pipeline route has already been done and, while some of that may need to be refreshed, I think it is clear from the testimony today and from some of the material you shared with the committee, that the ability to do that, whatever the difference, is substantial with regard to time and it is likely to be measured in years instead of months from any other route versus the one that is already permitted and sited.

We also believe time is of the essence. Our analysis suggests that Alaskan gas will be needed and it will be needed along with an expanded LNG import capability to meet the needs of our economy this decade, and that is even if the exploration and development of the remaining growth basins in the United States and in Canada fully live up to their promise. Again, we recognize that the economy has a very strong linkage in the scale of the economy to energy consumption. It is much easier to look at the physical demand and look at the balance of that equation than it is to look at the price volatility. It is that physical requirement that we base our judgment on.

Finally, we suggest that the committee be very cautious about prescriptive legislation regarding the sourcing of materials and labor, because this style of legislation risks potential litigation by those who want to use it for their particular advantage and that sort of litigation results in both delays and cost increases, neither of which are a luxury that this project is going to be able to afford.

Remember, then, the sheer magnitude. As earlier witnesses pointed out, this project will consume, I have heard one estimate that it will consume the world's steelmaking capacity for a full year, and that there are only a small handful of manufacturers who can produce either the type of steel or the diameter of pipe that the producers' studies have suggested are most economic, and none of those are currently in North America.

It is clear that a lot of pieces do need to come together. There is little margin for error and in the best of cases all the participants are going to need to move forward in good faith and at the outside limit of their risk tolerance. I do not think this can become something that has multiple objectives and that you begin hanging Christmas tree ornaments on, because it could easily collapse of its own weight.

We ought to have one objective. That is to move Alaskan gas to the lower 48 in the most economic way possible, and we are in support of that and we believe that that can be accomplished. We believe that the most likely way it will be accomplished is through a renewal and a reemergence of the original ANGTS project.

Thank you.

[The prepared statement of Mr. Bailey follows:]

PREPARED STATEMENT OF KEITH E. BAILEY, CHAIRMAN, THE WILLIAMS COMPANIES

Williams appreciates the opportunity to submit comments for the hearing record in the Committee's consideration of Alaska natural gas pipeline issues. We believe it is imperative that industry, government, and other affected parties work together to make the long-discussed Alaskan natural gas pipeline system a reality.

Summary

Williams and its predecessors have been involved in the effort to make the Alaskan natural gas pipeline a reality since the 1970s. Based on our experience, it will require the cooperation of all interested parties—industry and government—to accomplish this goal. Williams was instrumental in developing the Alaska Natural Gas Transportation System (ANGTS) project, serving as the U.S. lead for that project until the mid 1990s. Williams believes that the framework created by the Alaska Natural Gas Transportation Act (ANGTA) still offers the best hope for developing a successful project and doing so in the least amount of time. We urge the Committee to preserve the ANGTA framework and to give the parties involved the opportunity to move forward under it prior to considering any additional legislation.

Introduction

Williams is a diversified, asset-based energy company active in most aspects of the petroleum and natural gas industries. We are a transporter, gatherer and processor, refiner, producer, retailer, and marketer of natural gas and petroleum products and ethanol. Over the last 15 years, Williams has had more experience building large diameter, cross-country pipelines than any other company in North America. We are currently constructing the Gulfstream pipeline, the first deepwater, long haul transmission pipeline in North America. In fact, we believe this \$1.6 billion project is the largest energy infrastructure project under development in the country.

In addition, Williams has a large presence in Alaska. Williams owns and operates the largest refinery in the State, located near Fairbanks, and supplies much of the jet fuel and other petroleum products consumed in the State. We also own a small percentage of the Trans-Alaska oil pipeline system. We have approximately 500 employees and assets of approximately \$500 million in the State. We understand what it takes to build and operate energy facilities in a northern climate. In addition, we have a substantial presence in the natural gas transportation and natural gas liquids industries in Canada, allowing us to understand the Canadian perspective on the gas pipeline.

Background

Williams and its predecessors have been deeply involved in the Alaska natural gas pipeline project since it was first conceived in the 1970s. A subsidiary of Williams, Northwest Pipeline, led the development of the Alaska Natural Gas Transportation System (ANGTS) proposal that was selected, pursuant to the Alaska Natural Gas Transportation Act (ANGTA) of 1976, as the project to receive expedited regulatory approval. At its peak, Williams had more than 750 people working on the project. Frankly, we believe Williams knows more about the Alaska Highway route, particularly the Alaska portion, than any other company in the industry.

The collapse of natural gas prices in the wake of deregulation in the early 1980s was good for consumers, but it also rendered the Alaskan natural gas pipeline project uneconomic and it languished for many years. However, advances in technology, growing natural gas demand and a stronger price outlook for natural gas are again combining to make a project feasible. In fact, it is Williams' opinion that Arctic supply will be needed during this decade in order to satisfy North American demand for natural gas. The North Slope producers have initiated new studies of various alternatives and project sponsors are updating their analyses. At Williams, we have activated our Arctic gas project team, with representation across North America. We have initiated a number of studies to update project economics and to identify unique value-added project opportunities. We have also participated in numerous meetings with the producer group, other pipeline companies, U.S. and Canadian Federal governments, provinces, territories, the State of Alaska, and native communities in an effort to advance an Arctic gas pipeline project.

ANGTA

In Williams' view, the framework established by ANGTA, and the Alaska Natural Gas Transportation System (ANGTS), that was designated as the preferred alternative under the ANGTA process, still represents the best path forward for building an Arctic gas pipeline. Although there are a number of commercial issues associated with the ANGTS, including the status of withdrawn partners, that must be ad-

dressed, the parties involved have recently initiated discussions aimed at resolving these issues. We believe that prior to undertaking the passage of additional legislation these parties should be given an adequate opportunity to revive the partnership and allow the ANGTS project to move forward. If that effort fails, Congress can still act to allow alternative projects if that is deemed appropriate or necessary, and little time will have been lost. We have concluded that the ANGTS option, and particularly the Alaska Highway route, represents the most promising alternative for several reasons:

- The ANGTS route, the Alaska highway route, is known.

The Arctic pipeline project will be the largest, most complex pipeline project ever undertaken in North America and, consequently, the issues it will face are significant. The highway route has been studied extensively and is well understood. Utilizing the knowledge gained and the work previously done on the ANGTS route makes good business sense and, in our opinion, good public policy. In our view, any successful project must follow this route if it is to be built this decade, or for that matter, ever.

- The highway route has overwhelming political support.

No Arctic pipeline will be built without the support of both U.S. and Canadian governmental authorities. To radically change the route will, at a minimum, delay the project potentially for years. Certainly Alaskans have made it abundantly clear that the highway route is preferred.

- The ANGTS project has obtained some of the required permits.

Although updating some of the ANGTS permits will be necessary, a new project would require much greater regulatory review and consideration, a process that could cause considerable delay, even under an "expedited" review process.

- The highway route provides greater flexibility and opportunity for complementary projects in Alaska.

The amount of gas and possibly gas liquids flowing through a gas pipeline down the Alaska Highway would provide an opportunity for further economic development in the State of Alaska. Whereas a gas-to-liquids project or LNG export project likely do not make commercial sense on a stand-alone basis, these and others may make sense as a compliment to the main gas pipeline through the State. Further, communities along the route could potentially benefit through access to their State's natural gas, an option they have not previously had. It would be unwise to choose a route that eliminated this flexibility, for it is highly unlikely that two pipelines originating from the Alaska North Slope will ever be built.

- The highway route allows for the potential development of a synergistic petrochemical industry in Alaska.

Demand growth for olefins and polyolefins is strong. We think it is possible to build a gas processing facility near Fairbanks, along with an ethane cracker and a polyethylene plant. This would allow the shipment of polyethylene pellets to Anchorage via the Alaskan railroad for export to world markets. It would also facilitate the development of additional natural gas infrastructure in the State. There is more that needs to be known before we can conclude that such a development is economically feasible. World petrochemical markets are competitive, costs tend to be higher in Alaska, and the ultimate composition of the gas will affect the economics of any such project. Williams has such a review well underway, but even if this option isn't feasible today, following the highway route will keep it as an option for the future. If another route is chosen, this option is lost forever.

Next Steps

Although we believe the ANGTS project offers the most immediate chance of success, it is not without challenges. The relative costs of a pipeline along the Alaska Highway route compared to one following an over-the-top route are still unknown, and producers have a legitimate interest in trying to obtain the highest price for their gas as is possible. Also, while certain commercial issues with the long dormant ANGTS partnership have to be resolved, Williams is optimistic that these issues can be resolved, and in a reasonable timeframe.

We believe the Federal government can and should help facilitate the development of an Arctic gas pipeline, for it is clearly in the national interest to see this project become a reality. The State of Alaska has stepped up its activity in this regard within the last year, and we hope the Department of Energy will want to help facilitate a resolution. Indeed, hearings such as this reinforce our awareness that Congress is interested in seeing this process move forward, and that is helpful.

Some have suggested that Congress should pass new legislation that would make expedited regulatory approval available to other projects that might be proposed. We believe this is premature. ANGTA was developed through an extensive process that took into account the various interests of all of the parties involved, and the basic facts that led to the creation of ANGTA have not fundamentally changed. If all parties work together we believe that the ANGTS project can successfully be developed under the existing ANGTA framework. Recently discussions among the various parties with an interest in the project have accelerated in an attempt to resolve outstanding issues and move the project forward. While the commercial interests of the companies involved will inevitably create the normal tensions that exist in any such negotiation, the ANGTS framework establishes a set of parameters within which we can all operate, allowing market forces to work, but on an expedited basis.

In our view, if the Committee desires to aid the process, the better approach at this point would be to reaffirm that the ANGTA framework is still operable and to encourage all involved to reach agreement. If such an agreement should require additional governmental action to update or augment ANGTA, then that would be an appropriate time for legislation.

If the parties are unable to reach agreement and it becomes clear that no project can be built under the ANGTA framework, then Congress should evaluate other options and act accordingly.

Conclusion

The dream of an Alaskan natural gas pipeline is once again alive and much work is being undertaken to make that dream a reality. For that to happen, the interests of many parties will need to coalesce around a single project, perhaps a project that no one party believes is ideal from its perspective. When the Federal Power Commission and President Carter selected the ANGTS project as the designated project under ANGTA, they reached conclusions that are still valid today. The United States government and the Canadian government have worked together to make the project possible. What is needed now is time and support for the various parties to work together toward commercial arrangements that will make this project a reality.

Senator MURKOWSKI. Thank you very much.

I will be very brief, because we have been at this since 10 o'clock. Mr. Aron and Mr. Heyworth, your presentations are appreciated, and the CSX effort has been long under way and it continues to be a consideration, and obviously it is directed at the export market and the export market has been evaluated relative to what it would cost to develop the CSX liquification at Valdez and export it into primarily the markets of Asia and found to be a continuing potential. But the reality of signing contracts has always been one subject to the economics of that, as opposed to Mr. Heyworth's proposal that this gas be utilized in the United States in the form of LNG, which presents us with the difficulty of permitting LNG terminals in the United States.

It is not an impossible process, but it is not an easy process, either. That of course is competing with foreign gas potentially coming into the United States that enjoys the exemption of not having to comply with the Jones Act.

I thought it was reassuring, the testimony we had from Foothills relative to clarification of the status on contingent liability, and I want to compliment you on that. Your reflection from time to time on the potential litigation if the project does not come your way, I will leave the lawyers to speculate because that is kind of outside our jurisdiction.

With regard to statements I made previously, though, I want to clarify. When I said I was going to recommend to the majority that we proceed with legislation, it would not be—it would not in any way diminish the status of the Foothills permits that are in existence now and coordinated by the Canadian government as pro-

posed by former President Carter. I would see the necessity of moving in an effort to expedite permitting and judicial review, pipeline directors and so forth.

