

ALASKA LEGISLATURE SPECIAL COMMITTEE/SUBJECT FILES 8672

2950 SCOMM 129: JOINT COMMITTEE ON NATURAL GAS PIPELINE, 2001-02

The actual DR&R provisions will depend on ownership of the pipeline and should take into consideration the long-life of the asset.

11. Perform a full security review and develop a comprehensive and detailed security plan early enough to influence the pipeline design and alignment process.

Heightened security concerns throughout the United States should be reflected in the engineering design and alignment of the natural gas pipeline, which will be a significant part of America's domestic energy supply. Any aspect of the design of pipeline facilities and structures that would be particularly vulnerable to sabotage, such as compressor stations, bridge crossings, and above-ground valve housings, should receive attention from a security standpoint early in the design process, and not as an afterthought. This concern applies also to the alignment, which may present opportunities for modifications or adjustments that will minimize the potential for harm.

12. Continue to ensure that environmental scientists and permitting specialists work side-by-side with design engineers and construction planners from the earliest stages of the project through to its completion.

It is essential that environmental safeguards be built into the design of the project, not added as an afterthought to satisfy regulatory requirements and stipulations. Preliminary engineering design products will be used to support major permit applications with long lead times and must contain fully integrated environmental features at that early stage. This can best be accomplished if environmental and permitting specialists work on the same teams and in the same facilities as the engineers.

13. The State of Alaska ROW lease should require long-term environmental surveillance and monitoring, and annual reporting. This function should continue throughout the life of the pipeline.

14. The GPO, in cooperation with the federal government, should continue to coordinate the trans-boundary aspects of construction, operation, and maintenance of a gasline, including operations control and emergency response.

Although it may cross land belonging to two nations, the gas pipeline will be a single integrated system. Emergencies, whether structural, operational, or environmental, will not respect the international boundary. The U.S. and Canada must establish integrated control

protocols that can regulate the pressure and flow of gas through the pipeline as a single system and thus respond quickly and effectively to emergencies. This will require open communications, shared data, and a close working relationship between personnel of both nations. It may be necessary to establish an international commission to coordinate this effort. The state should look to other international pipelines for models in handling the trans-border oversight aspects of construction, operation and maintenance.

**BRISTOL BAY NATIVE ASSOCIATION
P.O. BOX 310
DILLINGHAM, ALASKA 99576
(907) 842-5257**

Bristol Bay Alternative Energy Task Force

Resolution 2001 - 01

ALASKA' PROPOSED NATURAL GAS LINE

WHEREAS, the Constitution of the State of Alaska states in Article VIII, Section 2., that the legislature shall provide for the utilization, development, and conservation of all natural resources belonging to the State, including land and waters, for the maximum benefit of its people; and

WHEREAS, despite Alaska having an oil pipe line, home heating and gasoline costs in the Bristol Bay region are extremely high, for example: Dillingham residents are paying \$2.29 per gallon for #1 home heating fuel and \$2.59 per gallon for gasoline; Aleknagik residents are paying \$2.60 and \$2.75 respectively; Iguig residents are paying \$2.94 and \$3.63 respectively; Nondalton residents are paying \$3.05 and \$3.30 respectively; and

WHEREAS, the majority of Bristol Bay communities are solely dependent upon diesel generators for electricity and pay among the highest electric rates in the state, as much as 2 to 4 times more than Anchorage, Matanuska, and Kenai residents; and

WHEREAS, high energy costs in the Bristol Bay region has a direct impact on the cost of living, transportation, maintaining public buildings; and operating water and sewer systems; and

WHEREAS, one of the cornerstones of economic development is to have access to cheap electrical power, and high energy costs currently hinders the economic development efforts of rural Alaskan communities; and

WHEREAS, with natural gas being cheaper and cleaner burning than diesel oil, Bristol Bay residents would like to have access to natural gas for the purposed of providing electricity and heating their homes; and

NOW, THEREFORE, BE IT RESOLVED by the Bristol Bay Native Association's Bristol Bay Alternative Energy Task Force that Alaska's State Legislature, the Governor's Office, and Alaska's Congressional Delegation, ensure that all Alaskan communities be provided access to natural gas from the proposed North Slope gas line, or the proceeds therefrom be used to inflation proof Alaska's residents escalating energy costs.

Signed: Terry Hoeffler *TH*
Chairman

CERTIFICATION:

I, the undersigned Recording Secretary of the Bristol Bay Native Association, do hereby certify that the foregoing resolution was duly passed the majority vote of BBNA's Bristol Bay Alternative Energy Task Force at a duly called and noticed meeting this 16th day of April, 2001 and that a quorum was present.

Signed Andrew Holm
Recording Secretary



3100 Channel Drive, Suite 300 ♦ Juneau AK 99801

(907) 463-3488 ♦ Fax (907) 463-3489

RECEIVED

August 15, 2001

Ken-59145**CC: GOV/COS****AUG 20 2001**

Office of the Governor
Attn: Natural Gas Policy Council
PO Box 110001
Juneau, AK 99811-0001

OFFICE OF THE GOVERNOR

*Thank you, received
Erika W.*

The Juneau Chamber of Commerce's Board of Directors support the Alaska Highway route for the natural gas pipeline because it has the potential to provide significant economic benefits for the greatest number of Alaskans.

During the construction phase, the highway route would enable Southeast Alaska port communities (Haines Skagway, Juneau, Ketchikan, Hyder) to serve as staging areas and sources of supplies for the project itself and construction crews.

However, it is critical for the Natural Gas Pipeline Policy Council, in its formal recommendation to Governor Knowles, to specifically include spur lines from the main pipeline to the Railbelt area and at least one port in Southeast.

The primary source of heating and electric energy for the Railbelt area is natural gas from the Kenai Peninsula. Recent estimates indicate natural gas resources for this area could run short as early as 2008. It is imperative for the continued economic health and welfare of the Railbelt area that additional natural gas supplies be made available via a spur line from the proposed Alaskan Highway Natural Gasline.

Haines and Skagway could easily be developed as spur line delivery ports to deep-sea vessels. Haines is the shortest route to tidewater of any port along the Alaska Highway route and the Southeast Conference is on record supporting such a development for Haines. In addition to providing Haines

with year-round jobs for that economically depressed community, location of a pipeline spur to Haines or Skagway would provide another source of energy to Southeast Alaska communities.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jamie Parsons', with a stylized, flowing script.

Jamie Parsons

Executive Director



Copper Valley Electric Association, Inc.

P.O. Box 45 • Glennallen, Alaska 99588 • Telephone: 907-822-3211 • Facsimile: 907-822-5586 • Valdez: 907-835-4301

Enter (Debra) a thank you from us

August 27, 2001

Ken-59413

CC: GOV/COS

E-mail: wilkinson@cvea.org

RECEIVED

SEP - 4 2001

Office of the Governor
Attn: NGPC
P. O. Box 110001
Juneau, Alaska 99811-0001

OFFICE OF THE GOVERNOR

SUBJECT: Governor's Gas Line Committee

The purpose of my letter is to write in support of a gas line project that would benefit the maximum number of Alaska residents. I believe that project includes a gas line to Delta with separate lines following the Alaska Highway and to tidewater in Valdez.

CVEA is a non-profit, member-owned electric cooperative. We serve 3,500 customers in the City of Valdez and the Copper River Basin, and our service area, which is geographically the size of West Virginia, includes 156 miles of the pipeline corridor along the Richardson Highway. The region is vast, and providing reliable electric service in some of the most difficult climatic conditions in the world is a challenge to say the least, it is also very expensive.

CVEA is not interconnected electrically to other regions of the state. We produce electricity at four power generating stations within our service territory. The fact that we operate and maintain four generating stations accounts in large part for the high cost of electricity for the region, which today in Valdez is 16.4¢ per kilowatt hour, not quite double that of the Railbelt area.

In the mid-1990s, in an effort to reduce the high cost of electricity to the region, CVEA pursued developing a transmission line project to interconnect our utility with the Railbelt Energy Grid. The purpose of that project was to access less expensive Railbelt energy.

In 1996, CVEA set the proposed intertie project aside in part due to the realization that it did not complement a possible gas line project. In fact, an LNG project has far greater energy potential for the region including the potential to make Valdez or the Copper River Basin an exporter instead of an importer of energy.

CVEA's Mission: Be the energy supplier of choice.

Goals and Objectives: Reduce power cost to Customers, Increase energy sales, Develop new income producing products and services, and Build member relations through Customer satisfaction and grassroots support.

Testimony - Governor's Gas Line Committee
August 27, 2001
Page 2

A LNG facility produces an enormous amount of heat, and according to the Port Authority Consultant, Mr. Boynton, the proposed project produces on the order of 280 megawatts of usable heat. This heat can be harnessed to produce steam, which in turn can drive turbines to produce electricity. Depending upon the capital cost of the project and the cost of the heat, electricity produced at the LNG facility could be very cost effective compared to electricity generated with Cook Inlet gas. That energy could be delivered to the Railbelt region cost effectively via a high voltage transmission line.

The Valdez/Copper Basin regions are poised for economic development as evidenced by construction of the Princess Hotel near Copper Center and the new National Park Service visitor center, both of which are scheduled to open in mid-2002. These projects, coupled with the strategic transportation corridors along the Glenn, Richardson, Alaska and Marine highways, are all indicators the region has tremendous potential for future economic growth.

CVEA is excited about the future of the region and our ability to deliver cost effective energy solutions to fuel future prosperity. A gas project through Glennallen to Valdez, capable of serving west coast and world markets not to mention the 800 miles between the North Slope and tidewater, would be a major cornerstone in developing a sustainable economy for the state of Alaska at a critical time when timber, fishing, and even the oil industry are in decline. In addition, a spur line to Anchorage along the Glenn Highway would augment declining gas reserves in the Cook Inlet region.

I would like to close on a personal note. I am a 42 year resident of the Great Land. When I moved to Anchorage with my family in 1959, Alaska's largest city had less than 20,000 residents. I remember the bumper sticker "I drove Tudor Road and survived." Since that time the State has benefited from tremendous growth and prosperity; however, I am uncertain of how bright the future is, particularly if our resources are extracted to benefit others. Alaska's resources should be developed to benefit Alaskans. Developing a gas project aimed at maximizing corporate profits while ignoring sustainable, long term economic prosperity for Alaskan residents makes little sense to me. As the Council completes its very important work, I urge you to carefully consider what is in the State's long term best financial interests and the interests of 630,000 Alaskans who are proud to call the Last Frontier home. I urge you to support the Alaska Gas Line Port Authority in developing a gas line project that ensures long term prosperity and a bright economic future for Alaska.

Sincerely,



Robert A. Wilkinson
Chief Executive Officer

Testimony before Governor's gas line committee
August 23, 2001

- My name is Robert A. Wilkinson and I am CEO of Copper Valley Electric Association
- I am here today to testify in favor of a gas line project which would benefit the maximum number of Alaska residents. I believe that project includes a gas line to Delta with a with separate lines following the Alaska Highway and to tidewater in Valdez.
- CVEA is a non-profit, member owned electric cooperative. We serve 3,500 customers in the City of Valdez and the Copper River Basin and our service area which is geographically the size of West Virginia includes 156 miles of the pipeline corridor along the Richardson highway
- The region is vast and providing reliable electric service in some of the most difficult climatic conditions in the world is a challenge to say the least, it is also very expensive.
- CVEA is not interconnected electrically to other regions of the State, we produce electricity at 4 power generating stations within our service territory. The fact that we operate and maintain 4 generating stations accounts in large part for the high cost of electricity for the region which today in Valdez is 16.4¢ per kilowatt hour, not quite double that of the Rail belt area
- In the mid 1990's in an effort to reduce the high cost of electricity to the region, CVEA pursued developing a transmission line project to interconnect our utility with the Rail belt energy grid. The purpose of that project was to access less expensive Rail belt energy.
- In 1996, CVEA set the proposed intertie project aside in part due to the realization that it did not complement a possible gas line project. In fact, an LNG project has far greater energy potential for the region including the potential to make Valdez or the Copper River Basin an exporter instead of an importer of energy
- An LNG facility produces an enormous amount of heat and according to Mr. Boynton the proposed project produces on the order of 280 MW of usable heat. This heat can be harnessed to produce steam which in turn can drive turbines to produce electricity. Depending upon the capital cost of the project and the cost of the heat, electricity produced at the LNG facility could be very cost effective compared to electricity generated with Cook Inlet gas. That energy could be delivered to the Rail belt region cost effectively via a high voltage transmission line.

- The Valdez/Copper Basin regions are poised for economic development as evidenced by construction of the Princess Hotel near Copper Center and the new National Park Service visitor center both of which are scheduled to open in mid 2002. These projects, coupled with the strategic transportation corridors along the Glenn, Richardson, Alaska and Marine highways are all indicators the region has tremendous potential for future economic growth.
- Copper Valley Electric Association is excited about the future of the region and our ability to deliver cost effective energy solutions to fuel future prosperity. A gas project through Glennallen to Valdez, capable of serving west coast and world markets, not to mention the 800 miles between the North Slope and tidewater would be a major cornerstone in developing a sustainable economy for the State of Alaska at a critical time when timber, fishing and even the oil industry are in decline. In addition, a spur line to Anchorage along the Glenn Highway would augment declining gas reserves in the Cook Inlet region.
- I'd like to close on a personal note. I am a 42 year resident of the Great Land. When I moved to Anchorage with my family in 1959 Alaska's largest city had less than 20,000 residents. I remember the bumper sticker "I drove Tudor road and survived." Since that time the State has benefited from tremendous growth and prosperity however I am uncertain of how bright the future is, particularly if our resources are extracted to benefit others. Alaska's resources should be developed to benefit Alaskans. Developing a gas project aimed at maximizing corporate profits while ignoring sustainable, long term economic prosperity for Alaskan residents makes little sense to me. As the Council completes its very important work I urge you to carefully consider what is in the State's long term best financial interests and the interests of 630,000 Alaskans who are proud to call the Last Frontier home. I urge you to support the Alaska Gas Line Port Authority in developing a gas line project which ensures long term prosperity and a bright economic future for Alaska.
- Thank you

THOMAS R MARSHALL JR
1569 BIRCHWOOD ST
ANCHORAGE ALASKA 99508
U.S.A.

September 4, 200

Mr. Ken Freeman
Natural Gas coordinator
State of Alaska

Ken,
Here's a copy of the requested "notes
on the length of time North Slope
gas reserves will fill a gas
sales line at a 4 BCF/D rate.

