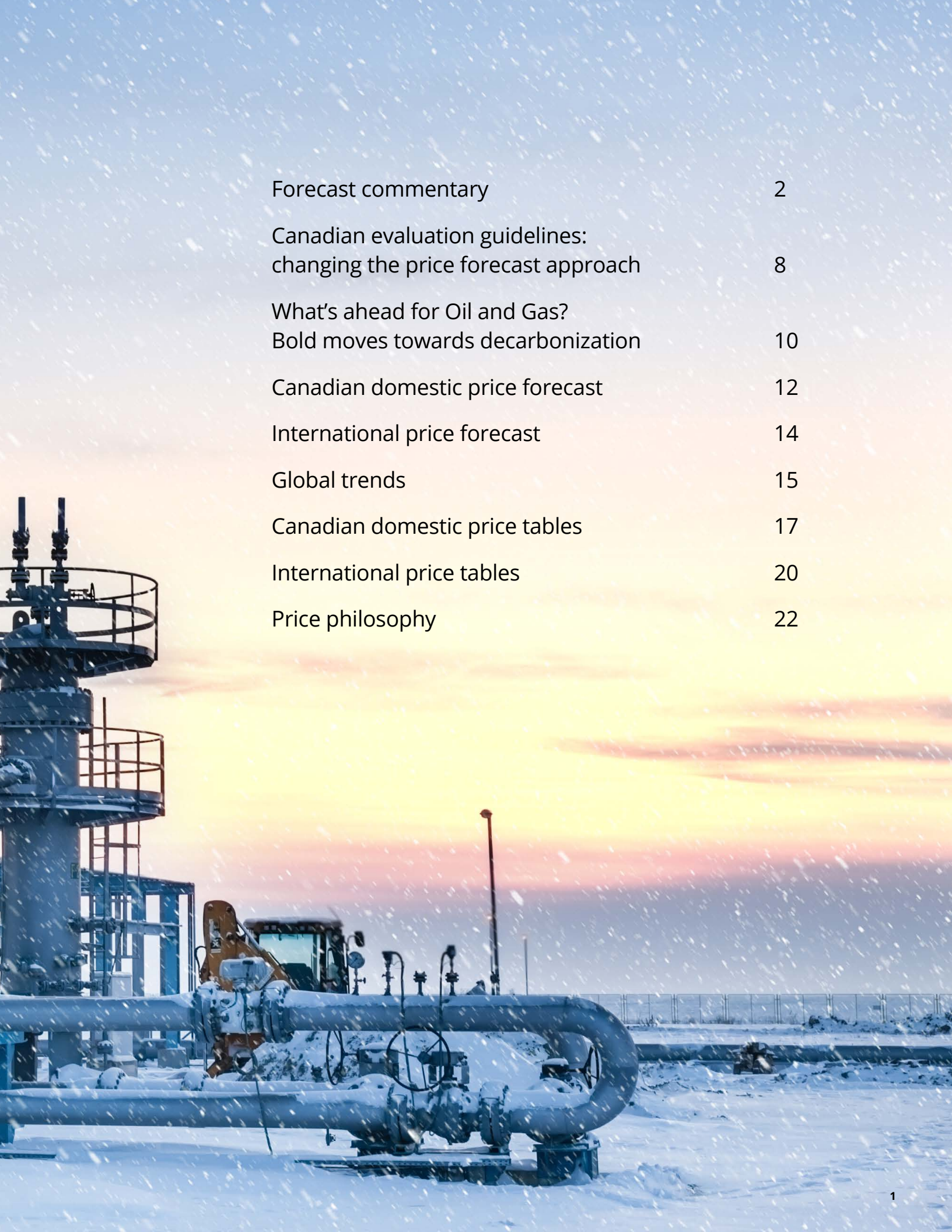
Deloitte.

Price forecast

Oil, gas & chemicals

December 31, 2020



Forecast commentary

Market update

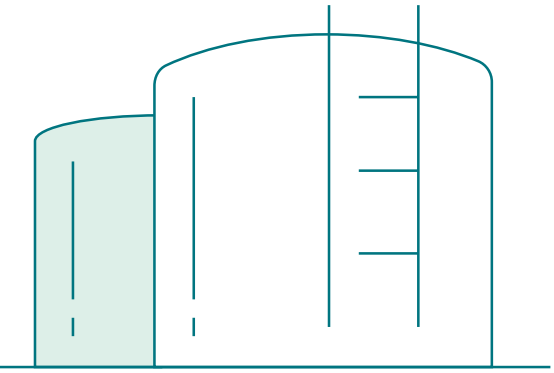
International crude oil prices have been relatively level over the last few months, even as COVID-19 cases were surging in many nations. Increased production from Libya in October coupled with that global surge of infection have impeded price recovery within the sector. However, crude oil prices were bolstered in November after numerous pharmaceutical companies announced vaccines would be available in December 2020, signalling a light at the end of the COVID-19 tunnel for crude oil demand as well as health.

