

Briefing Note: The uncertain prospect of oilsands exports to Asia from Canada's West Coast



This briefing note draws from a recent Pembina Institute analysis of the likelihood of near term opportunities for oilsands exports from Canada to Asia via the West Coast.

It reviews the status of the proposed Enbridge Northern Gateway pipeline, the possibility of expanding the Kinder Morgan TransMountain pipeline, a range of perspectives on Asian demand for oilsands, and the prospect of transporting oilsands by rail to the West Coast.

We conclude that the prospects for exporting oilsands to Asian markets in the next five to ten years are low, and that the approval of the Keystone XL pipeline stands as the dominant driver for near term expansion of oilsands production in Canada.

Summary

Access to markets for oilsands crude is a subject of much discussion, particularly in the context of the proposed Keystone XL pipeline. This briefing note argues there is a low likelihood of access to Asian markets in the next five to ten years. Given the U.S. is already the primary market for oilsands and that the Keystone XL pipeline would, if approved, provide new access to the Gulf Coast (PADD III) market, expanding U.S markets will drive new oilsands production in the near term.

A. Enbridge Northern Gateway pipeline: Significantly increasing oilsands exports from Canada's West Coast could occur via approval of the proposed Enbridge Northern Gateway pipeline, a \$5.5 billion, 727-mile oilsands pipeline from Alberta to British Columbia's coast. However, there is a lack of commercial support for this pipeline, significant public concern and broad First Nations opposition at this early stage in the regulatory process. Further, a federal bill has been introduced that would ban oil tankers from the coastal waters at the terminus of the pipeline. Resultantly, both the timing and likelihood of this pipeline proceeding are highly uncertain.

B. Other pipeline or rail options: The prospect of oilsands being shipped to Asian markets via Canada's West Coast by other pipeline proposals or rail in the near term is highly improbable. The Kinder Morgan pipeline expansion is not being actively pursued due to a lack of demonstrated commercial demand at present. Recent speculation about the prospect of rail options is accompanied by questions about safety and the scale of infrastructure changes required by an industry designed around pipelines.

C. Asian demand: There is no consensus among financial analysts regarding the timing or magnitude of demonstrated demand for oilsands by Asian markets. There is a notable lack

of correlation between refinery demand and specific oilsands products, and varied opinions about the desire of Asian companies invested upstream in oilsands extraction to repatriate their product.

Background

Enbridge Northern Gateway pipeline Pipeline company Enbridge has applied to the Canadian federal government for permission to build the Northern Gateway pipeline. If approved, the 36-inch westward line could export 525,000 barrels per day of diluted bitumen¹ and would travel through the Great Bear Rainforest, one of the largest intact coastal temperate rainforests in the world.

The project would also necessitate the construction of a marine oil tanker terminal on British Columbia's coast. Each year, approximately 225 tankers with a capacity of up to two million barrels of oil each would use the terminal to unload condensate and pick up diluted bitumen and/or synthetic crude for delivery to East Asian markets.²

The proposal for the pipeline originated with a 2005 shipping agreement between PetroChina and Enbridge to ship oilsands crude to the West Coast; Enbridge officially announced the Gateway pipeline in 2006. However, PetroChina withdrew its support of the pipeline in 2007 because of project delays. The Gateway pipeline was revived in 2009, with an application filed with regulators in May 2010. A recent decision by a federal review panel confirmed that Enbridge's application did not provide sufficient detail on the project's impact and potential alternatives, given the concerns raised by local communities, First Nations and regulators; it will take at least another six months to address these information deficiencies. As a result, the start date of the regulatory hearing, which itself could take several years, remains unknown.

¹ "Oil" for this project is defined by Enbridge as petroleum ordinarily found in liquid form including bitumen, diluted bitumen and synthetic crude oil. This report assumes diluted bitumen is the petroleum product that could be shipped.

² Enbridge Northern Gateway Pipelines, *Enbridge Northern Gateway Project, Kitimat Terminal and Marine Transportation Environmental and Socio-Economic Assessment Discussion Guide*, 2009, <http://www.northerngateway.ca/environment-safety/environmental-assessment/marine> (accessed Dec. 11, 2010)

Analysis

The following analysis suggests that there is significant doubt and controversy over oilsands exports to Asia from Canada's West Coast. Keystone XL will likely prove the critical factor in the rate and near term extent of expansion Canadian oilsands production.

