

Presentation to the Joint Review Panel

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Mr. Chairman and Members of the Panel, I would like to thank you for taking the time to listen to the presentations at the hearing today. I can imagine that it must be difficult to take in so many different perspectives and I respect that you will do your best to make recommendations in the best interests of all Canadians, recognizing that all Canadians do not necessarily share the same views.

Introduction

The Joint Review Panel has an enormous task ahead, to prepare an environmental assessment report, which will summarize its rationale, conclusions and recommendations based on what you have heard at technical and public hearings.

This is the first time that the Pembina Institute¹ has presented on its own behalf at these proceedings. We have been closely involved with the issues and processes around oil and gas development in the Northwest Territories for quite some time and have formed some opinions and expertise that we trust are valuable to the Mackenzie Gas Project decision-making process.

The Pembina Institute has operated as an independent, not-for-profit environmental policy research and education organization since 1982. Pembina was founded in Drayton Valley, Alberta and now has over fifty staff members working in offices in Drayton Valley, Calgary, Canmore, Edmonton, Vancouver and Ottawa.

We envision a world in which our immediate and future needs are met in a manner that protects the earth's living systems; ensures clean air, land and water; prevents dangerous climate change; and provides for a safe and just global community. Our role within this vision is to advance sustainable energy solutions through innovative research, education, consulting and advocacy. Pembina has been working to advance these goals with Arctic partners for over six years. We have conducted northern energy and environmental research and have hosted northerners at energy and the environment workshops in the Northwest Territories, Yukon, and Alberta since 2002. Over 500 northern participants have attended these workshops to better understand the potential social and environmental impacts of oil and gas in the Arctic. All of our Arctic work to date has stemmed from information requests and interests of northern residents.

Pembina has not joined the Joint Review Panel or National Energy Board processes as a direct intervenor, nor have we officially put our concerns about the Mackenzie Gas Project on the record until today. At this time we feel that it is important to communicate our concerns about the project and that they should be considered in the final decisions made by this panel.

Specifically we are concerned with:

- the federal government's biased decision to support this project² (prior to completion of the hearing and decision-making processes) in the absence of a long-term energy strategy for Canada;
- the environmental and social implications of the enormous amounts of additional natural gas exploration and development that would be necessary for the Mackenzie Gas Project to be economic have yet to be assessed;
- the basin-opening nature of the Mackenzie Gas Project that would result in pipeline capacity increases, development of the far north, and associated cumulative environmental and social impacts;

¹ www.pembina.org

² Park, Gary. Mac gas line delay unlikely: Prentice says there's no reason court ruling should stall gas pipeline project. Petroleum News; Nov 26 2006.

- the greenhouse gas emissions that would be produced by the project and the project's contribution to the exacerbation of climate change already occurring in the Arctic; and
- the lack of existing indicators and limits to protect or improve current social and economic conditions in the Northwest Territories.

It is a grave concern for us that such a large-scale project with huge future development implications is not currently being considered in its entirety. Similarly, we believe that the potentially disastrous social and environmental consequences of the approval of this project are not being given the full consideration they merit.

Our Environment & Public Opinion

There are currently at least 516 species at risk in Canada on top of over a dozen species that are already extinct³; climate change models suggest that the Canadian boreal zone will be among the regions that are most affected by climatic warming from increasing greenhouse gas emissions⁴; summer smog days and asthma rates in children continue to rise; record high temperatures abound and severe weather events are common place⁵. Humans have caused all of these problems.

The activities that we have pursued have resulted in dramatic changes to our fragile planet. We have risen to the challenge of some of these unwanted changes, including a hole in the ozone layer and acid rain. Our new global challenges include many pressing environmental issues such as freshwater quantity and quality, maintenance of biodiversity and reduction of GHG emissions. On top of this we remain uncertain about where our future energy resources will come from.

Large-scale industrial development decisions continue to be made on a project-by-project basis. This is no different than the approach used by our ancestors that resulted in widespread famines, water shortages, and disease.

Lessons from History: Rapa Nui

A case in point is Rapa Nui or Easter Island, a small island located 3600km west of Chile. Inhabitants who lived on this island in the last thousand or so years reached their population peak at approximately 10,000 people, which exceeded the carrying capacity of the island's ecosystem. These inhabitants had cleared the island of forests for agriculture and to move massive stone face sculptures.

Because of their desire to erect these statues and their lack of foresight to make better plans, their society perished. Without trees, the island no longer provided nesting sites for birds whose bones were used along with lumber for the islands' fisheries.⁶ If the people of Easter Island had decided that they had almost reached their tree-cutting limit and had planted new trees instead of rushing forward with their project, they might still be here today.

The example of Rapa Nui is a human-scale demonstration that we can learn from.

Typical Oil and Gas Development

Typical oil and gas development patterns are not a mystery. This slide shows how oil development spider-webbed across the Alaskan coast after the Trans-Alaska Pipeline System was constructed in 1977. The top right hand corner shows a map of oil and gas development

³ Environment Canada. 2006. Species at Risk. http://www.speciesatrisk.gc.ca/default_e.cfm

⁴ Schindler, David W. 1998. A Dim Future for Boreal Waters and Landscapes: Cumulative effects of climatic warming, stratospheric ozone depletion, acid precipitation, and other human activities. *Bioscience*, Vol. 48, No.3, pp.157-164.

