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**Canada's Pipeline:
Benefits & Opportunities for Alberta**



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Alberta Geomatics Group

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Demand for natural gas, the fuel of choice as we begin the 21st century, is growing. On the other hand, conventional supplies in North America are becoming more costly to find and produce.

It has become evident that future supplies of natural gas will depend heavily on tapping proven and probable reserves identified in the northern reaches of Canada and Alaska.

Today I will present information which highlights the importance of a Mackenzie Valley Pipeline to connect Delta gas reserves with southern markets to all of Canada, including the NWT, the provinces and, in particular, Alberta.

There are major positive economic benefits and opportunities which will accrue to Alberta as a result of this project.

Many of you in this room today will individually and possibly via the companies you represent benefit from a MVPL either in the short term during the development of the project (now), the execution of the project and/or during the life of the completed project when Canadian gas is flowing to feed the ever increasing southern markets.

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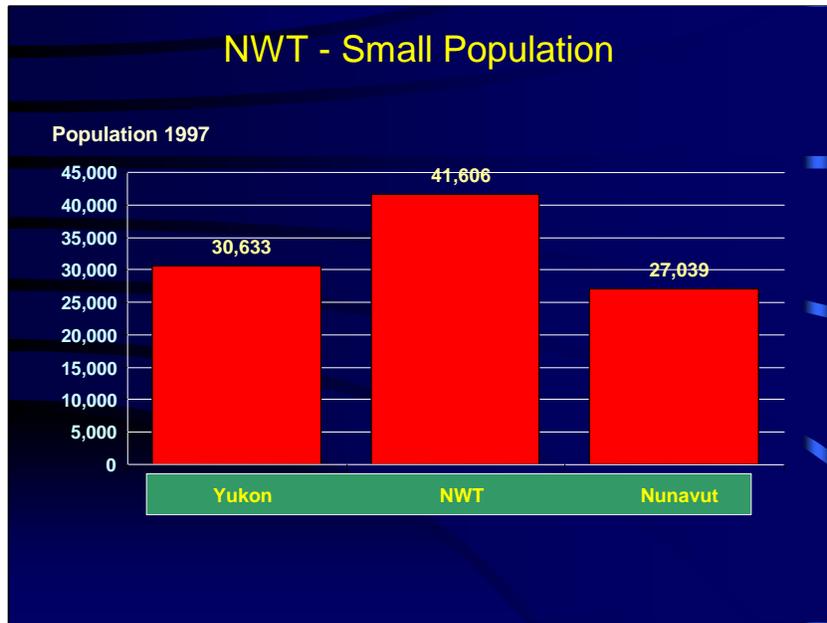


We will focus briefly on:

- The fundamentals of current and projected market demand as well as supply for natural gas.
- The need for northern gas if North America is to meet its energy needs in the future.
- I will quickly review routing options for the connection of currently identified northern reserves in both the north slope of Alaska and the Mackenzie Delta although my primary focus is a stand-alone Mackenzie Valley Pipeline Project.
- I will quickly present the results of a recent study regarding the proposed tax credit for production of Alaska gas and how it could negatively impact the proposed MVPL and be counterproductive from a continental security of supply perspective.
- I will present an estimate of the macro-economic benefits and opportunities generated by a Mackenzie Valley Pipeline to Canada, the Northwest Territories and in particular, the benefits and opportunities for Alberta.

You will see why “Canada’s Pipeline” is quickly gaining support and momentum and is expected to become a reality in the near future.

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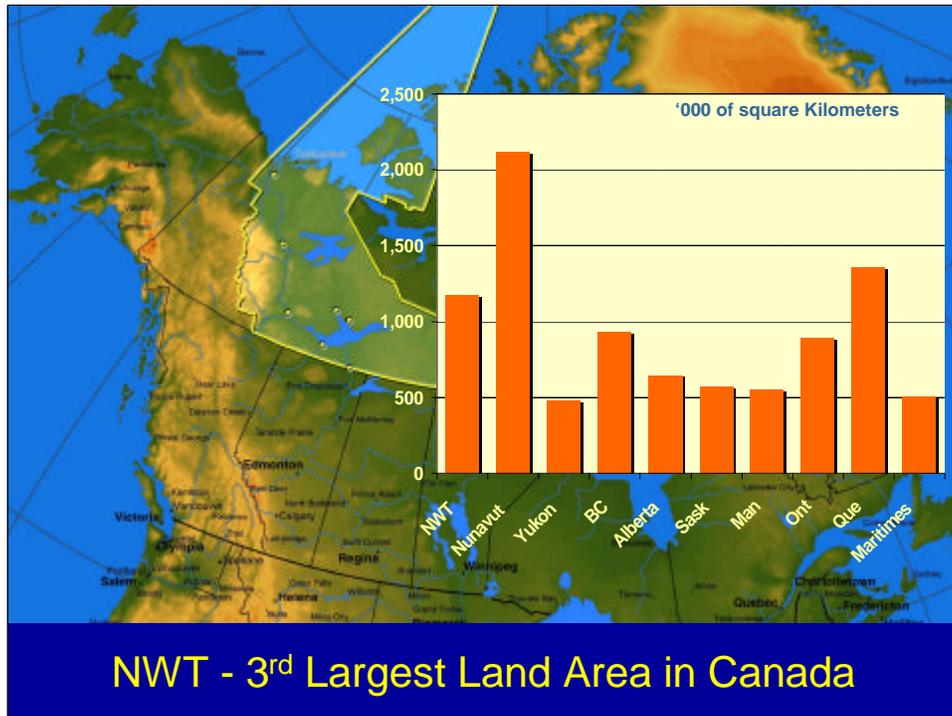


Before we jump in, here is a bit of background on the NWT.

Of the 3 Canadian territories, the NWT has the largest population, almost 1/3 larger than the Yukon. Nunavut has the smallest population. Within Canada the combined population of all three territories is less than 1% of Canada's.