1. No demonstrated Asian demand for oilsands

- To date, there has been marginal interest in oilsands exports from Asia. Currently only 0.56% of Canadian crude oil exports are shipped to Asia.³
- There is debate among financial and energy analysts that China's demand for energy translates into increased demand for Canadian oilsands:

"It is a mistaken view that China's oil demand will keep growing as it has in the past few years."⁴

— *Peter Tertzakian, Chief Economist, ARC Financial Corp.*

"The oil sands are too costly and too polluting. Gas has a brighter future... Shale gas is much cheaper and cleaner."⁵

— *Chen Weidong, Chief Energy Researcher, China National Offshore Oil Corp.*

"Still, many producers in Alberta see the Asian market as a long-term option at best, with competition from the Persian Gulf and increasing volumes of oil from Russia due to the opening of the East Siberia Pacific Ocean pipeline. In private meetings, one producer said that the Asia market would only make sense when the US market is saturated."⁶

— *Robert Johnston, Director Energy and Natural Resources, Eurasia Group*

- This lack of Asian demand for oilsands is clearly seen in Enbridge's application for the Gateway pipeline. Enbridge has not provided adequate evidence that there is specific East Asian refinery demand for oilsands products, despite this information being readily available.⁷ This is critical because oilsands crude oil is significantly heavier and

³ Canadian Association of Petroleum Producers, 2010 CAPP Crude Oil Forecast, Markets & Pipelines Report, <http://www.capp.ca/forecast/Pages/default.aspx#R0F0q10NStbM>

⁴ Dave Cooper, "Gas gaining on oil summit told; Worldwide shift changing Alberta's future: economist," Edmonton Journal, Nov. 26, 2010
http://www.edmontonjournal.com/story_print.html?id=3887609&sponsor (accessed Dec. 12, 2010).

⁵ Carrie Tait, "CNOOC's chief researcher paints grim picture of oil sands," Financial Post, 14 Jan 2011, <http://www.financialpost.com/CNOOC+chief+researcher+paints+grim+picture+sands/4111522/story.html>

⁶ Robert Johnston, Outlook: Oilsands – Canada's unconventional oil mega-play faces new challenges and opportunities, Eurasia Group, 19 May 2010.

⁷ Refinery-specific information on capacity and demand for certain crude grades is readily available from energy consulting firms. Personal communication, David Fridley, Staff Scientist and Deputy Group Leader, China Energy Group, Lawrence Berkeley Laboratory, U.S. Department of Energy, 19 Jan 2011.

- more sour than most forms of crude. Specialized refineries are required to handle the additional carbon and sulphur contained in oilsands crude.
- Enbridge has no long-term shipping agreements in place. It is unprecedented for a pipeline of its kind to have no proven commercial support while proceeding into regulatory hearings.
 - Other pipeline companies are calling Northern Gateway a pipeline “concept” rather than a project because of this lack of proven demand, and have suggested it is an inappropriate precedent for regulators to consider its application.⁸

2. Overwhelming public and First Nations opposition will lead to regulatory delay

- Polling shows that 80% of British Columbians oppose the Enbridge pipeline.⁹
- Unprecedented opposition from a strong coalition of environmental, First Nations, labour and community groups suggest the regulatory process will be held up in court for years, and could create the political conditions for the project to be denied.^{10, 11}
- In December 2010, the Canadian House of Commons passed a motion calling for the federal government to ban bulk oil tanker traffic off the north coast of British Columbia.¹²
- 80 First Nations, who have aboriginal rights and title in the area, have indicated they will fight the pipeline, potentially holding up the pipeline proposal in court for years.
- The Mackenzie Gas Pipeline was delayed for decades in Canada largely because of significant opposition from First Nations, who are empowered with notice and consultation powers under Canada’s constitution. Considerably stronger Aboriginal opposition exists in British Columbia to the Northern Gateway pipeline.¹³

⁸ Kinder Morgan. 2010. Letter from Kinder Morgan to Joint Review Panel – Enbridge Northern Gateway Project. September 8th, 2010. <http://www.ceaa.gc.ca/050/documents/45167/45167E.pdf> (accessed Sept. 21, 2010). P. 5

⁹ On May 26, 2010, a poll showed 80 percent of British Columbians support banning crude oil tankers in B.C.’s coastal waters, up from 72 percent in a similar 2008 poll. The poll results are part of a Mustel Group omnibus random telephone survey of 500 British Columbians in May 2010. Results on a sample size of 500 random surveys are considered accurate to within +/- 4.5 percentage points, 19 times out of 20.

¹⁰ While a Joint Review Panel, convened by the National Energy Board and Canadian Environmental Assessment Agency, will issue a ruling on the application, it is a non-binding recommendation to the Federal cabinet. The ultimate decision is political.

¹¹ Over 2,000 submissions on the pipeline’s Terms of Reference were received by the federal government, the most of any project in Canada to date.

¹² Andrew Mayeda, “Motion calls for oil tanker ban off B.C. coast,” Vancouver Sun, Dec. 8, 2010, <http://www.vancouversun.com/business/Motion+calls+tanker+coast/3943415/story.html> (accessed Dec. 9, 2010).

¹³ Compared to Native Americans in the United States, First Nations in Canada can have significant influence over land use decisions. This is particularly true for those First Nations with unresolved land claims like many along the proposed Northern Gateway Pipeline.

