Deloitte.
Resource Evaluation & Advisory

Canadian domestic price forecast March 31, 2013

Forecast commentary

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2013 – a year for patience, grasshopper!

As many producers going through the 2012 annual reserves reporting period can attest, the December 31, 2012 price forecast was a tough pill to swallow. The general story in the industry was strong reserves growth with a significant drop in value from the previous year. This was a result of lower year-end price forecasts that were driven by one common theme: the softening of long-term futures prices.

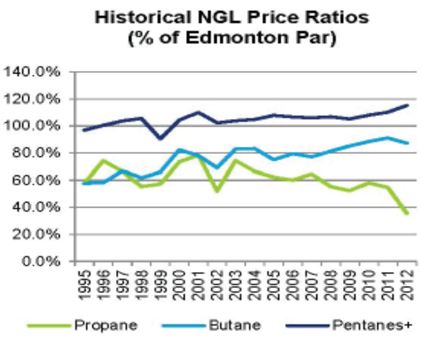
South of the border, significant drilling for oil opportunities, along with the lack of infrastructure and permits to export these volumes, has meant a North American oversupply of oil over the last year with no significant long-term changes in sight. In fact, WTI long-term futures prices have fallen from as high as $103/bbl in the summer of 2011 to $92/bbl at the start of 2012, eventually exiting 2012 at $84/bbl. The first quarter of 2013 has not reflected anything more positive regarding long-term oil futures.

Based on these trends, Deloitte had previously lowered the real forecast for long-term oil prices to $85/bbl, but we are forecasting a slight increase of $2/bbl for 2013 and 2014. This forecast is based on nominal upward movements in the near-term.

When you look at natural gas withdrawal through this winter, storage volumes have been reduced from all-time highs to nearer the five-year average. This has been reflected in the slightly higher than expected near-term gas price. I am still cautiously optimistic about the long-term natural gas price, due to the expectation of major U.S. markets moving towards the use of natural gas in the generation of power, long haul trucking, fuel for rail transport, and offshore LNG export terminals. You may notice our gradual growth in natural gas pricing, under the assumption that these plans will take significant time and infrastructure.

How do the current depressed natural gas prices affect natural gas liquids? NGLs are imperative for the economic drilling, development, and exploitation of certain shale gas plays in North America. So, with companies aggressively pursuing these plays, basic supply and demand economics reveal important differences on the various products (propane, butane, pentanes+) and their price ratios when compared to Edmonton Par oil.

The erosion in propane price seen in the following image is not a matter of a change in the composition of total NGLs produced, but rather a demonstration of a lack of growth in demand. Propane production remains relatively unchanged at 28 percent of total NGLs in the market. While typically used for heating purposes or as fuel, demand has not grown to offset current increases in total NGL production across North America. Propane has therefore been hit hardest with oversupply in the market.



The impact of this propane oversupply is that infrastructure around the Conway to Mont Belvieu, Texas system is lagging behind. The United States is currently at maximum export capacity, causing bottlenecks and leading to the decrease in price from the historical norm. Initiatives have been taken and projects are underway to increase the movement of propane, but these efforts will not be fully operational until late 2014.

I have noted with particular interest that the oil and gas industry is starting to conduct cost/benefit analyses to look into the use of propane a solvent in miscible flooding efforts, the oil sands, and other enhanced recovery methods. Deloitte has therefore decreased the price forecast for 2013 and 2014 from 55 percent of Edmonton Par to 40 percent of Edmonton Par. Following this period, our forecast returns to previous relationships.

There is not much new in the butane price differential. It has been consistent over the past five years, suggesting that growth in both supply and demand has been relatively in sync. Butane is typically used for gasoline blending and can be used in the creation of petrochemicals as well as solvents. We continue to forecast butane at 85 percent of Edmonton Par based on the weighted average of the last five years.