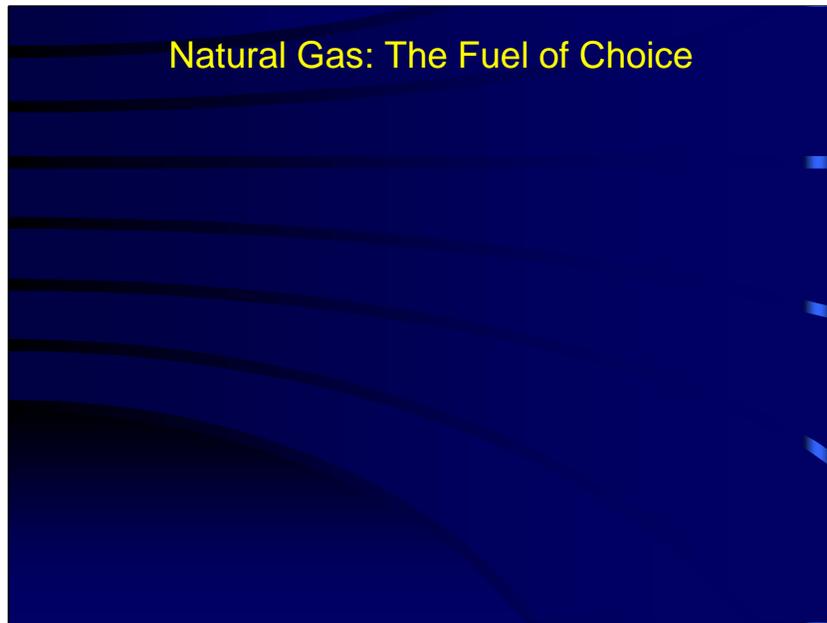
This supports the need for considerable participation by southern Canada in a project the size of the MVPL.

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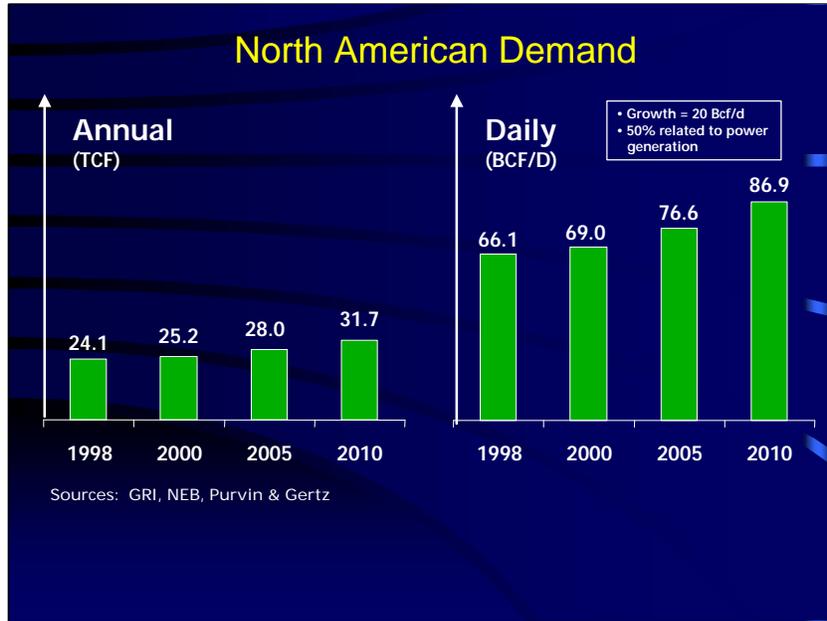
The NWT, in terms of land area, is just smaller than Alberta and Saskatchewan combined. As shown on the map, our border extends from Manitoba in the East part way into BC on the West.

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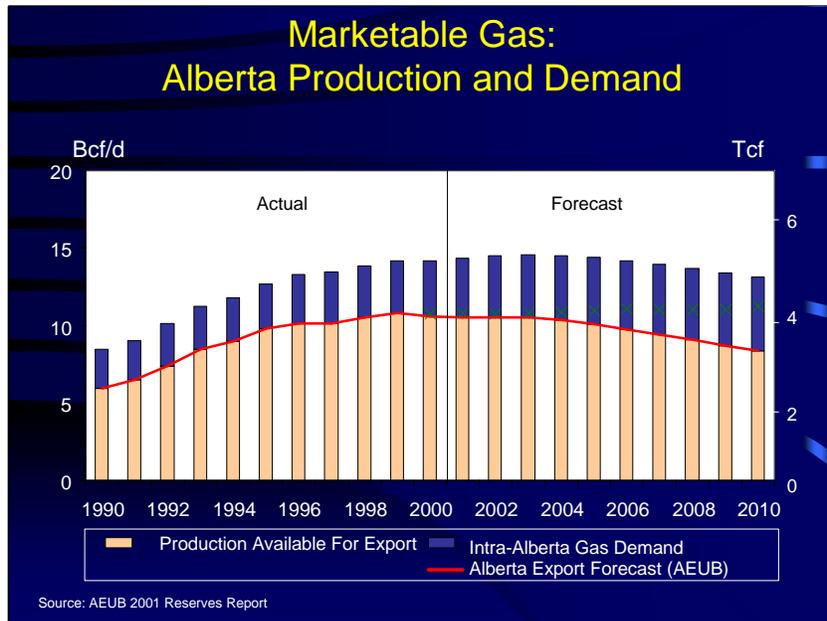
Market growth has been driven by the increased use of natural gas for electric power generation, clean air initiatives, climate change and the fact that it is the preferred fuel for domestic use in North America

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North American demand for natural gas is growing and will continue to grow. The Demand is expected to reach approximately 32 trillion cubic feet per year (tcf/year) or 87 billion cubic feet per day (bcf/day) by the year 2010.