Global oil supply is forecast to close the year at about 93 MMbbl/d[1], an 8 percent decrease from Q4 2019 levels. The decreased production levels are due to curtailments from producers, with major reductions in volumes from OPEC+ members, the United States, and Canada. The US Energy Information administration (EIA)'s short-term energy outlook forecasts a reduction in global crude-oil inventory volumes in 2021, with consumption surpassing supply in Q1 2021. This forecast indicates a return to the global supply-demand balance and continuing sector recovery in 2021. Although the overall supply and demand levels are lower than 2019 forecast values, the boost in global demand indicates a return to pre-pandemic consumption behaviour.

In December, OPEC+ announced an increase in crude oil supply of 500,000 bbl/d, starting in January 2021, and that levels will be revisited every month to determine if the supply can be increased. Its members have agreed that any increases to supply will be capped at 500,000 bbl/d to help create stability in the supply-demand balance. This recent announcement, along with the beginning of COVID-19 vaccination rollouts, should result in relatively flat near-term crude oil markets.

Over the course of 2020, AECO natural gas prices were the strongest they have been in years. The average value increased 25 percent year over year because of the price stability.

Although the overall supply and demand levels are lower than 2019 forecast values, the boost in global demand indicates a return to pre-pandemic consumption behaviour.



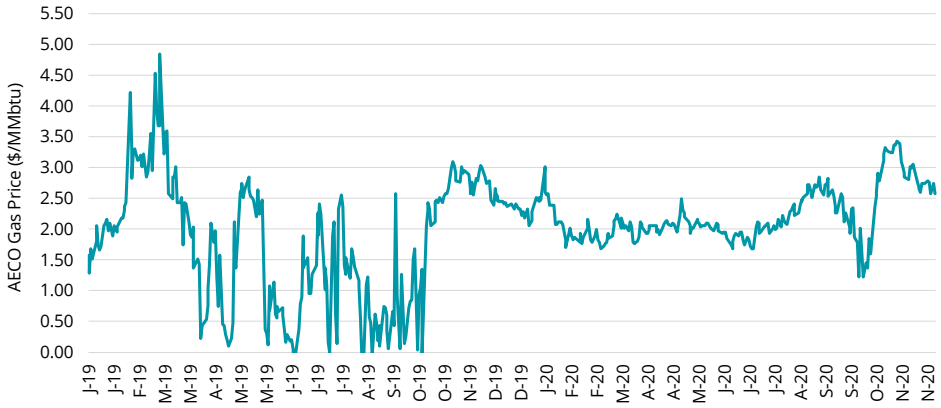
[1] US Energy Information Administration, *Short-term energy outlook*, https://www.eia.gov/outlooks/steo/, accessed December 8, 2020

A sharp contrast to the oil markets, natural gas was a beacon of hope in the industry in 2020. The growth and stability of the AECO price stream is a result of the increased movement of natural gas volumes from the Western Canadian Sedimentary Basin to the US and eastern Canadian markets, as well as the ability of producers to access storage in the summer months. Robust AECO prices have accelerated 2020/2021 winter drilling schedules and increased natural gas production volumes to values above those of Q4 2019. Canadian natural gas storage levels are 75 Bcf[2] above the five-year average, indicating a rise in supply levels heading into the winter heating months. These storage volumes are expected to decrease over Q1 2021 if, as expected, residential consumption increases to meet a cold winter.

Henry Hub prices also increased in Q4 2020 as liquefied natural gas (LNG) exports increased amid depressed natural gas production in the United States. US LNG facilities exported an average volume of 9.4 Bcf/d[3] in November 2020, representing 8 percent of the total marketed natural gas production in the United States that month. In comparison, US production levels have decreased 10 percent from the beginning of the year, mostly because slower oil drilling brought less gas from the Permian.

During the summer of 2020, Henry Hub prices were low compared to historical values. This was the result of a domestic oversupply of gas and decreased export volumes, especially in LNG. At the beginning of 2020, LNG accounted for approximately 50 percent of US exports, compared to 30 percent of July and August exports. In Q4 2020, LNG export volumes increased to surpass early 2020 levels, demonstrating an increased reliance on international LNG prices for domestic supply and demand balance.

Historical AECO gas price



Source: DOB

[2] ARC Energy Institute, ARC Energy Charts - November 23, 2020, https://www.arcenergyinstitute.com/section/arc-energy-charts/, accessed December 3, 2020
[3] US Energy Information Administration, *Short-term energy outlook – Natural gas*, https://www.eia.gov/outlooks/steo/report/natgas.php, accessed December 8, 2020

CER forecast: two possible scenarios

The Canadian Energy Regulator (CER) released a report[4] at the end of November outlining its energy supply and consumption forecast. The report includes two distinct scenarios, the reference energy system (in which the status quo is maintained) and the evolving energy system (continues the recent pace of change in Canada's energy transition, with continued reliance on fossil fuels), with the latter focused on reducing greenhouse gas (GHG) emissions.