But I am not suggesting by any means that the legislation as proposed, which would put the producers basically in the same position as Foothills as far as expediting permitting, is necessarily an appropriate function of this committee until such time as we have an economically viable project and/or an application, because it kind of puts this committee in the position of potentially, potentially, eliminating one of the participants. That is my current reading, at least.

I also want to—I hope I do not get too many questions on what that means. But I also want to recognize Mr. Høglund's statement. I believe that your interest is in promoting the project, as opposed to having any Canadian Arctic gas; is that correct?

Mr. HøGLUND. Right.

Senator MURKOWSKI. Finally, Mr. Bailey, in your testimony, which I did read—and I did read all your testimonies last night—you proposed the feasibility potential of taking gas liquids out in Alaska and marketing them in the markets of the Pacific Rim. Could you elaborate a little more on that potential? Is that an economically viable prospect in your opinion? You folks are in the business of refining and pipeline and gas liquids and a lot of things.

Mr. BAILEY. Well, one of the issues you ultimately need to deal with is converting the wellhead gas into pipeline quality gas. You can certainly build systems that run a wet gas system and take it over long distances, as Alliance pipeline recently demonstrated. But it is more expensive and it does affect the economics.

Our thought had been that, with the ANGTS route or an Alaskan route that you have the ability at any point across Alaska of treating and processing the gas, and at the point that that occurs it represents some additional potential, we believe, for petrochemical development, which again would seem to be consistent with some of the economic development goals of the State.

Senator MURKOWSKI. Does that complement your refinery operation to some extent or could it?

Mr. BAILEY. It could be complementary, but it is not necessarily. Again, we suggested Fairbanks as the place that it would be done because it is an existing complex, towers and others already there. But it could be done at other points as well.

Senator MURKOWSKI. I have no further questions.

Dennis.

Mr. MCCONAGHY. Yes, I would just like to qualify one point from our earlier remarks, which was the nexus between the ANGTS and ANGTA legislation and the Canadian treaty, and just to emphasize the point that any new legislation would have to begin that process again in Canada to coordinate a Canadian response to any new legislation.

Again, I just wanted to emphasize in our record that the ANGTS formulation does bind the two countries together and that is unique to that formulation. Thank you.

Senator MURKOWSKI. I want to thank all of you. I think we have advanced the process a little bit and I look forward to working with

the producers and the other interested parties in a follow-up here, perhaps not in a formal hearing, but a more informal setting.

I wish you a good day.

[Whereupon, at 1:55 p.m., the hearing was adjourned.]

APPENDIX

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA,
Washington, DC, September 25, 2001.

Hon. JEFF BINGAMAN,
*Chairman, Committee on Energy and Natural Resources, Dirksen Office Building,
Washington, DC.*

DEAR MR. CHAIRMAN: I want to thank you in advance for holding a hearing regarding construction of an Alaskan natural gas pipeline. We believe that tapping the natural gas resources on the Alaskan North Slope is key to meeting gas demand anticipated by 2015. For this reason, INGAA strongly supports the construction of an Alaskan natural gas pipeline that would be able to deliver supplies to the Lower 48 States before the decade is out.

The INGAA Foundation recently commissioned a report outlining some of the issues involved in the construction of a pipeline from Alaska. I ask that the enclosed report, entitled *Future Natural Gas Supplies from the Alaskan and Canadian Frontier*, be made of part of the record of your hearing on October 2nd. The report assesses the commercial feasibility of a pipeline project to transport natural gas from Alaskan and Canadian "frontier," and finds that such a project can be built with minimal environmental impact and substantial long-term economic benefits to both the frontier region and North America as a whole. While the report does not favor or recommend any specific pipeline project, INGAA does believe that routing issues should be resolved as soon as possible so that construction can begin.

The INGAA Foundation report finds that proven frontier natural gas reserves represent more than 10 percent of the North American natural gas reserve base of 375 Trillion cubic feet, a proportionately greater amount than the Alaskan oil reserve base that existed when the TransAlaska Oil Pipeline was built in the 1970s. Any "frontier" pipeline project remains viable with prices at between, \$3 and \$4 per million Btu (MMBtu) delivered into Chicago, the report says. Assuming timely approval, frontier gas could be flowing into the North American natural gas grid by 2007.

One key point raised in the report is the need for additional pipeline capacity beyond just building an arctic frontier pipeline. Any such pipeline would have to interconnect with existing systems in Alberta. These existing pipelines, however, are already operating at levels close to maximum capacity. Therefore, thousands of miles of additional pipeline capacity within Canada and United States will need to be constructed so that natural gas delivered through a new pipeline can flow beyond its terminus in Alberta, and into major U.S. markets.

Please let me know if you have any questions. Thank you for the opportunity to make this report a part of the October 2nd hearing record.

Respectfully,

JERALD V. HALVORSEN,
President.

NORTHERN ALASKA ENVIRONMENTAL CENTER,
Fairbanks, AK, September 27, 2001.

DEAR SENATOR BINGAMAN: On behalf of the Northern Alaska Environmental Center, I would like to submit these comments as written testimony for the Senate Energy and Natural Resources Committee's hearing on natural gas. The Northern Center is a non-profit environmental organization, based in Fairbanks, whose mission is to protect wilderness, natural habitats, and the quality of life in Interior and Arctic Alaska through advocacy and education. The Northern Center has been an active

participant in discussions regarding the development of Alaska's North Slope natural gas—both within the Alaskan environmental community and within the Fairbanks Chamber of Commerce.

Below is our statement on natural gas development on Alaska's North Slope. Of particular importance to note are (a) our non-opposition to natural gas development and transportation—provided certain conditions are met; (b) our opposition to any pipeline development in frontier areas such as offshore of the Arctic National Wildlife Refuge; and (c) our contention that the project go through a new and complete Environmental Impact Statement process with no regulatory short cuts in the issuance of permits. It is also important to note that we do not support any specific pipeline route at this time.

The Northern Alaska Environmental Center believes that the United States, as a member of the world community, must aggressively reduce. Its dependency on fossil fuels, through energy conservation, transition to cleaner burning fuels, and increased development and use of renewable sources of energy. To prompt this transition, the Northern Center believes the State of Alaska should adopt an aggressive policy of energy conservation standards for new building construction and vehicle purchases, and should launch a new program using state funds to support rural, alternative energy development, emphasizing renewable energy.

The Northern Center also recognizes that natural gas is a cleaner-burning fuel than are others used in the Fairbanks area and in many parts of the world. As such, the Northern Center considers natural gas a transitional fuel source in the move toward reduced and more conservative use of fossil fuels in favor of renewable energy resources.

The Northern Center recognizes that energy is a strategic resource, required by all Alaskans and essential to their physical and economic well-being. With this consideration, the Northern Center believes the development of North Slope natural gas reserves to be a reasonable certainty. However, unplanned and poorly conceived development, as abetted by comparatively low energy prices, can cause significant long-term environmental, economic and health damage, particularly for the pollutant-prone Fairbanks bowl and the fragile interior Alaska environment. Therefore, the Northern Center wishes to remain as involved as possible in the public debate and dialogue on natural gas and its impacts on the Alaskan and Fairbanks North Star Borough environs and seeks to participate and provide assistance throughout the process of permitting and construction.

If Alaska's proven North Slope natural gas reserves are developed, the Northern Center believes the following conditions must be met:

- Any project must minimize deleterious impacts on local communities and traditional lifestyles and respect the basic human right to a clean, safe, and healthy environment.
- The pipeline should remain as close as possible to present utility corridors (excluding RS 2477 rights-of-way). No pipeline development should traverse wilderness frontier areas including offshore of the Arctic National Wildlife Refuge.
- The State of Alaska should develop a comprehensive energy production and management policy as a precondition to its issuance of a permit for construction of the pipeline.
- The State and federal government should conduct studies that assess all reasonably anticipated impacts accruing from the gas pipeline, including the degree of pressure on the Arctic Refuge that may be expected from the addition of the pipeline to the North Slope.
- The project must go through a new Environmental Impact Statement process. There must be no regulatory short cuts in the issuance of permits.
- Any project must include Best Available Technology and Best Management Practices including, where environmentally appropriate, Seasonal Construction Techniques. (can we provide a citation of reference for these?)
- There must be a permanent, adequately funded, and independent, formal citizen advisory council for the gas and oil pipelines that includes representation by conservation organizations, as well as local citizens, and that reports directly to the Governor.
- The project must escrow sufficient funds for Dismantling, Removal and Restoration (DR&R) of all project facilities and impacts in a way that regulatory agencies can ensure that the original ecosystem characteristics of the corridor have been restored as facilities are taken out of service. This "return to original condition standard" and the escrow of DR&R funds must be stipulated in all permits and reviewed in the EIS.

Thank you for this opportunity to provide comments to your committee.
Sincerely,

ARTHUR HUSSEY,
Executive Director.

ALASKA CONSERVATION ALLIANCE,
Anchorage, AK, September 28, 2001.

Hon. JEFF BINGAMAN,
Energy and Natural Resources Committee, Dirksen Senate Office Building, U.S. Senate, Washington, DC.

DEAR CHAIRMAN BINGAMAN: The Alaska Conservation Alliance, on behalf of our member groups, wishes to provide this statement of our position on the development and transportation of Alaska's North Slope gas for consideration in your Committee hearing on Alaska Natural Gas Pipelines. The Alaska Conservation Alliance is a statewide coalition of conservation groups and businesses representing over 35,000 individual members.

While our complete position statement on this complex issue covers a wide and diverse array of issues, the following best sum up our basic position:

We strongly oppose all proposed natural gas lines from Alaska's North Slope that invade frontier wilderness ecosystems with new routes and infrastructure where it presently does not now exist, including the offshore Arctic National Wildlife Refuge or across the Arctic or Yukon Flats National Wildlife Refuges. We are concerned also about impacts on the Porcupine Caribou Herd prime habitat winter range presented by the Dempster lateral route. Further, we support a full public EIS process to examine the environmental impacts of all proposed plans, routes, siting, and stipulations for such projects within the existing established transportation routes.

You will note that we are strongly opposed to the so-called "over-the-top" route in the Beaufort Sea off the coast of the Arctic National Wildlife Refuge. Of the routes currently under active consideration, this route has the greatest potential for adverse environmental impacts and will be vigorously opposed by the state and national environmental communities.

Also, please note the Alaska Conservation Alliance is not at this time supporting any specific gas project or pipeline route, though any project must meet all state, federal and Canadian environmental laws as well as implement "best available technology and procedures" in order to minimize environmental, public health, and safety concerns.

We look forward to providing further input to your committee to protect Alaska's environment. We would appreciate this statement being included in the formal hearing committee report.

Sincerely,

KEVIN HARUN,
Executive Director.

PG&E CORPORATION,
Bethesda, MD, October 1, 2001.

Hon. JEFF BINGAMAN,
Chairman, Senate Committee on Energy and Natural Resources, Washington, DC.

DEAR MR. CHAIRMAN: The Senate Committee on Energy and Natural Resources will hold a hearing on October 2, 2001, to look into the status of proposals to build a pipeline system accessing the vast Alaska natural gas reserves. I understand the committee may also discuss the potential for legislation to expedite the construction of an Alaskan pipeline.

PG&E Corporation has a direct interest in the development of the Alaska natural gas pipeline system. A subsidiary of the corporation is one of the original partners in the Alaska Natural Gas Transportation System (ANGTS). Our Pacific Northwest pipeline, Gas Transmission Northwest, is the Pre-Build Western Leg for ANGTS that was constructed in 1980. The corporation also owns significant pipeline assets in California, which connects to the Pacific Northwest system. So, in total, PG&E Corporation's pipeline infrastructure will play a critical role in delivering Alaskan gas to major markets in the West. It is with that role in mind that I would like to provide our views on the issues before your committee.

