Deloitte.
Resource Evaluation & Advisory

Canadian domestic price forecast June 30, 2013

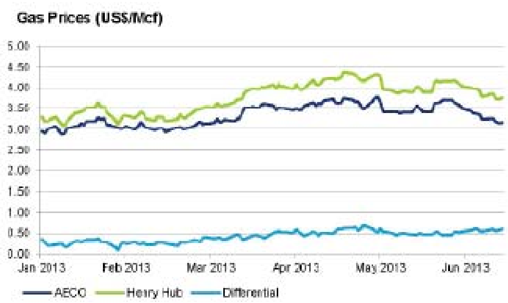
Forecast commentary

Andrew Botterill
Senior Manager, Resource Evaluation & Advisory

Price - and drilling activity - ruled by supply and demand

"Slow and steady wins the race" - Aesop

The moral of Aesop's "The Tortoise and the Hare" isn't the rallying cry that many in the North American energy sector like to hear from oil and gas forecasters. Certainly there have been short-term price increases during Q2 2013. But increased production, along with stagnant demand for Canadian oil and gas caused by our dependence on the United States as our primary export customer, ensures these price increases are only temporary. Not the kind of price growth upon which to base an increase in drilling activity.



Natural gas has seen its share of optimism in Q2 2013, with the NYMEX Henry Hub gas price trading as high as US$4.37 (C$3.85/Mcf AECO) in April. Growth in natural gas prices from February through April caused many to question our cautious March 31 price forecast for 2013 NYMEX gas. Looking back, we can't help but feel that caution was well placed. As spring took hold, prices started a steady march down to a level more consistent with our forecast. Differentials of $0.30/Mcf between Henry Hub and AECO from early 2013 have widened to $0.50/Mcf or greater and we have not yet seen this trend reverse. This demonstrates that any uptick in gas prices is quickly swallowed up by U.S. gas markets and is not felt to the same extent in Canada.

Brent oil prices have seen a dramatic decrease through Q2 2013, with WTI and Edmonton Par holding relatively flat. The reduction in Brent to WTI differentials can be attributed to two factors. First, pipeline reversals, debottlenecking, and rail transport have helped move significant oil volumes, supporting WTI prices. Second, Brent prices have weakened as a result of lower-than-expected growth forecasts in emerging countries such as China and India. Our long-term forecast for WTI oil increases slightly to US$94/bbl but eventually decreases to US$85/bbl in real terms in 2017, consistent with the long-term futures markets. We continue to forecast a $5/bbl differential between WTI and Edmonton Par that will decrease in the long term to $2/bbl to match pipeline tariffs between the two markets.

The overall message? Long-term futures trading markets – not short-term price blips – are a barometer for long-term supply and demand expectations and price movements. Both gas and oil futures have softened and supply continues to outstrip demand. This has led to the slow erosion of long-term gas and oil prices that we have seen over the past five years.

North American oil consumption has been quite consistent for the past five years. Between 2008 and 2010, futures markets signaled increasing long-term prices for oil. As with the gas sector, optimistic Canadian and U.S. companies were encountering large oil resource plays and achieving success in the use of horizontal multi-stage fracturing completions. As prices moved above $80/bbl, increased oil production inundated the market. The lack of growth in demand, and lack of export capabilities, has led to a softer long-term view.

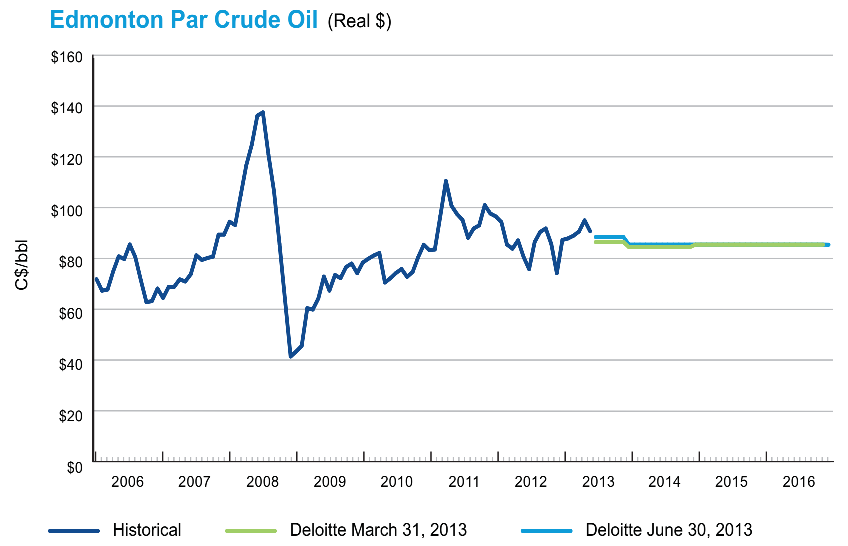
Unlike oil, gas consumption has seen a healthy ten per cent increase in North America over the last five years. There is also an expectation that natural gas will become a more dominant energy source for heating and power generation, and that LNG terminals on our coasts will feed this fuel to the global market. While the 2020 futures price for natural gas today is more than 30 per cent lower than it was in 2008, we are still forecasting almost the same degree of growth over time. We're just starting from a lower short-term price brought on by oversupply. This might bode well for natural gas futures prices. However, the economic, environmental and political sensitivities of these mammoth projects cast doubt on how many of them will be completed and how soon. As such, the impact on future gas prices remains uncertain.

