

Unlocking the Asian Market for Canadian Oil Producers

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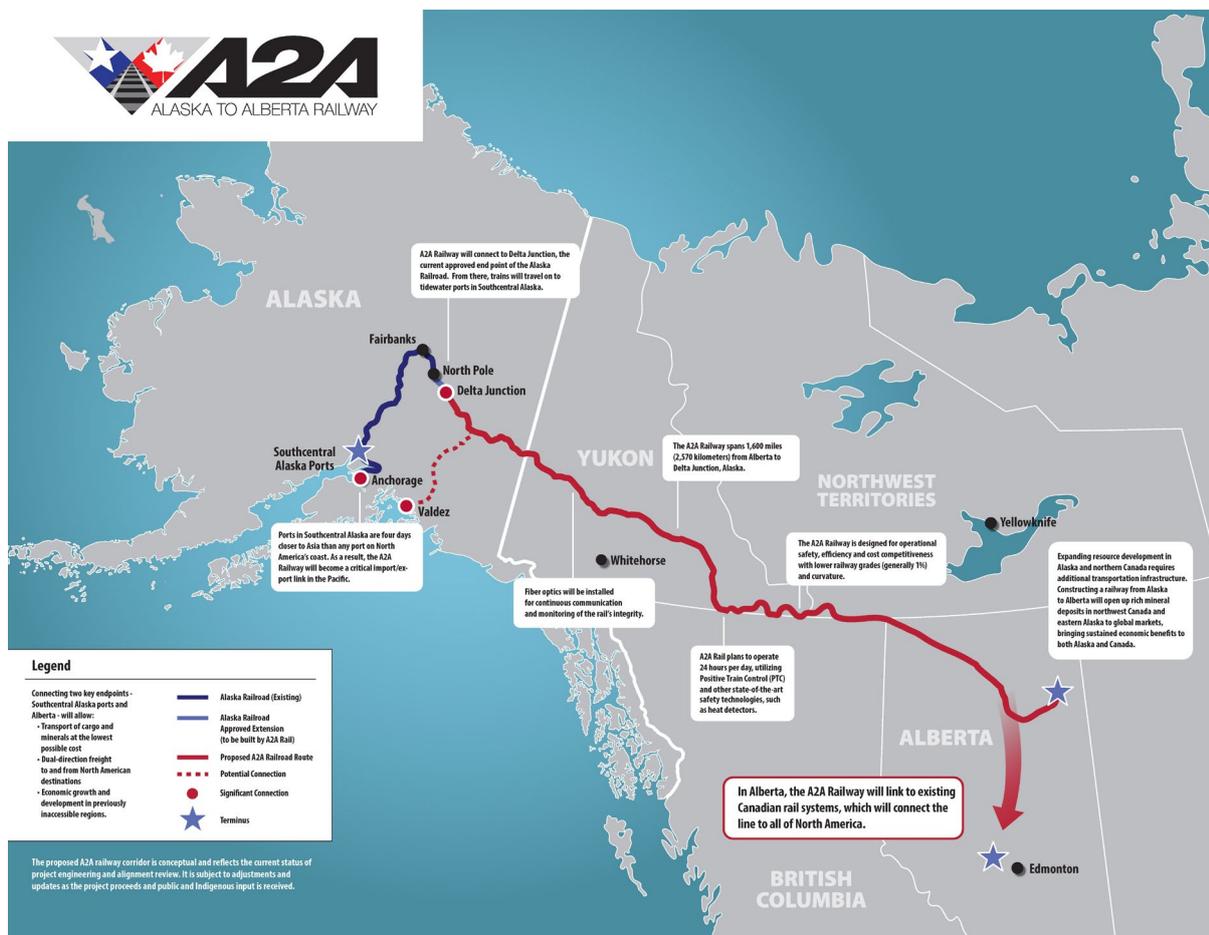
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On Friday, September 23, 2020, United States (U.S.) President Donald Trump gave the green light to a 2,570 kilometer (km) rail link proposed by the private company Alberta to Alaska (A2A). According to A2A, the rail link will be able to carry up to 2 million barrels of oil per day (MMb/d), along with potash, sulfur and grain, to the west coast, which ultimately targets the Asian markets (Hydrocarbon Processing 2020).