We believe new legislation is not necessary at this time. The 1976 Alaska Natural Gas Transportation Act and subsequent regulation provide an adequate legislative and regulatory framework for the various interested parties to move forward with the development of this important infrastructure. In addition, a 1977 agreement between the United States and Canada (Agreement Between the United States of America and Canada on Principles Applicable to a Northern Natural Gas Pipeline, 29 U.S.T. 3581, 1977, T.I.A.S. 9030) is essentially a bond with our Canadian neighbors necessary because any delivery of gas to the United States requires connecting pipelines in Canada.

The primary focus today must be the commercial framework for the project, not new legislation that revisits issues already decided by Congress. To that end, the original ANGTS partners are reinstating the partnership. We expect to engage in commercial discussions with producers and others as soon as it is practical to establish a business framework for moving ahead with the project. We are very concerned that additional legislation now, and the regulatory proceedings that follow, would impede these business discussions and ultimately delay the Alaska gas pipeline project.

PG&E Corporation is committed to being a part of the effort to move the Alaska pipeline project forward. As you know, natural gas is produced as a byproduct at fields, like Prudhoe Bay, where there already is active oil production. Because infrastructure is not in place to transport that natural gas to market, most of it is re-injected into the ground. These supplies could produce a reliable domestic source for our nation. We need to work together in a timely way to create the pipeline system that will enable us to access them.

I greatly appreciate your interest in this issue. Please feel free to contact me with questions or if I can be of assistance at any time in the future.

Thank you.

Sincerely,

THOMAS B. KING,
Senior Vice President.

ASSOCIATION OF ANCSA REGIONAL CORPORATION
PRESIDENTS & CEOs, INC.,
Anchorage, AK, October 2, 2001.

Hon. JEFF BINGAMAN,
Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.

Re: Testimony to the United States Senate Committee on Energy and Natural Resources

DEAR SENATOR BINGAMAN: On behalf of the Association of ANCSA (Alaska Native Claims Settlement Act) Regional Corporation Presidents & CEOs, I appreciate this opportunity to provide written testimony on the proposed Alaska gas pipeline. This is one of the most important issues facing Alaskans today.

While this Association has been in existence for a number of years, it was formalized in 1998. The membership is comprised of all the Presidents and CEOs of the Thirteen Regional Native Corporations formed under the Alaska Native Land Claims Settlement Act of December 18, 1971. Our Mission is to promote and maintain ANCSA, ANILCA (Alaska National Interest Lands Conservation Act), and economic enterprise through cooperative efforts and advocacy in order to foster the continued growth and economic strength of the regional corporations on behalf of their shareholders.

We believe it is imperative that an Alaska gas pipeline be built following the Alaska Highway route. This project would follow a route previously designated by Congress and certified by international treaty and would clearly be the speediest response to the current North American demand for natural gas.

Most importantly, a highway route would keep development onshore. Alaska Natives and their leaders strongly oppose the so-called "over-the-top" route—an offshore pipeline underneath the unstable ice of the Beaufort Sea. The culture and livelihood of the Inupiat people of Alaska's North Slope depend on hunting the bowhead whales that migrate through the Beaufort Sea. Because these whales are extremely sensitive to noise and seismic activity, offshore development through the Beaufort Sea would permanently threaten the Inupiat subsistence culture. This is not acceptable and we believe an "over-the-top" route should not be considered as an option.

It is also important to our shareholders that Alaskan communities be given access to gas, not only in Fairbanks and Cook Inlet, but in rural communities where energy costs are persistently high. It's unthinkable we would ship natural gas out of

our state without Alaskans being able to use it for residential energy needs as well as economic development opportunities.

The Native corporations of Alaska support opportunities for additional participants in the pipeline project. There are several major Alaska companies, including the Arctic Slope Regional Corporation; Cook Inlet Region, Inc.; NANA Regional Corporation and Doyon, Limited, which are capable and interested in being pipeline partners.

Certainly, one of the most important issues to our shareholders is that any federal legislation provide for Alaska hire and Alaska Native hire, as well as the use of Alaska businesses. Alaskan Natives will benefit from access to good-paying, long-term jobs in construction, engineering, operations and natural gas related process industries. An "over-the-top" route would diminish these opportunities. Many of Alaska's Native Corporations and their subsidiaries are already well established in arctic oilfield engineering and pipeline operations and have significant expertise to contribute to this project. We believe any federal legislation should include strong provisions stating Alaska residents and contractors should be employed when they are available and qualified. The gasline sponsors should also be required to enter into an agreement to provide for employment and training of Alaska Natives.

It is important to our corporations that federal legislation include provisions for future access to the pipeline. Alaska Native Corporations own title to millions of acres of land on the North Slope, including land in the Central Arctic Foothills, one of America's premier natural gas provinces. Lands in the Yukon Flats and Nenana Basins also have potential. We need access to the pipeline to move discoveries to market. Through ANCSA provision 7(i), the natural revenues from these discoveries will benefit all Native corporations and their shareholders.

Last but not least, the CEOs of Alaska Native Corporations want to ensure that we have at least one seat on any gas pipeline oversight committee that is formed.

In closing, I have enclosed copies of our report recently released entitled "*Native Corporations—Building a Foundation for Alaska's Economic Destiny*" for the Committee's information and thank you for the opportunity to submit this testimony today.

Sincerely,

VICKI OTTE,
Executive Director.

CITY OF VALDEZ, AK,
Office of the City Manager, October 5, 2001.

Senator JEFF BINGAMAN,
Chairman, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.

DEAR SENATOR BINGAMAN: On behalf of the City of Valdez, I would like to provide comments on what the City of Valdez sees as a viable option for construction of a pipeline for getting Alaska's North Slope gas to markets. Attached is testimony that the City of Valdez would like to submit to your committee for inclusion in your deliberations concerning development of Alaska's North Slope gas.

The City would like to request that if the United States Senate does determine that incentives are necessary to allow a private venture to construct a pipeline that any depreciation provisions will apply only to the federal income tax provision. Depreciation of any industrial asset has a very negative effect on a local community's ability to collect ad valorem property tax.

For the City of Valdez, the ad valorem property tax is our main revenue generator. These property taxes are used to fund education, public safety, health care, snow removal, garbage collection and disposal. A prematurely declining or depreciating asset still has the same impact and demand for services as a new facility.

Again, if the United States Senate determines that tax incentives are needed to facilitate the construction of a natural gas pipeline by a private entity, accelerated depreciation should effect only to the federal income tax provisions.

If you should have any questions concerning the City's comments, please do not hesitate to contact me.

Thank you for providing the City this opportunity.

Sincerely,

DAVID DENGEL,
City Manager.

COMMENTS ON PROPOSAL FOR A NATURAL GAS PIPELINE FROM
THE NORTH SLOPE OF ALASKA

On behalf of the City of Valdez, Alaska, I would like to submit comments on the status of proposals for the transportation of natural gas from Alaska to the lower 48 states.

The City of Valdez has been instrumental in the formation of the Alaska Gasline Port Authority (Port Authority). The City of Valdez, the Fairbanks North Star Borough and the North Slope Borough formed the Port Authority in 1999.

The mission of the Port Authority is to enable the development of Alaska's North Slope gas to the maximum benefit of all Alaskans. Ownership of the pipeline by this type of organization will substantially lower the effective cost of transporting gas from the North Slope to market and improve the economics of such a venture to a degree necessary to make the development of the North Slope gas resources financially viable.

The goal of the Port Authority is to facilitate the maximum use of Alaska's natural gas both within Alaska and exported to other markets including the continental United States.

The Port Authority has formed a team with international experience. The Port Authority has retained Bill Walker of Walker Walker and Associates, LLC as General Counsel and Rigdon Boykin of O'Melveny & Myers, LLP, an international law firm with substantial experience with tax-exempt entities, project financing and the oil industry, as Special Project Counsel.

The Port Authority entered into a Memorandum of Understanding with the Bechtel Corporation. As part of that MOU, Bechtel undertook to develop cost estimates for the gas conditioning plant, pipeline and LNG facilities. In addition, the Port Authority retained the services of financial advisors Taylor-DeJongh and Merrill Lynch to perform the financial modeling and act as financial advisors to the Port Authority.

The original premise of the Port Authority was to support the construction of a project that would take natural gas from the North Slope of Alaska to Valdez, make LNG and sell it to Asia. As a result of the work performed by Bechtel, Taylor DeJongh-Merrill Lynch and O'Melveny & Meyers, the Port Authority has a very comprehensive model, which includes conservative estimates for all aspects of the project including construction, financing and operations. The costs include development costs, permitting costs, the various financing fees, and interest during construction, working capital, six months debt service reserve, insurance, etc. In a similar fashion the construction cost estimates are all inclusive i.e., all equipment, capital spares, construction, freight, catalysts and chemicals for initial fill, commissioning and start up costs, engineering services, escalation of 8 to 10% depending on the facility, contingency (approximately 10%), insurance, licensing fees and contractor risk, overhead and fee.

At the beginning of May, 2000 Bechtel completed its EPC study based on the above premises and Taylor-DeJongh completed modeling the results of that study. This initial base case study was very valuable for the Port Authority because it gave them a ground up "new look" construction cost estimate (based on 55,000 man hours of Bechtel time) for the gas processing facility, pipeline and LNG facility construction elements which could serve as a basis for modeling other alternatives. In addition, it gave the Port Authority a realistic and conservative financial model for looking at alternative solutions to improving the project economics.

The Port Authority has reached two basic conclusions: First, the economics of the project are clearly affected by the amount of liquids both in the form of NGL's separated out on the Slope and inserted into the oil pipeline and the amount of propane separated out as liquid propane gas ("LPG") in Valdez. The value of these liquids as demonstrated in the financial runs is substantial. Second, this project needs to be combined with other potential projects in order to share the huge cost of the pipeline and gas conditioning facilities.

Based on the cost information developed by Bechtel, the financial modeling and the changing world market for gas and LNG, the Port Authority now believes the most economic and beneficial project to both Alaska and the producers is a two-project Y line with one branch going to the Lower 48 along the Alaskan highway route and the other branch going to Valdez along the Alyeska pipeline route. In addition, there would be a spur line from Glennallen to Anchorage.

The Port Authority believes that using one or both of these routes substantially reduces the potential for environmental issues, which could cause significant delays and increased costs. In addition, the project realizes huge economies of scale by combining a Lower 48 project with an LNG project. The Port Authority believes the Y line combination project effectively reduces the pipeline cost for each project from

\$7.0 Billion to \$4.85 Billion—a savings of \$2.15 Billion in construction costs for each project or a total savings of \$4.30 Billion.

The concept of the Two Project Line contains the following components:

- A Conditioning Plant on the North Slope which would have the capacity to condition sufficient gas to insert 6 billion cubic feet per day (bcfd) into a pipeline
- A 550 mile 56" diameter pipeline operating at 2220 maximum pounds per square inch from the North Slope to Delta Junction
- A 150 mile 44" diameter branch line carrying 3 bcfd to the Canadian Border along the Alcan highway (The Foothills Route)
- A fractionation plant in Calgary (or in the U.S.) to extract the liquid propane gas from the Lower 48 branch of the line
- A 256 mile 46" diameter branch line carrying 3 bcfd to Valdez
- A spur line to Anchorage from Glennallen
- A fractionation plant to extract the liquid propane gas in Valdez
- A 15 Million Ton per year LNG Plant (at full ramp up) and port facilities in Valdez

Construction Cost

Conditioning Plant (assuming no efficiencies from existing plant)—\$4.2 Billion
 Pipeline (including the two branches)—\$9.7 Billion
 LPG Fractionation Plant—\$450 Million
 LNG Plant and Port Facilities—\$3.65 Billion
 Construction Cost Total—\$18.0 Billion
 (includes escalation and \$1.8 Billion contingency)

Soft Costs

Interest during construction—\$4.9 Billion
 Owners contingency—\$900 Million
 Debt service reserve—\$1.0 Billion
 Financing fees, working capital, etc.—\$1.0 Billion
 Total—\$7.8 Billion
 Minus pre-completion revenue—\$3.2 Billion
 Total Financing required—\$22.6 Billion

For both LNG Project and pipeline to Alaskan-Canadian border for Lower 48 sales.