An arithmetic error was made in
the governor's statement at last
Thursday's RDC noon luncheon that
35 TCF proven reserves could fill
the pipeline for 30 years at
a 4 BCF/D rate. It could fill the
line for 24 years.

$$\text{i.e. } 4 \text{ BCF/D} \times 365 \text{ Days/year} = 1.460 \text{ TCF/y}$$

$$35 \text{ TCF} \div 1.460 = \underline{\underline{23.97 \text{ yrs.}}}$$

However, there are not 35 TCF of booked
proven reserves on the North Slope.
There are 30.93 TCF including 5 TCF
undeveloped reserves in the Pt. Thomp
area. Reference P.12 Year 2000 annual report
STATE Division of Oil + Gas.

$$30.93 \text{ TCF would fill the pipeline at a 4 BCF} \\ \text{rate for } 30.93 \div 1.46 \text{ TCF/y} = \underline{\underline{21.2 \text{ years}}}$$

However, all the above reserve figures do not include lease fuel gas deductions including fuel gas sold to gas deficient fields or estimated gas line transmission fuel

$$\frac{1}{3} \text{ TCF} \times 30 \text{ years} = 10 \text{ TCF}$$

and estimated fuel requirements to hot water flood or steam flood the 30 to 40 billion barrels in place of heavy oil and bitumen at Ugnu and West Sak oil fields, should that prove feasible.

$$\frac{1}{6} \text{ TCF} \times 30 \text{ years} = 5 \text{ TCF}$$

Total estimated fuel gas needs

$$15 \text{ TCF}$$

Recap: North Slope proven reserves 31 TCF

Total estimated fuel gas = 15 TCF

North Slope gas available for pipeline 16 TCF

$$16 \text{ TCF} \div 1.46 \text{ TCF/yr} = 10.96 \text{ years}$$

Conclusion:

North Slope natural gas reserves minus total estimated fuel gas needs would fill a sales gas pipeline at a 4 BCF/d rate for 10.96 years.

these figures are intended to demonstrate the need for more exploration on the North Slope including the 102 area of ANWR.

Also disappointments may be avoided down the road when the bankers put their pencil to risk financing for a pipeline.

Respectfully,

Thos. H. Marshall, Jr.

c.c. Governor Tony Knowles
Mr. Robert Stiles - R.D.C.

SEP 14 2001

MON

Ken-59586

OFFICE OF THE GOVERNOR

9-10-01

Dear Tony Knowles,

I just want to get my two cents worth in about the new pipeline going through Canada.

We have many dear Canadian friends but going through the Government we have had problems constantly with the Canadians. Over the Salmon deadlock. We have traveled many times going through Canada and have had trouble on 3 occasions. Now going through the border involves tobacco; guns, liquor and whatever their next items they want to regulate.

So if the Canadians get a bug senseless they could shut the line down or jack up the price of going their part of the line. I just

do not trust their government.
So please reconsider not
going through Canada and
seek other options.

Thank you
Lorraine Sonnabend



Ms. Lorraine Sonnabend
655 Holiday Dr.
Wasilla, AK 99654

To: Erika McConnell

From: Governor's Office

Jun 12 2001 10:46 AST Page 2/4

I have no
word processor!

Mandy Garmand
P.O. Box 11-1143
Anchorage, AK 99511-1143

Ken-57887

RECEIVED
JUN 12 2001

GOV. KNOWLES

Re: Gas line Development
Gov. Knowles
P.O. Box 110001
Juneau, AK 99811-0001

Dear Gov. Knowles:

I am an Alaskan citizen of 16 years, and have been doing a pretty substantial amount of researching on the effect ~~of~~^{the} carrying out of the gas line construction will have on our economy, environment, and community. I am writing to you today because I would like to ~~give~~^{show} you some information you cannot acquire from research papers, debates, or polls. I would like to offer you, and would be honored if you would accept, my personal feelings and opinions on the

much of an environmentalist, but
pertaining to this issue I would
not oblige to being referred to as so.
Nature is one big network of
main reaction and events happening
for reason. When men interfere
w/ this cycle, the outcome is often
a severity. There are so many
environmental issues surrounding
this proposal that I see the
construction as playing w/ fire.
We do not fully understand the
balance of nature, therefore we
have no business stepping in
and interfering, not knowing
what the outcome will be. In
the end, the land is what
provides us, and what it we could
not survive. Therefore, it should
be our main concern. The key
is balance and sacrifice. Some times
money must be sacrificed to
do the right thing, the safest
and most secure for our future
generations - my generation.
Mandy Eavand

subject matter.

As a member of the younger generation of our state and country, I have developed a great concern ~~is~~ for the future of our States well-being. I have read about many environmental issues as well as economical, many political as well as social, and have learned a number of things. I realize our country may be facing a shortage of natural gas and that a gas line would really lead our economy to flourish. I also know that there are several environmental issues we face, some seemingly harmless to some that we ~~face~~ detrimental. I have taken all of this into consideration and have come to one final conclusion.

My concluding thoughts on the issue are this: ~~we need to do~~ the land we live on is most important. I have never been

Erika Brandner, 1200 Airport Heights
June 1, 2001
Re: Gas Line Development
Governor Knowles
P.O. Box 110001
Juneau, Alaska 99811-0001

Ken-57888

Dear Governor Knowles:

As you are well aware, the opening of ANWR is a hot topic, at present. This ongoing debate stems from a more generalized, larger scale debate, however, and concerns none other than the implementation of a natural gas line in the North Slope Borough of Alaska. The economic benefits that would ultimately spring from the implementation of a natural gas pipeline in the North Slope Borough are enormous. Presently, Alaska contains the largest oil and gas reserves of any state in the U.S. Oil has been flowing through TAPS for over 20 years. The natural gas on the North Slope, amounting to approximately 30 trillion cubic feet, has never been commercially tapped. Geologists project that this estimate may amount to a grand total of 100 cubic feet of natural gas reserves. With several companies vying to develop a master plan regarding the most viably economical means of marketing these reserves of gas, prospects for gas line construction appear promising within the next five years. In short, the most prominent benefits of a future gas line include a new source of revenue for the state of Alaska, the creation of jobs both in Alaska and nationwide, the opportunity for employment, lower energy costs, and other indirect and longer term benefits for the aboriginal peoples and local communities of Alaska, the availability of natural gas to municipalities, and, lastly, the opportunity for Alaska to partake in the relief of the exponentially growing demand for natural gas by the world market.

The proposed routes for a multibillion-dollar natural gas pipeline from the North Slope include the shorter, cheaper Mackenzie River Valley route through Canada's Northwest Territory versus the Alaska Highway route, which would route the gas to Fairbanks and smaller Alaskan communities that rely on coal and heating oil. Although the Northern route would indubitably be more cost efficient and could result in higher wellhead values on the North Slope, such a route may result in a more unsatisfactory trade off as opposed to the Highway route, which is speculated to bring profound socioeconomic benefits to the state of Alaska. The companies that compose the North American Natural Gas Pipeline Group are currently spending \$75 million to gauge whether or not a gas line is feasible (Joling, 2001). It currently appears that the costs of the Mackenzie River Valley route outweigh the benefits of the Highway proposal. In short, the proposed Highway route ensures that Alaskans will have access to enough natural gas to meet in-state demands, allow for in-state distribution for residential and commercial use, open the door to manufacturing value-added natural gas products, such as fertilizer, provide jobs during construction, operation, and maintenance phases and through support services, and, ultimately, the route would add an immense long-term property value to state and local governments. In addition, as you yourself have mentioned, the permits for this route are already in place and the plan is covered by a bilateral agreement between Canada and the U.S.

The multiplier effect of billions of dollars of investment within Alaska's borders would prove immense with the construction of the Alaska Highway pipeline. For example, state revenues of billions of dollars, access by communities to an affordable clean energy source, spin-off industries from gas liquids utilization, and the economics for the LNG and GTL projects would be born out of pipeline construction. All these amount to a staggering list of economic benefits and opportunities if the gas line follows the Highway route. Indeed, not only would a future gas line encompass a new source of revenue for Alaska and natural gas that would be used to supply small, Native communities such as the NSB, but job opportunities for indigenous Alaskans, Canadians, and individuals worldwide would benefit and Alaska would have the opportunity to partake in a large percentage of the supply of natural gas to demanding markets, especially that of the Asian market. In short, the cons of constructing a gas line through the NSB are far surpassed by the potential economic benefits of implementing a natural gas line, under the Highway route, from the NSB to smaller communities across Alaska.

Sincerely,

Erika Brandner

Erika Brandner

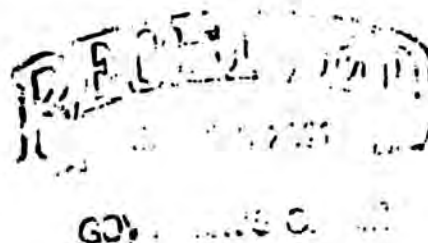
Ken-57886

Amanda Jorgenson
721 Bounty Dr.
Anchorage, AK 99515

June 3, 2001

Re: Gas Line Development

Governor Knowles
P.O. Box 110001
Juneau, AK 99811-0001



Governor Knowles,

During the last several months it has been brought out that you wish to continue the gas pipeline, which was an idea back in the 1970's that was discontinued because of high costs. I was wondering how this pipeline could benefit Alaska and the United States, other for the thirst of America's natural resources.

I am environmentally active and fail to understand the point of the construction of this pipeline. The construction the first time, in the 70's, was billions of dollars. The bloated carcass of the potentially largest and costliest privately financed construction project in history was reluctantly laid to rest. Did the shelf that this abandoned idea came from happen to land on your shelf? It is said that history repeats itself if one does not learn from it...is that where we are headed? If we, Alaska, end up continuing the construction of this gas pipeline, how much would we need to spend, how much of our money will go towards this? I can understand certain points of drilling and the constructing of pipelines, but why can we not save our most needed resources for when America is in dire need of it? Unless we need it right now, just to make gas prices go down. Perhaps there are other reasons that I have failed to acknowledge but that is all I have heard from the Bush Administration. If I could possibly be enlightened with the answers, I could possibly change my viewpoint of this situation.

I thank you for your time to read this letter. I hope to understand America's need to get all of our resources at this exact time. My opinions may be bias, but that is why I chose to write, to be enlightened. I thank you again.

Sincerely,


Amanda Jorgenson

suggestion

Subject: suggestion

Date: Wed, 11 Jul 2001 22:00:18 -0800

From: Norma Roehl <jjroehl@gci.net>

To: gasline@gov.state.ak.us

Greetings:

I would like to make a suggestion concerning the natural gas route from the North Slope. Maybe the route I'm thinking would cost considerably less than going the Beaufort Sea/Canadian route.

My friend & I attended a meeting in June & she had an Alaskan map, -I looked at the area & wrote the trails down, so here is the route. The road used to be called the "Government Road", I don't know the exact date, possibly 1930 or 1940 and I don't know if the "Government Road" is the same as the following locations. Possibly the road is still there, and would need clearing.

This is the Title on the map:

RS 2477 Project
Historic Transportation Routes
July, 1995

Trail Names

254:	Wiseman-Chandelar
27:	Beaver-Caro
189:	Snowshoe-Beaver

Pipeline to trail 254 going to #27 trail from Beaver to trail 189.
Connecting to existing road between Livengood & Fairbanks.

Fairbanks to 480 - Little Gerstle River - Sheep Creek towards Northway Junction.

Thank you and please let me know the decision concerning this route.

Norma J. Roehl
P.O. Box 3757
Palmer, AK 99645

E-mail: jjroehl@gci.net

Dear Gov. Knowles: In the news media I often see your and seemingly just about everyone else's support for a pipeline out of the state or within the state to ship out of the state. I'm not for or against that although it serves certain interests not the state as a whole. I used to live in Sterling and the pipeline to Anchorage ran the whole length of our ten acre property. We could not tap into it even with 5 other families willing to join us. We contacted the company that owned the pipeline and they said a tap to so few people was not cost effective. People who lived in the right-of-way before the line was put in did get a tap because they made it a condition of access. Before and after living in Sterling we have lived in Bethel for 20+ years. As with most of Western Alaska, (With the exception of Barrow that I know of.), we have no "natural gas" access. We are probably a small % of the states population but are stuck in high cost area and cannot look forward to economic development on any reasonable scale as long as costs are so high. Access to natural gas would do a lot to change that for future generations. The average cost of utilities in Barrow is about 1/2 of what they are in Bethel and the surrounding area. I know it would not be cost effective for the oil companies but it would be of tremendous benefit to the people of this area.

Sincerely,

Leonard Revet lrevet@unicom-alaska.com

Subject: [Fwd: GTL'S vs. TAGS]

Date: Thu, 11 Oct 2001 13:45:19 -0800

From: Debra Ceффalio <Debra_Ceффalio@gov.state.ak.us>

Organization: Alaska Office of the Governor

To: Erika B Mcconnell <erika_mcconnell@gov.state.ak.us>,
Kenneth J Freeman <ken_freeman@gov.state.ak.us>

fyi

govmail wrote:

> Thank you for writing to Governor Tony Knowles. I have routed your
> message to the appropriate person in the Office of the Governor who
> is most knowledgeable about this issue. Your ideas, concerns, and
> recommendations are valuable to us, and we appreciate that you have
> taken the time to write. Again, thank you.

>
> Mike Thomas wrote:

>
> > Date: 10/9/2001
> > Response: checkbox
> > Email: poc@gci.net
> > Name: Mike Thomas
> > Address: 310 K Street, Suite 200
> > City: Anchorage
> > State: AK
> > Zip Code: 99501
> > Subject: GTL'S vs. TAGS
> > Message: Dear Governor Knowles:

> >
> > I am writing to implore you to take the lead on
> > developing Alaska's resources. A gas pipeline
> > is not the answer, and likely won't ever be.
> > The sooner we realize that the better off we
> > will be.

> >
> > GTL's are the answer. The capital expenditure
> > is significantly less, and the return much, much
> > higher. It is a technology that can be put in
> > place now.

> >
> > Please take a moment and go to www.angtl.com.
> > Please then take the lead in getting support for
> > the development of this industry here in
> > Alaska. We are in danger of squandering the
> > opportunity to encourage investment in Alaska
> > for this technology and wasting even more
> > natural gas.