Figure 1. Proposed rail link from Alberta to Alaska.



Source: A2A.

The company's vision is to provide a reliable, low-carbon supply chain between North America and the rest of the world. This project could serve as an alternative way for oil sands producers to sell their product to Asian refiners.

In addition to A2A's rail link proposal, the government of Canada approved the Trans Mountain pipeline, which will be able to carry some 890,000 barrels of oil per day for export to Asian markets. There could be more than 2 MMb/d of oil available for export to Asian markets after the completion of both projects. According to the Alberta Government (2020), more than \$30 billion (<1 MMb/d) of oil and gas extraction projects are either under construction or proposed for future development.

As shown in the table below, Canada’s combined increase in pipeline and rail capacity will meet its projected production expansion. With its planned crude oil transportation infrastructure and production expansion, Canada will be able to export more than 3 MMb/d of crude oil to Asia.

Table 1. Current and future oil market capacity in Canada.

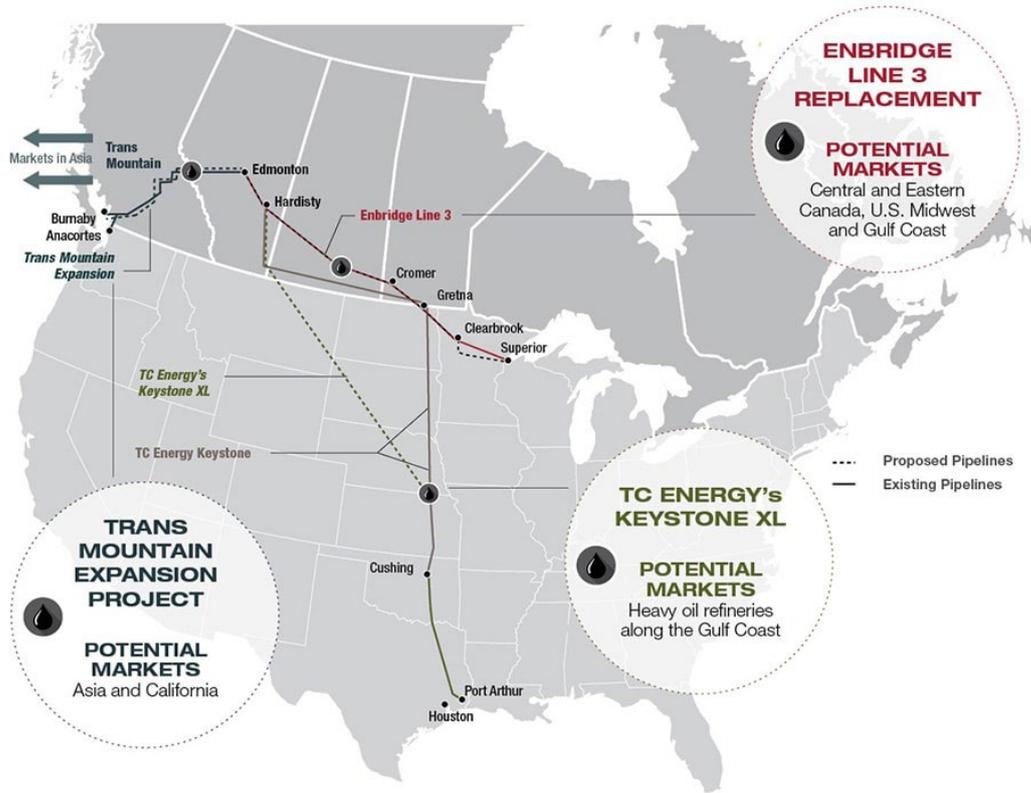
	2019 average MMb/d	2020-2030 MMb/d
Express	0.28	0.28
Milk River	0.0979	0.0979
Aurora/Rangeland	0.045	0.045
Trans Mountain	0.3	0.89
Keystone	0.6	0.83
Enbridge Mainline	2.893	3.263
Pipelines total	4.2	5.4
Rail total	0.41	2+
Total transportation capacity	4.6	7.6
Crude production Western Canada	3.95	5+
Domestic refineries demand	0.84	1.1
Crude oil exports to the U.S. from Western Canada	3.2	4+

Sources: Canada Energy Regulator (2020); EIA (2020); CAPP (2018).

