OBSERVATION

TD Economics

September 15, 2011

THE KEYSTONE XL PIPELINE

Oil sands producers would benefit from expanded export capacity, higher prices and market diversification

Highlights

- The proposed Keystone XL pipeline would carry oil sands crude to the major refining market on the U.S. Gulf Coast, and would provide significant benefits to Canadian producers. A decision is expected from the U.S. State Department by the end of the year.
- The three main benefits to Canadian producers include: greater export capacity needed for longer -term production growth, higher prices for their product, and a key market diversification away from an over-reliance on the U.S. Midwest.
- After an exhaustive three-year process, U.S. approval is likely, as the project also confers several benefits to the U.S. economy.

The proposed $7 billion Keystone XL pipeline, which would carry oil sands crude from Alberta to the U.S. Gulf Coast, recently cleared the U.S. government's environmental review. The application now rests with the State Department, who will issue a permit based on whether it is deemed in the "national interest", and has promised a decision by the end of the year. If approved, TransCanada expects the pipeline could be operational early in 2013. Analysts expect that permission is likely, which is good news for Canadian producers who would derive significant benefits from the project.

In this report we highlight some of the key implications that the pipeline would have for the Canadian oil sands. The three main benefits are: greater export capacity for oil sands production, which could double over the next 10 years; the opportunity to diversify markets away from an over-reliance on refineries in the U.S. Midwest; and higher prices for Western Canadian crude oil than are currently being attained at Cushing, Oklahoma. These benefits would also flow through to the broader Canadian economy by boosting investment in the oil sands, and increasing tax revenues and royalties for governments.

Three Main Benefits: Capacity to Expand, Higher Prices and Market Diversification

Northern Alberta contains vast deposits of oil sands that are also vast distances from their biggest customer, American refineries. The main mode of transport is by pipeline. Although current export pipeline capacity out of western Canada is ample for today's production, expected growth in the oil sands will fill existing lines as early as 2015. If output is to continue to grow as planned, additional export capacity of some kind is needed or else, as Alberta Energy Minister Ron Liepert put it, "by 2020 we will be landlocked in bitumen".

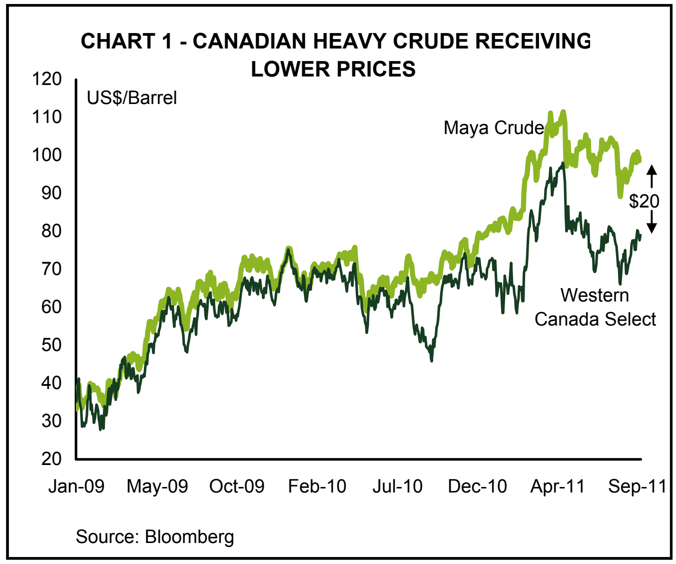
Derek Burleton, VP & Deputy Chief Economist, 416-982-2514
Leslie Preston, Economist, 416-983-7053

The primary market for Canadian crude is the U.S. Midwest, serviced by an established pipeline network. Currently, each refinery centre in the region has more Canadian pipeline capacity than it can process. With the recent start-up of the first phase of the Keystone pipeline, and increased production of U.S. Bakken shale oil, there is an oversupply of crude flowing into the hub at Cushing, Oklahoma. There are some plans for refinery upgrades and capacity expansions to refine heavy crude in the region, but the growth in oil sands production is expected to exceed that[1]. If oil sands production is to continue to grow, it must secure increased export capacity to new markets.

The oversupply of crude in the Midwest, and a lack of pipeline capacity to take available crude to other markets, has resulted in an unprecedented disconnect between the price at Cushing (WTI) and other international oil prices. WTI is approximately $25 per barrel lower than Brent crude, which means Canadian producers – who are price takers in the U.S. Midwest due to lack of export capacity to international markets – are getting considerably lower prices than they could on the U.S. Gulf Coast or elsewhere. The lower price is not a quality issue, which can be seen when you compare the price of Western Canadian heavy crude with that of comparable crude that is shipped to the U.S. Gulf Coast (see Chart 1). Canadian producers are receiving roughly $20 per barrel less than the comparable grade (Maya crude), a differential that has not existed historically.

With approximately 1.2 million barrels per day of Western Canadian oil going to the Midwest, that is no small sum of foregone revenue for Canadian producers, or royalty revenues for Canadian governments. While the supply glut at Cushing does not explain the entire spread that has opened up between Brent and WTI since the beginning of the year, analysts do expect that Keystone XL would go a long way to relieving that supply glut, and hence reduce the price differential between Brent and WTI. So not only would Canadian producers have access to higher prices for their product on the U.S. Gulf Coast, but it would raise the prices they receive at Cushing as well.