> >
> > Thanks,

> >
> > Mike Thomas

--

Debra Ceффalio
AK Highway Natural Gas Policy Council
Office of the Governor
phone 907.269.0345 - fax 907.269.0349
www.gov.state.ak.us/gascouncil

Subject: Gas Pipeline

Date: Wed, 03 Oct 2001 08:48:38 -0800

From: cvedc <cvedc@alaska.net>

To: gasline@gov.state.ak.us

Sir; We here in the Copper Valley believe that anything less than the Port Authority Project would hurt all of Alaska! For once please consider Alaska first and do not bow to the oil companies wishes. With the port Authority project you can build a pipeline to the south 48 and do for all Alaska too. Thank you for your time.

Sincerely, John Downes, CVEDC

**Foothills Pipe Lines Ltd.
Information Brief**

Routing Comparison of the Alaska Highway Pipeline and the Over-the-Top Project

Introduction

This brief discusses the relative complexities of installing a natural gas pipeline along two different routes from the North Slope in Alaska to a common receipt point at Gordondale, Alberta. The two routes are the already-sanctioned Alaska Highway Pipeline Project (AHPP) and the Over-the-Top/Mackenzie Valley Project (OTT). **Figure 1 Northern Pipeline Routing Options** shows the locations of the two routes. **Figure 2 Comparison of Key Statistics** summarizes key statistics for the two routes including length, terrain and construction parameters.

From the map and summary, as well as an examination of physical relief (**Figure 3 Northern Terrain Relief Map**), it is apparent that the AHPP encounters more mountainous terrain, river crossings, and rock. However, it is insufficient to compare the routes solely on these characteristics because many features that are more challenging than mountains and rivers characterize the northern terrain and influence the project configuration and cost. These would include factors such as transportation access and climate. There are other conditions that both routes face in common, for example permafrost as shown in **Figure 4 Northern Terrain – Extent of Permafrost**.

The brief includes additional comparative figures and tables to facilitate the discussion of variables that impact routing, construction, and timing. When the ultimate measures of capital cost and on stream date are considered, the AHPP emerges as a preferred route by a significant margin.

Terrain

(a) Physical Features

The AHPP route traverses approximately 400 kilometers of mountainous terrain and 35 major river crossings. The presence of mountainous terrain and river crossings does not constitute "route stoppers" for the AHPP. Pipeline technology involving rock blasting and ditch rock has been widely employed in mountainous terrain throughout the world, including British Columbia. None of these conditions of terrain along the AHPP present any challenge to the limits of present-day technology, except perhaps to provide an opportunity to perfect more efficient and cost-effective techniques.

The OTT route is characterized by an offshore crossing through the Beaufort Sea of about 500 kilometers or over 20% of the route. To understand the formidable challenge of this routing segment it is important to understand the physical setting as shown in **Figure 5 Over-the-Top Marine Routing Alternatives**. For analytical purposes, the sea bottom adjacent to the shore can be subdivided into three zones: foreshore, nearshore, and

offshore. Each of these has separate characteristics and limitations. Our investigation of these limitations, as discussed in a following section, suggests that the most feasible location for a submersed pipeline would be in the offshore zone up to 60 kilometers from shore and in water depths up to 60 meters.

Offshore pipeline technology has been successfully employed at much greater depths throughout the world. However, little experience is available to draw on related to possible installation in the foreshore and nearshore zones of the Beaufort Sea where risks exist due to extension of permafrost and ice scour that is known to occur in this region. The risk of ice scour that is caused by ice grounding on the seabed requires that pipelines be buried with sufficient cover to avoid being damaged. These risks confine the underwater segment to the offshore zone. However, in this zone pack ice conditions make it difficult to locate compressor stations; this is a major limiting factor on design throughput and pipe sizing. The resulting need for larger diameter pipe and operating pressure up to 3000 psi to achieve higher flow rates poses further challenges both to the limits of pipe metallurgy and offshore pipeline technology. Thus, at a design pressure of 2,050 psi, dual lines are required for crossing the Beaufort Sea.

The offshore and land portions of the OTT dictate that different types of equipment and crews be utilized for construction. The offshore portion will likely involve the development of special-purpose equipment (such as off-shore lay barges) that may be employed just once. Unless the equipment can be utilized elsewhere, the project capital may have to absorb the full cost of this equipment. A further implication of the offshore terrain will be the need to develop special-purpose equipment to conduct maintenance and repair for the operations phase of the project.

The impact of terrain is reflected directly in the unit cost of pipeline installation. The cost increases with increasing complexity of terrain. Typically the cost is measured in diameter-inch-miles. The cost of installing a high-pressure pipeline in mountainous rocky terrain is estimated to be \$25,000 per diameter-inch-mile. The following table compares the cost of installing pipelines in various terrains. The costs shown are inclusive of logistics costs.

Comparative Cost of Pipeline Construction

Terrain	Cost per diameter-inch-mile ¹
	in \$US
Prairie (recent)	10,300
Prairie (Alliance Pipeline US)	13,400
Mountain - Rock (recent)	25,000
Permafrost (estimate)	34,800
OTT Offshore (estimate)	73,200

1. Adjusted for equivalent wall thickness and pressure

(b) Impact on Construction Timing

The terrain also dictates when actual construction installation of the pipeline can occur. The AHPP route can be constructed utilizing a combination of 40% summer and 60%

winter construction. While the terrain varies along the route, more continuous access gives the construction schedule the advantage of ample flexibility to maximize the utilization of crews and equipment along winter and summer sections with minimal downtime between seasons.

Along the OTT route the offshore and onshore segments have much different construction seasons. In the offshore zone construction is limited to a very narrow construction period when open water operations can be conducted in the Beaufort Sea. Historically there is a 50% probability of a 40-day open water period and a 15% probability of a 60-day period. For the remainder of the year, ice conditions in the offshore zone are unstable and unusable as a suitable platform from which to lay pipe. Permafrost and wet areas dominate the onshore portion. These considerations require that construction be conducted when the ground is frozen during the winter months between December and mid-April. Therefore, overall construction access for the OTT route will cause significant downtime between seasons, with a corresponding increase in construction time and cost. In the worse case scenario of extreme weather, a short open water period or none at all, the risk exists of losing an entire construction season along the offshore segment.

Transportation Access

An important determinant for any major infrastructure project relates to logistics, specifically access to transportation for marshalling materials, equipment, workers, and supplies to construct and later operate the project. In fact, lack of adequate transportation has held back many projects in the North. **Figure 6 Regional Transportation Access** depicts regional transportation access for the routes. Much of the transportation infrastructure is seasonal in nature as illustrated in **Figure 7 Regional Transportation Access by Season**.

The AHPP enjoys favourable year-round access along its entire route. Along the initial northern stretch from Prudhoe Bay to Fairbanks it parallels the existing TransAlaska crude oil pipeline and the Dalton Highway. The remainder of the route parallels the Alaska Highway. Year-round transportation access is of major importance to the rapid installation of the AHPP, and the subsequent operations life.

The OTT is much less favourably situated with respect to transportation infrastructure. On the offshore portion of the route, icebreakers can be employed to extend the transportation season beyond the window of open water access in the Beaufort Sea. On the overland portion access is also seasonal. There is no all-weather road paralleling the route. Winter roads are a partial solution during winter months from December to mid-April. In the summer months from mid-June to mid-September the Mackenzie River has an established barge system that can be utilized. Even with this seasonal access, additional entry to the actual pipeline right-of-way will have still to be developed to facilitate construction. The poor transportation access will also make the operations phase more difficult.

Construction Schedule

Figure 8 Comparative Construction Schedule provides a comparison of the project schedules. The construction schedule for the projects is influenced by the combination of transportation access and seasonal construction periods. The main implications are in the mobilization stages and actual construction periods. Each mobilization requires a suitable break-in period until the crews achieve efficient productivity.

For the AHPP route, favourable year-round transportation accesses and summer construction windows combine to minimize the mobilization stage and construction period. The ratio of summer-to-winter construction helps to minimize downtime and remobilization costs. The actual construction can be completed in a period of less than 24 months.

The OTT route transportation access and seasonal construction restrictions impose major challenges. The mobilization effort is more difficult and extended. Three construction seasons are required to complete both the onshore and offshore segments. Between seasons crews and equipment are idled. The crews have to be re-mobilized three times. The equipment remains stranded for the summer, as it can not readily be deployed on another project. The actual elapse time for construction is over 30 months. The protracted construction period also means that capital is tied up for a significantly longer periods of time during which it is accruing interest with a resulting increase in the final unit cost of shipping gas on the system.

Economics

Foothills Pipe Lines and TransCanada Pipelines have compared the economics for the two routes as part of an assessment of several alternative pipeline routings for North Slope gas. The analysis involved a consideration of various environmental and technical risk factors. The assessment relied on data and investigation furnished from three outside consulting firms. The analysis grouped constraints into categories by critical, serious, and minor. **Figure 9 Routing Comparisons** is a graphical comparison of the incidence of critical and serious constraints for the various routes considered. The following table summarizes the numbers for the two routes included in this brief.

Number of Constraints by Pipeline Route			
Constraint	Impact	AHPP	OTT/MVP
Critical	<i>Route Stopper</i>	0	7
Serious	<i>Cost Adder</i>	1	28

Figure 10 Over-the-Top Constraints provides a listing of the critical and serious constraints for the OTT. These constraints impact on the specific routing of an offshore line and development of the OTT project. It should be noted that the one serious constraint which AHPP faces is shared in common with the OTT, namely the state of Aboriginal Land Claim settlements in Canada.

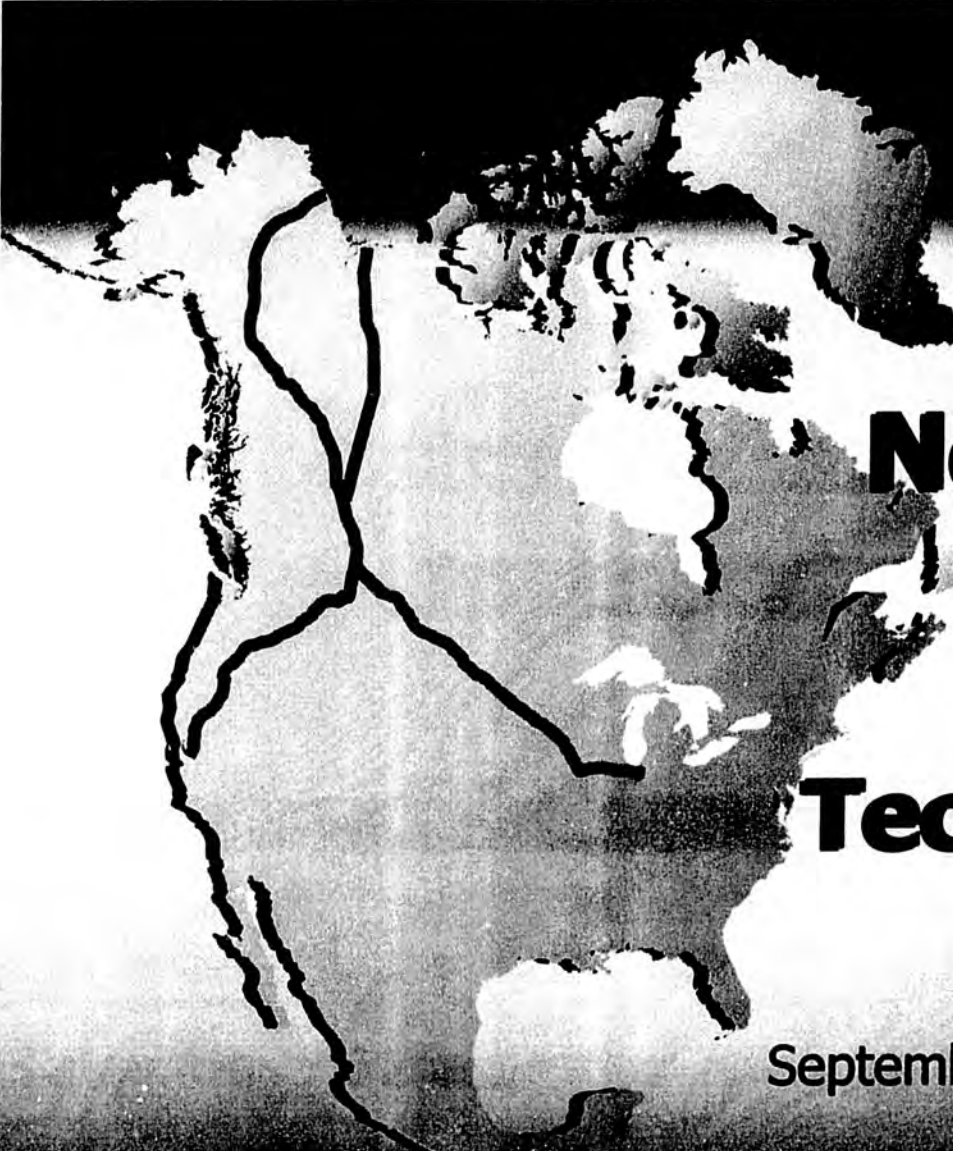
Foothills and TransCanada relied on this analysis to estimate the capital cost of the OTT for comparison with the AHPP. The capital cost build up included the environmental and technical factors as well as the comparison of terrain and access discussed earlier in the brief. In order to evaluate the two routes on a comparable basis, taking into account the functionality of the OTT route to capture throughput from the Mackenzie Delta, the analysis compares the OTT versus the two-pipeline option of separate AHPP and Mackenzie Delta pipelines.

Comparative Capital Cost by Pipeline Route

	AHPP and MVP two-line option	OTT/MVP
Throughput (Bcfd)		
North Slope	4.0	4.0
Mackenzie Delta	1.2	1.2
Years to Start-up	6-7 (AHPP) 8-9 (MVP)	9-10
Capital Cost (\$Billion – US)	12.8	13.0

The analysis concluded that the capital cost of the two routes is nearly equivalent, after accounting for the degrees of uncertainty associated with both routes. The OTT has associated with it a greater degree of uncertainty and a much longer timeframe before the flow of first gas. The later start-up for the OTT is due in large part to the construction difficulty and partly to the Greenfield nature of the project. The AHPP enjoys a significant head start due to existing legislation and regulation.

It should also be noted that the capital cost estimates include components of interest during construction and escalation for inflation, both of which will be much more pronounced for the OTT due to its longer schedule. An extended schedule also defers the start date for flow of revenues to the various stakeholders. An assumed flow of 4.0 Bcfd at a price of \$3.00 per MMBtu translates to annual revenues of \$US 4.4 Billion. Stated in other terms, each month of delay postpones over \$US 360 million of revenue flow.



Northern Routing Options

Technical Comparison

September 2001



Foothills Pipe Lines Ltd.

