



# Canadian domestic price forecast June 30, 2012

## Forecast commentary

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### Pipelines – seeking new markets for our resource products

The major topic of discussion these days revolves around pipelines in the North American infrastructure – the big question is how to get hydrocarbon products to market. This move to access alternative markets is driven by price, for both crude oil and natural gas. It's an especially hot topic for the Canadian industry, which, over the last few years, has watched the declining price of their commodities. The existing North American pipeline infrastructure was built to feed Eastern Canada and the Eastern, Midwestern, and Central population centers of the United States. Be it foreign crude oil landing into the Gulf of Mexico via Texas and Louisiana or the Canadian TransCanada natural gas mainline system, built to feed the eastern markets, the entire structure was intended to feed North America within the confines of its borders.

Coinciding with the beginning of the 2008 recession, the supply side of the energy equation changed in North America. First it was the expansion and growth of the technology to access tight natural gas formations through horizontal drilling and multi-fracturing of these reservoirs. This ultimately created an oversupply in the North American market, driving down natural gas prices to lows not seen in decades. With the continued expansion of the Canadian oilsands, both through mining and in-situ projects, a steady increase of crude oil into the North American market has occurred. Now the horizontal/multi-fracturing technology is making its way into tight oil plays, which is increasing supply to the North American market. There, demand is stagnant, if not declining, as conservation and alternative energies are being considered.

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“One man has enthusiasm for 30 minutes, another for 30 days, but it is the man who has it for 30 years who makes a success of his life.”

- Edward B. Butler

Adding insult to injury is the commodity pricing. Over the past year to 18 months there has been a disconnect between the benchmark price of West Texas Intermediate (WTI) and that of international reference crudes, like the United Kingdom's Brent. There have been many instances where the premium to Brent from WTI has exceeded over \$15.00/bbl. The low

natural gas price and the premium of international oil prices are driving North American companies to review the pipeline infrastructure. This begs the question how do they get their products to these higher priced markets?

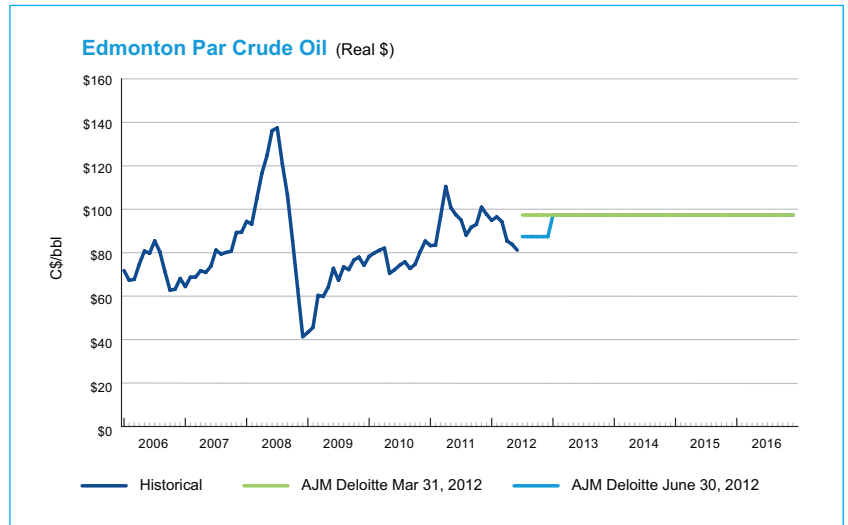
On the natural gas side, companies are looking at liquid natural gas (LNG) export facilities. Notably, in Canada, two major projects headed up by Shell and Apache, respectively, could see over 3.6Bcf/d of exports out of the Kitimat, British Columbia area. Oil is looking at a two-fold approach by reviewing the flow of crude oil from the central US markets. Projects like the Seaway pipeline reversal from Cushing, Oklahoma to the Gulf Coast and the Capline pipeline reversal from the Patoka/Wood River, Illinois area to the Gulf Coast are already progressing. Likewise, Canadian companies, like Enbridge, are pursuing the reversal of their Line “9” which would take oil from Sarnia, Ontario to eastern markets, possibly even to Montreal, Quebec. TransCanada, who have already converted one of their mainline natural gas pipelines to transport crude oil (Express Pipeline), are also considering additional conversions of their multi-pipeline natural gas system to crude oil. This would then better service the Eastern North American markets, which currently rely on the more expensive imported foreign priced crude oil. The industry is also considering moving crude oil offshore with the Kinder-Morgan proposed expansion of the Trans-Mountain pipeline through the Port of Vancouver and Enbridge's Northern Gateway pipeline heading to Kitimat, British Columbia. Companies are also looking to increase volumes heading to the Gulf Coast with new lines, like the TransCanada Keystone XL pipeline. North America's goal is to decrease its imported resources, while increasing its exported resources in order to increase revenue and reduce costs.