Meanwhile, refiners on the U.S. Gulf Coast – home to the world's largest refinery market – are looking to replace declining heavy crude oil supplies from Mexico and Venezuela, and supply the 500,000 b/d of additional capacity planned by 2020[2]. This demand growth makes it a natural market opportunity for Western Canadian crude, but there are currently very limited transportation options to service the market, and the region receives only 119,000 b/d from Western Canada. Given these conditions, it comes as no surprise that TransCanada has secured firm, long-term contracts to transport 380,000 barrels per day (b/d) of Canadian crude, in addition to 65,000 b/d of U.S. crude oil from the Bakken formation – a high growth field in North Dakota – to Gulf Coast refiners. Greater access to refineries on the U.S. Gulf Coast would represent an important market diversification for Canada, which is currently over-reliant on the Midwest.



But is Keystone XL in the U.S. "national interest"?

There is vocal environmental opposition to the pipeline that has generated a fair amount of controversy in the United States. Environmental concerns fall into two camps: those concerned with the route of the pipeline and the risk of spills in areas like the Ogallala aquifer and Nebraska Sand Hills; and, those whose who are against any U.S. support for further development of Alberta's oil sands, due to their impact on greenhouse gas emissions and climate change.

After conducting the most detailed and comprehensive environmental review ever undertaken for a cross-border pipeline, the State Department's environmental impact statement was released in late August and dealt with both of these concerns. First off, the statement concluded that the proposed route is the shortest and would disturb the least amount of land and water bodies, resulting in reduced environmental impacts. It also established 57 more stringent project-specific conditions in addition to existing regulations, ensuring this pipeline would have a greater degree of safety than any domestic pipeline built under the current regulations.

As for the second concern of increased greenhouse gas emissions, the report concluded that the project is "not likely to impact the amount of crude oil produced from the oil sands"[3]. The implicit assumption the State Department is making is that oil sands crude will simply be shipped through other means if this pipeline is not built.

The U.S. government's final decision rests on whether Keystone XL is in the national interest. There are several supportive points, and most analysts expect the pipeline to be approved. Firstly, the investment and attendant spin-offs are the most obvious benefits, and the project would represent a $20 billion investment in the U.S. economy, along with new jobs during both the construction phase and once the pipeline is operational. Secondly, up to 25% of the pipeline's capacity will be domestic shale oil from the Bakken formation of North Dakota, where production has doubled since 2008, running at approximately 360,000 b/d in April. KXL would provide the first access to the large Gulf Coast refinery market for Bakken crude, and the higher international prices that prevail outside of Cushing. Thirdly, Canadian crude would represent a more reliable, secure supply of crude than other sources currently supplying Gulf Coast refiners. To top it off, Canada represents America's largest two-way trading relationship, and thus money spent on Canadian crude is more likely to be recycled back into the U.S, economy than would be the case with any of the U.S.'s other oil suppliers.

Pipeline Development Key to Oil Sands Expansion

From a Canadian perspective, the economic benefits do not appear inconsequential. The Canadian Energy Research Institute (CERI, an industry-funded body) estimates that if Keystone XL doesn't go ahead, and no other pipeline is built either, Canada would forego $632 billion in additional GDP over the next 25 years (the bulk of the loss being born by Alberta), and the Government of Alberta would give up $95 billion in royalties – roughly 10% of government revenues on a per year basis.

However, should the approval not go through, there are several proposed pipelines that would also lower their dependence on the U.S. Midwest as their primary customer (see Table 1)– albeit at earlier stages of development than Keystone XL. The largest, Northern Gateway, faces powerful opposition in B.C., particularly from First Nations whose ancestral lands the pipeline would cross. Enbridge's Monarch pipeline proposal from Cushing to the Gulf Coast would also help alleviate the supply glut at Cushing, and help Canadian producers attain higher prices, with the added benefit of not needing a presidential permit. However, it too is at a much earlier stage of development.

Table 1.

Highlights of Cdn Crude Oil Pipelines	Capacity (000 b/d)
Capacity of Major Pipelines Exiting Western Canada	3486
Current Capacity to U.S. Gulf Coast (PADD III)	
ExxonMobil Pegasus (Patoka, IL, to Texas)	96
Proposed to Gulf Coast	
Keystone XL (AB to U.S. Gulf Coast)	700
Enbridge Monarch (Cushing, OK to Houston, TX)	350
Other Proposed Pipelines	
Enbridge Northern Gateway (Alberta to Kitimat, B.C.)	525
Kinder Morgan TMX2 & TMX3 (AB to Sumas, B.C.)	240-300
Kinder Morgan TMX Northern Leg (AB to Kitimat, B.C.)	400
*Enbridge's Line 9 Reversal (Sarnia to Montreal)	50-240

* Not a new pipeline, but a reversal of the flow of oil to west to east, bringing western Canadian crude to Ontario & Quebec.

Source: CAPP

Bottom Line

The proposed Keystone XL pipeline would deliver three main benefits to Canadian oil producers, and in turn the Canadian economy as a whole. First, it would increase capacity to expand exports from Western Canada over the medium term, which is important given oil sands production could double over the next decade. It would also enable Canadian producers to attain higher international prices for their product, at least in the short-run. Finally, it would be a first step to diversifying markets for Canadian crude, which would help insulate producers from being overly affected by conditions in any one market.

Derek Burleton
Vice President and
Deputy Chief Economist (Canada)
416-982-2514

Leslie Preston, Economist
416-983-7053

Endnotes

1 "Crude oil: Forecast, Markets & Pipelines". CAPP. June 2011.

2 "Executive Summary: Final Environmental Impact Statement for the Proposed Keystone XL Project". U.S. Department of State. August 2011.

3 Ibid.