Figure 1

Northern Pipeline Routing Options

Prudhoe Bay to Gordondale

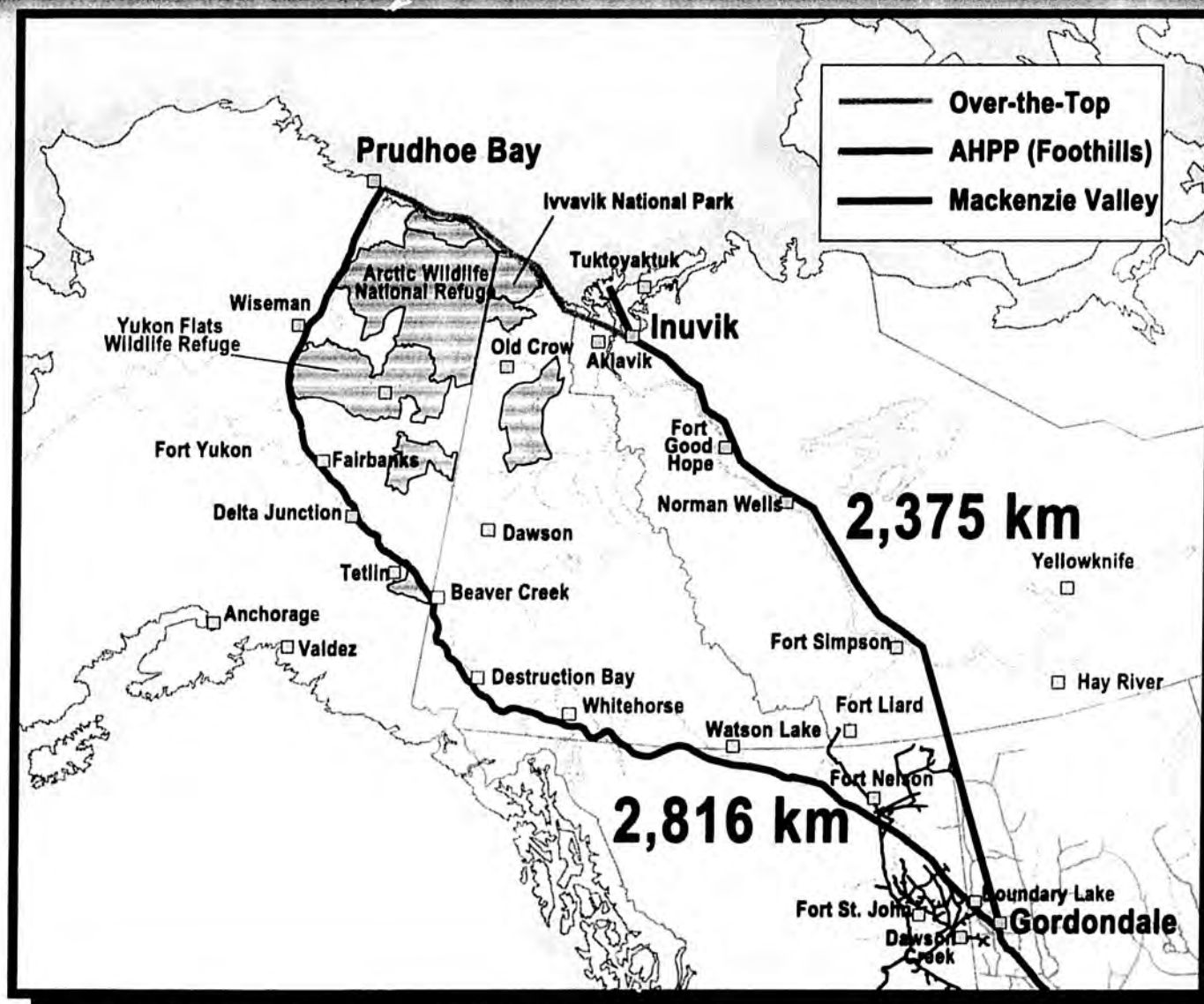


Figure 2

Comparison of Key Statistics ANGTS/Over-the-Top Prudhoe Bay to Gordondale

	AHPP	OTT/Mackenzie Valley
Length (km)	2816	2375
Offshore (km)	0	500 (21%)
Major River Crossings	35	8
Ditch Rock (km)	419	96
Mountainous Terrain (km)	400	0
Winter Construction (km)	1694 (60%)	1875 All onshore (79%)
Summer Construction (km)	1122 (40%)	500 All offshore (21%)
Project Schedule (years)	6.5	10.5
Construction Schedule (years)	2	3
Road Access	Alaska Highway Dalton Highway	Liard Trail Mackenzie Highway (Winter Only) Dempster Highway Alaska Highway Dalton Highway
Ports	Prudhoe Bay (Seasonal) Skagway Valdez Whittier	Hay River (Barge - Seasonal) Prudhoe Bay (Seasonal)
Rail	Fort Nelson Fairbanks	Fort Nelson Hay River

Figure 3
Northern Terrain Relief Map



Figure 4

Northern Terrain - Extent of Permafrost

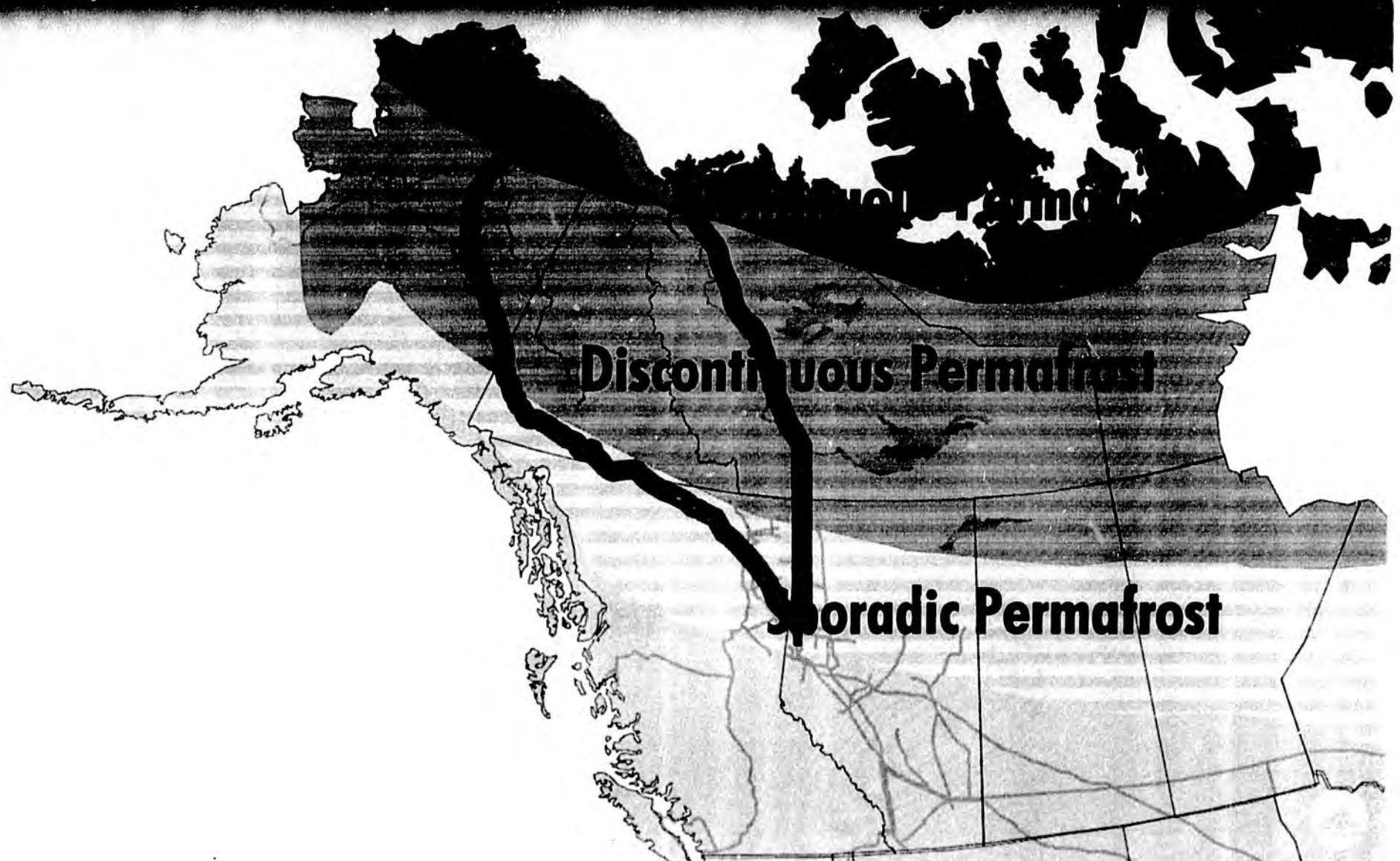


Figure 5

Over-the-Top Marine Routing Alternatives

◆ Foreshore

- ▶ Tidal zone
- ▶ Bottom fast ice (0-2 m depth, 0-2 km offshore)

◆ Nearshore

- ▶ Floating land fast ice (2-10 m depth, 2 -10 km offshore)

◆ Offshore

- ▶ Stamukhi zone (10 - 30 m depth, 5 - 25 km offshore)
- ▶ Pack ice zone (>30 m depth, 25 - 50 km offshore - >60 m depth, 60+ km offshore)