What does this mean for Canadian producers?

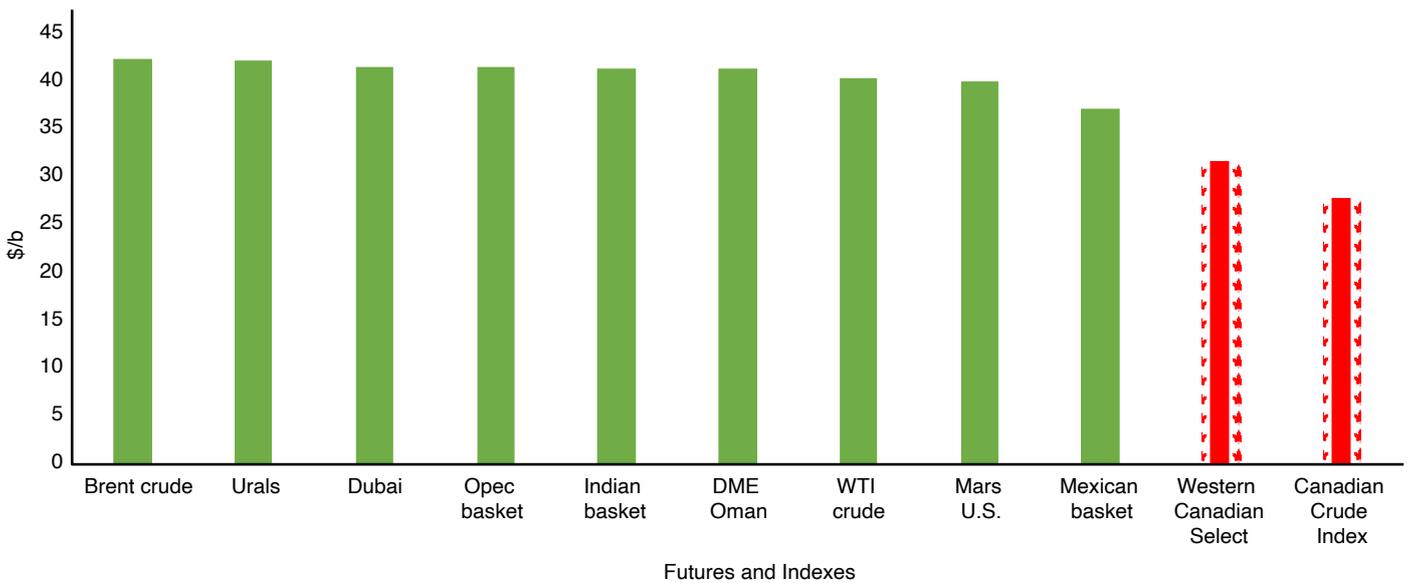
Canadian producers have always been subject to monopsony. About 99% of Canadian crude oil exports go to the United States (U.S.) This is because Canada lacks the transportation infrastructure needed to carry its crude oil from mainly oil-rich Western Canada to the west coast for export to Asia. As a result, the Western Canadian Select (WCS) crude is sold at a heavy discount to U.S. refiners. As shown in Figure 4, the landed cost of WCS crude is the cheapest in the U.S. The refiners’ crude acquisition costs include transportation, taxes and quality premium and/or discounts. Canadian producers will be able to price their crude oil competitively once their export capacity is diversified. As can be seen in Figure 3, below, WCS is cheaper than other crude grades. Maya crude is sold to the Far East at over \$8 per barrel (b), which is why Canadian producers might be able to get better prices for their crude in Asian than in U.S. markets.