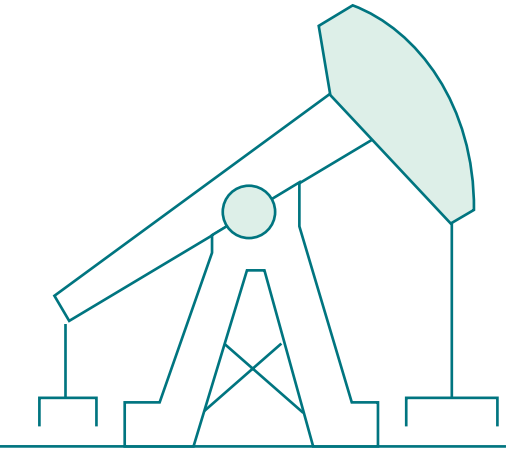
The report does not quantitatively analyze an accelerated energy-transition scenario, but it does address the implications of reaching net-zero emissions by 2050. In addition, the scenarios don't necessarily align with global outlooks published by other industry sources; they represent only the current expectations of the Canadian oil and gas sector. The analysis features separate crude oil and natural gas production forecasts for the reference and evolving scenarios.

In the **evolving scenario**, the CER assumed technological improvements for extraction and upgrading would continue to develop and reduce emissions. This is an important consideration at the moment and companies are actively investing additional capital to create lower-carbon operations. The forecast relies heavily on implementing technology to reduce emissions rather than curbing production output. Operational emission-reduction technologies are expensive, and regulatory changes at the federal level may be required to encourage companies to direct money to investing in them.

The evolving scenario also assumes existing regulations are maintained and any pending regulatory changes are implemented. However, it does not account for potential government policies regarding energy transition and GHG emissions. It also assumes the majority of growth in oilsands projects stems from expansions and upgrades, as no greenfield oilsands projects are included in the forecast. This is likely because of the recent cancellations of oilsands projects as well as project delays from major producers in the oilsands.

One of the main uncertainties in the report concerns the scheduled crude-oil pipeline capacity and the construction of new pipelines. The evolving scenario poses that the TMX and Keystone XL pipelines would no longer be required on a volume basis only. This is a primary difference in the two scenario forecasts, as the reference case would require both pipelines for takeaway capacity. It should be noted that although the volumes forecast in the evolving case would not fill the pipeline capacity created by these major pipelines, we believe these routes would increase the access of Canadian crude oil to different markets and, therefore, market access flexibility for producers.

Similar to other industry forecasts, the extent of demand erosion due to COVID-19 and the impact of global climate action on crude oil demand are major uncertainties addressed in the scenario forecasts. Based on end-use demand forecasts, the transportation sector shows the largest decrease for refined petroleum products, primarily related to a reduction in diesel and gasoline volumes. This is not unexpected due to current government initiatives on clean fuel standards and the transition to electric and hydrogen-fuelled vehicles.



[4] Canada Energy Regulator, *Canada's Energy Future 2020*, https://www.cer-rec.gc.ca/en/data-analysis/canada-energy-future/2020/index.html, accessed December 7, 2020

The CER report's natural gas production forecasts are led by activity in the Montney Formation, and anticipates conventional gas diminishing significantly over the coming years. This is in line with historical production trends and recent budgets released by natural gas producers. The Montney is expected to lead natural gas production growth because of its large gas volumes and associated natural gas liquids. Both the reference and evolving forecasts assume infrastructure expansion and debottlenecking will occur to get gas to markets efficiently. Midstream companies recently announced they were investing in natural gas infrastructure, including LNG facilities and pipeline expansions.

The CER scenario forecasts offer a view of the Canadian oil and gas industry through different lenses. These forecasts depend on multiple assumptions and will change based on regulatory variations, price fluctuations, and demand changes. They allow us a glimpse into what could be as producers work to reduce emissions. The report shows that scenario-planning is vital to Canadian energy producers to understand how their operations can fit within the future energy market and where evolution is required.

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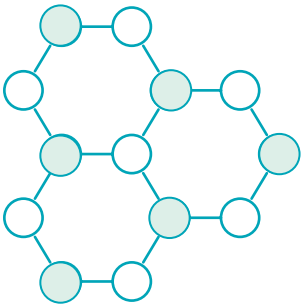


Canadian differentials for oil and natural gas

Canadian prices are often assessed relative to United States or global benchmarks, rather than viewed as having their own separate market forces. This is made apparent by the futures trading of both Edmonton Light and Western Canadian Select, which trade as differentials to WTI rather than standalone market prices. Even though AECO trades as a market price, we tend to watch its differential to Henry Hub prices since the North American natural gas market is so interconnected.

For this forecast, we decided to provide context for our view on Canadian price differentials and discuss the underlying forces we believe will affect future values.