Be it LNG exports, raw crude oil, or refined products, finding ways to access markets beyond the North American market container are in the works. Energy demand beyond North America's borders is where the growth is anticipated. Let us not lose sight that with all of these “mega dollar” projects to export these products, it will mean an increase in jobs across North America. These jobs will be the result of capital generated from the private market and not government tax revenues. Earning more from exported commodities is an economic boost for both Canada and the United States at a time when both countries are seeking economic growth opportunities.

## Crude oil price and market demand forecast

### Forecast considerations

- Adjustments for oil consider the most recent pipeline tariffs and exchange rates to arrive at a Canadian Edmonton par equivalent price.
- Edmonton Par price is used as the basis to arrive at the remaining crude reference points. Offsets are based on five-year historical statistics with more recent data weighted more heavily in the determination.
- Adjustments on each individual property are made to account for transportation and crude quality from the Edmonton posted price or the reference price used for the specific property.

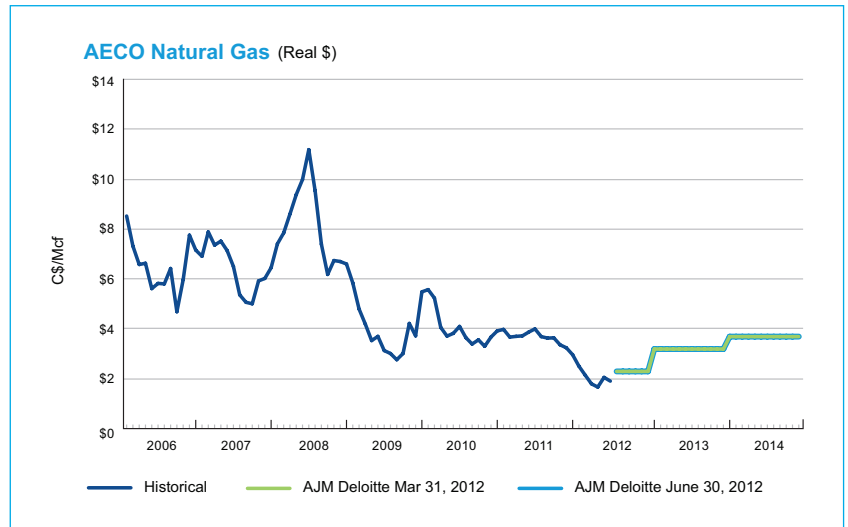


Year	WTI Cushing, OK (40 Deg. API)	WTI Cushing, OK (40 Deg. API)	Canadian Par Edmonton, AB (40 Deg. API)	Canadian Par Edmonton, AB (40 Deg. API)	SE SK Med. Oil Cromer, MB (29 Deg. API)	Bow River Oil Hardisty, AB (25 Deg. API)	Heavy Oil Hardisty, AB (12 Deg. API)	Cost inflation	CAD to USD exchange
	US\$/bbl	US\$/bbl	C\$/bbl	C\$/bbl	C\$/bbl	C\$/bbl	C\$/bbl		
	Real	Current	Real	Current	Current	Current	Current	Rate	Rate
<b>Historical</b>									
2009	\$63.08	\$61.78	\$67.60	\$66.21	\$62.77	\$59.90	\$54.49	0.0031	0.880
2010	\$80.84	\$79.42	\$79.18	\$77.79	\$73.48	\$68.16	\$60.59	0.0176	0.971
2011	\$94.91	\$94.91	\$95.58	\$95.58	\$88.21	\$78.50	\$69.56	0.0292	1.012
<b>2012</b>									
6 Months H	\$98.40	\$98.40	\$89.96	\$89.96	\$83.45	\$77.92	\$67.39	0.0233	0.999
6 Months F	\$90.00	\$90.00	\$88.00	\$88.00	\$81.50	\$69.00	\$63.00	0.0200	1.000
Avg.	\$94.20	\$94.20	\$88.98	\$88.98	\$82.47	\$73.46	\$65.19	0.0217	0.999
<b>Forecast</b>									
2012	\$90.00	\$90.00	\$88.00	\$88.00	\$81.50	\$69.00	\$63.00	0.0200	1.000
2013	\$100.00	\$102.00	\$98.00	\$100.00	\$92.30	\$79.00	\$73.00	0.0200	1.000
2014	\$100.00	\$104.05	\$98.00	\$102.00	\$93.00	\$80.00	\$74.00	0.0200	1.000
2015	\$100.00	\$106.10	\$98.00	\$104.00	\$94.25	\$82.00	\$76.00	0.0200	1.000
2016	\$100.00	\$108.25	\$98.00	\$106.10	\$95.60	\$84.10	\$78.10	0.0200	1.000
2017	\$100.00	\$110.40	\$98.00	\$108.20	\$96.95	\$86.20	\$80.20	0.0200	1.000