The Port Authority is not claiming that this represents the best or only project that should be developed. The Port Authority has offered to make our research and numbers available to any qualified user and hopes further optimization of the design and costs will yield better results. The financial modeling performed by the Port Authority has demonstrated that this design and cost structure (as conservative as it may be) is financially viable and should be economically attractive to the Producers, Alaskans and the State of Alaska.

Obviously the financial returns of any project depend on cost assumptions, interest rates and the projected sales price of gas, LNG and LPG. Outlined below are an estimate of the range of returns for the various parties involved based on the Bechtel numbers and the Taylor-DeJongh modeling using conservative historical numbers for the price of gas, LNG and LPG for the bottom of the range and a percentage of today's prices as the upper part of the range. These benefits also include the revenues from the Propane, which is transported down the line in a gaseous form and extracted as a liquid at the end of the line.

Producers—\$2 Billion to \$3 Billion per year
 State (royalties, severance tax, corporate income tax and share of \$370 Million)—\$750 Million to \$980 Million
 All communities in Alaska divided by population with the smallest receiving a minimum of \$50,000—\$111 million per year
 For the construction of infrastructure to deliver gas to non-pipeline corridor communities—LNG tank trucks and barges—or to lower the cost of alternate fuels—\$37 million per year

The Port Authority believes that its ownership of the Project will result in eight primary benefits:

1. Income from the venture will be tax-exempt as a result of an IRS ruling received by the Port Authority in January, 2000. Substantial cash—Billions of Dollars—which would otherwise be used to pay income taxes in this project would be available to pay debt.

Dr. Pedro Van Meurs, energy consultant to the State of Alaska, has stated that the benefit of the tax exemption may range in the order of magnitude of \$10 to \$20 Billion on an undiscounted current dollar basis.

2. Financing structure:

- a. The Port Authority believes it can finance this facility with virtually 100% debt;
 - b. The Port Authority will have a substantially lower hurdle rate for capital employed than a private organization would require;
 - c. Some of the debt would be financed with tax-exempt bonds;
 - d. The project's debt would be non-recourse to the State, the founding municipalities and the producers.
3. The Port Authority has substantial political advantages both within and outside Alaska.
4. Income to the state and communities—The enabling ordinances establishing the Alaska Gasline Port Authority sets forth that income of the Port Authority shall be distributed as follows:
- a. 60% to State of Alaska;
 - b. 30% to all Alaska municipalities on a per capita basis. The goal of the Port Authority is that under normal operating conditions, this would produce a minimum of \$148 million to be split each year among the municipalities;
 - c. 10% to be retained by the Port Authority which will be used for infrastructure to provide gas to non-pipeline corridor communities or to lower the cost of alternate fuels for remote communities.
5. There will be more certainty of gas for in-state usage.
- a. The Port Authority will insure that a spur line will be built to allow the Cook Inlet/Anchorage area, etc. access to North Slope Gas.
 - b. The Port Authority can use retained revenues to develop LNG transport to other communities accessible by road or water.
6. More control over price to consumer of in-state gas usage.
For example, gas to Anchorage or Fairbanks could be in the \$1.80 per mmbtu range.

\$3.00 Chicago price
 -\$1.20 Tariff from Canadian Border to Chicago
 \$1.80

7. No need to give up tax revenue, royalties, etc. to subsidize the project.
- The port authority concept has been used for other large infrastructure projects in this country. These quasi-public entities have constructed ports, airports, roads and other infrastructure.
- Representatives of the City of Valdez and the Port Authority are available to meet with you and members of your committee and your staffs to answer questions and to go into greater detail about the financial viability of the Port Authority to move North Slope gas to market.
- For more information or questions please contact: David Dengel, City Manager City of Valdez, Alaska (907) 835-4313 ddengel@ci.valdez.ak.us

STATEMENT BY AMERICAN IRON AND STEEL INSTITUTE (AISI)

AISI is a non-profit association of North American companies engaged in the iron and steel industry. The Institute is comprised of 39 member companies, including integrated and electric furnace steelmakers, and 155 associate and affiliate members who are suppliers to or customers of the steel industry. For more news about steel and its applications, view American Iron and Steel Institute's website at <http://www.steel.org>.

We appreciate the opportunity to comment on supply issues surrounding the construction and permitting of new pipeline capacity from Alaska through Canada and into the lower forty-eight states. Natural gas is a clean and abundant energy source and raw material and we believe that it is in the interests of the United States, and also of Canada, to expedite the construction and operation of the pipeline.

The U.S. steel industry has the capacity and expertise, and certainly the need, for a project of the magnitude proposed to move Alaska gas to markets.

NORTH AMERICAN PRODUCERS HAVE THE COMPETENCE TO SUPPER STEEL AND PIPE

The North American oil and natural gas pipeline industry has developed an extensive network of pipelines servicing the integrated energy market on this continent. The vast majority of the steel line pipe used in that network has been produced by North American manufacturers, in both the USA and Canada, who have consistently developed the sophisticated capability using high strength steels to meet and exceed the needs of the energy transmission industry. North American producers pioneered steels for Arctic Grade line pipe in the early 1970's and since that time have provided thousands of miles of large diameter pipe for high pressure energy pipeline systems. In the late 1970's, after careful design of the pipe line, ex-

tensive testing and international bidding, two North American producers were awarded contracts to supply all of the pipe for the selected Alaska gas pipe line project. At that time the pipe specified was highgrade steel line pipe up to 56 inches in diameter. Since that time, the capabilities of North American suppliers have continued to develop, becoming more sophisticated based on continued experience and extensive investment.

Pipe supply for the currently proposed project would extend over several construction seasons and with appropriate planning, the capacity of steel and pipe producers in North America could be harnessed to manufacture the quantities required. As recently as 1999/2000, three North American steel pipe producers supplied over 1,000,000 tons of steel for the 2,000 mile Alliance Pipeline running from Northern British Columbia to Chicago. This was both the most technologically advanced and largest pipeline construction project ever in North America.

Collectively, North American steel and pipe producers have the most extensive experience supplying sophisticated steel and pipe for projects on this continent.

THERE ARE SIGNIFICANT BENEFITS IN THE SUPPLY OF STEEL AND PIPE FROM NORTH AMERICA

The benefits of sourcing North American materials and particularly steel for a North American project are many, including:

- Security of supply
Multiple sources of pipe, particularly from the same continent would add to the supply capability for the project. This is a major project and a number of supply sources will be required to meet delivery deadlines.
- Significant economic spin-off effects
The economic activity generated within North America from the supply of steel and the fabrication of pipe and related services will have a significant multiplier effect.
- Employment generation
Depending on the route and quantities of steel and pipe required, there would be up to 10,000 work years of direct employment from North American steel supply. In addition almost 4,000 additional work years would be used to manufacture the pipe from steel.
- Ease of obtaining regulatory approval
In the past a significant factor in the Canadian regulatory approval process has been the economic benefit for Canada. Supply opportunity for steel and pipe, probably the major supply component for the project, would expedite this objective.
- Potential generation of new investment
Given sufficient opportunity, steel and pipe producers are likely to invest in enhancing their supply capability on the basis of this project.
- Cost competitiveness
In project after project, North American producers have demonstrated full commercial competitiveness on sophisticated pipeline projects.

Some of the pipeline designs proposed would be significant steps beyond designs utilized in major pipeline systems to date. The history of the North American steel and pipe supply industry is to be a leader in such developments, with a major spin-off benefit being the subsequent commercialization of this technology for use in other cold temperature applications, energy industry fabrication (offshore platforms, etc), off-road transportation, military and other sophisticated uses.

STEEL INDUSTRY

The North American steel industry is currently experiencing a crisis, driven by a global steel glut that has resulted in unprecedented imports of steel into the USA and Canada. Based on the serious damage being done to the USA steel industry, President Bush initiated a series of initiatives aimed at curbing the worldwide overcapacity in steel products. A key part of the President's steel initiative was the implementation of a Section 201 safeguard investigation that is currently underway at the International Trade Commission. The depth of concern about this issue is evidenced by the more than forty congressional and state witnesses that have appeared before the ITC seeking relief for US steel producers.

It is difficult to imagine a major continental infrastructure project proceeding without every effort being made to ensure that already world class North American steel producers be given every opportunity to bid to provide the product. For the benefit of the economy, the steel industry and not least, the natural gas industry,

steel for this project should be melted, poured and processed into pipe in North America.

RECOMMENDATIONS TO MOVE FORWARD

Past projects have shown that for any given volume of natural gas required to be transported a number of possible pipe designs are possible. In the late 1970's Foothills Pipelines won the right to construct the Alaska Highway Pipe Line Project in part by designing a line that could in fact use steel and pipe manufactured by North American producers in contrast to the competing proposal. These options still exist.

It is our contention that all design options capable of meeting the throughput needs of the project and yet providing North American steel and pipe suppliers with the best opportunity to supply, should be considered. Put another way, a pipeline should not be designed in a manner that excludes a significant number of capable suppliers. Not only would an inclusionary approach provide more commercial options to the pipeline builders but would also offer additional security of supply through broadening the supply base, avoiding the risk of foreign trade disruptions, greater economic spin-off benefits to the North American economy and presumably ease the process of obtaining regulatory approval, particularly for that portion of the project in Canada. It is apparent that the interests of the USA would best be served by:

- Facilitating the early construction of this important energy project.
A secure and plentiful natural gas supply is necessary for the continued growth of the US economy.
- From the initial conception through to final design stage, considering options that allow the maximum participation by North American suppliers of materials and services.

To garner the maximum benefits for the North American economy, domestic steel and pipe supply considerations must be considered and nurtured at the earliest stages of project development.

- Adopting a procurement process for the supply of materials that encourages North American supply on a fully competitive basis.
- Ensuring sufficient lead-time in awarding supply contracts to allow any proposed investments to be moved to completion.

Given the opportunity, it is entirely possible that experienced steel and pipe producers in North America would invest in enhanced capability to meet the requirements for this important project. The benefits to the pipeline industry and the North American economy would be huge.

We appreciate the opportunity to comment on the importance of this project to the economy and in particular to the North American steel industry and its workers.

STATEMENT OF STEPHEN J. WUORI, GROUP VICE PRESIDENT—PLANNING AND DEVELOPMENT, ENBRIDGE INC.

EXECUTIVE SUMMARY

Enbridge Inc. employs approximately 6,000 people in Canada and the United States. We operate the world's longest crude oil and liquids pipeline system, which includes Enbridge Pipelines Inc. We also operate and have an interest in Enbridge Energy Partners in the United States, and have interests in the Alliance and Vector natural gas pipeline systems.

As a leader in energy transportation, distribution and services in North America and internationally, Enbridge is keenly interested in assisting the development of a cost effective transportation infrastructure for northern natural gas.

With a large and growing North American demand for natural gas expected to reach 30 tcf annually, it is essential that the industry develop the most innovative, efficient and reliable transportation infrastructure to deliver northern natural gas to market. Northern gas development is a logical extension of our business, as Enbridge is the only Canadian pipeline company that has constructed, owns and operates a major buried pipeline in northern permafrost.

Enbridge has consulted closely with the Alaska North Slope and Mackenzie Delta gas producers. Based on our work to date, Enbridge's main perspectives on northern pipelines are as follows:

- The projects must be producer driven and economically robust.
- All stakeholders must be included.
- Clear rules are needed for the regulatory reviews.

- Co-operative decision-making by Canada and the United States will be required.
- Enbridge has maintained route neutrality. However, based on our studies and discussions, an overall comparison favours the northern route based on its widely acknowledged lower cost advantage of approximately US\$ 2 billion or approximately 30 cents/mcf lower transportation cost from Prudhoe Bay to Alberta.