Figure 2. Trans Mountain pipeline project map.



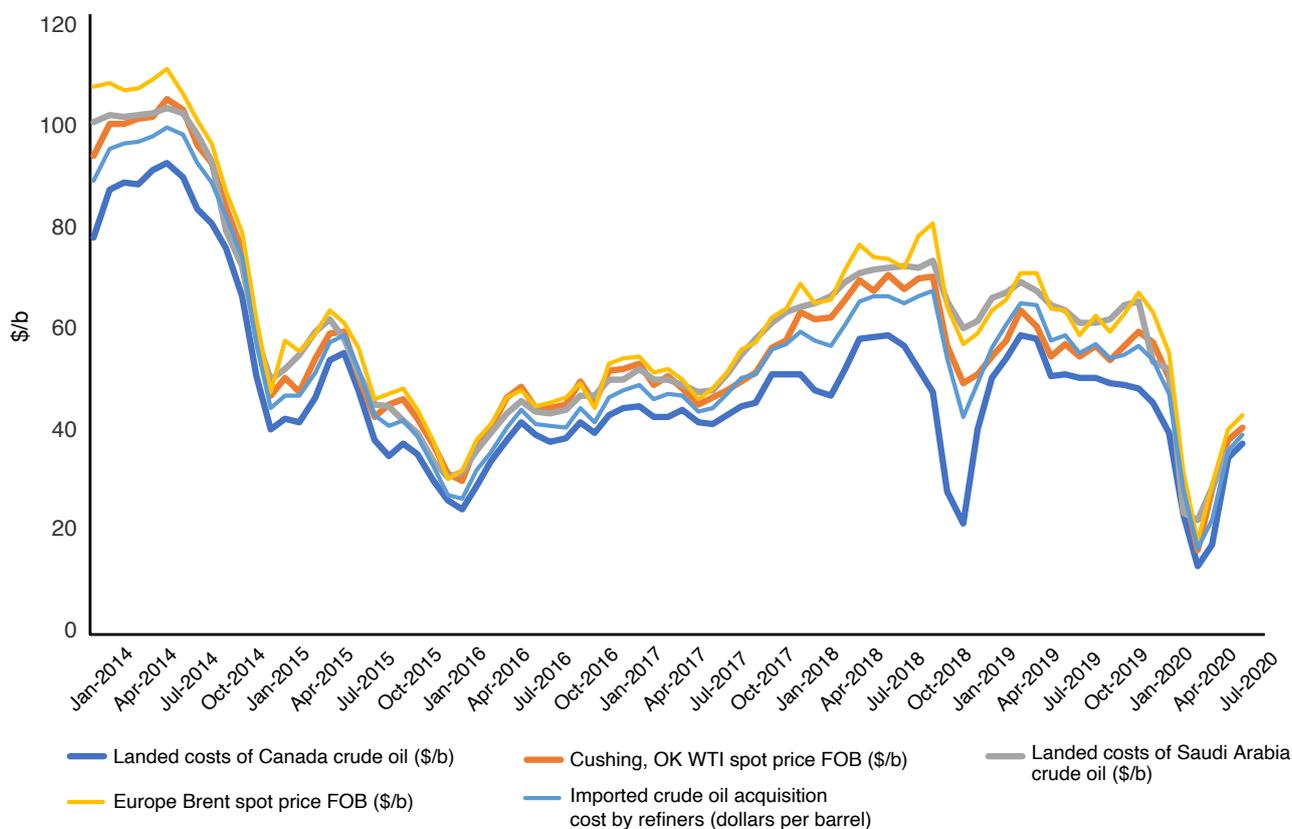
Source: CAPP (2020).

Figure 3. Comparison of crude grade and index prices on the international market.



Source: Oil Price (2020).

Figure 4. U.S. landed cost of crude oil.



Source: EIA (2020).

What does this mean for U.S. refiners?