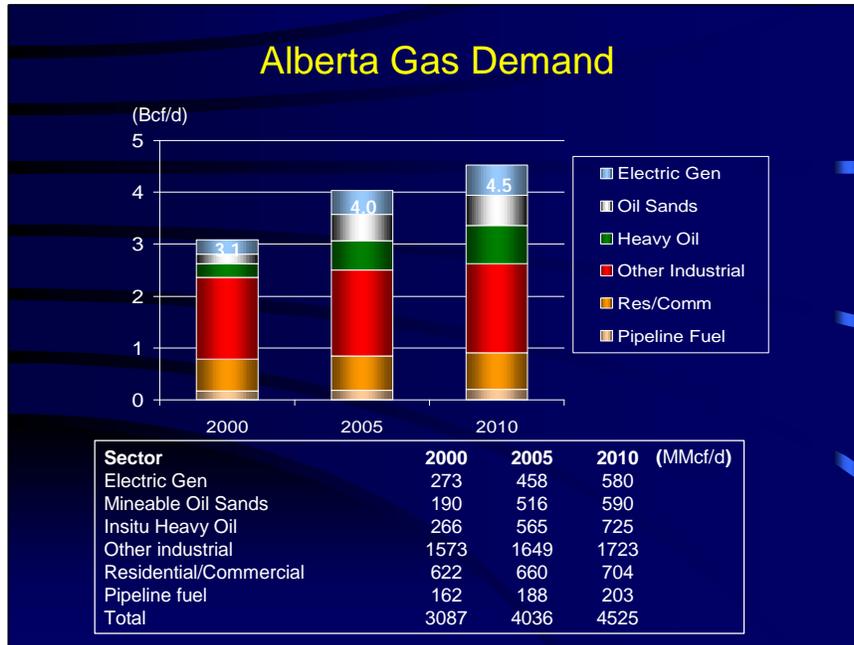
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Last 10 years, supply steadily growing, demand (in Alberta) flat. Next 10 years, supply flat, demand growing. Result, if nothing else is done about it, is less gas available for growing export market.

Current expectations are that Western Canada will be able to take advantage of some of the market growth, but other sources of supply, including Northern and Atlantic Canada reserves will also be needed. Even if demand growth is less than forecast, northern gas is required.

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The source of demand growth in Alberta is industrial demand growth. Over the next 10 years we project 1.4 Bcf/d of demand growth, driven by electricity generation, mineable oilsands and insitu heavy oil.

Electricity Generation

bcf/d

growth 0.3

Mineable Oil Sands

bcf/d

growth 0.4

In-situ Heavy Oil

bcf/d

growth 0.45

Other Industrial demand includes upgrading of heavy oil. Fertilizer, methanol, and Petrochemical production

bcf/d

growth 0.27

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Northern Natural Gas Reserves

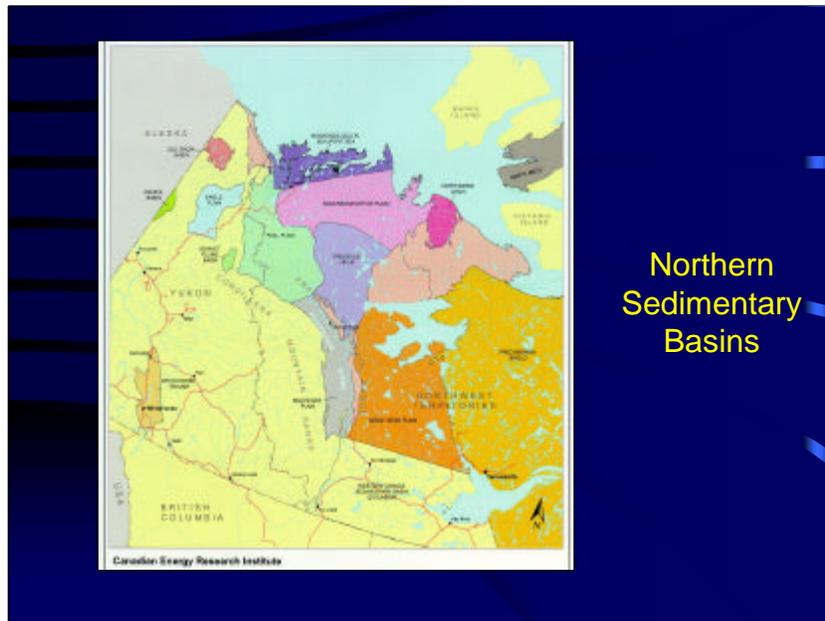


Lets look at the gas potential in the NWT for a moment. Two-thirds of the NWT is underlain by sedimentary rocks of the Interior Platform. In addition to the extension of the prolific southern WCSB into the NWT (ie: Fort Liard area with 1.5 tcf proven and 6 tcf ultimate), we have the elephant pools of the Mackenzie Delta/Beaufort Sea (estimated to have 9 tcf of proven reserves with probable reserves estimated to be about 64 tcf.).

The NWT is largely unexplored. To put things into perspective, in Alberta between latitude 57 deg. - 60 deg. The NWT/Alberta border, a total of 57,000 wells have been drilled.

In the NWT, from lat. 60 - 63, coincident with the northern limits of the WCSB and approximately the same land area, only 800 wells have been drilled.

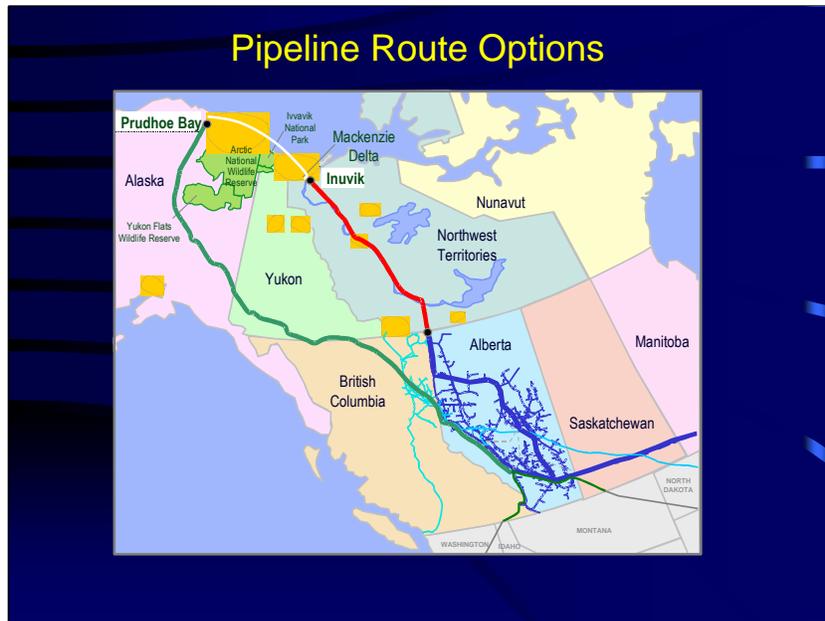
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There also several more basins identified in the NWT:

- Cameron Hills
- Mackenzie Plain
- Great Bear Basin
- Peel Plateau
- Colville Hills
- Anderson/Horton Plains

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This highlights all of the major route options that have been considered and includes the primary route alternatives currently being studied by the north slope and Delta producer groups.