Enbridge calls for the best project to be selected based on a complete assessment of its merits. Enbridge urges the United States Senate Energy and Natural Resources Committee to oppose any intervention to prematurely preclude a northern route from Prudhoe Bay. Such a move could jeopardize accessing Prudhoe Bay natural gas because of inferior economics on a southern route, it would remove the decision from the producers who will be exposed to the greatest financial risks, and it could strand Mackenzie Delta gas for many years to come.

INTRODUCTION

Chairman Bingaman, Ranking Member Murkowski, thank you for the opportunity to provide testimony for the record on behalf of Enbridge Inc. on the proposed Alaska Natural Gas Pipeline.

Enbridge Inc, as a leader in energy transportation, distribution and services in North America and internationally is keenly interested in assisting the development of cost effective transportation infrastructure for northern natural gas. Enbridge employs approximately 6,000 people in Canada and the United States, and we are Canada's most diversified energy pipeline and distribution company.

Enbridge operates the world's longest crude oil and liquids pipeline system. We own and operate Enbridge Pipelines Inc. and affiliated pipelines in Canada that ship crude oil from Edmonton, Alberta to the Toronto, Ontario area and from Montreal, Quebec to Sarnia, Ontario. The American segment of Enbridge's system is Enbridge Energy Partners, L.P. in which Enbridge owns a 14.5 per cent interest. It runs southeast from the Canada-USA border in Manitoba to the international border near Marysville, Michigan with an extension across the Niagara River into the Buffalo, New York area. Together, these pipeline systems have operated for over 50 years and now comprise approximately 9,000 miles of pipeline. They carry almost three-quarters of Canada's crude oil production and they deliver approximately 2.2 million barrels of crude oil and liquids per day.

Enbridge's natural gas transmission business is carried on through the Alliance and Vector pipeline systems. We own a 21.4 per cent interest in Alliance Pipeline that carries 1325 mmcf/d of natural gas 2,200 miles from northeast British Columbia to the Chicago hub. Enbridge also operates and owns 45 per cent of Vector Pipeline that delivers natural gas from the Chicago area to southwestern Ontario.

The energy industry in Canada and the United States has long operated on a continental North American basis, and the transportation sector has been developed in a way that supports this structure. Last May, Enbridge took a major step toward expanding our North American footprint and scale of operations by completing the acquisition of Midcoast Energy Resources. Midcoast is a Houston-based pipeline company with regional offices in Texas, Alabama, Kansas, Louisiana, Mississippi and Alberta. Midcoast transports, gathers, processes and markets natural gas and other petroleum products through more than 80 company-owned pipelines across 4,100 miles in 10 states, the Gulf of Mexico and Canada.

Enbridge owns and operates Canada's largest natural gas distribution company, Enbridge Consumers Gas, which distributes gas to 1.5 million industrial, commercial and residential customers in Ontario, Quebec and New York State. Enbridge Consumers Gas has been in business for over 150 years. Enbridge is currently developing a natural gas distribution network in New Brunswick. We are also involved in the distribution of electricity and we have invested in the development of new technologies and renewable energy through businesses engaged in fuel cells and wind power.

NORTHERN PIPELINES

With a large and growing North American demand for natural gas expected to reach 30 tcf annually, it is essential that the industry develop the most innovative, efficient and reliable transportation infrastructure to deliver northern natural gas to market.

Enbridge has the experience, expertise, technology and infrastructure to design, build, own and operate liquid hydrocarbon and natural gas pipelines. While the North presents unique challenges to pipelining, we believe Enbridge has developed

the expertise to meet the demands. Indeed, northern gas development is a logical extension of our business.

Enbridge is the only Canadian pipeline company that has constructed, owns and operates a major buried pipeline in northern permafrost. Enbridge Pipelines (NW) has carried crude oil 550 miles from Norman Wells, Northwest Territories along the Mackenzie River valley to northern Alberta since 1985. More recently, Enbridge built a small diameter pipeline to deliver natural gas from the Ikhil field to the residents of Inuvik, which is the principal community in the Mackenzie Delta. The company has also built and operates the natural gas distribution system in Inuvik, which is north of the Arctic Circle. This project successfully applied the buried pipeline, chilled gas concept to protect the environment, which will most likely be used for major gas transmission systems in the North. We are confident we have developed leading-edge environmental protection techniques and pipeline integrity technologies that are unique to northern permafrost conditions.

Enbridge has consulted closely with the Alaska North Slope and Mackenzie Delta gas producers to offer our insights and suggestions about their feasibility studies.

We have undertaken several technical studies and we have responded to the producers' requests for information. These are extremely large and complex projects, which we believe will require the participation of both producers and a pipeline company.

Based on our work to date, Enbridge's main perspectives on northern pipelines are summarized below:

1. The Projects Must Be Producer Driven and Economically Robust

Enbridge sees itself as a service provider for the producers, and not yet a proponent of one project or another. Our fundamental premise is the projects must be economically viable from the standpoint of the producers. They have earned the rights to the gas from long-term, expensive and ultimately successful exploration programs. They bear the largest risks, which entitles them to determine the projects' key design, routing and financing elements. Pipeline and other companies who will become involved will only do so if the project economics are inherently robust.

2. All Stakeholders Must Be Included

Enbridge's experience with northern pipelines reinforces our strong belief that all northerners must be included in decision-making and must share in the opportunities, benefits and risks. In Canada, this fundamental point was firmly established 25 years ago at the time of the last great effort to promote a northern pipeline. The need for inclusiveness is not in doubt. Northerners have every right to protect themselves from potential negative impacts and to share in the benefits generated, provided they also add value to the overall process of energy commercialization.

The settlement of land claims and the establishment of northern boards and agencies have dramatically transformed the ability of northerners to be represented at the decision-making table. These developments have fostered a fundamental change in attitude among northerners toward pipeline development. Indeed, most northern aboriginal groups in the Mackenzie Delta Valley have negotiated a memorandum of understanding with a core group of Mackenzie Delta natural gas producers to create an opportunity for equity participation in a stand alone Mackenzie Valley pipeline project. Future agreements will ensure all northerners share the benefits, as would be expected of any landowner in the proximity of a major resource development.

3. Clear Rules Are Needed for the Regulatory Reviews

Northern pipelines bring together a unique array of technical, environmental, economic, social, cultural and political factors. The potential for multiple regulatory reviews (there are up to 17 regulatory agencies involved in Canada) causes concerns about pipeline development. However, all parties have publicly committed to establishing a streamlined review process. Enbridge is confident the efforts by all levels of government in Canada will produce an efficient and responsible regulatory process.

4. Co-operative Decision-Making by Canada and the United States Will Be Required

Northern natural gas development needs to be a continental solution to a continental energy problem. As such it requires continental decision-making. Canada and the United States will each make their decisions on the basis of their own country's needs. But the sheer size of the reserves, the proximity of the fields, and the combined demand in southern markets make it clear that decisions on northern pipelines will have to be made in an unprecedented cooperative, perhaps continental, fashion.

Canadian and American regulatory systems were not designed for projects of this complexity. Both governments must therefore work closely together to coordinate reviews and approvals so that the project(s) can be evaluated in a timely and efficient manner.

5. *Route Neutral—With Observations*

Enbridge believes northern natural gas should be brought to market as a strategic North American initiative if it can be done economically and in a manner that is environmentally safe and respects the rights of northerners. The energy security and economic benefits to all North Americans will be very significant. As President Bush has stated, the key imperative is that northern gas be developed.

Enbridge believes that either the southern or northern routes would bring enormous benefits. As a service provider to producers, Enbridge is route neutral. However, based on our studies and discussions, an overall comparison favours the northern route based purely on its widely acknowledged lower cost advantage of approximately US\$ 2 billion or approximately 30 cents/mcf lower transportation cost from Prudhoe Bay to Alberta.

The following summarizes our key findings on a route comparison:

- Reserves access. Both routes would connect the 30 tcf of proven reserves at Prudhoe Bay, but only the northern route would include the 610 tcf of proven reserves in the Mackenzie Delta in a single pipeline system. This is the most significant proven but undeveloped natural gas asset in Canada, and decisions to exploit or defer it will have very important strategic impacts on Canada and, by extension, on the United States' energy picture. Enbridge believes it is unrealistic to build two massive independent northern pipelines in the same time frame, one from Prudhoe Bay via the southern route and a stand alone Mackenzie Delta Valley pipeline.
- Both routes are technically feasible. The southern route crosses five mountain ranges and numerous rivers, and by virtue of its added length, its environmental footprint would be much larger. But there is no question as to the technical feasibility of constructing and operating a pipeline along this route.

On the northern route, there is no mountain terrain and fewer river crossings. Enbridge has taken a careful look at the subsea challenges and we believe a "near shore" pipeline (approximately 4-5 miles from land) can be safely and economically constructed, operated, and maintained. We would propose installing the pipe 6 feet below the seabed in a water depth of 10-15 feet where the ice is seasonal (winter construction) and where the bottom is not subject to ice scour.

- Timing of regulatory approvals. While the Alaska Highway route has a right-of-way and approvals from the earlier reviews in the 1970s, it will not be clear until the North Slope producers unveil their proposed project whether and how much these approvals will require "refreshing". The northern route would require a greenfield review process, as would a pipeline up the Mackenzie Valley. We estimate it would take approximately three years to complete a full regulatory review and obtain government approvals, followed by another three to four years of construction until start-up.
- Socio-economic benefits. Any northern pipeline project would provide significant benefits to the people living in the regions through which they would pass. The Alaska Highway route would arguably offer greater economic benefits from construction and operation to northerners on the basis of its greater length and cost. Moreover, it could facilitate the distribution of natural gas in certain areas of Alaska, such as Fairbanks.

On the other hand, a lower cost northern route would presumably generate offsetting benefits by increasing Alaskan royalty revenues from higher wellhead netback prices.

CONCLUSION

Let the best project be selected based on a complete assessment of its merits. Enbridge urges the United States Senate Energy and Natural Resources Committee to oppose any intervention to prematurely preclude a northern route from Prudhoe Bay. Such a move could jeopardize accessing Prudhoe Bay natural gas because of inferior economics on a southern route, it would remove the decision from the producers who will be exposed to the greatest financial risks, and it could strand Mackenzie Delta gas for many years to come.

Honourable Senators, this is an historic moment in North America's energy future that comes around once in a generation. Enbridge urges the United States to take

the long-term view of what is best for both countries by waiting for all the facts as presented by the project proponents in the weeks and months to come.

Thank you.

STATEMENT OF THE YUKON TERRITORY REGARDING THE PROPOSED NATURAL GAS PIPELINE FROM ALASKA TO THE LOWER 48 STATES

In these times, many people do not want a natural gas pipeline in their backyards. However, the Yukon would be happy to have the proposed natural gas pipeline from Alaska to the lower 48 States run through its backyard if it serves the interests of the United States.

That was our view before September 11, and it is our stronger view today.

In a real sense, this is a national security issue for the United States. The proposed pipeline, carrying 4.5 bcf per day, would allow the United States to back out 820,000 barrels of imported crude oil per day, much of that coming from the Middle East. Recall that in July 2001, the United States imported an average of 697,000 barrels of crude oil per day from Iraq.

The time for action is now.

The proposed Alaska Highway Route offers these unmatched advantages:

- It is the route designated in the treaty between Canada and the United States.
- The gas wells already have been drilled and are producing natural gas which is largely re-injected into the ground.
- The rights-of-way already have been secured by Foothills in the Yukon and parts of Alaska.
- The permits have been issued.
- Outstanding native claims are being resolved.
- The environmental studies have been done and demonstrate the least damage to the North American environment.
- It offers the quickest relief because it involves the cutting of no new transportation corridors, no new construction access highways, no LNG liquefaction or regasification plants, and construction can begin simultaneously from twenty or more facings along the existing highway. Before September 11, it was estimated that this pipeline could be constructed within 36 months. With a national security priority, we are confident that it now could be constructed in far less time.
- It brings a wealth of jobs to the Canadian and United States construction, petroleum and steel industries, among others.
- It has been endorsed by the National Governors Conference, the Pacific Northwest Economic Region, the Natural Resources Defense Council and the State of Alaska.
- It brings \$22 billion in tax revenue to the United States with no increase in taxes. That \$22 billion would cover the amount which this Congress has just authorized to help rebuild from the devastation in New York.