U.S. refiners have long enjoyed the heavily discounted WCS crude. There will be fewer discounts going forward as Canadian producers will have the option to sell their crude to Asian markets at better prices. Otherwise, lower discounts would lead to lower margins.

The current WCS to West Texas Intermediate (WTI) differential of \$9/b, as shown in Figure 3, will be narrowed, reducing refining margins from their current levels.

What does this mean for Asian refiners?

Major Asian economies such as China, India, Japan, and South Korea have a combined crude capacity of about 20 MMb/d and about 3.5 MMb/d of coking capacity. Canadian producers will be able to get better prices for their crude in the Asian markets than in the U.S., improving their refining margins from their current levels. Asian refiners will benefit from competing crudes, such as those from Canada and Saudi Arabia.

What does this mean for Saudi Arabia's crude exports to China?

According to Bloomberg data, Saudi Arabia currently exports about 1.5 MMb/d of crude to China. Total future Canadian crude oil exports to Asia may reach more than 2 MMb/d, which may compete with Saudi crude as long as the economics of oil transport via pipeline, rail and sea allow for arbitrage. This could lead to further price cuts from Saudi Arabia to keep its market share in Asia.

Challenges and roadblocks

Major infrastructure projects in Canada, such as building interprovincial pipelines, are subject to federal review. The Parliament of Canada passed Bill C-69, which requires a rigorous environmental assessment of projects that impact land, water, air, and communities at large. This bill introduced significant policy changes to Canada's environmental legislation. The Energy East pipeline project was canceled in 2017 by TransCanada following protests in the eastern province of Quebec and changes to the federal environmental assessment process. Energy East was a 4,500 km pipeline intended to carry 1.1 MMb/d from the oil-rich provinces of Alberta and Saskatchewan to refineries in Eastern Canada.

The Trans Mountain pipeline expansion approved by the government of Canada is subject to more than 150 conditions enforced by the Canada Energy Regulator. Stakeholders such as the state government, local government bodies, environmental and indigenous groups are critical and mostly in opposition to pipeline expansions, due to their concerns surrounding oil spills and indigenous land rights. Pipeline projects have become unpopular among the west and east coastal regions of Canada, and particularly among First Nation groups. The crude-carrying capacity of the proposed Trans Mountain rail link of up to 2 MMb/d is an ambitious target, requiring massive loading/offloading terminals capable of handling over 2,800 railcars daily. Some of the risks for the project that could impact the flow of oil out of Alberta include union strikes, network congestion during peak harvest seasons and harsh winter conditions. The project would have to pass a financial risk assessment and a cost-benefit analysis. A competitive market report, alongside engineering and technical assessments, should demonstrate the project's feasibility.

President Donald Trump approved the project through Alaska, which was welcomed by the energy sector in Alberta. However, the outcome of the U.S. elections in November 2020 could have profound implications on the U.S. and Canadian oil and gas sectors.

The Canadian approval of the A2A project may take years because the safety record of crude by rail has been in question, especially after the Lac-Mégantic rail disaster in Quebec in 2013, which killed 47 people, making it one of Canada's deadliest rail accidents. Canadian Prime Minister Justin Trudeau cautioned that the A2A project must undergo a rigorous environmental assessment under Bill C-69. Hence, it could face delays. Due to the energy-intensive nature of oil sands, some financial institutions are shifting their investments to renewables and carbon mitigation due to their corporate governance mandates. According to a paper published by the U.S. Department of Energy (Masnadi et al. 2018), Canada has the fourth-highest carbon-intensive crude oil production globally, while Saudi Arabia has the lowest carbon-intensive production.

Alberta became the first jurisdiction in North America to legislate greenhouse gas emission reductions for large industrial facilities. Alberta's government has implemented measures such as carbon capture and storage, carbon competitiveness incentive regulation, capping emissions, and water management regulations designed to reduce emissions and accelerate technology development. Reducing emissions further will improve the environmental, social and governance profile of Alberta's oil and gas sector.

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