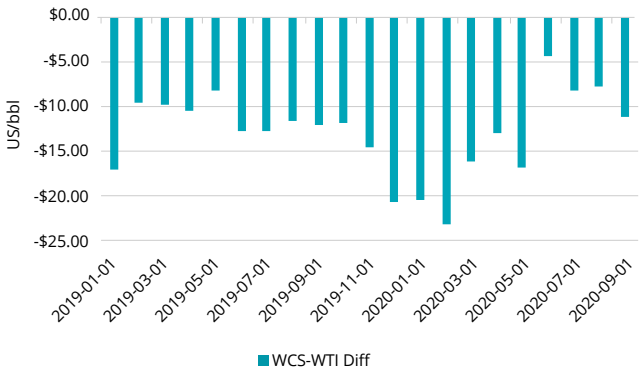
In 2019, 80 percent[5] of Canadian oil production was exported to the United States, as the demand for heavy oil from US refineries continued to grow. Many Midwest US refineries have positioned their facilities to use heavy oil as feedstock, for reasons regarding supply and upgrading margins. This demand for heavy oil benefits Canada, since more than 60 percent of Canadian production is bitumen from the oilsands. In addition, feedstock supply to US refineries from other heavy oil-producing nations, including Mexico and Venezuela, has diminished in recent years, providing yet more opportunity for Canadian heavy oil to fill the gap.

These factors have maintained a relatively healthy demand for Canadian heavy oil in 2020. This has resulted in a narrower WTI-WCS differential, reaching as low as -US$4.34/bbl in June 2020. We believe this narrower differential will continue in the near term but that it will widen to US$15/bbl by 2022, reflecting average historical values. While the WCS differential has been much wider than US$15/bbl in recent history, our view is that Canadian supply is unlikely to outstrip refinery demand and the differential will reflect the additional costs of shipping excess volumes by rail.

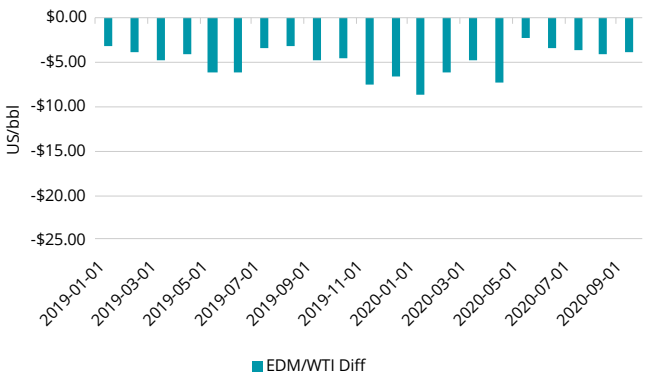
Canadian light differentials compete in a different market than heavy oil. The refineries that source light oil in the United States have plenty of supply to choose from, including many American producers and plays. The average differential in 2020 for Canadian light has been fairly similar to the that in 2019. While light oil supply south of the border has been curbed by the slowing development of the Permian and other US shale plays, we believe US refineries will be able to source the majority of the supply they require from US producers.

Furthermore, in an effort to balance its domestic volumes, we believe the United States is more likely to decrease its export volumes of light oil than to seek additional supply from Canada. We expect the differential will return to the five-year average of US-$5/bbl in 2021.

WCS differential



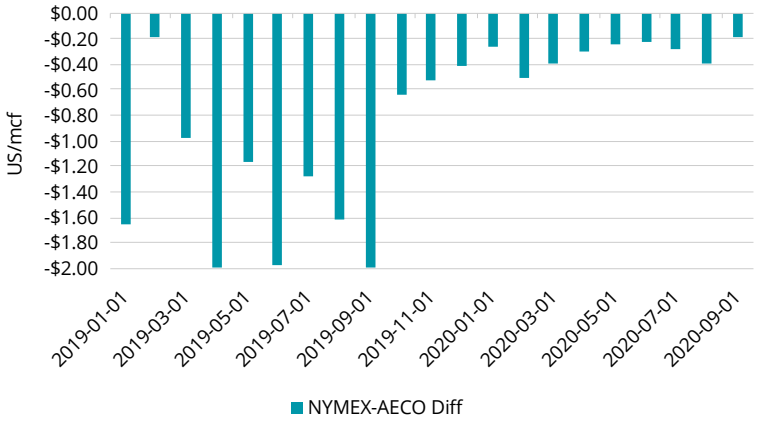
Canadian light differential



Sources: Flint, EIA, NRC

[5] Government of Canada, *Crude oil facts*, https://www.nrcan.gc.ca/science-data/data-analysis/energy-data-analysis/energy-facts/crude-oil-facts/20064#7, accessed December 4, 2020

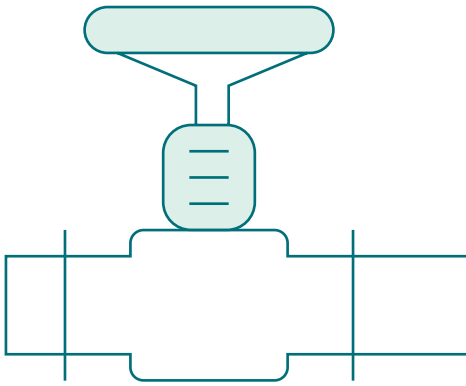
AECO differential



Sources: DOB, EIA

As with oil, the Canadian markets react significantly to fluctuations in the US natural gas market. For the AECO-Henry Hub differential, we expect decreasing natural gas production from the United States—it has dropped 10 percent since the beginning of 2020, —will result in a narrower differential in 2021, just as it has prompted strong AECO pricing this year.