3. Bargaining tool to weaken U.S. climate legislation

- The prospect of the Northern Gateway pipeline is being used as political leverage against prospective climate change policy measures in the United States.

“We must export oil to China,” BMO chief economist Sherry Cooper said Thursday [Nov 19, 2009] in a speech in Calgary. “It’s very important. And the sooner the better.” Such an outlet [an export oil pipeline to Asia] is both a useful exercise in market diversification, but also a necessary strategy in the face of looming U.S. climate policies, which may restrict oilsands imports, she said. “For sure, the U.S. isn’t going to like it,” Ms. Cooper said. “But that’s good, because it gives us more leverage with the U.S. For example, it makes it more difficult for the U.S. to threaten us with comments about dirty oil.”¹⁴

- The governments of Alberta and Canada and the oilsands industry have been actively lobbying throughout the U.S. to weaken progressive state and federal climate policy so that it does not discriminate against higher carbon oilsands.^{15,16}
- A report commissioned by Enbridge and submitted with its regulatory application to the Joint Review Panel explicitly highlights the political leverage to protect the oilsands:

“ . . . the existence of the Northern Gateway option would provide important leverage in achieving changes to such limiting policies or regulations to reduce the negative impacts on the Canadian oil and gas sector. Indeed, this option may also allow the exertion of leverage in obtaining exemptions or changes to protectionist US policies or regulations that might affect Canadian industrial sectors other than crude oil.”¹⁷

4. Other oilsands pipelines or rail options to Canada’s West Coast remain distant and unlikely

- Pipeline company KinderMorgan has tested the idea of a 400,000 barrel per day expansion of its current TransMountain Pipeline to Vancouver, as well as an extension of that pipeline to Kitimat, British Columbia, which could add an additional 400,000 barrels per day of capacity; however, the company has recently withdrawn its intention for both pipelines due to a lack of commercial interest.¹⁸
- While some analysts suggest the Kinder Morgan options could act as an alternative to Gateway, constrained terminal capacity at Vancouver harbour would act as a key hurdle. Enlarging capacity would require dredging the Vancouver harbor and modifying

¹⁴ Nathan VanderKlippe, “Oilsands pipeline to West Coast gains backing,” The Globe and Mail, Nov. 19, 2009, <http://www.theglobeandmail.com/globe-investor/oil-sands-pipeline-to-west-coast-gains-backing/article1370402/> (accessed Dec. 11, 2010)

¹⁵ Foreign Affairs and International Trade Canada. All documents (including briefing notes, memos, correspondence) prepared on the subject of the United States “*Energy Independence and Security Act of 2007*,” <http://pubs.pembina.org/reports/foi-foreign-affairs.pdf> (accessed Dec. 8, 2010).

¹⁶ CBC News, “Feds, Alberta fight foreign climate laws: report,” Nov. 22, 2010, <http://www.cbc.ca/politics/story/2010/11/22/oilsands-report-climate.html> (accessed Dec. 8, 2010)

¹⁷ *Public Interest Benefits of the Northern Gateway Project* Wright Mansell Research Ltd. (March 2010), p.23-24 in Enbridge Northern Gateway, Section 52 Application, Volume 2, Appendix B

¹⁸ Personal communication, KinderMorgan, June 30, 2010.

regulations, the prospect of which has already generated public concern regarding increased tanker traffic and the risk of oil spills.

- A highly speculative “pipeline on rail” has been advanced by Canadian National Railway to ship bitumen to the West Coast.¹⁹ For large volumes, rail transport is less efficient than pipelines, and the safety record of rail is considerably worse. Further, rail transport is equally vulnerable to the proposed tanker ban off the coast of Kitimat, British Columbia. As a result, oilsands transport by rail at any significant scale remains a distant alternative.

5. In the near term Keystone XL would be the dominant factor driving expanded oilsands production

- The U.S. is and will remain, in any of the scenarios described above, the primary market for oilsands exports from Canada. Over the next five to ten years it is highly improbable that oilsands exports to Asia will increase relative to today given the challenges and uncertainty facing the proposed Enbridge Gateway pipeline, the prospective oil tanker ban, and the early stages and potential barriers to transport by rail.
- The proposed Keystone XL pipeline is a major pipeline that would provide significant access to PADD III on the Gulf Coast, a new market for oilsands producers. TransCanada has premised its proposal for Keystone XL on expanded production of Canadian oilsands. Given the significant local and global environmental consequences of oilsands development, the U.S. Department of State should at a minimum conduct a full environmental analysis that considers life cycle greenhouse gas emissions (which would include upstream emissions from oilsands production) as well as other impacts on air, water, wildlife and forests.

¹⁹ Canadian National Railway, Ship your crude oil products on CN's PipelineOnRail, <http://www.cn.ca/en/shipping-north-america-alberta-pipeline-on-rail.htm>