The north slope producers (BP, Exxon/Mobil and Phillips) have focused their attention on two alternatives to transport their gas to southern markets.

Firstly an "Over-the-Top" route is being considered, which includes a subsea pipeline from Prudhoe Bay to the Mackenzie Delta, where the pipeline would then follow the Mackenzie River Valley south likely along the same general route being proposed for the MVPL.

The other alternative being studied is the Alaska Highway Gas Pipeline route. The Alaska producers have determined neither route is currently economically viable and are awaiting a decision in Washington regarding financial incentives/subsidies which might convince the producers to move ahead with the project..

The Mackenzie Delta Producer Group (Imperial, Exxon/Mobil, Conoco and Shell) are focused on a "Stand-Alone" Mackenzie Valley Pipeline. The signing of a MOU with the Aboriginal Pipeline Group on Sept. 15. Was a very positive step forward. A decision to move forward to the "Project Definition" phase of the project was made on Jan. 7, 2002. An application is expected to be submitted to the NEB in the second quarter of 2003.

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Impacts of Alaska Gas Subsidy

Background

- U.S. Senate energy bill proposes a tax credit for Alaska gas transported via an Alaska Highway Pipeline which effectively sets a floor price of \$3.25 US/MMBtu at AECO indexed to inflation.
- There are provisions for recapture of the tax credit if the average AECO price exceeds 150% of the floor price

Purvin & Gertz conducted a study in May 2002 for the GNWT with the objective of the “assessment of the Impact of the Alaska natural gas credit proposed and passed in the US Senate Energy Bill in April 2002

This results of this study are available on the GNWT RWED Web site library

I do not intend to go into great detail on this topic in this presentation and suggest that you refer to the study for more detail.

The tax credit for production of Alaskan natural gas included in the U.S. Senate energy bill applies to “...natural gas entering any intake or tie-in point which was derived from an area of the State of Alaska lying north of 64 degrees North latitude...”.

The tax credit effectively sets a floor price of \$3.25 (US)/MMBtu for the abovementioned natural gas at AECO. This floor price will be indexed to inflation starting in 2011 so Pervin & Gertz assumed that it will rise with inflation. The tax credit is therefore a subsidy to those “privileged” producers in the State of Alaska

The tax credit applies for the period beginning with the later of Jan. 1, 2010 or the initial date for interstate pipeline for this gas and ends 15 years later.

There are provisions for recapture of the tax credit if, after 3 years of gas flow, the average AECO price exceeds 150% of the floor price.

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Impacts of Alaska Gas Subsidy

Background Cont'd

- U.S. Senate energy bill must be reconciled with the U.S. House of Representatives bill
- After reconcillation in conference, the joint bill must be passed both in the House and the Senate and then passed to the President to be signed into law.
- Both bills as well as Alaskan legislation mandate the Alaska Highway route and exclude the over-the-top route

The Purvin & Gertz base case forecast AECO price is approximately \$ 1.00 US/MMBtu less than the guaranteed floor price of \$ 3.25 US/MMBtu for Alaskan producers. The gas flow in the base case is assumed to be 4 bcf/d

Purvin & Gertz higher price scenario indicates an AECO price of approximately \$3.00 US/MMBtu. This translates into a subsidy of around \$0.25 US/MMBtu. Alaskan gas flow in this scenario increases up to 6 BCF/day.

Since the Purvin & Gertz high price scenario does not reach \$3.25 US/MMBtu, they also do not expect the price to reach 150% (approximately \$4.87 US/MMBtu when a tax credit recapture would potentially occur.

As a matter of interest yesterdays AECO spot price for gas was \$ 2.38 US/MMBtu.

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Impacts of Alaska Gas Subsidy

Study Summary & Conclusions

- The Alaska gas subsidy would distort the continental North American natural gas market
- Would encourage over-investment in Alaskan gas production diverting resources from higher value activities
- Alaska gas subsidy will create some significant winners and many losers

The Alaska natural gas subsidy is funded by a tax credit found in the U.S. Senate energy bill passed in April 2002. It should be noted that there is NO volume limitation mentioned in regards to the tax credit.

The Alaskan gas subsidy would produce a misallocation of resources and distort the continental North American natural gas market.

The Alaskan gas subsidy will encourage over-investment in Alaskan gas production since it works as a false signal to the “priveleged few” that diverts resources from higher value activities to lower value activities.

The Alaskan gas subsidy will create some significant winners (e.g. Alaskan producers and the Alaskan economy) and many losers (e.g. other gas owners and gas producers, American taxpayers, etc.) with an overall loss to the economy because of a sub-optimal allocation of resources.

Impacts of Alaska Gas Subsidy

Study Summary & Conclusions (cont'd)

- American taxpayers are significant losers
- Purvin&Gertz estimates the total impact on taxpayers could be between \$1.1 billion (US) to \$2.9 billion (US) per year over the 15 year period envisioned in the bill.
- Producers in existing producing areas and in new areas (ie:the Delta) would be faced with lower market prices (reduced production in all non-subsidized regions)

The American taxpayers are significant losers since they would finance the subsidy through a tax credit system.

Purvin & Gertz estimates that the total direct impact on taxpayers can reasonably be assumed to be between \$1.1 billion (US) to \$2.9 billion (US) per year or \$16.4 billion (US) to \$43.8 billion (US) over the 15 year period envisioned in the bill. The incentive to over invest in Alaska would tend to push gas production higher and have a more significant market price impact.

Producers in existing producing areas and in potentially new producing areas such as the Mackenzie Delta/Beaufort Sea region would be faced with lower market prices due to the Alaskan gas subsidy which would reduce their investments. Given reduced drilling activity, production is reduced in all non-subsidized gas regions on the continent. The Alaskan gas subsidy is therefore counterproductive from a continual security of supply perspective.

In previous studies, Purvin & Gertz showed that a large increment of Alaskan gas would temporarily reduce the market price. The lower price would reduce drilling activity and production in other areas. The greatest price impact would be on Western Canada because the large new flows would be passing through this producing region on its way to markets already supplied by Western Canada.