Why, then, are we not proceeding at once? It is the view of the Yukon Territory that the ownership of the proposed pipeline is the issue that needs to be addressed most urgently. The pipeline companies and the big oil producers are jockeying for position.

Foothills, which owns the rights-of-way and the permits for the project, claims reimbursement for sunk costs that already have been written off. That position hardly serves the urgent needs of the United States for gas.

Some of the oil producers, in trying to squeeze out Foothills, are suggesting alternate routes:

- Their proposed "over-the-top" route already has been blocked by the State of Alaska and never will be constructed because of the enormous threat it poses to the environment. This route would require an underwater line in the Beaufort Sea from Alaska's North Slope, alongside the Arctic National Wildlife Refuge, to the MacKenzie Valley, through waters that lie beneath several feet of ice for much of the year. A rupture of this line could send 220,000 barrels of natural gas liquids into the arctic environment every day until it was repaired or shut down for many months.
- The MacKenzie Valley Route involves a project in which not a single producing well has been drilled, none of the rights-of-way have been secured, native claims are unresolved, and for which a new transportation corridor would be required. Its completion would take many years longer than the Alaska Highway Route, and that delay would not serve the interests of the people of the United States who need this gas for their electric plants in California and their homes and factories in the Great Lakes area.

- Finally, and most incredibly, some of the major producers are exploring an entirely new project along the Alaska Highway, which would require all new permits, all new native agreements and entirely new environmental studies. Such an approach could delay the project for many, many years. After September 11, is there really time for such a maneuver?

To get this project moving, the Senate can act quickly and decisively to resolve the ownership issue as well as the routing issue. We suggest that the Senate promptly pass a simple Senate Resolution containing just two points:

- First, the United States and Canada should honor their treaty and build a common-carrier natural gas pipeline along the Alaska Highway Route.
- Second, it is the sense of the Senate that the ownership issue should be resolved as soon as possible. The Senate will not consider any financial incentives or tax benefits for the project until the owners of the pipeline are known.

Simply put, the United States government should not be providing financial benefits to the owners of the pipeline until those owners are known. It may well be that some of those with whom you are discussing legislation right now—such as Exxon-Mobil and BP—will not have any interest in this pipeline when it is built and operated. Perhaps it will be built by others, such as Foothills, Duke, El Paso, Williams or Enron. Duke Energy already has announced its intention to acquire Westcoast Energy, which owns fifty percent of Foothills Pipe Lines Limited.

Like most Americans, the Yukon does not care who ends up building or owning this pipeline. But, like our Alaskan neighbors, we believe that the pipeline should be built as soon as possible. By enacting such a Senate resolution, you will have taken a major step toward protecting the security of the United States and the interests of its citizens and consumers.

Respectfully submitted on behalf of the Yukon Territory:

WILLIAM E. WICKENS,
JOSEPH S. HOOVER, JR.,
*Miller Thomson Wickens & Lebow
LLP.*

STATEMENT OF THE MINISTER OF RESOURCES, WILDLIFE AND ECONOMIC DEVELOPMENT, GOVERNMENT OF NORTHWEST TERRITORIES, YELLOWKNIFE, NT CANADA

INTRODUCTION & OVERVIEW

The Government of the Northwest Territories is grateful for the opportunity to provide these comments to the United States Senate Energy and Natural Resources Committee as it reviews the status of proposals for the transportation of natural gas from Alaska to the lower 48 states and considers legislative proposals to expedite the construction of a pipeline from Alaska.

The Government of the Northwest Territories fully respects the right and obligation of the United States Congress to establish appropriate national energy policy within the framework of its bilateral and multinational trade agreements. Moreover, the Government of the Northwest Territories appreciates both the current national security and economic context in which the Committee is considering these issues. Accordingly, the views expressed herein are intended to be advisory in nature, and offered with deference to the prerogatives of this Committee as it weighs the issues involved in optimizing development of Alaska's natural gas resources.

The Government of the Northwest Territories submits that there are a number of critical factors that should be thoroughly analyzed in making any governmental decision—to the extent it should be a governmental decision—with regard to the relative merits of alternate routes for bringing natural gas from northern Alaska to U.S. markets. Among these factors are (1) the economic costs of the pipeline, (2) the energy security implications, (3) the environmental impacts and risks, (4) the potential for other issues to cause delay, (5) the potential for development of future additional natural gas resources, and (6) the implications for economic development along the route and national economic benefit.

The position of the Government of the Northwest Territories on these matters is that a sufficient analysis of these factors has not been performed to summarily preclude, as a matter of law, one of the most promising routes. In this light, the Northwest Territories expresses its serious concerns with respect to Section 701 of H.R. 4, and urges this Committee to refrain from taking similar action.

Indeed, the weight of the analysis available to the Government of the Northwest Territories provided by producers, researchers, and policy analysts supports the view that the Beaufort Sea/Mackenzie Valley option is the most promising, least

costly option to get Alaskan natural gas to the U.S. market place sooner, rather than later. Insofar as the Government of the Northwest Territories fully expects that a stand-alone project from the Mackenzie Valley will be built, the true incremental economic and environmental costs associated with connecting Alaskan gas to the Mackenzie corridor is significantly less than any alternative currently under review.

Regrettably, there is a significant amount of misinformation with respect to the Beaufort Sea/Mackenzie Valley route. The purpose of this document is, in part, to address some of the erroneous claims and to provide the Committee additional facts that should be part of the record for the Committee's decision-making process.

ALTERNATE PIPELINE ROUTES MAY LEGALLY BE CONSIDERED

As a threshold issue, it is important to establish that consideration of pipeline routes other than the ANGTS route is not legally precluded or mooted by prior government approvals or agreements.

There has long been an acknowledgement of the need for American gas to flow from the producing regions of that country through Canada to American consumers. Such an acknowledgement resulted in the signing of the Agreement between the Government of Canada and the Government of the United States of America concerning Transit Pipelines (the Pipeline Transit Treaty) in 1977.

This Treaty provides for the unobstructed flow of hydrocarbons between the two jurisdictions. It is a treaty of general application and, as such, deals with any transit pipeline, not a specific pipeline route or project. This characterization of the general nature of the Treaty was confirmed by Prime Minister Chretien in a letter to Premier Stephen Kakfwi of the Northwest Territories dated January 25, 2001 in which the Prime Minister wrote:

The Alaska Natural Gas Transportation System (ANGTS) is a viable option to transport Alaskan gas, if gas producers choose this route for commercializing their gas resources. The Canada-U.S. Agreement on ANGTS, however, does not preclude the possibility of alternative projects being developed, including an offshore Beaufort Sea/Mackenzie Valley option." [Attached as Attachment 1]*

This position was reiterated as recently as September 5, 2001 in a letter from Ambassador Kergin to Secretary Abraham. In this letter, written in response to Section 701 of H.R. 4, an attempt to prohibit an offshore Beaufort Sea pipeline route, the Ambassador argued that "industry should not be restricted in its assessment of [pipeline] routing proposals, that government should not foreclose routing options prior to industry completing its assessment, and that all routes should be afforded equal, fair consideration." [Attached as Attachment 2]

In addition to the Pipeline Transit Treaty, there exists a project-specific agreement between our two countries, the Agreement Between Canada and the United States of America on Principles Applicable to a Northern Natural Gas Pipeline. Unlike the Pipeline Transit Treaty, this Agreement speaks to a specific pipeline project to bring Alaskan gas from Prudhoe Bay through Canada to markets in the United States. The details of the routing are well known and need not be repeated here. Proponents of the Alaska Highway route have made much of this Agreement and have argued that its very existence precludes the consideration of any other route. As outlined above, the Government of Canada does not subscribe to this view.

The Staff Report of the Federal Energy Regulatory Commission, submitted to the Senate Committee on Energy and Natural Resources last January, detailed a number of concerns relating to the purported exclusivity of the ANGTS routing and the continued application of the approvals granted to that routing in 1977.

In its Report, FERC concluded that the mere existence of the Alaska Natural Gas Transportation Act (ANGTA), the legislation that covers ANGTS, does not preclude an application for a proposal to transport Arctic natural gas being filed under the terms of the Natural Gas Act. Thus, the ANGTA "does not bar proposals that might compete with ANGTS."

One may safely conclude, then that neither the Treaty nor the Alaska Natural Gas Transportation Act precludes an alternative route from being considered and approved by regulatory authorities.

EXISTING APPROVALS MAY NO LONGER BE VALID

Not only is it perfectly legal and appropriate to consider alternate routes for Alaskan gas, it is also unclear whether the prior authorizations can be utilized for the

*All attachments have been retained in committee files.

project currently being proposed on the Alaska highway route in view of the many changes from the original project. It is worth noting that many of the same advocates of the immutable nature of the Agreement are not adverse to amending it if required by their interests. Merely because the revived ANGTS project follows the earlier route does not mean that it is the project originally approved for that route—indeed, it appears to be quite a different project:

- The Alaskan Joint Committee on Natural Gas Pipelines recommends in its proposals to Congress that the Dempster Lateral route be eliminated from consideration under ANGTA (Proposal # AH 1) and that a package of tax incentives including accelerated depreciation, investment tax credits and downside tax credits be provided in support of the ANGTS line (Proposal # T2). As the Agreement clearly envisages both a Dempster Lateral pipeline (a portion of which was to be paid for by American shippers through their participation in the cost of service of this leg) and the private financing of the project, the amendments proposed by the Joint Committee would result in a substantially different project from the one approved by both governments in 1977.
- There is certainly a proposed change in the “capacity” of the ANGTS as presently being presented by its proponents. The original capacity of the line was for 2.5 billion cubic feet (bcf) per day, with an eventual increase to 3.2 bcf. The line as currently modeled is expected to ship some 4 bcf per day, a significant capacity change.
- It is notable, moreover, that the project was clearly intended to move Alaskan gas through Canada to lower 48 markets with both a “western” and an “eastern” leg established under the Agreement to carry the gas to California and mid-west markets. There is no provision within the Agreement that allows for the removal of any significant volumes of product from the line during transshipment through Canada. The sponsors of the revived ANGTS-route project appear to have omitted the critical downstream system connections the original project mandated.

In its own report, FERC noted that many of the elements of the ANGTA, and hence FERC’s conditional approval granted in 1977, may not apply in the current regulatory environment. The Commission began by observing that in order to facilitate the construction of the ANGTS line to meet the perceived energy crisis being experienced in the United States:

Congress established special procedures, and modified certain aspects of the regulatory process, such as streamlining environmental review, consolidating certain Federal authorities that would otherwise be exercised by various executive branch departments and agencies, curtailing the opportunity for competition in transporting Alaska natural gas supplies, and sharply limiting judicial review.

FERC questioned whether such limitations on environmental review, competition and judicial recourse would be acceptable in today’s environment. Next, the Commission considered the specificity of the approvals granted and noted that the President’s Decision approving ANGTS describes the project with “some specificity” and has, by virtue of its approval by Congress, the force of law. FERC then raised the question as to the applicability of the original approvals and noted that “to the extent a proposal is made that differs in route or capacity from that envisioned in the Commission’s report, the conclusions therein might no longer be valid.”

While FERC does not directly say so in its analysis, it is obvious that the proposed pipeline project designed today would differ significantly from one designed twenty-five years ago. The Report’s conclusions, while not determinative, undercut the attempted prohibition of alternative routes for Alaskan gas and raise the issue of the specificity of the original approvals and their continued application.

KEY FACTORS THAT SHOULD WEIGH IN THE DECISION

The Commitment to Market-Driven Energy Decision-Making

The Government of the Northwest Territories is committed to the application of market-based principles in the development of the north’s petroleum resources.

