

Arctic Oil and Gas in Today's North American Energy Equation
The Canada Institute and the Global Energy Initiative
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SLIDE 1: Introduction Page

Good Afternoon—Thank you to the Canada Institute and the Global Energy Initiative of the Woodrow Wilson International Center for having me join Minister McLeod to discuss the need for Arctic gas. The Alaska natural gas pipeline project and the Mackenzie Gasline Project are two exciting North American projects natural gas pipelines that will provide benefits to both Americans and Canadians.

The timing of this speech is perfect. The Alaska project is in the news. We have two great companies competing to build the project, Denali and TransCanada. And, just two weeks ago ExxonMobil announced they are partnering with TransCanada to build the project.

As many of you may know, one of the largest known reserves of natural gas in America sits in Alaska's Arctic, associated with the development of oil at Prudhoe Bay. The 35 trillion cubic feet of proven natural gas reserves will make a significant long-term contribution to the United States' energy supplies. Since the late 1990's, the State of Alaska, the three major North Slope Producers, TransCanada, both the U.S. and Canadian federal governments and many stakeholders have been pondering whether now is the time when construction of the gasline is economically feasible.

SLIDE 2: ANGTA

I think it is important to begin with a brief history about our federal laws governing the gas pipeline project.

While TAPS, the large oil pipeline from Prudhoe Bay to Valdez, was being constructed, plans were initiated to build a large diameter pipeline to deliver the associated natural gas to the lower 48. Congress enacted the Alaska Natural Gas Transportation Act and President Carter designated the route, design and project sponsors for construction of the pipeline.

The southern portions of the pipeline, shown in light green on this map, are known as the "pre-build" and went into operation in 1981-1982. The northern portion, shown in dark green, would link North Slope gas to the pre-built legs. Foothills Pipe Line Ltd, now a subsidiary of TransCanada, is the legacy owner and operator of the pre-build legs. The northern portion is the route of the pipeline that has remained an elusive target but irresistible dream to Alaskans.

SLIDE 3: ANGPA

There have been countless proposals to market North Slope gas since its discovery. The latest effort led to Congress passing the Alaska Natural Gas Pipeline Act, known as ANGPA in 2004. That statute created my office, the Office of the Federal Coordinator for Alaska Natural Gas Transportation Projects, and encouraged the expeditious approval, construction, and operation of a natural gas transportation project for delivery of North Slope gas to U.S. markets.

SLIDE 4: North Slope to Alberta and Beyond: Pipeline Proposals

There are currently 2 mainline project proposals:

Denali—The Alaska Gas Pipeline, is a joint venture of ConocoPhillips and BP. They opted not to engage in the State's licensing process. Instead, they developed a competing project. Denali entered the formal Pre-filing Process with FERC and they filed a Right-of-Way application with the DOI Bureau of Land Management. In December 2008, they submitted a detailed "Field Study Plan" to the FERC docket. The plan includes a resource data gap analysis that examined the public and private information that was produced over the past ten years and provided information regarding Denali's ongoing and future collection of environmental and cultural resource data. Denali intends to begin its Open Season in 2010.

TransCanada Alaska is the State's licensed partner. They engaged U.S. federal agencies on a number of fronts. They entered the Pre-filing Process with the Federal Energy Regulatory Commission in May, filed a Right-of-Way application with the DOI Bureau of Land Management, and are undertaking preliminary feasibility and routing studies. TransCanada intends to complete its initial Open Season in July 2010 and anticipates that their application to FERC will be deemed complete in October 2012. They recently announced that ExxonMobil will partner with them to build the project.

It is important to note that the State of Alaska license does not grant an exclusive right to land use and right-of-way permits at the State level. Nor is there an exclusive right at the federal level.

SLIDE 5: President Obama

The Obama administration recognizes the need for an Alaska natural gas pipeline. The President recognizes that the pipeline can increase America's energy security, create jobs, and help bring clean natural gas to domestic U.S. markets.