⁵ Intergovernmental Panel on Climate Change. *Climate Change 2007: The Physical Science Basis: Summary for Policymakers*. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. February 5, 2007. <http://www.ipcc.ch/>

⁶ Wikipedia. 2007. Easter Island. http://en.wikipedia.org/wiki/Easter_Island

southwest of Edmonton. Each square is a quarter mile section and each mark on the map indicates some type of oil or gas infrastructure.

The fossil fuel extraction path we are on today is really no different than the path taken by the inhabitants of Easter Island. There are already projections that some Canadian cities will have major water shortages in the next few decades, yet we continue to use enormous amounts of fresh water from our rivers to extract fossil fuels that we then proceed to use inefficiently. Rather than wait for catastrophic circumstances to require a change in our use of the earth's resources, decisions need to be made now to ensure that we do not encounter unmanageable or untenable situations.

Federal Government Interference in the Mackenzie Gas Project Hearing Process

According to an Environics poll, released in November 2006, 71% of Canadians think that the current federal government's approach to environmental issues including pollution, climate change and global warming is not tough enough⁷. With the newly released Intergovernmental Panel on Climate Change (IPCC) report on the science of climate change⁸, concern for the environment is only growing. The issue ranked first (ahead of health care, foreign policy and jobs) in a Strategic Counsel poll released on January 17.⁹ Canadians are looking for leadership from decision-makers to create real reductions in greenhouse gas emissions that protect the planet from irreversible damage.

The federal government is currently endorsing the Mackenzie Gas Project prior to the finalization of the Joint Review Panel and National Energy Board hearings. It is disheartening to see the federal and territorial governments advertising their unwavering support for the Mackenzie Gas Project while the Joint Review Panel and National Energy Board are attempting to listen to evidence and intervenors with an unbiased ear.

The federal government is also interfering in this decision making process by offering subsidies to offset some of the socioeconomic impacts of the Mackenzie Gas Project. The last federal government introduced a \$500 million dollar socioeconomic fund for this purpose that the current government now endorses. This fund is intended to address some of the current, and future social issues in the Northwest Territories. However, it is dependent on the approval of the Mackenzie Gas Project.

National Energy Strategy

There are currently two major natural gas pipelines proposed in the Canadian and American Arctic regions. The oil sands, which are listed as a global hotspot of environment change, will grow to a footprint of 43,000 km² based on projects that have been approved to date; major oil and condensate pipelines are being proposed between the fragile western coast and the Alberta oil hub; and coal bed methane developments are being proposed throughout Alberta and British Columbia. All of these projects are being considered one at a time, in isolation of one another.

According to a poll conducted early in 2006, the current federal government stated that, "A Conservative government will be conducting a review of Canada's energy framework to develop a national energy strategy to ensure that we have sufficient supplies to meet our future energy needs."¹⁰ This has not yet been completed. Considering that this government already supports the formation of a national energy strategy, it seems logical that they should be asked to complete such a strategy prior to allowing further approvals on major energy projects.

⁷ Environics Research Group. *Environics has conducted a new poll for the CBC on issues important to the country...* November 9, 2006. Available at: http://erg.environics.net/media_room/default.asp?aID=615. Accessed November 9, 2006.

⁸ <http://www.ipcc.ch/>

⁹ http://www.thestrategiccounsel.com/our_news/polls/2007-01-17%20GMCTV%20Jan%2011-14%20f.pdf

¹⁰ Sierra Club of Canada. 2006. SCC 2006 Election Survey – Conservative Party of Canada. <http://www.sierraclub.ca/national/vote-canada/2006/survey-conservative-party.html>

Induced Development and Cumulative Impacts

It is quite clear that the proponents have released information about the reserves of future natural gas developments that would be required to ensure the economic feasibility of the Mackenzie Gas Project. However, the proponents have failed to demonstrate what the social and ecological footprint of those reserves would be to make this project a reality.

The Gilbert Lausten Jung report, prepared for the proponents, details the development of three times the amount of gas reserves¹¹ currently included in the project application, while the Sproule Report prepared for the Mackenzie Explorers Group outlines the development of more than seven times the proposed amount in the Beaufort-Mackenzie and other northern basins¹². If the Mackenzie Gas Project is approved as proposed, the entire Mackenzie River Basin would essentially be open for business. This is already happening as exploration leases are being sold throughout the region.

Not only will more projects be proposed one at a time if the Mackenzie Gas Project is approved, but the Mackenzie Gas Project is economically reliant on the development of additional natural gas reserves over the next 30 years. Where is the assessment of the social and environmental impacts of these developments? The Mackenzie Gas Project as proposed is an incomplete project, as the natural gas reserves identified for this project would not fill the pipeline for its proposed lifetime. Canadians and northerners are being asked to make a decision with only partial information. All cards should be on the table before such important decisions are ever considered. There is still time to incorporate the additional gas fields that would be required to make the project economic into this process.