In this, we are consistent with the position expressed by the Right Honourable Jean Chretien, Prime Minister of Canada, in an address to the Canadian Association of Petroleum Producers in April of this year. In his speech, the Prime Minister noted that Canada’s energy development

. . . will be governed by an unswerving commitment to competitive markets and fair regulation.

The GNWT further believes that it is the duty of governments to facilitate the investment decisions of producers through the establishment of regulatory processes that are fair, inclusive and timely. It is not the duty of governments to interfere in market-based decisions, as any such interference will almost surely result in an economically inefficient outcome.

In this conclusion we are also consistent with that of the Honorable Pat Wood III, Chairman of the Federal Energy Regulatory Commission, who was quoted in a September 22 article in the *Los Angeles Times* as saying:

Government tends to corrupt because it picks winners and losers, as opposed to letting them be picked by customers who vote with their dollars.

Such an embracing of markets as the most effective vehicle for ensuring energy supplies is occurring throughout the world as countries that once were firmly committed to central planning and government intervention have come to realize the benefits of market competition over government mandate.

In the context of this Committee's work, this means that the key economic stakeholders should not have their views of their own self-interest superseded by a government decision that does not take costs fully into account. The most credible study of the relative costs is probably that performed by Purvin & Gertz, an independent and renowned engineering consultancy and not a project sponsor seeking to justify the conclusions that best serve its own interest, for a group of industry participants. Although the entire study remains confidential and proprietary, Purvin & Gertz has granted permission to quote the portion of the executive summary which addresses relative project economics:

Assuming that similar volumes of gas are transported, the Beaufort Sea/Mackenzie River Valley pipeline route costs approximately 30% less than the competing TransAlaska/Alaska Highway Route. Total project costs for the Alaska Highway route are estimated at \$12.0 Billion in comparison with the \$8.3 billion for the Beaufort Sea/Mackenzie River Valley route.

Building a 'piggyback' route, that allows gas from the Mackenzie Delta to combine with gas originating at Prudhoe Bay on its way to the continental gas market, presents the lowest cost pipeline investment option. Assuming that 2.5 Bcfd of Alaska gas originating in Prudhoe Bay is combined (or piggybacked) with 1.5 Bcfd of Mackenzie gas for a total of 4 Bcfd, the total pipeline investment is \$7.1 billion. This value is almost 15% lower in comparison with the case that transports 4 Bcfd of gas solely from Prudhoe Bay via the Beaufort Sea/Mackenzie River Valley route.

Assuming 4 Bcfd of gas is transported to Fox Creek, Alberta, for delivery into the continental market, the transportation unit cost of service for 4 Bcfd of Prudhoe Bay gas via the Alaska Highway route is \$US 1.41 per MMBtu versus \$1.14 for 4 Bcfd for the mixed gas (Prudhoe Bay/Mackenzie Delta) via the Beaufort Sea/Mackenzie River Valley route.

The Alaska producer gas netback price for the 4 Bcfd Alaska Highway route is \$0.50 per MMBtu (excluding any NGL credit). This assumes a gas market price of \$US 2.59 per MMBtu and a price differential of \$US 0.68 per MMBtu between Fox Creek and Henry Hub. . . . The Alaska natural gas producer gas netback price for the 4 Bcfd Beaufort Sea/Mackenzie River Valley route is \$0.77 per MMBtu. This assumes no additional credit as a result of piggybacking of Canadian gas is assigned to the Alaska producer. [Purvin & Gertz, Inc., *Alaskan Gas Development Strategies*, October, 2000, Page V-30]

As a result of this work and the follow-on analyses by companies involved, the Government of the Northwest Territories fully expects that commitments will be made to the construction of a pipeline from the MacKenzie Delta to Alberta in the near term, with or without any commitment of Alaskan gas throughput. Of course, if Alaskan gas were to be linked to this route for transportation to market, the size and extent of the pipeline would be different, and both Alaskan and Mackenzie Delta producers would benefit from improved transportation economics.

A Mackenzie Valley pipeline would travel some 1,140 miles from the Delta to connect with the existing western Canadian pipeline system. Should the route include Prudhoe Bay gas, the line would enter the Alberta system at or near Gordondale. Absent this gas, that is with the need to transport only 1.2 bcf of Delta gas, the line would enter the system some 186 miles farther north at or near Zama, Alberta. Access at this more northern receipt point would, of course, reduce the capital cost of the pipeline from current estimates.

Delivery of Mackenzie Delta gas to the market, perhaps years in advance of Alaskan gas, is likely to change continental gas market dynamics. There is a risk that, if Alaskan gas is not economically linked to the same transportation system, the

supplies of Mackenzie delta gas would be sufficient to provide the market's needs to the point that any proposal to bear the incremental capital costs of a later Alaska pipeline could not be supported.

Security Issues

In these sad days of recognizing that we must pay heightened attention to the security of key energy infrastructure, the security implications of the alternate routes must be evaluated seriously and objectively.

The suggestion that the ANGTS route is preferable from a security perspective because more of it would be built on US soil is baseless. There is no negative security implication from the pipeline crossing Canadian soil, and both proposed routes transit Canada in any event. All of North America is a common energy market under NAFTA, and therefore share common security concerns that are not a function of national boundaries.

Objective analysis of the national security implications would instead be likely to turn on vulnerability and risk, and may not favor the ANGTS route. ANGTS would put the gas pipeline into the same right-of-way with the elevated TAPS crude-oil line, long recognized to be one of the most exposed and vulnerable of major energy systems. A major incident on the right of way could potentially disable both systems. Placing the gas pipeline immediately along the Alaska highway would create further issues of protecting it from unauthorized access. Although shorter and easier to construct, the Mackenzie Valley pipeline may also offer a less accessible as well as separate gas pipeline route.

Security of supply is important to any country whose petroleum demands exceed its domestic production. The United States is blessed with significant domestic gas production, but nonetheless requires some fifteen percent of its daily demand to be filled by imports. The vast majority of these imports come from Canada. Current long-term forecasts of increased lower 48 demand and reduced conventional supply do, moreover, raise the need for additional gas reserves to be developed in both the medium and long-term.

In the matter of oil, the United States is less fortunate, with over fifty percent of its daily demand being filled by imports. As with natural gas, Canada is a significant supplier of this needed oil and petroleum products, providing sixteen percent of demand. Canada stands to play an increasingly vital role in providing additional supplies to the United States, with the development of Alberta's tar sands likely to be a significant source of new oil.

The existence of the resource base and Canada's clear intention to provide American access to this base is a given. The price at which this resource base will be available is another. In the case of oil, the world market sets the price but natural gas, being primarily a continental product, is determined in the North American market. Producers and shippers can play a significant role in ensuring that this price remains attractive to the market.

The long-term natural gas supply source for the U.S. market will likely be the reserves of the far North, Alaska, the Northwest Territories and the High Arctic islands. However, on their own, the reserves of Alaska and the High Arctic may not be economical to produce and therefore may never reach the market. Energy security is not helped by these resources if they are not brought to market, and if they are uneconomic, they will not be brought to market. Linking them through one transportation system improves their economics of delivery to the market, and therefore their chances of making a major contribution to continental energy security.

The Government of the Northwest Territories believes the most economical way to move these three basins to market is through a "Y" configuration that brings the Alaskan and High Arctic reserves to the Mackenzie Valley and through it to the south. Such a routing would provide economies of scale and through the joining of the three basins, would help realize significant unit cost savings thus ensuring these reserves are available to the market.

Environmental Impacts

Any natural gas project of the scale envisaged here must of necessity have an impact on the environment. How great this impact might be, and how it can best be prevented and/or mitigated, will be the subject of regulatory hearings in both countries.

As with the other elements of the debate on routes and alternatives, the subject of environmental impacts has been enlisted in the support of competing routes.

The impacts raised to date range from the seismic sensitivity of the Atigun Pass in Alaska and the consequent likely shifting of any pipeline travelling through it,

to prospects of buckets of natural gas liquids washing ashore following an under-ice explosion.

The clarification of these and other impacts should properly be dealt with in regulatory hearings, and care needs to be taken that unfounded environmental claims, and threats of litigation based on these claims, do not predetermine route selection.

Any environmental analysis should begin with an admission that there are dangers associated with pipeline transport of hydrocarbons—to deny this would be to deny reality. The Office of Pipeline Safety has reported that in the period from 1990 through 1999, there were a total of 3917 liquid fuel spills in the United States, resulting in 201 deaths, 2,826 injuries and \$778 million in property damage. In fact, as recently as September 22, the TAPS line in Alaska reported a spill of some 1200 gallons of oil during routine testing of its system.

Yet, more and more pipelines are being put into service and more are planned. The recent commissioning of the oil pipeline to carry Northstar production of 65,000 barrels per day from six miles offshore Alaska's north coast to land is only the most recent example of projects reaching out to new reserves in the offshore. The project follows on the successful operation, since 1987, of the offshore Endicott Field located 15 miles from Prudhoe Bay. To date, this field has produced some 400 million barrels of oil from under the Beaufort Sea.

Both of these projects enjoyed the support of the State of Alaska.

Over its total length within the NWT, the pipeline right of way would affect only a limited number of trees. At the north end, the pipeline would cross 93 miles of the Tuktoyaktuk Coastal Plain. This Plain is characterized by a continuous cover of shrubby tundra vegetation with the most significant feature of the ecoregion being its distinctive delta landforms. Wetlands cover 25-50% of the area. Much seismic and exploration activity has been conducted through this area over the past thirty years.

Moving south, the pipeline would travel 155 miles across the Great Bear Lake Plain, an area extending from the Mackenzie Delta to Great Bear Lake. Through this area the predominant vegetation consists of open, very stunted stands of black spruce and tamarack with secondary quantities of white spruce.

Next would be the Norman Range, an area that extends from the community of Fort Good Hope on the east side of the Mackenzie River to Willowlake River south of Great Bear Lake. The route would cover some 108 miles through this area, an area dominated by open stands of black spruce with an understory of dwarf birch. As with the Delta, this area has seen significant seismic and exploration work although here the activity has been conducted over the past seventy-five years.

Finally, the pipe would cross 21 miles through the Mackenzie River Plain, before entering the existing right-of-way of the Enbridge oil pipeline that travels the rest of the way through the NWT to Alberta. The native vegetation of the Mackenzie River Plain consists predominantly of medium to tall, closed stands of black spruce and jack pine. (The vegetation descriptions used are from "Narrative Descriptions of Terrestrial Ecozones and Ecoregions of Canada" an Environment Canada publication).

Environmental Approval Processes

Any pipeline transversing the Northwest Territories will be subject to regulatory review by a variety of agencies including the National Energy Board, the Mackenzie Valley Environmental Impact Review Board, the Environmental Impact Screening Committee and Review Board for the Inuvialuit Settlement Region, the Canadian Environmental Assessment Agency, the Department of Indian Affairs and Northern Development, the Mackenzie Valley Land and Water Board, the NWT Water Board, the Inuvialuit Land Administration, Inuvialuit Game Council, Sahtu Land and Water Board, Gwich'in Land and Water Board, and the Government of the Northwest Territories.

While the coordination of such a diverse group of regulators may on the surface appear daunting, the Chairs of the Boards have met on a number of occasions over the past eighteen months and have developed an outline for a coordinated regulatory review for a Mackenzie Valley pipeline project. This outline will be available for public comment in October.

The situation for the Foothills Project is not as well defined. While environmental reviews were conducted twenty-five years ago, and permits and approvals were granted, much has changed from a legal perspective in the intervening years.

As noted in the attached legal opinion from Lawson, Lundell, "the two most significant issues from this perspective have been the introduction of new environmental assessment requirements and the recognition and protection of Aboriginal rights under section 35 of the *Constitution Act 1982*." [Attached as Attachment 3]

In respect of the former, the Lawson, Lundell opinion concludes that the Foothills Project would not be exempt from review under the *Canadian Environmental Assessment Act* (“CEAA”).