For both gas and oil, it is important for industry and governments to continue to exercise caution. Until the long-term supply and demand issues are resolved, it is better to be a slow and steady tortoise than to adopt a 'hare' mentality and rush ahead with expensive drilling initiatives.

Crude oil price and market demand forecast

Forecast comments

- The differential between WTI and Edmonton Par has been forecast 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.

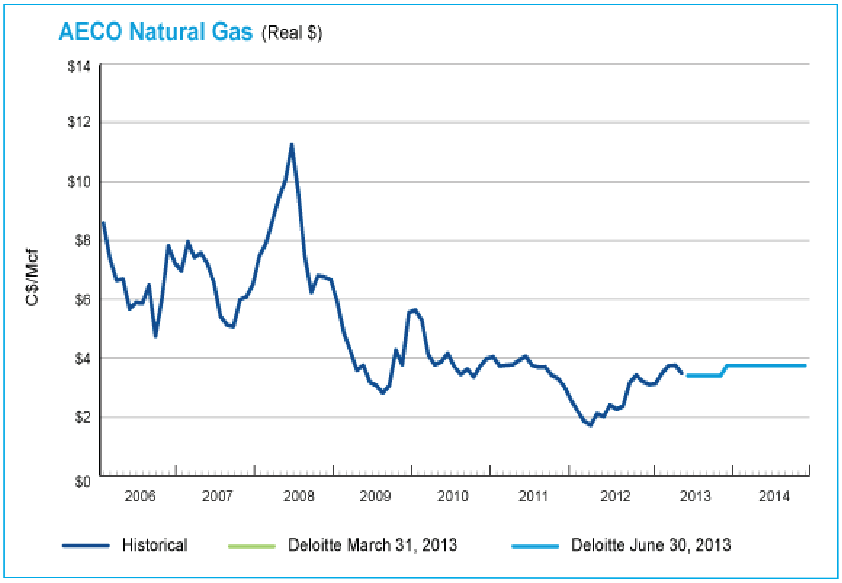


Year	WTI Cushing, OK (40 Deg. API)	WTI Cushing, OK (40 Deg. API)	Canadian Par Edmonton, AB (40 Deg. API)	Canadian Par Edmonton, AB (40 Deg. API)	SE SK Med. Oil Cromer, MB (29 Deg. API)	Bow River Oil Hardisty, AB (25 Deg. API)	Heavy Oil Hardisty, AB (12 Deg. API)	Cost inflation	CAD to USD exchange
	US$/bbl	US$/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									
6 Months H	$94.01	$94.01	$90.64	$90.64	$80.93	$71.34	$58.96	0.012	0.993
6 Months F	$94.00	$94.00	$89.00	$89.00	$82.50	$70.00	$64.00	0.000	1.000
Avg.	$94.00	$94.00	$89.82	$89.82	$81.71	$70.67	$61.48	-	0.996
Forecast									
2013	$94.00	$94.00	$89.00	$89.00	$82.50	$70.00	$64.00	0.0000	1.000
2014	$91.00	$92.80	$86.00	$87.75	$80.60	$68.75	$62.75	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								
6 Months H	$3.04	$3.40	$3.40	$3.09	$3.09	$3.04	$3.74	$3.74
6 Months F	$3.10	$3.35	$3.35	$3.35	$3.05	$3.30	$3.80	$3.80
Avg.	$3.07	$3.38	$3.38	$3.22	$3.07	$3.17	$3.77	$3.77
Forecast								
2013	$3.10	$3.35	$3.35	$3.15	$3.05	$3.30	$3.80	$3.80
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

Deloitte
Bankers Court
700, 850 - 2 Street SW
Calgary AB T2P 0R8
Canada

Tel: 403-267-1700
Fax: 587-774-5398