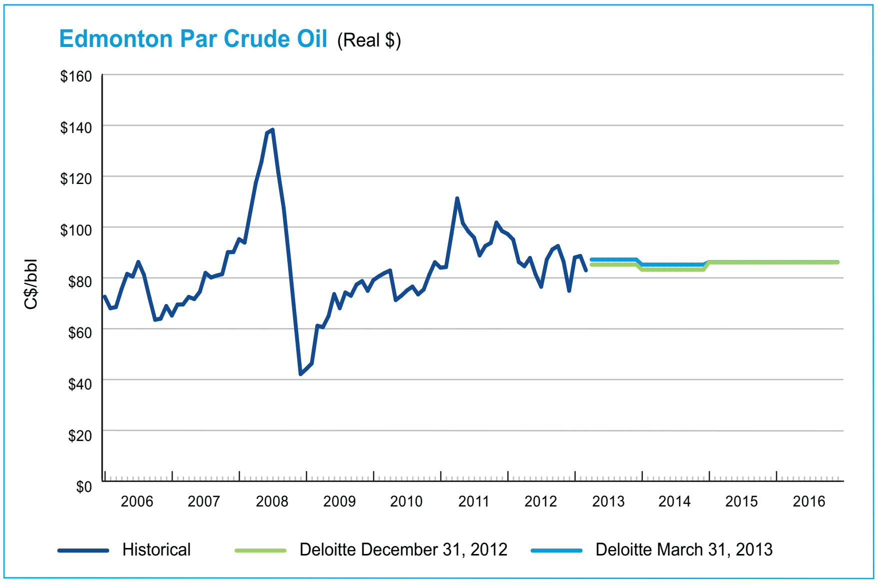
The exciting development to look at is the demand in the oil sands for pentanes+ as a diluent that allows the bitumen to meet pipeline requirements, so that it can be transported to refineries. Historically, pentanes+ have received a premium to Edmonton Par, but this premium continues to grow. In fact, this is the only natural gas liquid that Canada imports significant volumes of, and it is expected to continue to import with the strong demand. While industry believes the demand for pentanes+ in the oil sands could increase fivefold in the next 12 to 15 years, we have forecast the price to be 115 percent of Edmonton Par - more consistent with the last 12 months' average.

So what is the trend to watch? When it comes to liquid rich plays in Canada, the Duvernay resource play has the industry buzzing. Although still in its infancy, the Duvernay has the potential to be a very desirable target at today's market prices and could affect the dynamic of pentanes plus imports for years to come.

Crude oil price and market demand forecast

Forecast comments

- On average, the differential between WTI and Edmonton Par has been around $7/bbl in the first quarter of 2013, due to Canadian volumes of oil being backed out from the U.S. market. We have forecast this differential to be $5/bbl for 2013 and 2014.
- In 2015, Deloitte is forecasting a return to the historical WTI to Edmonton Par differential of $2/bbl, when pipeline and infrastructure constraints are expected to ease with further rail transport, and major pipeline reconfigurations and optimizations.
- 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 recent data weighted more heavily in the determination.
- Adjustments for oil consider the most recent pipeline tariffs and exchange rates to arrive at a Canadian Edmonton Par equivalent price.