SLIDE 6: What is the Role of the OFC

My job as Federal Coordinator is to advance the approval, consultation and safe operations of the project by ensuring coordination, compliance and oversight, as well as information dissemination. We are headquartered in D.C. and opened our Alaska field office earlier this year. Just last month, I hired Admiral Tom Barrett to be the head of the Anchorage office as my Deputy Federal Coordinator. I am pleased to have him aboard. He comes to my office from the Department of Transportation where he served as the first Administrator of the Pipeline Hazardous Materials Safety Administration and most recently as the Deputy Secretary of the Department. His last job this spring at the DOT was to coordinate the Department's efforts to distribute stimulus funds.

We have begun negotiations with the State of Alaska on a joint Monitoring and Surveillance Agreement to oversee design and construction of the project.

Expedience is crucial to the success of the project this large. Delays and unwarranted stipulations will add unnecessary costs to the project and could result in its being uneconomic.

We are required to conduct compliance and oversight reviews to ensure that no federal agency attaches any term or condition not required by law that may impair or

prevent progress of the projects. We are mindful, of course, of our responsibility to ensure the pipeline is constructed in an environmentally responsible and safe manner.

SLIDE 7: Federal Agencies

Coordination among the various U.S. federal and State and Canadian federal, provincial and territorial agencies is critical to the successful and expeditious construction of the project. Just in the U.S. there are at least 22 federal agencies that have a role to play. Keeping track of these agencies and their responsibilities is a full-time job.

Given the magnitude of the project it is essential to our collective success that coordination, oversight and communications are effective and efficient.

SLIDE 8: Recent Developments

I'm pretty sure Congress didn't envision the competitive process that has evolved. The good news is that both Denali and TransCanada are excellent candidates and bring unique strengths to the project. The competition has spurred fast moving developments.

My office is responsible for consolidating agency Implementation Plans. These plans will be written in phases. The project Consolidated Implementation Plan is part of my mandate to streamline the process of pipeline permitting for the major North American pipeline infrastructure project.

On June 10, I released the First Phase Consolidated Implementation Plan specific to Denali. This first phase plan relates to permitting the project and identifies 22 attention items and the roles of all the U.S. federal agencies involved in the project. The plan serves as a tool to identify potential conflicts or gaps between agencies and opportunities for cooperation.

The OFC is now working on a separate First Phase Plan for the TransCanada Alaska project. Also, as I mentioned earlier, TransCanada entered into a partnership with ExxonMobil two weeks ago to construct the Alaska gas pipeline project and associated infrastructure. ExxonMobil's active engagement as a full participant is a major development. They are the final major North Slope gas producer to enter the project competition.

It's terrific that companies of the caliber of ExxonMobil, BP, ConocoPhillips and TransCanada are now engaged actively with this project. Their participation points out the underlying value of bringing North Slope gas to North American markets.

The U.S. and Canadian federal governments see the need for streamlined process for major projects like this one. On the U.S. side, Congress created my office. While in Ottawa a few weeks ago, I learned that the Canadian government plans to have the Northern Pipeline Agency process the TransCanada project and the Major Projects Management Office process the Denali project. The goal of the NPA and MPMO is to ensure there is a strong project management approach resulting in clarity, predictability and efficiency without compromising its environmental effectiveness. I am pleased the government has chosen to go in this direction for the Alaska project.

This project will cross 1,715 miles of Alaska, the Yukon, British Columbia and Alberta. It will create thousands of opportunities in both the United States and Canada for jobs and business as well as establishing a long term supply of clean energy for North America.

Only one pipeline will be built. While there are two serious competing projects at this time, it is obvious that some sort of merger will likely take place – the question is when and what will it look like on each side of the border.

SLIDES 9 TO 24: Permafrost Map Slide Show

As we talk about progress on the pipeline, I think it is also important to talk about one of the most interesting issues facing both Canada and the U.S. governments, climate change. The climate in the Arctic is changing. It is important that we understand permafrost changes and other effects climate change may have on the pipeline after its construction.

Permafrost trends must be incorporated into the design of a pipeline so it will last 30-50 years. We assume that areas of solid permafrost will be displaced by discontinuous permafrost as change progresses. The University of Alaska, State of Alaska Geophysical Surveys, and U.S. Geological Survey have been working together to map and model the change.