With subsidized Alaskan gas, the market impact would be greater and longer in duration since the subsidized floor price would be continuously sending the signal to Alaska producers to expand. The market price

Impacts of Alaska Gas Subsidy

Study Summary & Conclusions (cont'd)

- Greater volumes and “artificial” competitiveness of Alaskan gas & lower sustained market price could delay the Mackenzie Delta/Beaufort Sea production
- Gas resource owners in Canada and US would be negatively impacted by subsidized Alaskan gas
- Existing gas infrastructure underutilized
- Reduced business & opportunities

The greater volumes and “artificial” competitiveness of Alaskan gas as well as the lower sustained market price could delay Mackenzie Delta/Beaufort Sea gas production beyond the Puvion & Gertz 2020 long term forecast horizon given 15 years of subsidized gas on the continent.

Existing gas infrastructure in non-subsidized regions would be underutilized.

Goods and services providers with local expertise or who lacked mobility would see reduced business and investment opportunities in non-subsidized regions.

There is strong potential for conflict between Canada and the US due to the Alaskan gas subsidy.

We have already seen Canada’s federal government express its concern over subsidized Alaskan gas. The GNWT, CAPP, major North American gas producers and US gas producing States have expressed similar concerns.

The GNWT is not opposed to incentives to encourage the development of new sources of energy. They are very concerned about a guaranteed floor price for Alaska natural and the impacts it may have on the development of gas reserves in the NWT and other all un-subsidized regions in North America..

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Mackenzie Valley Pipeline Project

Route Description

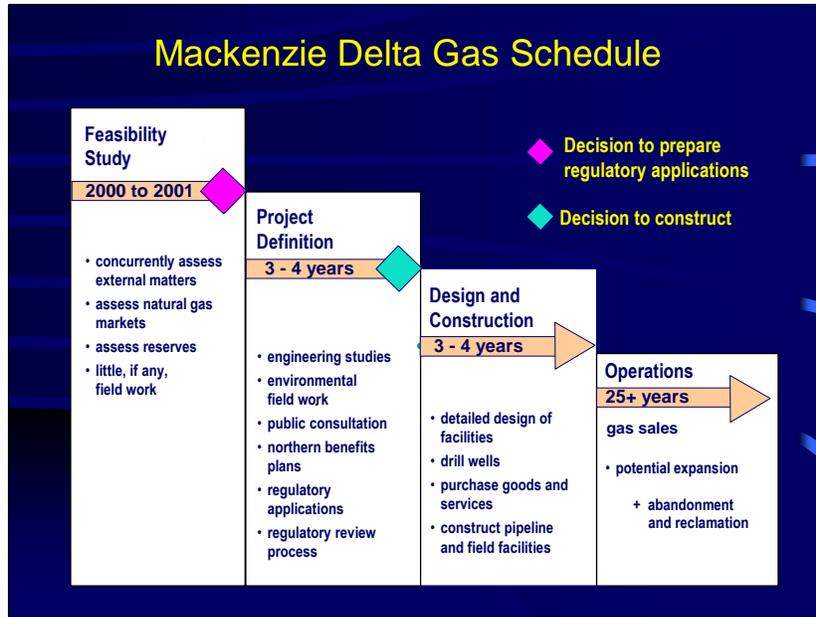
- 1220 km, 30" diameter to NWT/AB border
- Operating Pressure 2050 psi
- Ultimate Volumes to 1.2 Bcf/d
- Two Year Construction
- \$ 3.3 Billion Cdn.

The Delta producers have focused their attention and support for a “Stand-Alone Mackenzie Valley Pipeline”.

The route extends from Inuvik a total of 1220 km to NWT/Alberta border. It is estimated that construction will take place over two years with the majority of pipeline construction taking place during the winter. An additional 65 kilometers of pipeline construction will be required from the NWT/Alberta border south to connect with an existing TCPL 30 inch diameter pipeline located at Bootis Hill, Alberta

An estimated cost of pipeline construction in the NWT assuming a NPS 30 (30" diam.) is \$3.0 Billion Cdn with an additional \$ 266 million of capital investment required within Alberta to accommodate Delta gas. The economic impacts given later in this presentation consider this magnitude of capital investment.

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As we started the “Project Definition” phase at the beginning of this year, this schedule would indicate that gas could be flowing south in 6 to 8 years. As of today, the project appears to be in step with this schedule issued by the Delta producers earlier this year.

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Mackenzie Valley Pipeline: Economic Benefits



The positive economic impacts of connecting the Mackenzie Delta natural gas to southern markets via a MVPL will be substantial. These beneficial impacts will be felt across Canada but will be very pronounced in the NWT and also in Alberta.

What makes the Mackenzie Valley Pipeline particularly beneficial to Canada is that it is Canadian and *NOT* US gas that will be flowing in the pipeline. The substantial capital investment for the pipeline and new infrastructure required upstream of the pipeline increase the magnitude of the benefits.

The Mackenzie Valley benefits will be generated over the full life of the pipeline assumed for the analysis to be 25 years.

The macro-economic impacts are based on a recent study co-sponsored by the GNWT and TransCanada Pipelines and Wright Mansell Research Ltd. The study utilized recent capital cost information for the pipeline and required upstream production (dehydration and gathering infrastructure). In addition, the study considered impacts associated with the longer term operations and production of these facilities along with revenues generated once gas started flowing. Using the Input-Output model from Statistics Canada approximate estimates of the macro-economic impacts to Canada, the territories and provinces were made.

The economic impacts to Canada of a future MVPL are in year 2002 Cdn. \$ and assume a gas price at Chicago of \$ 3 - \$4 US/MMBtu.

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INCREASES IN: (\$ billion Cdn.)	MACKENZIE VALLEY PIPELINE
Investment in NWT	7.3
Investment in Alberta	0.3
Total Investment	7.6