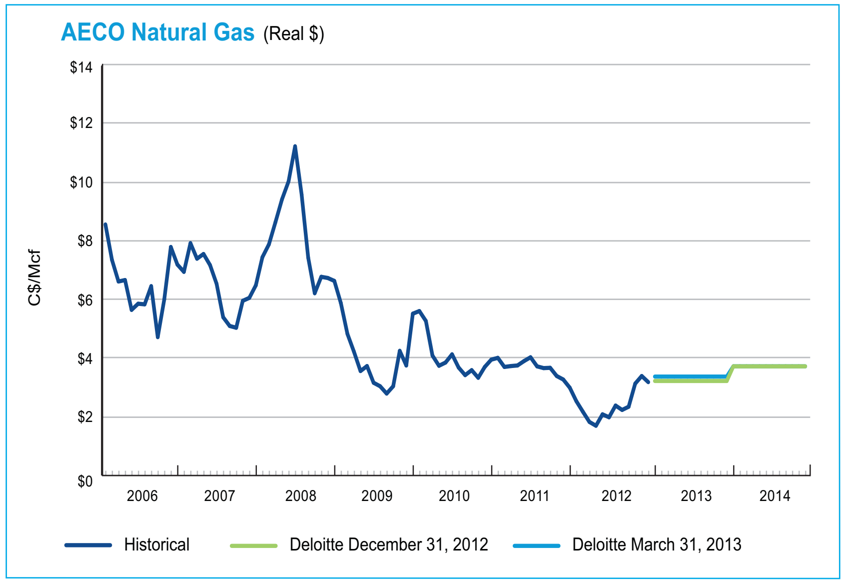


Year	WTI Cushing, OK (40 Deg. API)	WTI Cushing, OK (40 Deg. API)	Canadian Par Edmonton, AB (40 Deg. API)	Canadian Par Edmonton, AB (40 Deg. API)	SE SK Med. Oil Cromer, MB (29 Deg. API)	Bow River Oil Hardisty, AB (25 Deg. API)	Heavy Oil Hardisty, AB (12 Deg. API)	Cost inflation	CAD to USD exchange
	US$/bbl	US$/bbl	C$/bbl	C$/bbl	C$/bbl	C$/bbl	C$/bbl		
	Real	Current	Real	Current	Current	Current	Current	Rate	Rate
Historical									
2010	$83.27	$79.42	$81.56	$77.79	$73.48	$68.16	$60.59	0.018	0.971
2011	$97.76	$94.91	$98.45	$95.58	$88.21	$78.50	$69.56	0.029	1.012
2012	$94.07	$94.07	$87.84	$86.51	$80.83	$74.34	$63.99	0.015	1.001
2013									
3 Months H	$93.73	$93.73	$86.34	$86.34	$79.36	$58.03	$49.99	0.015	1.003
9 Months F	$92.00	$92.00	$87.00	$87.00	$80.50	$68.00	$62.00	0.000	1.000
Avg.	$92.43	$92.43	$86.83	$86.83	$80.21	$65.51	$59.00	-	1.001
Forecast									
2013	$92.00	$92.00	$87.00	$87.00	$80.50	$68.00	$62.00	0.0000	1.000
2014	$90.00	$91.80	$85.00	$86.75	$79.60	$67.75	$61.75	0.0200	1.000
2015	$88.00	$91.55	$86.00	$89.50	$81.70	$70.50	$64.50	0.0200	1.000
2016	$88.00	$93.40	$86.00	$91.25	$82.45	$71.25	$65.25	0.0200	1.000
2017	$85.00	$92.00	$83.00	$89.85	$80.75	$70.85	$64.85	0.0200	1.000
2018	$85.00	$93.85	$83.00	$91.65	$81.50	$71.65	$65.65	0.0200	1.000
2019	$85.00	$95.70	$83.00	$93.45	$82.65	$73.45	$67.45	0.0200	1.000
2020	$85.00	$97.65	$83.00	$95.35	$82.75	$74.35	$68.35	0.0200	1.000
2021	$85.00	$99.60	$83.00	$97.25	$83.25	$76.25	$70.25	0.0200	1.000

Natural gas price and market demand forecast

Forecast comments

- The NYMEX to Canadian AECO price historical differential is used to arrive at the AECO forecasted price.
- In Deloitte's most recent price forecast, we increased 2013 prices by $0.15/Mcf.
- In contrast to other forecasts in the industry, Deloitte's long-term views consider two more years of growth in terms of real dollars.



Year	AB Ref. Avg. Price	AB AECO Avg. Price	AB AECO Avg. Price	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	US$/Mcf	US$/Mcf
	Current	Real	Current	Current	Current	Current	Real	Current
Historical								
2010	$3.76	$4.20	$4.00	$3.76	$4.00	$3.90	$4.60	$4.38
2011	$3.46	$3.74	$3.63	$3.42	$3.34	$3.33	$4.11	$3.99
2012	$2.25	$2.39	$2.39	$2.22	$2.30	$2.15	$2.76	$2.76
2013								
3 Months H	$2.98	$3.14	$3.14	$2.99	$2.88	$2.78	$3.53	$3.53
9 Months F	$3.10	$3.35	$3.35	$3.35	$3.05	$3.30	$3.65	$3.65
Avg.	$3.07	$3.30	$3.30	$3.26	$3.01	$3.17	$3.62	$3.62
Forecast								
2013	$3.10	$3.35	$3.35	$3.15	$3.05	$3.30	$3.65	$3.65
2014	$3.50	$3.70	$3.75	$3.55	$3.45	$3.70	$4.00	$4.10
2015	$3.80	$3.90	$4.05	$3.85	$3.75	$4.00	$4.20	$4.35
2016	$4.10	$4.10	$4.35	$4.15	$4.05	$4.30	$4.40	$4.65
2017	$4.40	$4.30	$4.65	$4.45	$4.35	$4.60	$4.60	$5.00
2018	$4.85	$4.60	$5.10	$4.90	$4.80	$5.05	$4.90	$5.40
2019	$5.15	$4.80	$5.40	$5.20	$5.10	$5.35	$5.10	$5.75
2020	$5.50	$5.00	$5.75	$5.55	$5.45	$5.70	$5.30	$6.10
2021	$5.85	$5.20	$6.10	$5.90	$5.80	$6.05	$5.50	$6.45

Pricing philosophy

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 Deloitte's price forecast.

At 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 Deloitte's best estimate of how the future will look

In preparing the price forecast, 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 U.S. 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.

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:

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

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