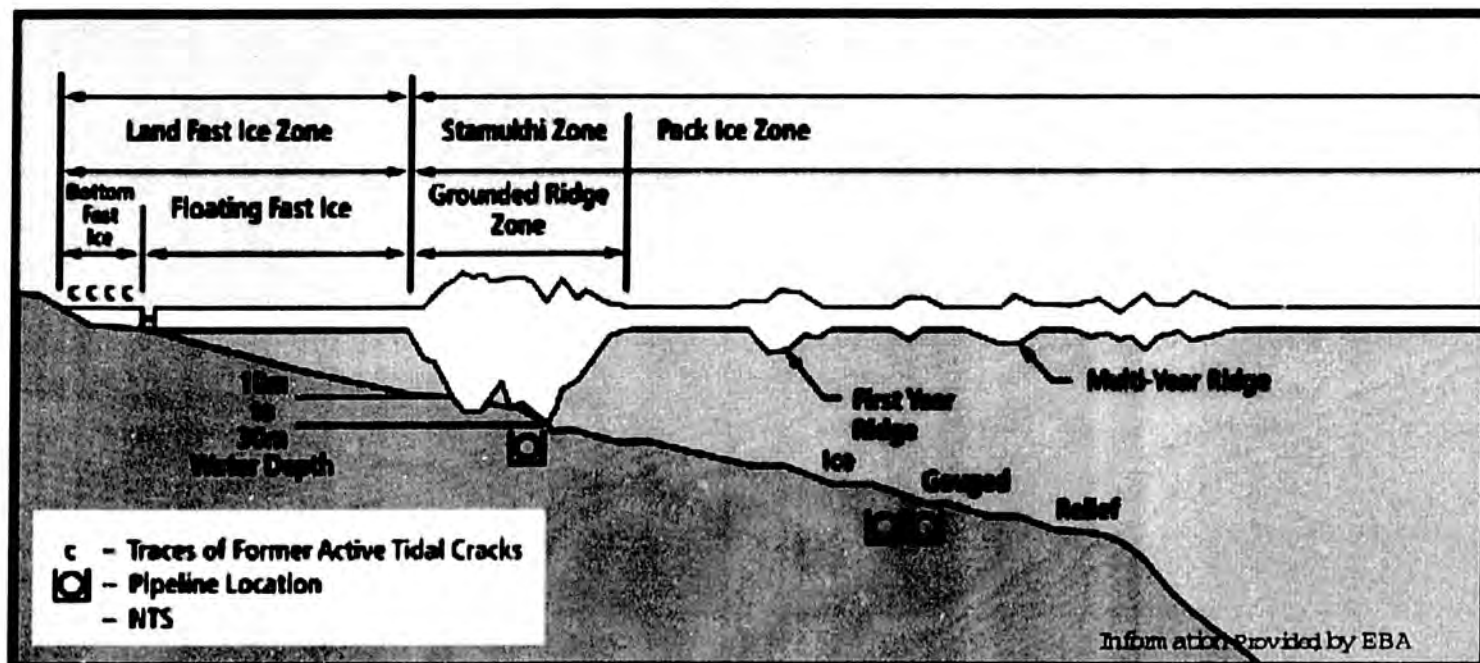


Figure 6

Regional Transportation Access

- ✈ Airports
- ▬ Barges
- Highways
- Ports
- Railways

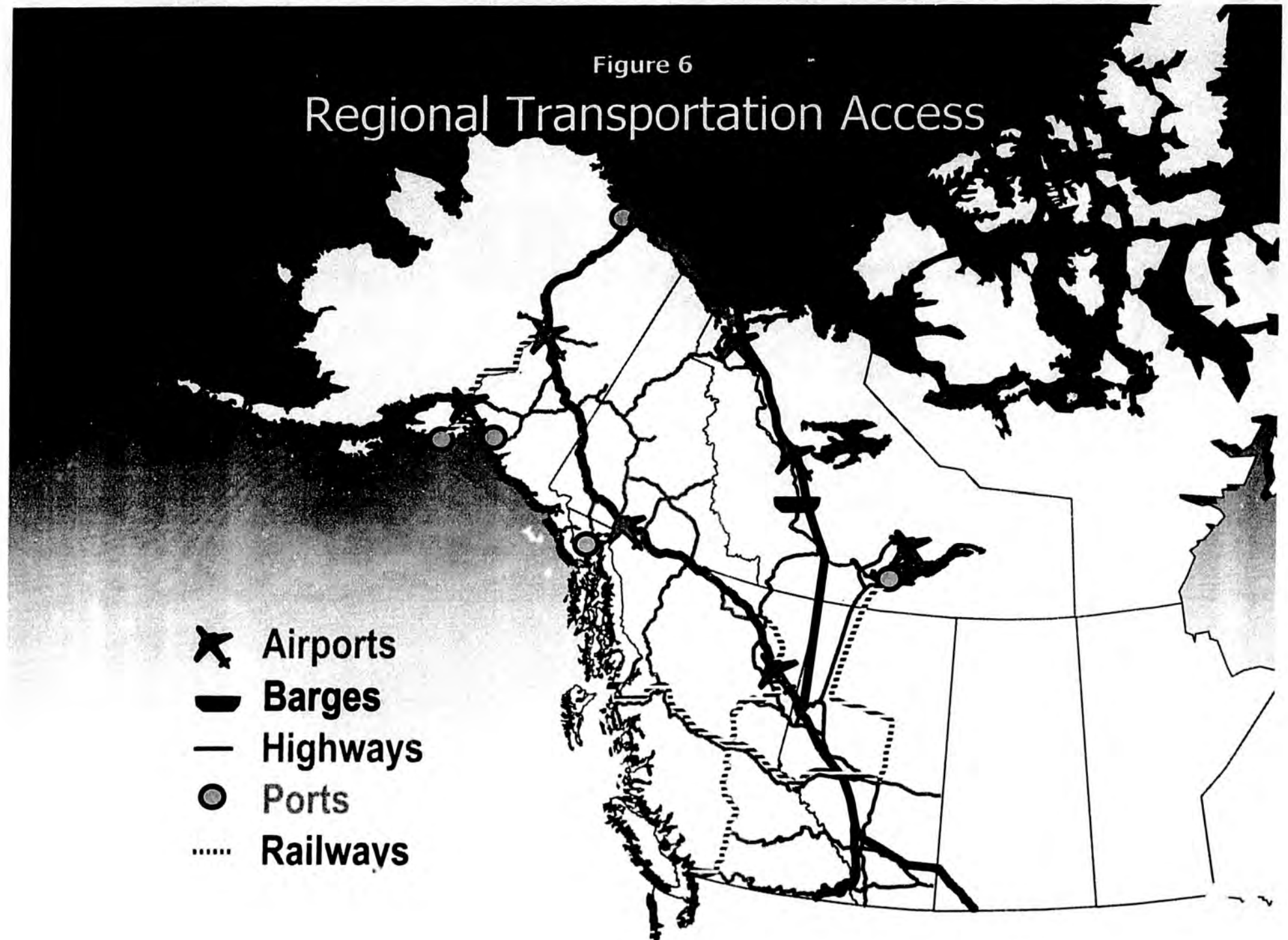


Figure 7

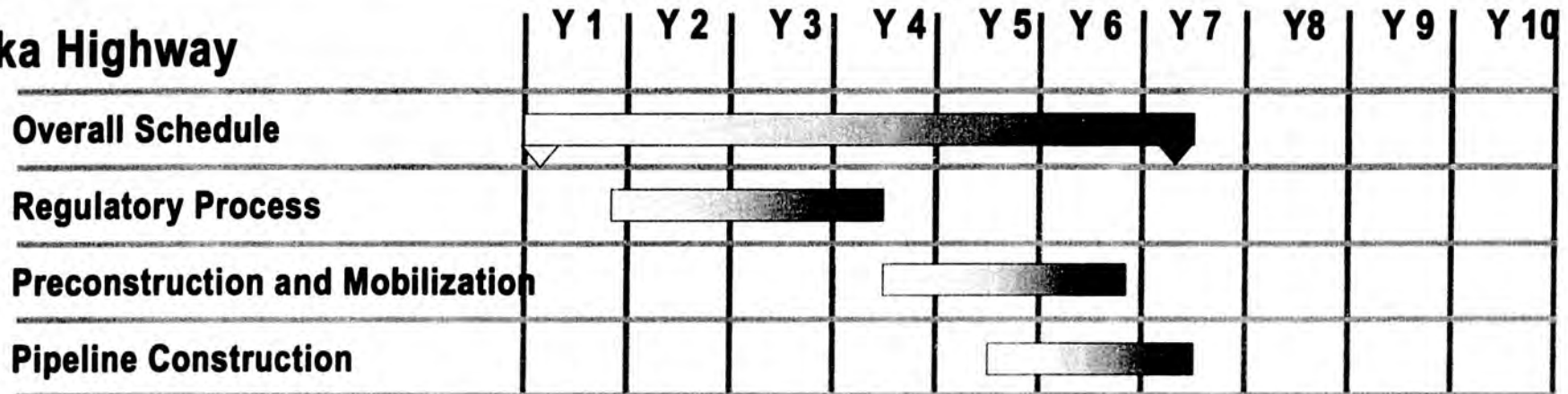
Regional Transportation Access by Season



Figure 8

Northern Pipelines Comparative Construction Schedule

Alaska Highway



Over-the-Top/Mackenzie Valley

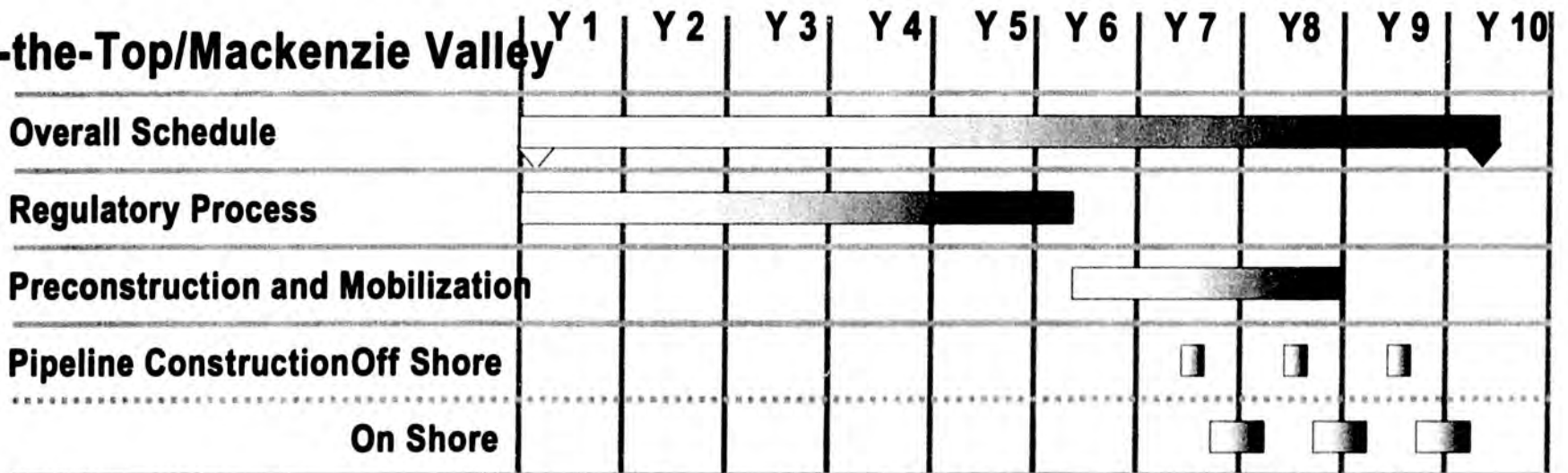
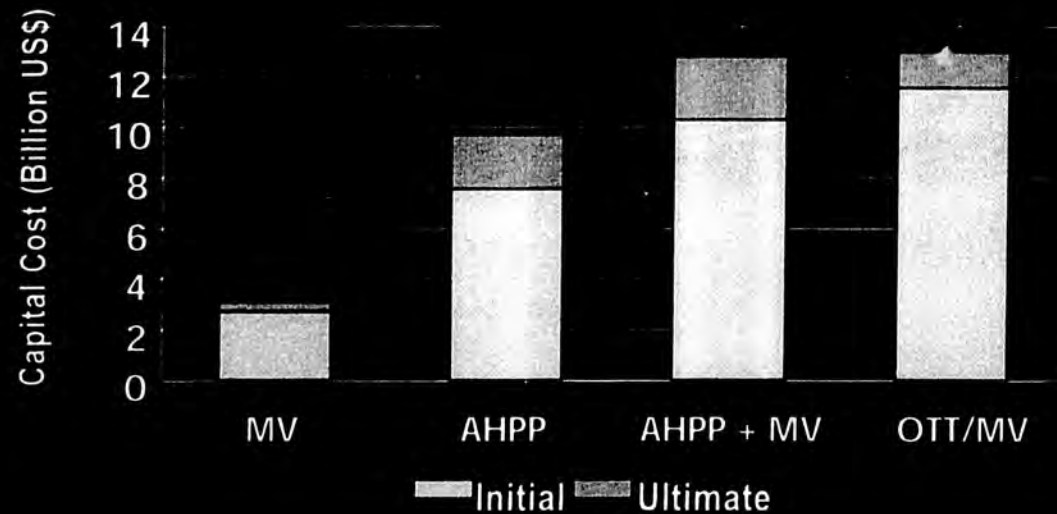
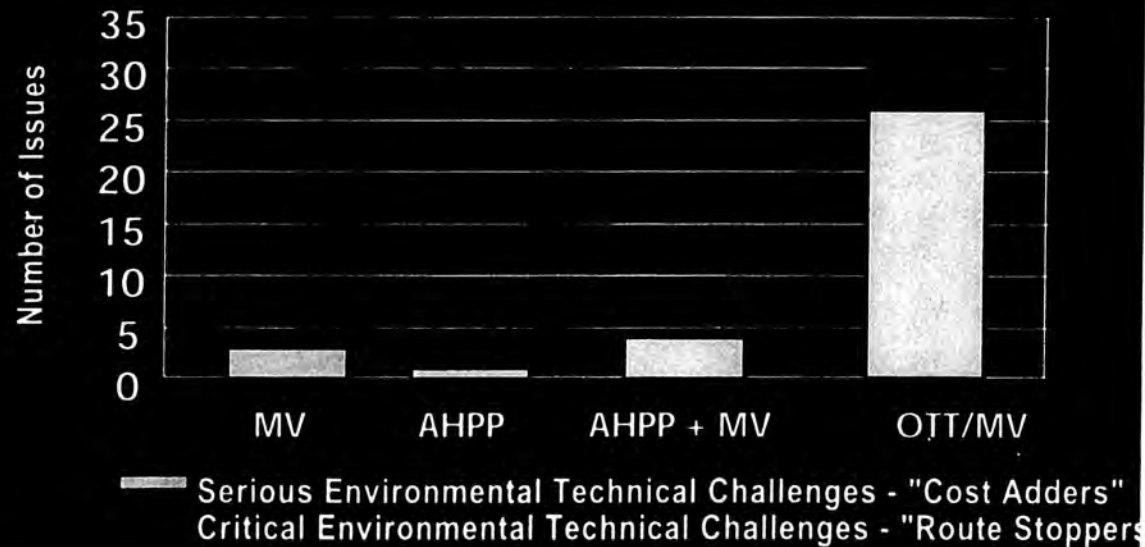


Figure 9
Routing Comparisons

Capital Cost



Risk Profile



MV - Mackenzie Valley
 AHPP - Alaska
 OTT - Over-the-Top
 (Prudhoe Bay/
 Mackenzie Delta)

Figure 10

Over-the-Top Route Constraints - Environmental

Critical	Serious
• Environmental/Technical Challenges • Route Stoppers	• Route, timing, construction impacts • Cost Adders
Environmental 1. State, Congressional, Presidential approvals for foreshore ANWR activity 2. Nesting Habitats on Barrier Islands (Alaska) on near shore route 3. No Development Zone: Ivavik National Park (Yukon) 4. No Development Zone: nearshore Herschel Island Territorial Park	Environmental 1. Prudhoe Bay Boulder Patch – arctic kelp 2. Barrier Islands – ringed seal and migratory birds 3. Herschel Island – bowhead whale, August feeding and September/October Alaskan hunt restriction 4. Mackenzie Estuary – beluga whale – zone 1 & 2 5. Eastern North Slope – management zone D ➤ Wildlife, fish, waterfowl constraints ➤ Preservation of traditional native use 6. Kendall Island Bird Sanctuary 7. Inuvialuit beluga whale hunt (June/July) 8. Polar bear dens, on-ice management 9. Evolving regulatory process could increase uncertainty 10. International boundary dispute/Jones Act 11. Evolving regulatory process could increase uncertainty 12. Detailed protection plans for protected areas 13. Unresolved land claims*

Figure 10

Over-the-Top Route Constraints - Technical

Critical	Serious
• Environmental/Technical Challenges • Route Stoppers	• Route, timing, construction impacts • Cost Adders
Technical 1. Coastal erosion and storm surge for both foreshore and nearshore route 2. Camden Bay seismicity for offshore route 3. Barrier Islands migration for foreshore and nearshore routes	Technical 1. Stable ice platform 2. Ice scour and pipe depth 3. Ice ride-up and rubble fields 4. Strudel scour and river deltas 5. Shore permafrost 6. Landfall transitions 7. Restricted land access – winter 8. Restricted open ice window 9. Supply logistics 10. Accessibility for maintenance and operation 11. Trench backfill requirement (Northstar) 12. Leak monitoring requirement (Northstar) 13. Mackenzie trough 14. Gravity-based structures 15. Umbilical trenching



Foothills Pipe Lines

FAX TRANSMITTAL

STATE OF ALASKA
OFFICE OF THE GOVERNOR

TONY KNOWLES
GOVERNOR

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Telephone: (907) 465-3500
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Date: September 12, 2001

To: Rick Halford

Fax No.: 694-0549

Pages: 7

From: Tony Knowles
Governor

TONY KNOWLES
GOVERNOR



STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

September 12, 2001

Dear Rick,

Thanks for all of your efforts in moving the gas project forward. They have been essential to our progress so far. I especially appreciate the meeting we had at my Anchorage office prior to your public meeting in Valdez where we discussed the state's draft legislation in response to the proposed legislation authored by the producers. I incorporated our discussion into the "10 point" plan I presented to the Resource Development Council and then sent to Senators Murkowski and Bingaman. I have enclosed a copy of that letter to you.

We are in the process of developing final legislative recommendations and I would appreciate your comments on any additions, subtractions, or modifications. If you could send those to Charlie Cole, the subcommittee chair of federal legislation, we will try to incorporate them into the final draft recommendations. This will be sent back to all Policy Committee members, producers, and pipeline companies for comment prior to presentation to the State Joint Pipeline Committee and then to Senator Murkowski and Senator Bingaman.

Sincerely,


Tony Knowles
Governor

Enclosure



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September 10, 2001

The Honorable Frank Murkowski
United State Senator, Alaska
322 Senate Hart Office Building
Washington, DC 20510-0202

Dear Senator *Frank* Murkowski:

I write on a subject of pressing national and state interest, the need to facilitate a natural gas pipeline from Alaska to the lower 48 states. The Alaska Highway natural gas pipeline would be America's largest privately funded construction project, requiring an investment of as much as \$20 billion. With the national economy sagging, this single project would be an enormous shot in the arm to America's industry and workforce like nothing else on the horizon, creating thousands of good-paying, long-term jobs across our country.