Their conclusion states:

. . . it appears clear that the Foothills Project will have to go through an environmental review process under CEAA before any of the above authorizations could be obtained. There are significant implications for this in terms of timing. There are also significant implications in terms of the potential for legal challenges to the Project.

The opinion also deals with the development assessment process proposed, but not yet established, for environmental reviews in the Yukon Territory.

“Land claims agreements in the Yukon have significantly changed project review and approval requirements in the Yukon since the passage of the Northern Pipeline Act. The Umbrella Final Agreement (the “UFA”) between Canada, the Council for Yukon Indians, and the Yukon government requires that a new Yukon Development Assessment Process (“YDAP”) be put in place in the Yukon. Although the legislation was supposed to be enacted within two years of the coming into force of the UFA, it is now six years later and no legislation has been enacted.

Chapter 12 of the UFA sets out the requirements for the YDAP. YDAP applies to projects and to significant changes to existing projects. A “project” is defined as “an enterprise or activity or class of enterprises or activities to be undertaken in the Yukon that is not exempt from screening and review.” There is also a definition for “existing projects” but that refers to an enterprise or activity that has been undertaken or completed. Therefore, unless the Foothills Project is exempted from review under the legislation when it comes into force—which in light of the magnitude of the Project and its potential effects seems unlikely—it would be subject to review under the YDAP.

In light of the difficulties that the governments have had in reaching consensus on the legislation, it could be some time before this legislation comes into force. In addition, it will likely take some time for those administering the process to develop the experience and expertise required to handle major project applications. This could cause significant delays, especially because under section 12.14.1.2 of the UFA, the federal and Yukon governments may not issue any approvals or provide financial assistance with respect to a project until the YDAP process has been completed.”

The Government of the Northwest Territories holds no predetermined position on the environmental merits or drawbacks of any particular pipeline routing, preferring to leave such an analysis to the legislatively mandated regulatory processes in both Canada and the United States.

Aboriginal Issues

Another significant change that has occurred since the approval of the Foothills Project is the recognition of aboriginal and treaty rights under section 35 of the Constitution Act, 1982 and the subsequent judicial developments which have occurred with respect to the interpretation and protection of these rights.

The Lawson, Lundell opinion notes that the matter of Aboriginal rights is particularly acute in the Yukon Territory because of the lack of treaties in place with the majority of Yukon First Nations along the pipeline route. Starting at the Alaska border, the Foothills Project would pass through the traditional territories of the White River First Nation; the Kluane First Nation; the Champagne and Aishihik First Nations; the Ta’an Kwach’an First Nation; the Kwanlin Dun First Nation; the Teslin Tlingit Council; and the Liard First Nation.

Of these seven First Nations, only two have land claims agreements in effect today. The remainder are at various stages of completion. In addition, the Kaska Dene from northeastern British Columbia also assert aboriginal rights and title in the southeast Yukon along the pipeline route.

Some have argued that the *Northern Pipeline Act*, as legislation passed before aboriginal rights received constitutional protection, may allow some negative effects on these rights. However, the Act expressly states that it does not affect these rights. Section 25 of the Act provides:

Notwithstanding this Act, any native claim right, title or interest the native people of Canada may have had prior to April 13, 1978 in and to the land on which the pipeline will be situated continues to exist until a settlement in respect of any such claim, right, title or interest is effected.

For the First Nations who have not yet concluded land claims agreements, the legal effect of Foothills’ Certificates and easement must be considered in light of sec-

tion 25. To the extent that the Certificates or other regulatory approvals infringe on any aboriginal rights or title of those First Nations, those First Nations may be able to challenge the validity of those approvals. Government would also have to meet the consultancy requirements established by the Canadian courts to justify any infringement of unextinguished aboriginal title or rights.

A pipeline up the Mackenzie Valley would cross four separate Aboriginal land claim areas: The Inuvialuit Settlement Region; the Gwich'in Settlement Area, the Sahtu Settlement Area and the Deh Cho Region. Of these four, the first three have settled their claims. The Deh Cho First Nations continues its discussions with the Government of Canada toward resolving the issues raised in its proposal for a Deh Cho process.

As a result of the settlement of these three northern claims, the Northwest Territories is experiencing significant petroleum exploration activity with, for example, industry having work commitments in the Inuvialuit Settlement Region of \$1 billion (Canadian) over the next four years. Exploration activity is also proceeding in both the Gwich'in and the Sahtu Areas.

Aboriginal leaders from throughout the NWT have agreed to work together to realize an ownership position in a Mackenzie Valley pipeline. The Aboriginal Pipeline Group is currently negotiating such a position with the Delta Producers' Group consisting of Esso Resources, Shell Oil and Conoco. Leaders from the Deh Cho have not yet determined the role they may play in such a consortium.

It is important, however, that a clear distinction be drawn between the Deh Cho's land claim process and its possible involvement in the Aboriginal Pipeline Group. The latter decision is a commercial determination that individual communities and their regional body will make based on their analysis of the economic opportunity presented.

As to the former, Premier Stephen Kakfwi of the GNWT has confirmed that while the Deh Cho interim measures agreement will be honoured, resource revenue sharing and devolution issues will be negotiated through the Intergovernmental Forum process while existing regulatory regimes, and not the land claims process, will be used to ratify the construction of a Mackenzie Valley pipeline.

Developing Access to Future Natural Gas Resources

American gas demand continues to grow while conventional supply continues to fall. This past year saw Americans consume some 22 Tcf of gas, of which 3 Tcf was imported, the vast majority of that from Canada. American demand is projected to grow by some 4.5% annually, reaching 32 Tcf over the next twenty years. Such a growth would move gas from its current market share of 16% of total energy use to 35%. This is largely the result of the increased use of gas for electricity generation. A major contributor to the increasing use of natural gas in the electric utility sector is the lower capital costs and shorter construction lead times of advanced combined cycle plants in comparison with conventional coal-fired plants.

The U.S. Department of Energy attributes to the lower 48 some 167 Tcf of conventional gas reserves, with the likelihood of an additional 1300 Tcf of unconventional and currently uneconomic reserves. The conventional reserves represent about eight years' consumption at the current rate. This supply base is, however, under increasing pressure as the decline rate from new wells continues to increase. A recent study by U.S. Energy Information Agency shows that while Gulf of Mexico wells drilled in 1972 declined from their peak at an average rate of 17 per year, natural gas wells drilled in 1996 have been declining at an annual rate of some 49%.

Like the American market, the demand for natural gas is expected to grow in Canada. Ontario, for example, currently receives just under 1 Tcf annually from Alberta. Significant growth is expected in this market as Ontario Hydro decommissions nuclear plants and replaces them with co-generation facilities fueled by natural gas. In addition, the Government of Ontario is under increasing pressure from neighbouring American states to reduce the sulphur emissions associated with its coal-burning power generation.

Alberta gas reserves have declined for the past five years, with this past year seeing only 67% of production being replaced by newly discovered gas. Current gas reserves are estimated by the National Energy Board at 38 Tcf, which translates to under 9 years production. The Alberta Energy Utilities Board estimates Alberta's reserves to be somewhat higher, at 43 Tcf. More to the point, and more ominously for the future, the Alberta reserves have been declining at an increasingly rapid rate. In 1994, the reserve to production ratio was 12.7, that is, there was nearly thirteen years of reserves left at the then current rate of production. This ratio has continued to decline over the past five years and now stands at the nine years mentioned above.

Of further concern is the nature of these reserves. On balance, they tend to be scattered and in relatively small pools. Such pools are, of course, subject to rapid depletion. The National Energy Board, in its recently completed study of short-term gas deliverability, estimates the decline rate to be as high as 40 percent. Based on this decline rate, the NEB projects that production from existing wells in the Western Canada Sedimentary Basin will decline by about 3 billion cubic feet per day per year. This is an unsustainable situation.

The challenge is to find the additional gas that will be needed to meet the increasing demand. While there are many possible supply sources in North America, many of them are currently not available for development. Offshore California, the east coast of the State of Florida, the west coast of British Columbia all have great potential to supply gas but all are subject to drilling moratoriums and it is unlikely that drilling will be allowed anytime in the near future.

The North would seem to be the logical source of the new gas North America will need. The State of Alaska contains significant gas deposits with known reserves of nearly 35 trillion cubic feet (Tcf) at Prudhoe Bay and up to an additional 30 Tcf onshore and offshore the northern coast of the state. The Mackenzie Delta contains some 9 tcf of proven onshore reserves with estimates of an additional 60 Tcf.

There are at present feasibility studies being conducted on the economics associated with the development of these reserves. There are choices that will have to be made on how best to bring these resources to southern markets. The Government of the NWT believes that these choices would be best underscored by a firm commitment to market principles.

A pipeline up the Mackenzie Valley will open up new, relatively unexplored sedimentary basins that will provide additional gas supplies for North American consumers. A Mackenzie Valley pipeline can connect to no less than seven established and potential natural gas basins Mackenzie Delta/Beaufort Sea, Anderson/Horton Plains, Colville Hills, Peel Plateau, Great Bear Basin, Mackenzie Plain, and the Cameron Hills. The Mackenzie Delta is estimated to have 9 trillion cubic feet (tcf) of proven natural gas reserves and an additional 64 tcf of probable reserves. In the Fort Liard area, there are 1.5 tcf of proven gas reserves and an estimated 3.5 tcf of probable reserves.

Further, a recent study by Reinson and Drummond revealed striking geological similarities between the long-producing Louisiana Gulf Coast, a basin that currently yields about 5.3 tcf of gas a year, and the Mackenzie Delta. Their study estimated an additional 30 tcf of Louisiana reserves and 55 tcf, an estimate the authors concede may be conservative, underlying the Mackenzie Delta. The cumulative Louisiana Basin production to date is over 185 Tcf and, in keeping with the parallels drawn in the study, one could expect similar of greater production levels from the Delta.

Achieving Economic Benefits

Governments seek to maximize the benefits from resource development within their boundaries. The Government of the Northwest Territories is no different from others in this respect.

There are essentially two ways in which a jurisdiction can realize benefits from resource development within its borders. One is to add value to the product, the other is to add cost.

In a market where frontier reserves are at the price margin, where they are truly "price-takers" and not "price-makers", any additional costs imposed on their development will only serve to make them less attractive to the market.

If, in an attempt to ensure the development of these uneconomic resources, resources made uneconomic through unrealistic demands for local benefits, government provides project subsidies, the additional cost of the resource is simply moved from the developer to the taxpayer. Such a situation is not sustainable.

There are a variety of mechanisms by which the economic benefits associated with a construction project of this magnitude may be equitably shared between U.S. and Canadian interests. These benefits are not necessarily proportionate to respective pipeline mileage within the two countries.

There are a number of ways in which the economic benefits to Alaska of gas supply development could be achieved without predetermining a pipeline route for all north Alaskan resources. These should be explored, and the direct economic benefit to Alaska of building the less costly route should be understood.

Construction Logistics

For much of its route, a Mackenzie Valley pipeline would follow the river that gives the Valley its name. This river would also provide the means to transport in the materiel and supplies needed for the construction of the pipeline, much as it did

during the construction of the Norman Wells oilfield expansion and the construction of the Enbridge oil pipeline in the early 80s.

This same river played a similar role during the construction of the Canol Pipeline during the Second World War, a project that saw Norman Wells oil shipped westerly across the NWT in support of the American war effort in Alaska. Much of the work on this project was overseen by the U.S. Army Corps of Engineers.

Conclusion

Any decision with regard to a northern pipeline to connect the gas reserves of the Northwest Territories and Alaska to market should be based on the twin principles of environmental acceptability and economic efficiency as determined by the market itself.

The Government of the Northwest Territories is confident that the legislatively mandated environmental review processes to which a pipeline project will be subject in both countries will address the environmental issues. The Government is also confident that, unless they are preempted legislatively, the key economic stakeholders in the Alaskan resources will reach a decision about the optimum route that their governments should respect.