With increasing gas prices, stabilizing development in the United States, and increasing production in Canada, we expect to see the differential between AECO and Henry Hub widen to the five-year average of US$1/Mcf over the next few years. We have long been optimistic about the future of natural gas, and prudent development spending in the United States only increases our optimism. We expect that partners involved with LNG projects will ramp up production to meet expected demand rather than purchase gas from other producers and create a run-up in prices. If anything, the addition of Canadian LNG facilities could create a period of very wide differentials as LNG partners begin to bring volumes onstream before their facilities are online.



Canadian evaluation guidelines: changing the price forecast approach

While Deloitte has an oil and gas advisory practice, the impetus for our quarterly price forecast has come from our work preparing independent reserve evaluations for companies that require reserve reports that adhere to the Canadian Oil and Gas Evaluation Handbook (COGEH) guidelines. In recent months, COGEH, which is maintained by the Calgary chapter of the Society of Petroleum Evaluation Engineers (SPEE), updated its guidance for generating price forecasts for use in evaluations.

Two key limitations on price forecasts have been introduced:

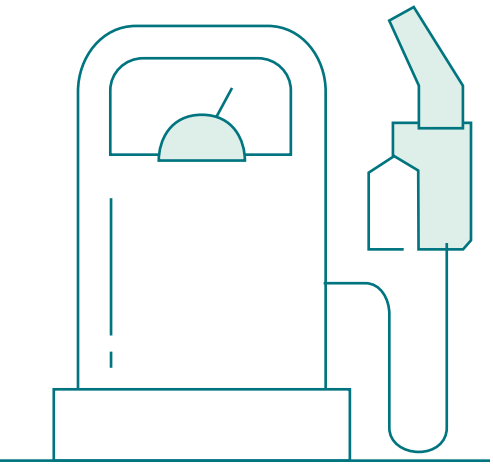
1. Prices should be within 20 percent of forward strip for the first two full years of the forecast for major benchmarks with trading futures (i.e., WTI, Canadian Light differential, WCS differential, AECO, and Henry Hub).

2. The third year can be forecast according to the evaluation firm's discretion, but no growth beyond Year 3, prior to inflation, is permitted.

As with most COGEH guidance, there's some leeway for an evaluation firm to deviate from these limitations, but there is an obligation to ensure it's clear why that choice was made. These new limitations come into effect April 1, 2021. In this forecast, we have chosen to forecast outside the recommended range by COGEH for WTI prices in 2022 as we believe crude oil demand will rebound by the end of 2021 once vaccines have been rolled out across North America resulting in prices outside the bounds imposed by COGEH with current strip pricing.

This updated guidance will certainly shorten the range of forecasts that are published, as it may no longer be possible to represent different supply-demand worldviews. The major pitfall that we see with the COGEH guidance is that it focuses on futures curves as the best indicator of forward-looking prices. This may be the best market data there is, but we believe it is not infallible, and it's often a very poor indicator of actual prices. Back in 2014, the Bank of Canada published an analysis that also took this view and moved away from using futures data in its oil price forecast.[6]

We do rely heavily on futures data for our near-term forecasts, but we often look at multiple time horizons—such as previous day/week/month—along with other market data, such as production, storage levels, and demand projections, to understand current market trends. After all, the futures market comprises people making bets, just like we do in this price forecast, and they are often misled and swayed by near-team events. This was seen most recently in March 2020, when countries began locking down and WTI futures were predicting prices below US $30/bbl for the remainder of the year. As it played out, WTI prices averaged just under US $36/bbl from April through November, more than 20 percent higher than predicted in March.



[6] Bank of Canada, *The art and science of forecasting the real price of oil*, https://www.bankofcanada.ca/wp-content/uploads/2014/05/boc-review-spring14-baumeister.pdf, accessed December 4, 2020

The updated COGEH guidance also expresses a preference to use the closest daily futures to the effective date of the forecast. Using a single day's forward curve at the end of the month can incorporate temporary volatility, which is not indicative of future prices. Many traders seek to transact on their contracts at the end of the month as they rationalize their portfolio, and in an extreme case, this can lead to negative price days. We saw this on April 20, 2020, when WTI prices plunged to -US$37/bbl.