source: GNWT/TransCanada PipeLines

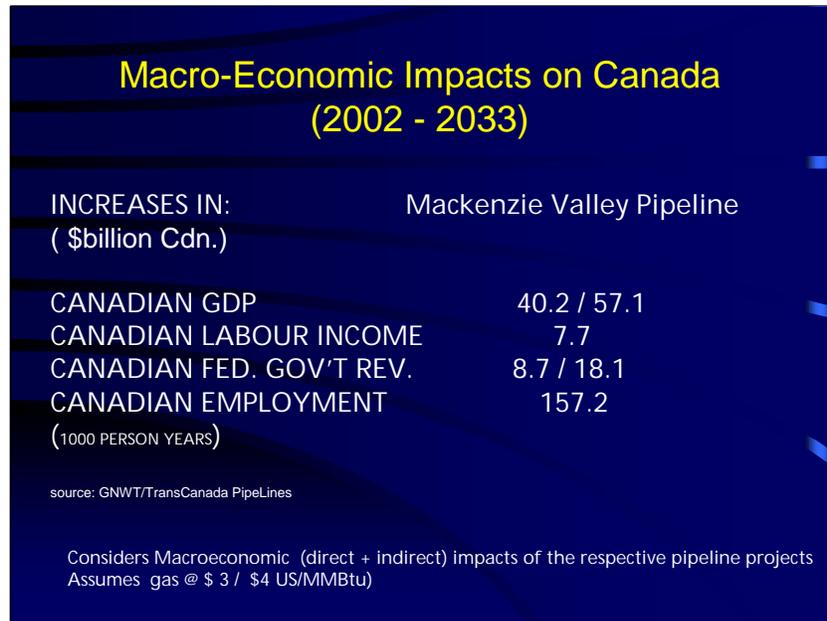
This overhead presents the approximate direct investment in the Northwest Territories and Alberta for the Mackenzie Valley Pipeline Project.

The benefits analysis carried out assumed total investment for the MVPL is Cdn. \$ 7.6 billion with Cdn. \$ 7.3 Billion in the NWT.

Expenditures within Alberta are required to connect and accommodate up to 1.5 Bcf/d of Delta gas into the existing pipeline infrastructure.

The MVPL project results in the NWT receiving direct investment of \$ 7.6 billion Cdn. Approximately Cdn. \$ 5.3 of this expenditure is concentrated in the 2002 - 2008 period with the remainder of the is direct investment expenditures continuing through to 2032 as a result of the long-term field development required in the Delta. This has important implications for the **extent, stability** and **sustainability** of the northern economic development arising from this particular project.

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The construction and operation of a pipeline connecting Delta gas to southern markets can be expected to have very important positive macroeconomic impacts for Canada.

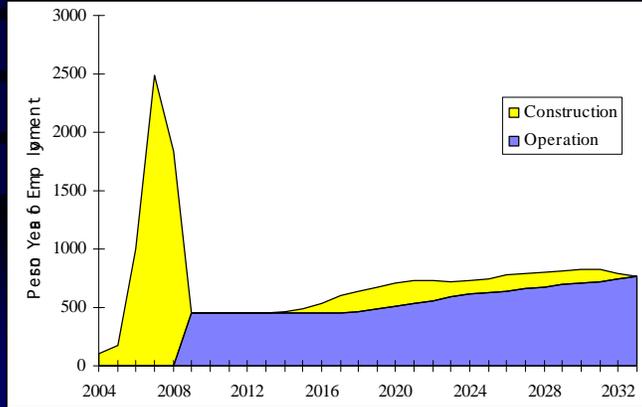
In this overhead we can see the beneficial economic impacts to Canada generated by a Mackenzie Valley Pipeline with respect to increases in the Canadian GDP, labour income, Federal Government Revenues and Canada-wide employment generated.

The benefits to Canada provided by the Mackenzie Valley Pipeline Project are significant due to the fact that the gas is Canadian and the entire project is constructed within Canada's borders.

It is equally important to mention that the direct and indirect employment is widely distributed over a number of sectors including pipelines, oil and gas production services, manufacturing, construction, transportation, communications, utilities, wholesale and retail trade and business services.

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Annual Direct Construction & Operating Employment 2004 - 2032



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The slide features a dark blue background with yellow text. At the top, the title 'Macro-Economic Impacts on the NWT (2002 - 2033)' is centered. Below the title, a bulleted list of economic indicators is presented in two columns. The first column lists the indicators, and the second column shows their values. At the bottom left, there are two footnotes: one for 'PERSON YEARS' and another for gas price assumptions. At the bottom right, a reference is provided: 'reference: GNWT/TransCanada PipeLines'.

Macro-Economic Impacts on the NWT (2002 - 2033)	
• INCREASES IN: (\$ Bill. Cdn.)	Mackenzie Valley Pipeline
• GDP - NWT**	32.9/49.9
• NWT LABOUR INCOME	3.0
• NWT GOV'T REVENUE**	2.7/4.5
• NWT EMPLOYMENT	53,428*

* (PERSON YEARS)
** Assumes gas @ \$3 / \$4 US/MMBtu

reference: GNWT/TransCanada PipeLines

In this overhead, the macro-economic impacts on the Northwest Territories generated by a Mackenzie Valley Pipeline Project are presented. The economic impacts include both the direct and indirect economic impacts but do not include induced impacts (for example economic impacts as a result of increased labour income).

These estimates highlight the dramatic positive economic impacts in the form of increases in the GDP, labor income, NWT Government revenues and northern employment opportunities generated by the project.

The NWT Gross Domestic Product will increase by \$ 32.9 or 49.9 billion Cdn. (depending on the gas price \$3US - \$4 US/Mmbtu at Chicago) as a result of a Mackenzie Valley Pipeline. With only 40,000 inhabitants, much of the economic benefits will leak to the south and, in particular, Alberta.

In addition to the construction and operation of the Mackenzie Valley Pipeline, the NWT benefits are further enhanced by the construction and operation of upstream production facilities which will be developed operated and maintained over a 25 year period.

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Macro-Economic Impacts of a Mackenzie Valley Pipeline on Alberta (2002 - 2033)

Increases In:
(millions 2002 Cdn. \$)

	P/L Const.	Delta Const.	P/L Operate	Delta Prod.	Total
AB GDP	751	794	1252	847	3644
AB Labour Income	548	681	326	701	2256
AB Gov't Rev.	53	47	159	66	325
AB Employment (person years)	9457	12814	4845	11117	38233

source: GNWT/TransCanada PipeLines

Along with many other Canadian provinces, Alberta will see major direct and indirect benefits of a future Mackenzie Valley Pipeline Project.