2018	\$100.00	\$112.60	\$98.00	\$110.35	\$98.35	\$88.35	\$82.35	0.0200	1.000
2019	\$100.00	\$114.85	\$98.00	\$112.55	\$99.05	\$90.55	\$84.55	0.0200	1.000
2020	\$100.00	\$117.15	\$98.00	\$114.80	\$99.80	\$92.80	\$86.80	0.0200	1.000

## Natural gas price and market demand forecast

### Forecast considerations

- The NYMEX to Canadian AECO price historical differential is used to arrive at the AECO forecasted price.
- Gas prices have been determined independently from oil prices but still reflect the current competitive nature of the two fuels. Direct spot sales prices are currently receiving a \$0.10/Mcf premium over system gas which is reflected in the forecast.
- Even though the Western Canadian gas market is highly competitive and prices have historically varied between purchasers, it is the view of AJM Deloitte that this will not hold as true in the future. The supply, demand and competition will keep the purchasers in close proximity to each other. Saskatchewan direct prices receive a slight premium over Alberta direct due to the occasional bottlenecks that occur in Alberta.
- The NYMEX price is based on delivery at the Henry Hub in Louisiana, the nexus of 16 intra- and interstate natural



gas pipeline systems that draw supplies from the region's prolific gas deposits.

Year	AB Ref. Avg. Price	AB AECO Avg. Price	AB AECO Avg. Price	AB System Plant Gate Sales	AB Direct Plant Gate Sales	BC Direct Station 2 Sales	SK Direct Plant Gate Sales	NYMEX	NYMEX
	C\$/Mcf	C\$/Mcf	C\$/Mcf	C\$/Mcf	C\$/Mcf	C\$/Mcf	C\$/Mcf	US\$/Mcf	US\$/Mcf
	Current	Real	Current	Current	Current	Current	Current	Real	Current
<b>Historical</b>									
2009	\$3.84	\$4.04	\$3.96	\$3.94	\$3.74	\$4.16	\$4.14	\$3.99	\$3.90
2010	\$3.76	\$4.07	\$4.00	\$4.07	\$3.76	\$4.00	\$3.90	\$4.46	\$4.38
2011	\$3.46	\$3.63	\$3.63	\$3.84	\$3.42	\$3.34	\$3.33	\$3.99	\$3.99
<b>2012</b>									
6 Months H	\$2.12	\$2.01	\$2.01	\$2.20	\$1.82	\$2.70	\$1.87	\$2.34	\$2.34
6 Months F	\$2.05	\$2.30	\$2.30	\$2.00	\$2.10	\$2.00	\$2.25	\$2.80	\$2.80
Avg.	\$2.08	\$2.16	\$2.16	\$2.10	\$1.96	\$2.35	\$2.06	\$2.57	\$2.57
<b>Forecast</b>									
2012	\$2.05	\$2.30	\$2.30	\$2.00	\$2.10	\$2.00	\$2.25	\$2.80	\$2.80
2013	\$3.00	\$3.20	\$3.25	\$2.95	\$3.05	\$2.95	\$3.20	\$3.50	\$3.55
2014	\$3.60	\$3.70	\$3.85	\$3.55	\$3.65	\$3.55	\$3.80	\$4.00	\$4.15
2015	\$4.00	\$4.00	\$4.25	\$3.95	\$4.05	\$3.95	\$4.20	\$4.30	\$4.55
2016	\$4.40	\$4.30	\$4.65	\$4.35	\$4.45	\$4.35	\$4.60	\$4.60	\$5.00
2017	\$4.85	\$4.60	\$5.10	\$4.80	\$4.90	\$4.80	\$5.05	\$4.90	\$5.40
2018	\$5.40	\$5.00	\$5.65	\$5.35	\$5.45	\$5.35	\$5.60	\$5.30	\$5.95
2019	\$5.85	\$5.30	\$6.10	\$5.80	\$5.90	\$5.80	\$6.05	\$5.60	\$6.45