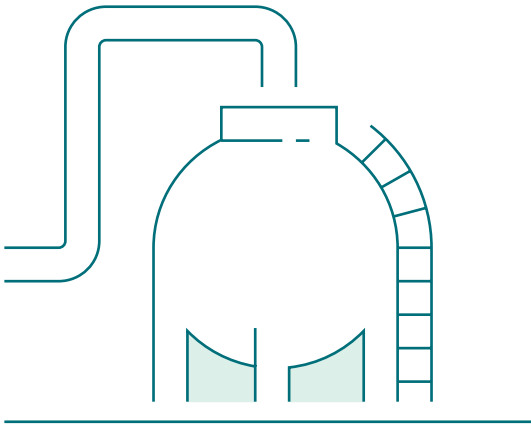
While this was a rare event, there is enough justification for being wary of trading on the last day of the month. Based on this risk, the Security Exchange Commission changed its pricing formula in 2009 away from a single point (the closing price at the end of the year) to an average of the closing price on the first day of each month of the year. End-of-month volatility can be amplified at year-end, when trading is low because of the holiday season.

While the guidelines are prescriptive and we could generate our forecast solely based on futures data, we believe it is still necessary to understand the market and trends in the industry when creating our price forecast.

Evaluator price forecasts have been viewed by some in the market as not reflecting a transactable value, and sometimes even ignored in the investment and lending community as market values did not reflect reserve-report values. COGEH's new price forecast guidelines will certainly take a step toward closing the gap between reserve-report values and transaction values, but they will also affect many companies by reducing corporate reserves. This may not be as dire as it first sounds since most companies have moved away from a growth model and toward maximizing cash flow, as this has become what the market wants to see.

In light of this change to COGEH, Deloitte will now issue a forecast that adheres to these guidelines. There may be a marked difference between this quarterly oil and gas price forecast and the one used in the economic forecasts published each quarter by Deloitte Chief Economist Craig Alexander. In the past, we have used similar forecasts, but the limitations imposed by COGEH will not always allow us to represent Deloitte's holistic view of the market.

This year has been a difficult one within the oil and gas industry as countries battled COVID-19 and producers struggled with faltering crude oil demand. The pandemic caused one of the largest supply shocks in history and created substantial market volatility throughout the year. With the introduction of vaccines towards the end of 2020, we expect demand to rebound in 2021 and beyond; however, the long-term impacts of the pandemic on crude oil demand are not yet known.



The future of oil and gas: Bold moves toward decarbonization

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Public perception of big oil and gas companies and the industry at large has in recent years been tightly tied to their role in climate change and environmental stewardship. As companies consider their long-term strategy, many are looking to put a stake in the ground on their own environment, social, and governance (ESG) targets.

In recent years, ESG programs have received widespread attention as companies across the oil and gas value chain look to address stakeholder and investor calls for ESG stewardship. Unveiling a mandate to set and achieve ESG targets is an opportunity to increase public trust and make bold investments within these transformational spaces, especially in Canada. The next evolution of the environmental piece of ESG has shaped up to be decarbonization.

The purpose of decarbonization is, of course, to reduce greenhouse gas (GHG) emissions and meet Canada's target for a net-zero emissions future by 2050. There is an expectation from society at large and, increasingly, from investors that companies will seek to transition from carbon to renewable sources. With respect to environmental targets, investors want companies to describe their physical risks, transition risks, and the opportunities in lower-carbon products and services. Choices made at the national level, such as signing the Paris Agreement, obviously have a trickle-down effect on businesses. But the main driver for environmental stewardship has come from investors, who reflect the sentiments of society about how investments are made.

In this economic climate, there's little doubt that the decisions made today will determine whether oil and gas companies survive. Supermajors like Shell and BP are clearly looking far ahead and preparing for the coming energy transition. This will take years, most likely decades, but the planning and investment must occur now. The Canadian industry has made these types of costly investments, years in advance in the past to establish future stability and industry transformation.

Oil and gas companies need to continue to engage their stakeholders to critically challenge the current state and assess options and opportunities on the path to energy transition. There must be an open dialogue between parties about the responsibilities of being an oil and gas company in the current market, the realities of what's driving the demand for their product, and how transitions will be implemented over time. This process is also critical for building trust with investors and the public.

With the advent of the international Task Force on Climate-related Financial Disclosures (TCFD), energy companies are being challenged to think carefully about what their longer-term roadmap looks like. If they can't formulate a decarbonization mandate now, they may be left behind. They need to plan for the transition to renewables, and to understand how those changes will play out within their operations. The roadmap will help them navigate decarbonization opportunities and guide business units and employees, and it should encompass all operations.

When developing these corporate roadmaps, energy organizations need to look at both existing processes and future opportunities. This requires a three-step approach that includes:

1. Identifying the emission-reduction pathways that exist today

2. Identifying the abatement projects that will lead to reductions

3. Managing financial risk and exposure in the portfolio of abatement projects while they continue to look for growth opportunities in new investments

Many of the big players are already doing this and have gone public with their intentions. They're running pilot projects and forming partnerships to develop a holistic approach to decarbonization within their corporate framework. They're making bold decisions to set themselves apart from their peers by investing in lower-carbon initiatives.

The challenge in North America is to accelerate the pace of decarbonization and energy transition efforts. Canada needs to be considered a bold player in this area for long term success. Our energy companies need to embrace opportunities for investment in projects such as sequestration and carbon capture, emissions reduction technology, and participant in new energy transition businesses. There's no doubt the energy transition will be complex, but those who take early, calculated risks and get ahead of the trend will benefit later.