Imperial Oil and the other project proponents have not adequately addressed the project's potential impacts on fresh water and fisheries, and the possibility of serious consequences to caribou and other wildlife populations. These issues have not been acceptably dealt with in other jurisdictions, yet the proponents have not suggested any new or meaningful ways to mitigate them. For example, while Alberta continues to try to pull together a cumulative environmental management system for the oil sands region, new projects are approved each month. 30% of this region, roughly the size of the state of Florida, is now slated for oil sands development. If the Northwest Territories follows Alberta's example, caribou and other wildlife populations will most certainly dwindle, fresh water resources will be compromised, and air quality will become poorer.

Climate Change and Greenhouse Gas Emissions

The construction and operation of just the Mackenzie Gas Project (not including all of the infrastructure to go along with it or future development upon which it is economically dependent) would result in a doubling of the Northwest Territories's greenhouse gas emissions¹³, at a time when the North is already experiencing the negative impacts associated with climate change to a greater extent than more southern latitudes.

The threat of climate change compounded by project-related impacts have not been adequately addressed, nor have the impacts associated with the greenhouse gases produced by the downstream use of the natural gas.

The north should serve as a model low carbon society that demonstrates to the rest of Canada how it is possible to reduce GHG emissions for the sake of protecting what we all depend on for survival.

Social Impacts

¹¹ High Estimate from: Gilbert, Laustsen, Jung. 2004. Mackenzie Gas Project – Gas Resources Supply Study (submitted by Imperial Oil Resource Ventures Ltd. to the National Energy Board on October 7, 2004) - Exhibit Number: J-IORVL-00349 – 9/21/2005

¹² Sproule Associates Limited. 2005. Natural Gas Resource Assessments and Deliverability Forecasts, Beaufort-Mackenzie and Selected Northern Canadian Basins. – Exhibit Number: J-OREI-00013 – 6/29/2005

¹³ Moorehouse, J, Mcculloch, M, Powell, G & Francis, E. Mackenzie Gas Project Greenhouse Gas Analysis – An Update. Pembina Institute. 2006. www.ecologynorth.ca/filemgmt/visit.php?lid=27 - Exhibit Number: J-ECNO-00011 – 09/27/2006.

The boom currently being experienced in Alberta has resulted in foreseeable, but unplanned-for problems such as housing issues, health care availability, substance abuse, or even the inability to get a taxi on a cold night. More jobs, more money and more gas seem like a good idea on paper. But, development scenarios and plausible futures need to be examined in depth to get a better understanding as to what “more” means in reality.

The RCMP in the Northwest Territories has acknowledged that the influx of money and workers into the territory will lead to more crime and drug and alcohol abuse¹⁴. Just as Edmonton has recently surpassed Winnipeg as the murder capital of Canada, we can expect too that a similar boom in the oil and gas sector in the Northwest Territories will lead to undesirable social circumstances.

Financial benefits are often presented as the solution to many of the north’s current social problems. The reality of this claim needs to be examined. More money flowing into communities will not necessarily eliminate social problems. In fact, as is common in the oil and gas industry elsewhere, a sudden influx of new funding is likely to increase substance abuse, domestic violence and crime.

Of course northern development is desirable. But does the size of the Mackenzie Gas Project and the extensive development that would come along with it if approved, match the northern need? Fort McMurray is an example of what happens when too much development takes place at one time. The influx of new workers into the territory will undoubtedly put strains on public infrastructure. Is there a more appropriate level of development that could be carefully planned to ensure that this risk is avoided?

Decision-makers need to determine what social conditions should be maintained or improved and what social conditions they are willing to trade-off for development.

Optimistic Future: Net Positive Development

Instead of putting our efforts towards more of yesterday’s problems, now is the time to look for tomorrow’s solutions.¹⁵ It makes sense for us to work together as a community of humans to reduce our global footprint, preserve the biodiversity that we still have, and reduce the greenhouse gas emissions that we produce.

The bottom line is that we need to ensure that this world gets cleaner instead of dirtier and that we support development that will lead us to these ends.

Recommendations (proposed by Pembina to be included in the Joint Review Panel’s final report)

- I. The Government of Canada, the Government of the Northwest Territories, and First Nations communities should work together to implement regional plans for the Northwest Territories that result in protected areas and agreed-upon limits of acceptable change that will improve or maintain desired social and environmental conditions in the territory. This should be done in advance of major oil and gas developments.
- II. A detailed environmental assessment of the production of natural gas that would be required to keep the pipeline full for its proposed lifetime (and that would be required for the project to be economically successful) should precede a decision on the Mackenzie Gas Project.
- III. If the project is ever approved it should be done so under the condition that it be carbon neutral (which is currently possible and affordable). The downstream emissions associated with the project should be reduced and offset through government policies.

¹⁴ Foster, Scott. POLICING A PIPELINE: Mega-project expected to create population explosion. The RCMP Gazette, Vol. 68, Issue 3 2006.

¹⁵ Thompson, Dixon. 2006. Personal Communication.

- IV. The Government of Canada needs to create a long-term sustainable energy strategy that clearly maps out future energy sources to be used by northerners and all Canadians for at least the next one hundred years.