If built, it would deliver approximately 35 trillion cubic feet of ready-for-market Alaska North Slope natural gas. It also would open the way for the exploration and development of an additional 100 trillion cubic feet of natural gas that other fields in Alaska may hold. In the 1970s, federal legislation was needed to clear the way for the fast and successful development of the Trans-Alaska Pipeline System (TAPS). Similarly, legislation now is needed to clear the way for an Alaska gas pipeline. What follows is a summary of the benefits to our nation and to Alaska from the Alaska Highway pipeline project and a description of the essential provisions of legislation that would enable its construction.

Today, natural gas plays an increasingly prominent role in our nation's energy supply and is the fuel of choice for the rapidly expanding U.S. electricity generation market. Rising consumer demand, national security concerns, environmental needs, and economic competitiveness require that we continue to find new sources of natural gas in North America. With Alaska's known reserves representing more than 20 percent of the United States' natural gas reserve base, Alaska's North Slope gas can provide much of the needed new domestic source of environmentally clean energy.

Building the Alaska Highway gas pipeline will also help stabilize and increase our nation's economic growth at a time when our economy is suffering. A project of this size

The Honorable Frank Murkowski
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will positively impact the nation's as well as Alaska's economy. Construction alone will rejuvenate the U.S. steel industry and provide jobs to thousands of Americans, including many Alaskans. It is expected that the Alaska portion of the pipeline project alone will require some 1.5 million tons of steel, with related costs from manufacturing to delivery estimated at \$900 per ton, producing about 2,000 steel industry jobs. Keeping that substantial amount of money in North America cannot help but benefit each country's economy.

Many jobs will still be required once the project becomes operational, resulting in economic benefits in the form of wages, federal and state taxes, royalties, and other revenues. Further, the availability of gas in the lower 48 and in Alaska can be expected to generate substantial new investment and employment. Economists tell us that such a project could have an economic multiplier effect of 4-6, that is, for every \$1 spent on the project, \$4-6 of money flow is stimulated throughout other sections of the economy. Conservative projections are that this project will generate 160,000 jobs over the life of the project and contribute \$300 billion to America's Gross Domestic Product.

To best achieve these national interests we need to have federal legislation, just as we did for TAPS, that brings these reserves to market in Alaska and the lower 48 states, and to do so as quickly as possible. We need to incorporate provisions that show a preference for American industry and American jobs. And we need to prepare for the future by allowing access of all natural gas developers to the pipeline. But Alaska also must benefit from delivery of North Slope gas to the U.S. market. We need federal legislation that would allow for the utilization and transportation of natural gas use for the benefit of Alaskans and that provides a preference for local hire, local businesses, and Alaska Natives.

Earlier this year I formed the Alaska Highway Natural Gas Policy Council, which held hearings across Alaska in order to solicit the views of Alaskans on the many complicated issues surrounding North Slope gas development and transportation. The council received many useful and thoughtful suggestions from various interested parties. It is fair to say a consensus exists among Alaska businesses, Alaska Natives, organized labor, environmental and civic groups and the Alaska Legislature that the following principles should be embodied in any new federal legislation authorizing and encouraging the construction of the Alaska portion of the Alaska Natural Gas Transportation System (ANGTS).

The Honorable Frank Murkowski
 September 10, 2001
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1. Deliver Alaska Natural Gas to the Lower 48 States as Quickly and Safely as Possible

- **Alaska Highway Route.** Any legislation should reiterate that the Alaska Highway route—the route approved by the President and the Congress in 1977—remains the chosen route. That route can be completed quickly and, given the existing infrastructure, can be done with minimal additional impact on the environment. In contrast, other suggested routes, such as the so-called “over-the-top” route through the Beaufort Sea and then south through Canada, present enormous engineering and environmental challenges and have not undergone formal feasibility and environmental reviews and, thus, cannot be completed in a timely or environmentally friendly manner.
- **Expedited Process.** The legislation should also include an expedited approval process for the Alaska portion of the Alaska Highway pipeline corridor that parallels and builds on the process set forth in the 1976 Alaska Natural Gas Transportation System legislation.
- **Tax Incentives.** Legislation should provide for necessary tax benefits to ensure that this project, which is so important to national interest, is actually built. Provisions that would entitle the pipeline owners to take both accelerated depreciation and investment tax credits on the pipeline assets have been used successfully in the past to stimulate investment. In addition, consideration should be given to provisions which would reduce financial risk resulting from widely fluctuating gas prices—perhaps a tax or royalty credit when prices fall below a specified floor. Given the inherent uncertainty as to the economic feasibility of a project of this magnitude, such incentives should help tilt the scales in favor of construction of the project.

2. Build American Industry and Create American Jobs

- **United States and Canadian Steel Usage.** Subject to limited exceptions, legislation should require that only steel manufactured or produced in the United States and Canada be used for the construction of the Alaska portion of the ANGTS. The exceptions would be where the cost of United States and Canadian steel is determined to be unreasonable or where a finding is made that use of such steel is inconsistent with the public interest.
- **Use of a Project Labor Agreement.** Legislation should mandate the use of a project labor agreement wherein involved contractors and unions would agree to a total ban

The Honorable Frank Murkowski
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on strikes, lockouts, work slow downs, and other disruptive activities. Such a provision would further the goal of expeditiously constructing the pipeline and at the same time recognize the public interest in labor stability surrounding the construction, operation, and maintenance of the pipeline.

3. Future Access of Natural Gas Developers to ANGTS

- **Access for New Gas Discoveries.** It is necessary to mandate that, in the event of new discoveries on or around the North Slope or in Interior Alaska, and whether on federal or state lands, the owners of these discoveries will have access to the pipeline in order to market their gas. It is estimated that undiscovered gas reserves may be on the order of 100 TCF, or more. Legislation should give the Federal Energy Regulatory Commission (FERC) clear authority to require the owners of the Alaska portion of the Alaska Highway project to expand the capacity of the pipeline in order to accommodate all new discoveries. Absent such a provision, new gas discoveries could be left at the back of a long queue of gas awaiting shipment or, worse, indefinitely stranded in place because, unlike in most areas in the lower 48 states, one pipeline will be the sole source of available transportation.
- **Encouragement of New Pipeline Participants.** Legislation should also encourage the equity participation of all interested and financially viable energy companies, including North Slope producers and gas pipeline companies. Today, producer affiliation is no longer a valid reason to exclude a potentially significant source of needed equity capital. FERC's present open access and nondiscrimination rules and regulations are sufficiently evenhanded to allow equity participation by everyone regardless of whether or not they are affiliated with the North Slope gas owners.

4. Jobs for Businesses, Alaskans, and Alaska Natives

- **Alaska and Alaska Native Hire.** In order to provide much needed jobs and training for Alaskans, the legislation should require that the persons constructing the Alaska portion of the pipeline adopt programs to train and employ Alaskans, to the extent permitted by existing laws. Special emphasis should be placed on the recruitment, training, and employment of Alaska Natives who, after all, will be particularly impacted by the construction and operation of this new pipeline. To ensure that these provisions are properly implemented, periodic reporting requirements should be included in the legislation.
- **Alaska Businesses Hire.** Similar provisions just discussed with regard to Alaska and Alaska Native hire should provide that Alaska businesses shall be utilized to the

The Honorable Frank Murkowski
 September 10, 2001
 Page 5

extent permitted by law. The same rationale for employing Alaska residents applies to employing Alaska businesses.

5. Access to In-State Gas Resources

- **Alaska Access to Gas.** It is important for the social and economic development of Alaska that Alaska citizens and businesses have access to sufficient gas to serve their needs. It makes sense for Alaska—the source of huge quantities of gas—to have access to needed amounts of the commodity. Provisions in the legislation should ensure the owners of the Alaska portion of the pipeline make the necessary accommodations to ensure such access.

In conclusion, I hope these principles can serve as some useful guideposts in crafting legislation. We would be willing and honored to work with you and your staff to develop specific language implementing these principles.

Sincerely,


 Tony Knowles
 Governor

cc: The President of the United States
 The Honorable Dick Cheney, Vice President of the United States
 All members of Senate Energy Committee
 The Honorable Ted Stevens, U.S. Senator, Alaska
 The Honorable Don Young, U.S. Congressman, Alaska
 The Honorable Gale Norton, U.S. Secretary of Interior
 The Honorable Spencer Abraham, U.S. Secretary of Energy
 The Honorable Colin L. Powell, U.S. Secretary of State

Scott Heyworth
Testimony to
U.S. Senate Cmte.

Good Morning Senators:

I wish to thank Senators Bingaman and Murkowski for inviting me to testify.

My name is Scott Heyworth. I was born in Alaska and am currently serving as a Public Safety Commissioner for the Municipality of Anchorage under our Mayor George Wuerch, and a former Port Commissioner under then Mayor Tony Knowles. I am also the Chair of the Citizens Initiative for the All-Alaskan, 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.

All of my fellow union brothers and sisters mourn the losses of our fellow union Policeman and Firefighters, along with Military and Civilian casualties and strongly support the work of the construction crews, fire, medical, police, and rescue volunteers. As do all Alaskans.

Ladies and Gentlemen of the Committee:

We can have our corporate boardrooms, our economic forecasts about 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. One of those principles 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, and 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 of? 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? Isn't this simple, defensible, and in the best interests of all Americans?

Alaska's 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 polls and they all show that the majority of Alaskans support the All-American route to Valdez by over a two to one margin. Our largest city alone, Anchorage is in favor of the All-American route by a 65% per cent margin.

Alaska's Lt. Governor, Fran Ulmer, recently certified our Citizens Initiative Petition. This allowed us to begin gathering signatures to place the initiative on the Nov. 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% 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 with 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 Alaska Unions. It brings the most jobs to Americans, provides 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 5 LNG receiving terminals on the West Coast, which could receive Alaskan LNG. There are no gas shortages in the mid-west 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 Mid-East natural resources, and protect America's Natural Oil & Natural Gas Reserves on the North Slope. We cannot build this gas pipeline through Canada just because it is economically beneficial for the Oil Companies.

We need to put America's energy interests first. Unlike the Governors' 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 will be a publicly owned entity.

Finally Senators, if anyone is advocating to open ANWR to lessen our dependence on Foreign and Mid-East oil & gas supplies, then I am sure, using the same logic, they would advocate to build the All-American gas line to Valdez to avoid going through a foreign country for security reasons. I believe Americans, today, understand this very simple concept.

THANK YOU

Bush, Congress at odds over pipeline route: Natural gas in Alaska

Peter Morton

10/03/2001
National Post
National
Page FP5
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WASHINGTON - Both the U.S. Congress and the administration of George W. Bush, the President, are anxious to tap into the vast natural gas reserves in Alaska, but are at odds over which route to pick.

The U.S. Energy Department told a Senate Energy Committee hearing yesterday that Alaskan gas is vital to the interests of the United States.

"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," said Robert S. Kripowicz, Acting Assistant Secretary of the Energy Department.

But Mr. Kripowicz refused to endorse either of the two major competing pipeline projects.

"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," he told the committee.

Tony Knowles, the Governor of Alaska, pushed the committee to endorse the Alaska route, especially since the Alaska Natural Gas Transportation Act has already been approved in the United States. The Canadian equivalent, the Northern Pipeline Act, has already been approved by Parliament.

Mr. Knowles argued that the 2,900-kilometre pipeline from Alaska's North Slope to Alberta would create 160,000 jobs and be the least environmentally damaging of the two proposed lines. But, he said, the U.S. government must provide incentives in the form of a dramatically speeded-up depreciation and a 10% tax incentive to make the project economically viable.

Dennis McConaghy, co-chief executive officer of Foothills Pipe Lines of Calgary, told the committee the Alaska route would be virtually ready to go since it received framework approval in the mid-1970s.

The Alaska route suffered a major setback after a consortium that included Exxon-Mobil, BP PLC and Phillips Petroleum Co., said the US\$15-billion to US\$17-billion route would generate a return of up to 11%, which made it uneconomic.

The competing proposal is the Northern Gas Pipeline Project from Arctic Resources Co. of Houston. It wants to build a pipeline from the Alaskan North Slope through the Beaufort Sea, where it would connect with a Mackenzie Valley pipeline.

PRODUCERS, CONGRESS VIE ON ALASKA LINE[NL]'Chicken-and-egg problem':

ExxonMobil official [PARA]Washington-The three majors studying an Alaska natural gas pipeline urged the US Congress Oct 2 to quickly pass legislation streamlining the regulatory approval process and outlining tax incentives for the project. Without that kind of certainty, they said, it would be difficult to move forward with a multi-billion dollar pipeline designed to move Alaskan North Slope gas into Canadian and continental US markets.

But several members of the Senate and the Bush Administration suggested that without a formal application in place, legislation would be premature. "It gets to be a bit of a chicken-and-egg problem," Terry Koonce, president of ExxonMobil Production, acknowledged to the Senate Energy and Natural Resources Committee. ExxonMobil, BP and Phillips Petroleum are spending about \$100-mil to study if a pipeline is economically feasible and, if so, which of two routes under consideration to endorse.

The producers, which last month issued an interim report saying neither route looks feasible because of depressed gas prices, pressed the committee to take up a bill they wrote creating "thorough but expedited" permitting for the prevailing pipeline. The bill also would guarantee quick resolution of any legal disputes, create an Office of Federal Pipeline Director and outline tax incentives.

But Sen. Frank Murkowski (Republican-Alaska) asked producer officials why Congress should not wait until a formal application is filed. He expressed concern Congress essentially would be creating regulatory schemes in a vacuum because it would not know project details.

Joseph Marushack, vice president of Alaskan gas for Phillips, argued producers would be more comfortable with the project's viability, and be more inclined to continue the study, if Congress acted before a route is chosen. "We are trying to chip away at areas of risk," including cost, market conditions and permit processes, he said.

The industry proposal is for a route-neutral bill, a proposal opposed by Alaska, which supports the southern route, extending from Prudhoe Bay south through Alaska into the Yukon and British Columbia or Alberta. The other option, the so-called over the top or northern route favored by many Canadian leaders, would run from Prudhoe Bay under the Beaufort Sea and through gas-rich areas of the Northwest Territories.

Alaska Gov. Tony Knowles told the committee legislation should mandate the southern route, which at an estimated \$17-bil is about \$2-bil more expensive than the alternative. The producer consortium is expected to endorse a route in a few months. Lawmakers also were divided over requests by Alaska, and at least one producer, for federal incentives to build the line. Knowles and Phillips' Marushack endorsed a provision already proposed in the Senate and passed in the House to accelerate depreciation for gas pipelines at a seven-year rate rather than the typical 15 years.