For mid-size or smaller players, the implementation of lower-carbon initiatives can be daunting because of the capital intensity. However, there are alternative ways for these companies to contribute, including partnerships. There is a spirit of entrepreneurism in Alberta, and we expect that it will power some bold bets in the sector; in particular, startups that are developing technology related to sequestration and monitoring. For the junior producers, the opportunity is to be more agile, and we believe we're going to see some quick adaption and exciting investments.

While the oil and gas industry has been dealing with ESG issues for a long time, the need for change has accelerated over the past two years. The world is looking for a clean, green economy overnight, but the laws of supply and demand will not force an evolution that quickly. There will, however, be early movers seeking to transition existing products and processes to lower-carbon ones.

A decarbonized environment will include new operational ecosystems and innovative technologies in which to invest. Ultimately, every energy company across the value chain needs to have an energy transition roadmap that is transparent and communicated to stakeholders effectively.

Canadian domestic price forecast

Crude oil price and market demand forecast

Edmonton par (real $)

Forecast comments

- Edmonton Par is forecast as a differential to WTI. This differential is based on Canadian Light Sweet Oil Index Futures which began trading in January 2014.
- The Edmonton crude oil price is used as the basis for the remaining Canadian crude reference points. Offsets are based on five-year historical averages with recent years weighted more heavily in the determination.

Year	WTI Cushing, OK (40 API)	WTI Cushing, OK (40 API)	Edmonton City Gate (40 API)	Edmonton City Gate (40 API)	WCS Hardisty (20.5 API)	Heavy Oil Hardisty (12 API)	Cost Inflation	CAD to USD Exchange
	US$/bbl	US$/bbl	C$/bbl	C$/bbl	C$/bbl	C$/bbl		
	Real	Current	Real	Current	Current	Current	Rate	Rate
Historical								
2017	$53.96	$50.88	$65.62	$61.88	$50.53	$45.01	1.6%	0.771
2018	$67.76	$64.94	$72.10	$69.10	$49.68	$45.34	2.3%	0.772
2019	$58.11	$56.98	$70.39	$69.02	$58.75	$55.11	1.9%	0.754
2020								
12 Mths H	$39.09	$39.09	$45.91	$45.91	$35.20	$30.92	0.8%	0.746
0 Mths F	-	-	-	-	-	-	-	-
Avg.	$39.09	$39.09	$45.91	$45.91	$35.20	$30.92	-	0.746
Forecast								
2021	$46.00	$46.00	$53.25	$53.25	$42.85	$38.85	0.0%	0.770
2022	$53.00	$54.05	$61.55	$62.80	$49.65	$44.55	2.0%	0.780
2023	$57.50	$59.80	$65.65	$68.30	$55.30	$50.10	2.0%	0.800
2024	$57.50	$61.00	$65.65	$69.65	$56.40	$51.10	2.0%	0.800
2025	$57.50	$62.25	$65.65	$71.05	$57.55	$52.10	2.0%	0.800
2026	$57.50	$63.50	$65.65	$72.50	$58.70	$53.15	2.0%	0.800
2027	$57.50	$64.75	$65.65	$73.95	$59.85	$54.20	2.0%	0.800
2028	$57.50	$66.05	$65.65	$75.40	$61.05	$55.30	2.0%	0.800

Natural gas price and market demand forecast

AECO natural gas (real $)

Forecast comments

- The AECO natural gas price is forecast based on historical differentials to Henry Hub and future contracts traded on the NGX based in Calgary.

Year	AB Ref. Avg. Price	AB AECO Avg. Price	AB AECO Avg. Price	BC Direct Station 2 Sales	NYMEX Henry Hub	NYMEX Henry Hub
	C$/Mcf	C$/Mcf	C$/Mcf	C$/Mcf	US$/Mcf	US$/Mcf
	Current	Real	Current	Current	Real	Current
Historical						
2017	$2.13	$2.32	$2.19	$1.56	$3.17	$2.99
2018	$1.36	$1.61	$1.54	$1.26	$3.30	$3.17
2019	$1.48	$1.85	$1.81	$1.02	$2.62	$2.57
2020						
12 Mths H	$2.00	$2.25	$2.25	$2.20	$2.03	$2.03
0 Mths F	-	-	-	-	-	-
Avg.	$2.00	$2.25	$2.25	$2.20	$2.03	$2.03
Forecast						
2021	$2.40	$2.65	$2.65	$2.65	$2.70	$2.70
2022	$2.45	$2.65	$2.70	$2.70	$2.80	$2.85
2023	$2.50	$2.65	$2.75	$2.75	$2.90	$3.00
2024	$2.55	$2.65	$2.80	$2.80	$2.90	$3.10
2025	$2.60	$2.65	$2.85	$2.85	$2.90	$3.15
2026	$2.65	$2.65	$2.95	$2.95	$2.90	$3.20
2027	$2.70	$2.65	$3.00	$3.00	$2.90	$3.25
2028	$2.75	$2.65	$3.05	$3.05	$2.90	$3.35