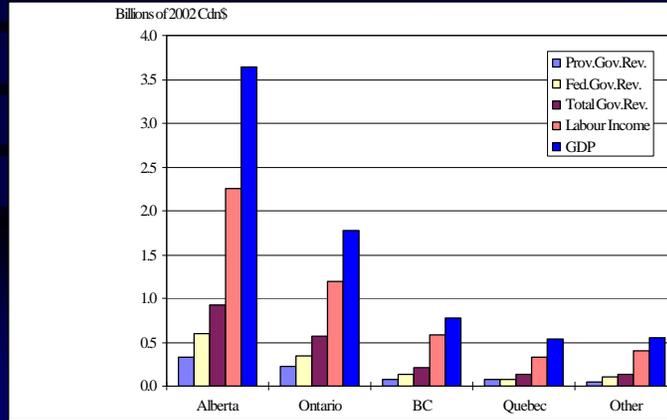
This overhead presents the increases in some of the key economic indicators for Alberta generated by the MVPL.

The fact that the major Delta producers have head offices in Alberta (in addition to the expertise in oil and gas that resides in the province) suggests that significant benefits could accrue to Alberta which have not been included in the above figures. For instance estimates of \$ 35 Billion Cdn. in profits could be generated over the life of the project of which a significant portion will flow to the companies with offices/headquarters in Alberta.

The benefits associated with the increased exploration, anticipated successes and subsequent development that will result subsequent to the completion of a connection of these resources to southern markets are also not included in the above economic impacts estimates.

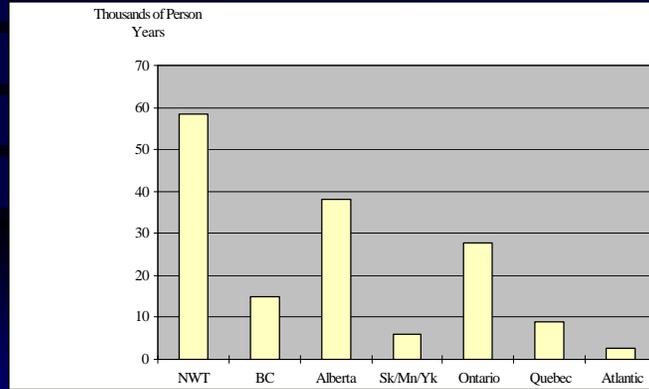
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GDP, Gov't Revenue & Labour Income in Provinces 2002 - 2032



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Employment Impacts By Region 2002 - 2032



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Benefits & Opportunities for Alberta

- MVPL provides major macro-economic benefits to Alberta including the supply of goods and services related to development, construction & operation
- Delta gas will utilize available pipeline capacity within Alberta benefiting Alberta producers by reducing tolls
- MVPL provides gas liquids to fuel Alberta's petrochemical industry
- MVPL will allow Alberta's petroleum industry to take advantage of increased exploration and production in the NWT as WCSB production falls

Major macro-economic impacts. The fact that Canadian gas will be flowing in the pipeline and the entire project lies within Canada's borders increases benefits to Canada, NWT and the provinces.

The MVPL gas will utilize Alberta's pipeline infrastructure.

MVPL will provide essential gas liquids to Alberta's petrochemical industry

In the short term, Alberta industry can have significant participation in the design and construction of a Mackenzie Valley Pipeline. In the long term, Alberta industry can participate in a major way with increased exploration and development of NWT gas reserves once a pipeline is available to transport those reserves to southern markets.

Alberta's petroleum industry is a source of world class expertise in the exploration, development and transportation of both oil and natural gas.

The WCSB is maturing with production levels declining inspite of record levels of drilling. In 2000 alone, a record 9,200 wells were drilled in the WCSB. During this time, production actually decreased. The basin will remain a good place to explore for gas for some time, but it will be a struggle to sustain current levels of production.

The development of NWT reserves is important to the future growth of the petroleum industry in Alberta. Many Alberta companies are currently active in the NWT and many more will follow.

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The NWT imported in 1998 \$395 million of goods and services annually from Alberta. In terms of economic output, imports from Alberta represent 16% of the the average gross domestic product of the NWT economy during that period. That is, for every dollar of economic output in the NWT, almost 16 cents of economic activity is generated in Alberta.

It is estimated that for oil and gas capital investments in the NWT, approximately 80% of the the economic activity is generated in southern Canada. With Alberta's dominance in the supply of goods and services to the oil and gas industry and the participation of Alberta companies in these activities, significant portion of this 80% will be claimed by Alberta

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Mackenzie Valley Pipeline: Construction & Operation Opportunities



Pipeline construction and operation will provide numerous opportunities for Alberta businesses:

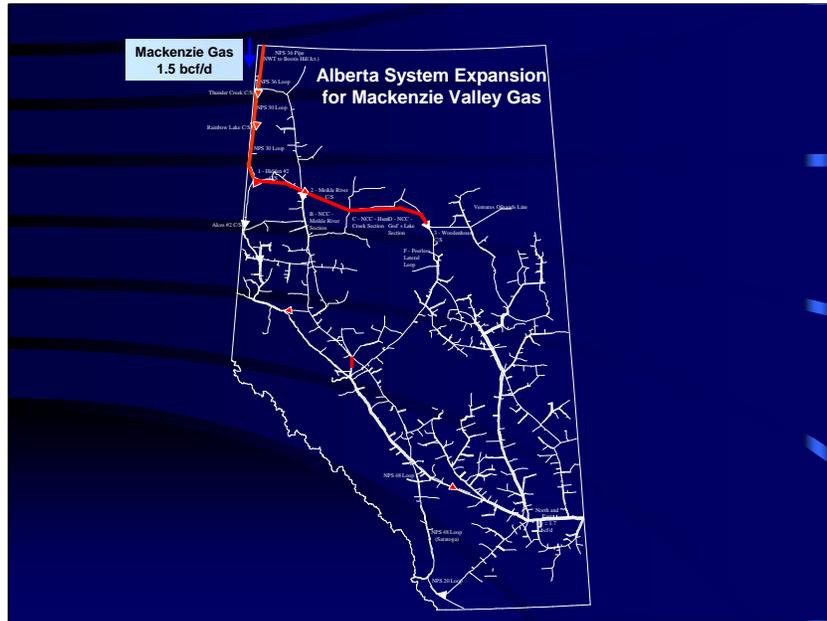
- Engineering, environmental studies, project management of all aspects of the project during pre-construction & construction phases
- Upstream production facilities, gathering system, dehydration facilities and compression facilities in the Delta
- Pipeline and Compressor Station Construction
- Freight , equipment and materials hauling
- Base Camp Supply and Expansion
- Camp Catering
- Construction & Operation of Pipeline & Associated Facilities

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MVPL Project Components

- Field development to produce & dehydrate gas
- Gathering system and compression facility near Inuvik
- Pipeline to transport gas & liquids to Norman Wells
- Separation, processing & compression facilities in Norman Wells (liquids into Enbridge oil pipeline)
- Pipeline from Norman Wells to Alberta with associated compression facilities

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The initial Mackenzie 0.8 bcf can be accommodated with existing unutilized capacity on TCPL's western corridor. Minor additions are required to get to the east gate (Empress and McNeil). Alternatively, a buildup to Kingsgate would be required.