Knowles also suggested Congress could adopt a 10% investment tax credit, while he and Marushack suggested a production gas tax credit tied to a floor price of gas as a way to provide investor confidence.

But Sen. Ben Nighthorse Campbell (Republican-Colorado) asked: "Why should there be subsidies for this gas and not for (gas produced in) the lower 48?" Knowles and Murkowski insisted federal incentives were not subsidies, and the size and natural interest in the project make it unique.

-Mark Davidson, Cathy Landry
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Firms may drop gas line claims

By SAM BISHOP

Fairbanks News-Miner Washington Bureau

WASHINGTON--Several companies may drop their multi-billion claim to earnings from a proposed natural gas pipeline to the Lower 48, an action that could remove a question mark hanging over the cost of the line's so-called southern route, a pipeline executive said this week.

Dennis McConaghy, co-chief executive officer of the Calgary-based Foothills Pipe Lines Ltd., told the Senate Energy and Natural Resources Committee that his firm is nearing an agreement that would wipe out the \$4.2 billion claim.

In the late 1970s, Foothills and a half-dozen companies joined efforts to build the Alaska Natural Gas Transportation System, McConaghy said after the hearing. That line, authorized by the U.S. and Canada governments, was to roughly follow the Alaska Highway.

Only two partners are active today. The rest withdrew after spending about \$250 million, McConaghy said. In withdrawing, the former partners reserved the right to recover their costs, plus interest, if the line were ever built, he said.

Today, the interest on that \$250 million has ballooned the total claim to \$4.2 billion. That's a substantial figure compared with the total pipeline construction costs, which major gas producers have estimated at \$15 billion to \$20 billion.

Sen. Frank Murkowski, R-Alaska, asked McConaghy about the claim, called a "contingent liability," during the hearing Tuesday.

McConaghy said he believes Foothills and its partner, TransCanada PipeLines Ltd., are within a month of virtually eliminating the claims. He said the former partners of the Alaskan Northwest Natural Gas Transportation Co. are "re-enlisting."

To re-enlist, he said, they must relinquish the claims.

Among the partners is Williams, which operates a refinery in North Pole. Others include Duke Energy, El Paso Corp., Sempra Energy, Enron and Pacific Gas and Electric.

Foothills' U.S. counsel, J. Curtis Moffatt with VanNess Feldman, said the \$4.2 billion claim has been given greater significance than it deserves by opponents of the southern route.

The implication by opponents has been that the former partners would have to be paid off with money obtained by raising the charges for transporting the gas through the pipeline. Moffatt said it has never been certain that would happen and that the payment is contingent on other factors.

Also, he said, the \$4.2 billion is merely a theoretical accounting sum that the active partners report to the Federal Energy Regulatory Commission. He said the number is likely to be "very near zero."

If Foothills does seek to repay partners by adding to its gas transport fee, Moffatt said, it would only be to the extent that the original partners' contributions were useful to the final project. Any such charges would have to be approved by FERC.

Moffatt said the former partners have no incentive to demand the money. Rather, their interests are in making the project happen, he said.

And those former partners don't have any desire to jump ship to the alternative northern route, Moffatt said. That line would carry gas east from Prudhoe Bay into Canada, where it would travel up the MacKenzie River valley into Alberta.

"After a long, detailed, litigated selection process and subsequent review by the president of the U.S. and Congress, the southern route was selected as superior, and we all believe that it still is," Moffatt said.

He described the former partners as "very sophisticated," and said they have vast experience in the details of siting and operating large gas lines.

Despite all this, Moffatt said, southern route opponents have gotten some mileage from the contingent liability question.

But Arctic Resources Co. President Bob Murphy, whose Houston-based company backs the northern route, said his estimates of the southern route's costs have never included the contingent liability.

"When we have looked at the relative economics of the southern route versus the northern route, and when we reached the conclusions we have reached, we did so on the assumption that the southern route would not be penalized by these past claims," he said.

However, he added, "were they to be penalized by past claims, I think our feelings would become even stronger."

The northern route is just cheaper, which is good for everyone--Lower 48 consumers, Alaskans and Canadians, he said. Arctic Resources puts the cost at about \$7.8 billion.

John Katz, head of Gov. Tony Knowles' office here, said the news from Foothills was good for the southern route.

"We think it's very important that the issue of the contingent liability of potentially \$4.2 billion be resolved as soon as possible," he said. "Otherwise it remains a significant obstacle to the ANGTS project."

Moffatt said teams from Foothills and the other gas pipeline companies are working in Calgary this week and Houston next week to recreate the partnership.

'Fiscal certainty' sought for gas line

By SAM BISHOP

Fairbanks News-Miner Washington Bureau

WASHINGTON--A Phillips Alaska executive, appearing Tuesday before a Senate committee, conditionally endorsed a southern route for a natural gas pipeline.

But the company and two other major gas producers remain opposed to a government mandate for that route. Executives for the three also reiterated that, so far, none of the proposed pipeline routes pencils out.

"This project is not economic regardless of the route selected," Phillips Vice President Joe Marushack said.

Marushack said controversy over route selection is obscuring the need for legislation to speed up federal agencies' reviews of the project. Such speedy review is needed, the companies say, so that potential earnings from gas sales would not be delayed.

Marushack said Phillips believes the best pipeline path from Prudhoe Bay is the southern route, passing through Fairbanks and then paralleling the Alaska Highway into Canada. The company is prepared to endorse that route if doing so would improve the chances of federal legislation, including changes to tax law, passing Congress.

Exxon Mobil and BP executives declined to endorse any route, and Marushack added several conditions to Phillips' support for a southern route:

- * Federal legislation, Marushack said, cannot require U.S. steel and cannot require project labor agreements with unions.
- * The legislation should create a "coordinated, streamlined regulatory process," such as that outlined by the major companies in a draft bill released earlier this year.
- * The bill should offer "federal fiscal relief that will ensure the appropriate sharing of risks and benefits."
- * The state of Alaska should provide "fiscal certainty."

Just which route a pipeline might take has been a significant sore spot in and out of the Capitol. The U.S. House passed legislation mandating the southern route in early August. The Senate has not agreed to the House language though.

Bob Malone, BP's regional vice president, said "the gas pipeline that BP will support will be the pipeline to which Alaskans, Canadians and the federal government can all agree."

However, he added, "no single party can be perceived to have monopoly rights to build a pipeline."

Foothills Pipe Lines Ltd. of Calgary holds rights of way to much of the southern route. Foothills obtained the rights after Congress approved a southern route in the late 1970s, and it says Congress ought not to open up the field to other projects.

Terry Koonce, president of Exxon Mobil Production Co. said cost is the major factor obstructing the line.

"It's important not to have any mandates, including route, that could increase the cost and possibly prevent any project from being built," he said.

A recent report from Phillips, Exxon Mobil and BP concluded that a gas pipeline would produce no more than a 10 to 11 percent return on equity, lower than what would be considered economical considering the risk. The companies own rights to about 35 trillion cubic feet of North Slope natural gas.

The producers said they continue to examine the possibility of a pipeline but have no immediate plans to apply for federal permission to build one.

On the subject of federal financial incentives, BP and Exxon Mobil agreed to disagree with Phillips. "Exxon Mobil prefers a level playing field that permits the market to operate unencumbered," Koonce said.

Ken Konrad, BP's senior vice president for Alaska gas, said after the hearing that BP isn't asking for any federal tax breaks or incentives. It just wants the federal regulatory process to be streamlined, he said.

In contrast, Phillips is backing two tax ideas. One would allow it to write the cost of the project off its taxes in seven years rather than the standard 15.

The other would give companies a credit on their federal income taxes during times of very low gas prices. Gas prices in the United States have fluctuated between \$2 and \$10 per thousand cubic feet within the last year.

"This price uncertainty and volatility poses substantial downside risk for the project," Marushack told the committee. He suggested that credits could initially kick in if gas prices fell to \$1.25 or less.

The three major oil companies presented a united front on several questions, though. They all endorsed creation of a streamlined federal regulatory process. The companies want legislation ordering that any pipeline application and any environmental impact statements be approved by the federal government within 18 months. They also want a federal pipeline office to

coordinate decisions. And they want any court challenges to the legislation to be prompt, limited in scope and only filed in the Washington, D.C., appeals court.

Neither did any of the oil companies like the idea of mandated use of U.S. steel or Alaska and union hire provisions. Those ideas are backed by Gov. Tony Knowles, who was the lead witness at Tuesday's hearing.

The oil companies were also unanimous in asking the state of Alaska to promise them stable, predictable tax policies.

Konrad, BP's Alaska gas vice president, said after the hearing that the companies don't want the kind of multi-billion dollar tax disputes that they've fought with the state of Alaska over oil. The gas project can't support such uncertainty, Konrad said.

Such disputes arose from disagreements over how much the oil was worth and thus how much the state deserved in royalties and taxes.

But gas is sold in a different manner and the prices are clearly set, Knowles said after the hearing, so such disputes shouldn't arise.

Knowles said he hadn't talked with oil companies about what sort of "fiscal certainty" they were seeking and doesn't plan to do so until the companies have committed to the southern route.

"Until it's decided what the route is, how can you talk about what kind of fiscal regime is going to take place?" Knowles said in a brief interview.

Republican Sen. Craig Thomas, from the gas-producing state of Wyoming, challenged Knowles to explain why Alaska gas should get special tax treatment. Knowles has proposed accelerated depreciation and investment tax credits for the Alaska gas line.

Knowles said incentives are justified because "there is real concern about whether we will be able to meet (the) demand."

Later, he noted that the state of Wyoming itself has investment tax credits for coal bed methane, heavy oil development and alternative energy sources.

"This is a commonly used tool for projects that are deemed in the national interest," Knowles said. Besides, he said, Wyoming gas will always have an advantage over Alaska's because Wyoming is in the middle of the national distribution system and its gas isn't burdened with the pipeline's projected \$2 per thousand cubic feet transportation charge.

September 24, 2001

Subject: Legislative Strategy Survey
North Slope Gas Development

Dear Alaskan Legislator

This is my initial contact with you to explain the interview and survey process I will be using as part of my contract work for the Legislative Council. I will be identifying areas of consensus on the major issues and alternatives related to legislative action on bringing North Slope gas to market.

I will contact your office this week to schedule an appointment (up to an hour long) at a time convenient for you over the next several weeks. My preference is to do the interview face-to-face in the privacy of the Anchorage Legislative office setting. If you aren't going to be in the Anchorage area during October, then we can work out an alternative, possibly a phone interview.

A week prior to the appointment I will get you a background paper for the discussion. Also, members of your staff are free to attend if you wish. My interview records will keep any comments anonymous and there will be no attribution of comments or positions in my written and verbal report to the Legislative Council.

Attached to this note are several lists: (1) Major Gas Development Issues; (2) Potential Benefits and Impacts of a Gas Development Project; and (3) Relevant Existing Alaska Statute References.

For this project my:

Phone and fax number is: (907) 561 - 4246

E-mail is: nsgas@worldnet.att.net

Snail mail is: 1336 Staubbach Circle, Anchorage, AK 99508

I look forward to talking to you!

Harold Heinze

Major State Issues Related to North Slope Gas Development

- Gas Pipeline Project Route(s)
- Access to Pipeline and Gas
- Gas Pricing
- Alaska Hire
- State Financial Involvement in a Project
- Federal & Canadian Interactions
- Port Authority Concept
- Stakeholder Groups
- Hydrocarbon Recovery & Reservoir Management

Potential Benefits

- Dollars to State & Local Governments
- Increased exploration activities
- Paychecks for Alaskans
- Gas to communities
- Gas for new business opportunities
- Expanded economy & higher incomes
- Greater recovery of oil & gas

Potential Impacts

- Social costs
- Public Facilities
- Quality of Life of Individual Alaskans
- Standard of Living
- Business and the Economy
- Environmental costs

Existing Key Alaska Statutory References

- Sections 1 & 2 of Article VIII (Natural Resources) of Alaska's Constitution defines the Legislature as the policy maker on resource issues
- The Right-of-Way Leasing Act, Chapter 35 of Title 38 (Public Land) of the Alaska Statutes, delineates the process and requirements for a gasline
- Oil & Gas Leasing (including sale of royalty gas) alternatives and regulations are mainly covered in Sections 180, 182, & 183 of Chapter 5 (Alaska Land Act) of Title 38
- Chapter 6 of Title 38 defines the functioning of the Alaska Royalty Oil and Gas Development Advisory Board
- Chapter 5 of Title 31 (Oil & Gas) defines the functioning of the Alaska Oil & Gas Conservation Commission
- The Alaska Stranded Gas Development Act, Chapter 82 of Title 43 (Revenue & Taxation), provides alternative fiscal terms to improve gasline economics

COMMONWEALTH NORTH

ADVERTISING ISSUES

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Approved by the Commonwealth North Board
September 11, 2001

BACKGROUND

For over twenty years Alaska has known of the potential to develop significant reserves of natural gas on the North Slope. However, markets, divergent ownership interests, and project economics have not justified developing these reserves.

Recently, there have been three changes in the situation: the alignment of ownership of North Slope oil and gas interests among the major producers, the development of new technologies that create greater efficiencies, and the price of natural gas have combined to increase the prospective marketability of the gas.

Developing this potential, from concept to construction, from construction to delivery, and from delivery to sales, would create significant value for Alaska. The goal of this study is to inform our members, policymakers, and other interested parties and engage them in an examination of the issues and how Alaska's interests can be optimized and protected.

The report analyzes the issues, identifies a process for addressing them, and recommends policy principles that can guide the State in answering the question: How can the best interests of the people of Alaska be realized in the commercialization of the North Slope natural gas resources?

INTRODUCTION

• Since its inception in 1979, Commonwealth North has studied and published reports on North Slope resource issues. Summaries of the following reports are available on its web site www.commonwealthnorth.org

1. "Solutions to the National Energy Crisis: Why Not Alaska?" November 1979
2. "North Slope Natural Gas: Transportation Alternatives and the Promise of a World Scale Petrochemical Industry" March 1980
3. "Moving North Slope Natural Gas to Market: A Positive Alternative" November 1981
4. "An Alaskan View of ANWR" October 1989

• In this report the Study Group focused on significant public policy issues that are within the power of the State of Alaska to address. The Group avoided making specific "how to" recommendations that are the purview of those who will have to make design decisions and from recommending a specific project or route(s).