## Pricing philosophy

### AJM Deloitte looks to both the futures and the past when we create our forecasts

Price forecasting takes into account many variables that can influence future prices. While experience tells us we must continually review the tools we use to predict future oil and gas prices, one constant is the impact that the geopolitical landscape has on pricing. This impact is most accurately reflected in the financial industry's futures market for commodities. That is why the futures market is the main influence in the creation of AJM Deloitte's price forecast.

At AJM Deloitte, we understand that sound analysis of changing trends can influence the decisions made about mergers, acquisitions, divestitures and investments. One of the ways we ensure our price forecasts are as accurate as possible is to review our pricing assumptions on a quarterly basis. Accurate and realistic information ensures better long-term decisions for our clients.

### These forecasts are AJM Deloitte's best estimate of how the future will look

In preparing the price forecast, AJM Deloitte considers the current monthly trends, the actuals and trends for the year to date, and the prior year actuals in determining the forecast. The base forecast for both oil and gas is based on NYMEX futures in US dollars. Crude oil and natural gas forecasts are based on yearly variable factors weighted to a higher percentage for the current data and then reflecting a higher percentage to prior year historical data for the later years. Gas prices have been determined independently from oil prices but still reflect the current competitive nature of the two fuels and reflect historical oil-to-gas ratios for the latter years of the gas forecast.

AJM Deloitte prepares our price and market forecasts based on information we collect from numerous government agencies, industry publications, oil refineries, natural gas marketers and industry trends. Inflation forecasts and exchange rates have also been considered.

While these forecasts are considered reasonable, changing market conditions or additional information may require alteration from the indicated effective date.

## Glossary

Some of the words, phrases and acronyms we use frequently when talking about pricing are listed below:

<b>AECO</b>	Alberta Energy Company - historical name of a virtual trading hub on the NGX system
<b>ANS</b>	Alaska North Slope
<b>ASCI</b>	Argus Sour Crude Oil
<b>AWB</b>	Access Western Blend - Canadian condensate/bitumen mix
<b>BR</b>	Bow River Crude Oil
<b>CBOT</b>	Chicago Board Of Trade
<b>CGA</b>	Canadian Gas Association
<b>DCQ</b>	Daily Contract Quantity
<b>EIA</b>	Energy Information Administration
<b>FERC</b>	US Federal Energy Regulatory Commission
<b>FOB</b>	Free on Board (shipper term)
<b>IEA</b>	International Energy Administration
<b>LLB</b>	Lloydminster Blend Crude Oil
<b>LNG</b>	Liquefied Natural Gas
<b>MESC</b>	Middle East Sour Crude
<b>MSO</b>	Mixed Sour Crude Oil
<b>MSW</b>	Canadian Light Sweet
<b>NEB</b>	Canadian National Energy Board
<b>NIT</b>	Nova Inventory Transfer
<b>NYMEX</b>	New York Mercantile Exchange
<b>OECD</b>	Organization of Economic Cooperation and Development
<b>OPEC</b>	Organization of Petroleum Exporting Countries
<b>PADD</b>	Petroleum Administration Defense District
<b>USGC</b>	US Gulf Coast
<b>USWC</b>	US West Coast
<b>WCS</b>	Western Canada Select Crude Oil
<b>WTI</b>	West Texas Intermediate
<b>WTS</b>	West Texas Sour

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