With the growth of Mackenzie volume to 1.5 bcf and the forecast growth of WCSB production and the Fort McMurray market, the North Central Corridor is required.

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Gas Exploration in the NWT

- Current level of seismic and exploration drilling in the Delta is almost \$ 1 billion
- A Mackenzie Valley Pipeline with access provided to southern markets will encourage further exploration throughout the NWT



There is already considerable seismic and exploration drilling activity taking place in the Mackenzie Delta which, coupled with the substantial existing reserves which have been identified, is fueling the need for a pipeline to connect these reserves to southern markets.

Once a pipeline connection is completed, renewed exploration activity is anticipated in all of the NWT potential basins by junior, intermediate and senior exploration companies. This will be an additional opportunity for the many Alberta companies that provide goods and services to these explorers as they search and develop new gas discoveries parallel to the pipeline trunkline.

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Reduction in Greenhouse Gas Emissions

- Kyoto Protocol agreed to cut GHG emissions to 1990 by 2008-2012
- In Canada (1995 data) CO₂ equiv. emitted by coal versus for natural gas is 4:1 ratio (88MT versus 10 MT for gas)
- Trend to greater use of gas for electricity generation
- Trend could be halted if gas price rises relative to coal
- MVPL supply augmentation alleviates gas price increases
- MVPL could save \$250 million - \$2.1 billion annually due to avoided GHG emission (value per tonne of CO₂ equiv. In 2010 could range from \$25.74 - \$130.59 Cdn.)

Under the Kyoto Protocol, Canada agreed in principle to cut GHG emissions below 1990 levels by 2008-2012. To this end, the replacement of coal with natural gas in electricity generation could provide major reductions in GHG emissions. In Canada in 1995, roughly 88 MT of CO₂ equiv. were emitted by the electrical generators that burned coal compared to only 10 MT of CO₂ equiv. from those burning natural gas. To a large extent this reflects the higher amount of electricity generated via coal versus natural gas (4:1 ratio in 1995) but is also due to the fact that, depending on the type of coal, CO₂ emissions per energy equiv. are anywhere from 64% to 90% higher than for gas. In short, GHG emissions per unit of energy equiv. are significantly higher for coal than for gas. Over the past few years, there has been a trend in NA towards greater gas fired electricity generation. In Alberta a substantial portion of the electricity generation capacity added over the last few years is gas fired. This trend could be halted if the relative price of natural gas (relative to coal) rises substantially over time. Consequently, to the extent that the supply augmentation provided by the MVPL can alleviate gas price increases and thereby help to promote a trend away from the use of higher GHG emitting fuels in electrical generation, additional benefits to society may be created. Estimates have been made of the value of preventing GHG emissions in the context of an emission trading system. Assuming that the entire volume of the MVPL Delta gas would be used to fire new electrical generation that in the absence of this gas would be fired by coal, society would benefit from somewhere between \$250 million to \$2.1 billion annually due to avoided GHG emissions (Value of ton of CO₂ equivalent in 2010 range from Cdn. \$25.74 - \$ 130.59 depending on

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Current Status of the Mackenzie Valley Pipeline



- Producers committed to Cdn. \$ 1 Billion in NWT exploration (5 year period)
- Strong producer, Federal Government, GNWT, Community & Aboriginal support
- APG signed MOU with Delta producers Oct/2001
- Delta Producers announce Jan. 7/2002 decision to advance to the "Project Definition" phase
- Producers plan to submit application to NEB in second quarter of 2003
- Cooperation Plan - for Environmental Impact Assessment and Regulatory Review issued June, 2002

Producers have been acquiring land in the NWT and have committed almost \$ 1 Billion Cdn. for exploration in the next 5 years.

The MVPL has very strong producer, Federal Government, GNWT, Community and Aboriginal support.

The Aboriginal Pipeline Working Group, formed in June of 2000 signed an MOU agreement in Oct. 2001 with the Delta Producers Group regarding a 30% equity position in the MVPL.

Imperial, Phillips/Conoco, Shell and Exxon/Mobil are working together to develop the Mackenzie Delta reserves. The producer group has awarded contracts for environmental and socio-economic impact studies which would form an important component of a MVPL pipeline application. In addition, they have awarded contract for the engineering associated with the design of the upstream facilities, pipeline and compressors stations.

The Cooperation Plan for the Environmental Impact Assessment and Regulatory Review was issued in June of 2002 adding specific details to the framework and outline the roles and responsibilities of each Agency in the EIA and regulatory processes

The producers announced on Jan. 7, 2002 their intention to proceed to the "Project Definition" and expect to submit a formal application to the National Energy Board in the second quarter of 2003.

The Delta producers are awaiting proposals from pipeline companies Sept. 13, 2002 with the intention of having a pipeline company join their project. A decision is expected sometime in November 2002 on pipeline company participation.

09/12/2002

Summary

- A MVPL project will generate long- and short-term benefits for Canada, the NWT and Alberta.
- Project has advanced to Project Definition phase
- There is strong support for the project in the north
- Need to inform industry and government of the benefits and opportunities the project provides
- Project can substantially lower GHG emissions in North America



To summarize...

- A Mackenzie Valley Pipeline Project will provide substantial short and long term benefits to all stakeholders in CANADA, particularly the NWT and Alberta.
- The long term benefits are significant as the MVPL will carry Canadian gas to southern markets.
- There is strong support for the project from the producers themselves. The Feds, GNWT, Communities and the majority of Aboriginal Groups
- There is a need for more support and understanding from industry and government regarding the benefits and opportunities the MVPL project provides.
- The project will significantly reduce GHG emissions by reducing the use of coal for electrical generation in North America

I'll leave you with this photo of Bootis Hill, a likely connection point in Northwestern Alberta for a future Mackenzie Valley Pipeline approximately 60 km. from the NWT/Alberta border..