On the screen is a model that demonstrates the range of permafrost in Alaska from 1950 to today and how it is forecast to shift by 2100. The areas in red are permafrost free and as you look further north the colors shift to light blue and dark blue areas – the darker the blue, the colder the ground temperature. Watch what is forecast to happen.

SLIDES 25 TO 35: Permafrost Maps One More Time – 2000-2050

I am going to play the map one more time showing you the map from 2000 to 2050. This time, we look at the forecast change every 5 years.

SLIDE 36: Economics

There has been a lot of discussion recently about the economics of the Arctic pipelines. Here are a few issues that will play important roles in the pipelines success.

The eventual builder is expected to secure the financing from the private sector. Congress authorized a loan guarantee of up to \$18 billion in 2004 dollars that will be adjusted for inflation to support the project. They are now considering an increase in that guarantee to \$30 billion. The loan guarantee is likely to be an essential piece of the financial puzzle.

SLIDE 37: Infrastructure

Second, before constructing a pipeline, it is imperative to have the necessary infrastructure in place to stage all the manpower and materials for construction. In both the U.S. and Canada, we need to either upgrade or build new bridges, highways, airports, material sites and maintenance camps to support tens of thousands of workers, the heavy equipment and the 2.5 million tons of steel needed to construct the pipeline. The latest estimate outlines at least a \$1 billion in projects just in Alaska. The State of Alaska may utilize part of its stimulus package funding to begin these critical upgrades this year.

It will take 4-6 years to complete the major infrastructure projects necessary to the project. They must be done before pipeline construction can begin. We can't afford unnecessary delays in completing these upgrades. It is a challenge we need to address.

SLIDE 38: Steel

Third, the project calls for a lot of steel. In ANGP, Congress expressed the preference that such steel be sourced in North America. Are North American steel producers prepared to deliver 2.5 million tons of high strength steel pipe on time?

SLIDE 39: Training/Retaining Qualified Labor

The fourth economic challenge is finding and training the labor pool needed on both sides of the border. This pipeline will require more than 50 million man hours of mostly skilled labor. That workforce must be trained and then retained throughout the preconstruction and construction. We would benefit by having the Mackenzie pipeline built first. The workforce could develop the critical arctic skill sets on the Mackenzie project and then transfer those skills to the Alaska project.

SLIDE 40: Natural Gas Prices and Supply

It happened in the 1970's and 1980's. The price of natural gas rose and then plunged. And the pipeline was put on the shelf. Why? In the 1970's natural gas was discovered in large quantities throughout Canada and in the lower 48. Four LNG import facilities were constructed in the U.S., with dreams of high profits due to the increased demand. Then in 1983 the natural gas market began to decline and the proponents shelved the Alaska to Alberta project.

When discussing the supply of natural gas for consumption in United States today, the general focal point includes imports from overseas in the form of liquefied natural gas (LNG); pipeline imports from Canada; and domestic production of non-conventional (supplemental sources of supply) natural gas. The United States and Canada should not walk into dependence on foreign natural gas with our eyes wide open.

Shale gas has emerged as a leading source of domestic supply. On June 19, 2009 the Potential Gas Committee released its biennial report stating that America's natural gas reserves increased by 39% since 2006 mostly due to new found shale reserves. This increase in natural gas reserves could be viewed as an impediment to the Arctic gas pipelines. But I don't see it that way. Congress and the Administration are talking about an energy and climate policy that focuses on clean, domestic supplies of energy. Natural gas is clean-burning and can be the transition fuel.

While there is a lot of talk today about the economics of a project – now isn't the time to say nay. ConocoPhillips' President and CEO Jim Mulva said it best, "You can't look at gas prices today. You have to look at prices 10 years from now." What is important today is to get a project licensed so the financing decision can be made in 2014.

LAST SLIDE: 41

The Alaska and Mackenzie projects present a matrix of issues that need to be dealt with now in order for both to succeed. The OFC is working with all the stakeholders in Canada, Alaska and the Lower 48 to ensure the Alaska natural gas pipeline proceeds on schedule. North America needs Arctic gas. North America needs both pipelines. Alaska and Western Canada need these projects. The time is now! Thank you.

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