• The report organizes its findings in six categories followed by recommendations:

1. Alaska North Slope (ANS) Natural Gas Supply
2. Markets for ANS Natural Gas

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Founding Co-Chairmen
Former Governor
Walter J. Hickel
and the late Governor
William A. Egan

October 3, 2001

Dear Legislator:

Please find enclosed your copy of *"Bringing Alaska's North Slope Gas to Market: Framing the Issues,"* a study co-chaired by Richard Barnes and UAA Chancellor Lee Gorsuch.

The report was unveiled at a Forum on September 25, 2001. The topic of commercializing Alaska's natural gas continues to draw widespread attention and our Forum was no exception. The unveiling event drew an audience representing our diverse membership along with policymakers, industry and media who were all present to hear about our work.

Special thanks to the study group members for their long hours and patient deliberation, and to all the individuals that testified and provided critical information to the group. It was no easy task to synthesize the complexity of this topic. The dedication of the study group resulted in a report that will help concerned Alaskans better educate themselves on a difficult and evolving issue.

In addition to the Legislature, the report will also be provided to our membership, the Governor's Gas Cabinet and the Alaska Highway Natural Gas Policy Council, relevant individuals in the U.S. Senate and U.S. Congress, statewide media and other constituencies working on the issue. The report is also available on our home page: www.commonwealthnorth.org along with the PowerPoint presentation used at the unveiling event which outlines the findings and recommendations of the study.

Please feel free to contact me if you have questions or comments about the report, or if additional copies are requested.

Sincerely,



Duane Heyman
Executive Director

Enclosure

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4. ANS Gas Delivery Options

5. The Decision Making Process

6. Stakeholders in the Commercialization of ANS Gas

7. Alaska's Interests in Commercialization of ANS Gas

Recommendations

• Commercialization of ANS gas is dependent upon a viable system that delivers the gas to its market(s). A number of projects are under discussion that would construct a pipeline to satisfy some of these transportation needs. The State of Alaska has a vested interest in how these projects may be developed and implemented. Most notably the projects being discussed are described as:

1. The "Highway," or "Alcan" route. This pipeline would run south to the Fairbanks or Delta Junction area, then approximately follow the Alaska Highway until it connects with other Canadian gas transportation systems.
2. Variations of the Highway route include a "spur" or "Y" line that would run south from Fairbanks or Delta Junction into the South Central Alaska area. Depending on size and location, this could provide gas for local or export uses. The "hub" concept is based on a "Y" line with physical characteristics and business arrangements allowing for access to multiple users and multiple markets.
3. An "over-the-top" pipeline would run underwater eastward from Prudhoe Bay north of the Arctic National Wildlife Refuge coast and turn south overland into Canada until it connects with other Canadian gas transportation systems.
4. Liquefied Natural Gas (LNG). A pipeline to Alaska tidewater for liquefaction of natural gas in Alaska and shipping it to East Asia and American markets.
5. The North Slope Borough, the Fairbanks North Star Borough and the City of Valdez formed the Alaska Gasline Port Authority to utilize tax-exempt pipeline financing. Other project sponsors are also considering tax-exempt financing.

SUMMARY

From Alaska's point of view, an ideal ANS gas commercialization project might result in:

- High income to the State treasury
- Economic benefits from construction activity
- Many long-term project maintenance jobs

- In-state access to ANS gas for homes, business, electric utilities and industrial plants
- In-state ownership and control of a project

However, the Study Group has found that detailed analysis of the variables reveals a real-world set of constraints that are unavoidable:

- Market economics. This is the most critical element. Any ANS gas commercialization project must be economically viable. Any of the pipeline alternatives being discussed would be one of the largest industrial projects in the history of the world. Without a compelling economic rationale, management focus and massive financing simply will not be available.
- Any trade-off that reduces the highest financial rate of return must be weighed against its potential to make the project uneconomic. Such consideration applies as much to potential revenues to the Alaska treasury as it does to project proponents.
- World market forces, U.S. market forces, and international and domestic politics are all factors. No decision can be made in a vacuum solely from one point of view.
- The real challenge to Alaska's leaders is, and will continue to be, maintaining clarity of vision and purpose to realistically optimize the combination of financial and beneficial returns from any project without burdening it to the point where it is uneconomic.
- Alaska will need to design and develop a fiscal regime that maximizes the full economic benefits of gas development and minimizes the costs associated with a project of this magnitude.

FINDINGS

ALASKA NORTH SLOPE (ANS) NATURAL GAS SUPPLY

1. The ANS gas potential may be substantially greater than the 35 trillion cubic feet (tcf) of known existing reserves. If it is as large as some believe, in excess of 100 tcf, more than one major commercialization project may be feasible. To put these quantities in perspective, known existing gas reserves are sufficient to provide 10% of all U.S. gas needs for about fifteen years. 100 tcf could supply 10% of all U.S. needs for about forty years, based on American Gas Foundation forecasts.
2. Absent a commercially viable system to deliver ANS gas, the exploration and discovery of gas will be incidental to the exploration and development of oil. The current high level of activity and interest in exploration is in anticipation of a gas pipeline.
3. As oil reserves are depleted, ANS gas reserves will diminish in value as a means of enhancing oil recovery. ANS gas will become "stranded" unless a commercially viable delivery system is developed.

Markets for Alaska North Slope Gas

1. It appears that the potential for commercializing ANS gas has improved as a result of a generalized increase in the long-term price of gas, new demand from gas-fired generation plants across the country and prospects for increased demand in the future. However, the price volatility of the past year strongly demonstrates the commodity nature of the Lower-48 market.
2. Increases in gas prices, if sustained, not only make delivery of ANS gas more feasible, they also induce new, competitive gas supplies into the market e.g. the Mackenzie Delta, Nova Scotia, coal bed methane, an increased rate of drilling and imported LNG.
3. Export of Alaska LNG remains a potential option for commercial development of ANS gas. Since 1967 Cook Inlet LNG has been shipped to Japan. Current Asian LNG prices are strong, with demand growing. Projections for potential new demand around 2010 may create an opportunity to market Alaska LNG under long-term contracts.
4. The cost of supply to gas markets in the Lower-48 will largely determine which, if any, of the competing Alaska projects or routes can deliver gas at the most competitive price. While cost is important to serve the Asia LNG markets, political stability, diversification of supply and politics between the U.S. and market countries also have influence.
5. Long-term commitments will need to be in place to finance any commercialization alternative.

Alaska North Slope Gas Delivery Options

1. The various gas commercialization options, ranging from about \$8 billion up to \$20 billion, are among the largest and most costly industrial projects in history.
2. There are multiple gas processes (dry gas, liquefied gas, and gas to liquids) as well as multiple gas products and markets and delivery routes, each subject to market price competition.
3. Alaska (Phillips and Marathon) has been exporting Cook Inlet LNG to Asia for over 30 years through an existing delivery system.
4. Economy of scale is a major factor in the relative competitiveness of a particular process, project or route, particularly given the distance of ANS gas from a market. Different projects have different threshold numbers that need to be compared on a consistent basis for the State to see a clear picture of available options.
5. Depending on estimates of the total supply of ANS gas, construction of any one alternative has the potential to delay competing projects, possibly for a long time. If some 100-tcf estimates of ANS gas can be realized, more than one project might ultimately be financed and built. However, conflicting demands for labor and materials must be resolved. If very large ANS gas reserves cannot be proven prior to construction, there must be exploration success to justify a second project.
6. As compared to most pipelines, the ability to expand an Alaska pipeline is important. It should be capable of substantially expanding its initial throughput capacity to accommodate future discoveries and production of ANS gas.

The Decision-Making Process

1. Delivery of ANS natural gas to market is economically challenging but technically doable.
2. A challenging aspect of any project is crafting a solution acceptable to the major stakeholders.
3. Some ANS producers are using "Seven Lenses" of evaluation for the alternatives they are analyzing to categorize the various stakeholder interests:
 - a. Economics
 - b. Environment
 - c. Gas access
 - d. Jobs
 - e. Revenues to Alaska and Canada
 - f. Safety
 - g. Timing
4. "Open season," the Federal Energy Regulatory Commission (FERC) process in which shippers make binding offers of long-term commitments, will provide the flow volume information needed for actual pipeline capacity design. Some modification of traditional contract terms may be needed to accommodate in-state use of gas.
5. The State of Alaska has standing to intervene in FERC hearings if it chooses to do so.
6. FERC has no pipeline or rate jurisdiction over an LNG export project. Instead, the in-state Regulatory Commission of Alaska (RCA) has jurisdiction.
7. Competing project sponsors dispute which governmental agencies have jurisdiction over permitting and also dispute the current status of permit applications.
8. The State of Alaska is not yet unified in its management of this opportunity. In particular, the Administration and Legislature are not yet working harmoniously to identify and maximize the State's interests.
9. The State's 12.5 percent royalty share by itself is an insufficient quantity to support a stand-alone project.
10. All proposed projects are subject to potential delays from environmental, permitting and legal problems and indigenous peoples' opposition. The "over-the-top" route has the following additional burdens:
 - a. Legislative, Gubernatorial and Congressional opposition
 - b. Alaska's Interior and Cook Inlet regions have long-term needs for gas that many believe an in-state route could supply. An over-the-top route would require a separate line to meet in-state needs.
11. Both the Canadian and United States federal governments control economic incentives that could significantly affect project economics. Rules on tax-exempt financing, depletion, tax credits, depreciation and tax rates could be modified to support the project. To a lesser extent the State of Alaska has available deferred taxation and other incentives.

Stakeholders in the Commercialization of Alaska North Slope Gas

1. Stakeholders include:

- a. ANS producers and project sponsors
- b. Alaska citizens and affected Canadian citizens
- c. Alaska Natives and Canadian First Nations
- d. State of Alaska and affected Canadian provinces
- e. U.S. and Canadian federal regulators
- f. Environmental organizations
- g. Potential workers, both construction and permanent operators
- h. Potential Alaska and Canadian industrial and utility users
- i. North American and Asian consumers
- j. Alaska and Canadian businesses

2. Alignment of the proportional ownership interests of ANS gas similar to that of oil may have eliminated a major barrier to commercialization.

3. Many ANS gas stakeholders have diverse and, in significant instances, competing interests with one another and non-Alaska projects that compete with Alaska projects.

4. Most stakeholders can "break but not make" the commercialization of ANS gas. Technical and financial hurdles can probably be overcome—but politics can make any alternative undoable.

5. Sound environmental controls must be integral to any gas delivery system.

6. Addressing Canadian interests must be part of any project that goes through Canada. An all-Alaska LNG route avoids dealing with Canadian interests, as does gas-to-liquids because it is based on using the existing Alaska pipeline system.

Alaska's Interests in Commercialization of Alaska North Slope Gas

1. ANS gas commercialization can create a significant long-term industry in Alaska.

2. Alternative projects or routes to deliver ANS gas to market vary significantly in their prospective economic, social, and environmental benefits and costs to Alaskans.

3. Gas commercialization could broaden the State's technological and revenue base, as well as generate direct employment and income opportunities for residents.

4. Alaska should analyze the feasibility of capitalizing on the synergies of any project to assist in providing power, transportation and communications services to rural Alaska, as could the Canadians.

5. In-state access to ANS gas from southern routes through Alaska has the potential to significantly benefit Alaska. In-state use can add to some project economics by enhancing economies of scale with a predictable need for in-state domestic and industrial uses.

- 
6. From Alaska's point of view, no project should be excluded from consideration if it has the potential for producing an acceptable combination of financial and beneficial returns to the State.
 7. The State could potentially reduce the cost of financing a gas delivery system by using its tax-exempt status to handle project financing. It may be possible that a structure that will allow for tax-exempt financing could provide the additional benefit of providing fiscal certainty to the shippers.
 8. State investment in, or ownership of, a gas delivery system involves unstudied risks and benefits. As mandated by legislation, the State is contracting for a third party analysis of these issues. Such ownership may tie into the "hub" or "Y line" idea to allow access to multiple markets and provide for in-state use.
 9. Cook Inlet gas supplies for local consumption are projected to be depleted unless new gas is discovered or industrial uses are diverted to local utility use.

RECOMMENDATIONS

1. The State should work to optimize its interests in the commercialization of ANS gas without undermining the commercial viability of less preferred routes or projects.
2. The State should ensure it is a full participant in the decision-making processes associated with the commercialization of ANS gas.
3. The State of Alaska should structure a public resource management corporation that can proactively manage the development of, promote, account for and explain to the people the State's natural resources.
4. The State and project sponsors need to negotiate a structure that allows for open and understandable pricing as well as a stable tax and royalty environment.
5. A unified State delegation could work with affected Canadian jurisdictions to jointly structure and promote any Canadian and United States federal incentives needed to support project economic viability. The federal governments may have many more financial and regulatory incentives to offer than do state or regional Canadian jurisdictions. Similarly, U.S. incentives should be extended to all alternatives that benefit U.S. interests.
6. The United States Congress and the federal government should be encouraged to oversee and facilitate development of ANS gas as an integral part of the nation's energy policy.
7. The State should study the risks and benefits associated with participation in the financing of a gas pipeline, including tax-exempt financing and what type of organizational structure would be required to implement it.
8. The State Legislature should provide adequate resources to ensure the State could fully support the consideration of information requests and permit applications associated with ANS gas development needs.
9. The State should take all appropriate means to identify, protect and provide for in-state gas needs in the Railbelt, Cook Inlet and other areas in Alaska.
10. The State should preserve the right to take its gas royalty in-kind at some future date under terms and conditions that are timely, fair and reasonable.

11. The State should determine how the wellhead price of gas would be determined as a condition of approving a route or project, including the possible use of a "hub" or "Y line" concept.
12. If and when a project is authorized, the State should work closely with industry and labor to ensure Alaskans are trained and employed to hold long-term jobs associated with gas commercialization.
13. The decision-making process should be as open as possible for public review and input.

MAJOR UNRESOLVED ISSUES PENDING ADDITIONAL INFORMATION

1. **Any route recommendation.** The Study Group feels all options should be kept open pending more refined cost and engineering estimates on the highway and over-the-top routes. Absent such information, and thorough analysis thereof, a route recommendation would be premature.
2. **State of Alaska equity participation in a project.** Certain broad advantages and disadvantages of State equity participation have been identified. However, information in point 1 above, plus the results of a State-contracted third party study analyzing risks and rewards of State equity participation, are needed to adequately address this subject.
3. **State and Federal regulatory streamlining**
4. **Specifics of a "hub" or "Y line" arrangement**

CONFLICTS OF INTEREST

Persons with interests in the outcome of the study were members of the study group and participated in its deliberations. Affiliations were generally well known or identified relative to specific points advocated. The study group endeavored to seek information and viewpoints from all major proponents of Alaska gas commercialization projects.

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