International price forecast

Crude oil price and market demand forecast

Year	Av. WTI Spot	Brent Spot (38.3 API with 0.37% sulphur content)	Gulf Coast ASC	Avg. OPEC Basket	Nigerian Bonny Light (33.4 API FOB)	Mexico Maya (21.8 API FOB)	Russia Urals (31.7 API FOB)
	US$/bbl	US$/bbl	US$/bbl	US$/bbl	US$/bbl	US$/bbl	US$/bbl
	Current	Current	Current	Current	Current	Current	Current
Forecast							
2021	$46.00	$50.00	$44.00	$49.50	$51.00	$45.00	$49.50
2022	$54.05	$58.15	$52.00	$57.65	$59.15	$51.00	$57.65
2023	$59.80	$64.00	$57.75	$63.45	$65.05	$56.70	$63.45
2024	$61.00	$65.25	$58.90	$64.75	$66.35	$57.85	$64.75
2025	$62.25	$66.55	$60.05	$66.05	$67.65	$59.00	$66.05
2026	$63.50	$67.90	$61.30	$67.35	$69.00	$60.15	$67.35
2027	$64.75	$69.25	$62.50	$68.70	$70.40	$61.40	$68.70
2028	$66.05	$70.65	$63.75	$70.05	$71.80	$62.60	$70.05

- International crude quality reference points for OPEC Basket, Venezuelan, Nigerian, UAE, Mexican, Chinese, Russian, and Indonesian crudes are now based on Brent in US dollars. For the purposes of this forecast Brent is receiving a premium to WTI on the world markets.
- Current forecasts for other Crude Oil reference points are based on historical trends to the WTI price.
- Brent, United Kingdom crude is based on 38.3°API with 0.37% Sulphur content. Brent blend is a light sweet North Sea crude oil that serves as an international benchmark grade.
- United States Gulf Coast Argus Sour Crude Index (ASCI) is a blend of offshore Gulf Coast oil from Mars, Poseidon, and Southern Green Canyon.
- OPEC Basket represents the current grouping of crude oil prices from the OPEC member countries.
- Russia Urals 31.7°API is the FOB delivered price to the Mediterranean destinations.

Natural gas price and market demand forecast

Year	USD to GBP Exchange	USD to EUR Exchange	NYMEX Henry Hub	Permian Waha	San Juan Ignacio	Rocky Mountain Opal	UK NBP	India Domestic Gas
			US$/Mcf	US$/Mcf	US$/Mcf	US$/Mcf	US$/Mcf	US$/Mcf
	Rate	Rate	Current	Current	Current	Current	Current	Current
Forecast								
2021	1.30	1.20	$2.70	$1.70	$2.30	$2.50	$4.25	$1.80
2022	1.30	1.20	$2.85	$2.10	$2.45	$2.65	$4.80	$2.55
2023	1.30	1.20	$3.00	$2.25	$2.60	$2.80	$5.35	$2.80
2024	1.30	1.20	$3.10	$2.30	$2.65	$2.85	$5.45	$3.10
2025	1.30	1.20	$3.15	$2.35	$2.70	$2.90	$5.55	$3.15
2026	1.30	1.20	$3.20	$2.35	$2.75	$3.00	$5.70	$3.20
2027	1.30	1.20	$3.25	$2.40	$2.80	$3.05	$5.80	$3.25
2028	1.30	1.20	$3.35	$2.45	$2.85	$3.10	$5.90	$3.35

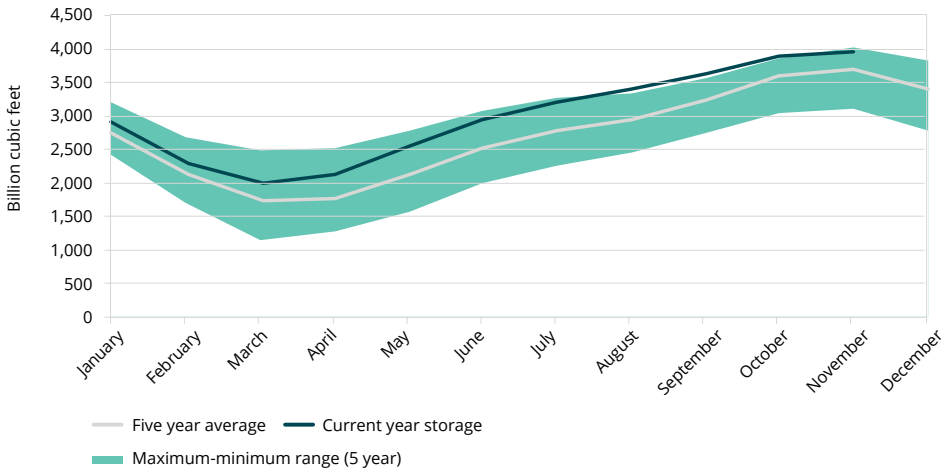
Global trends

Storage

United States

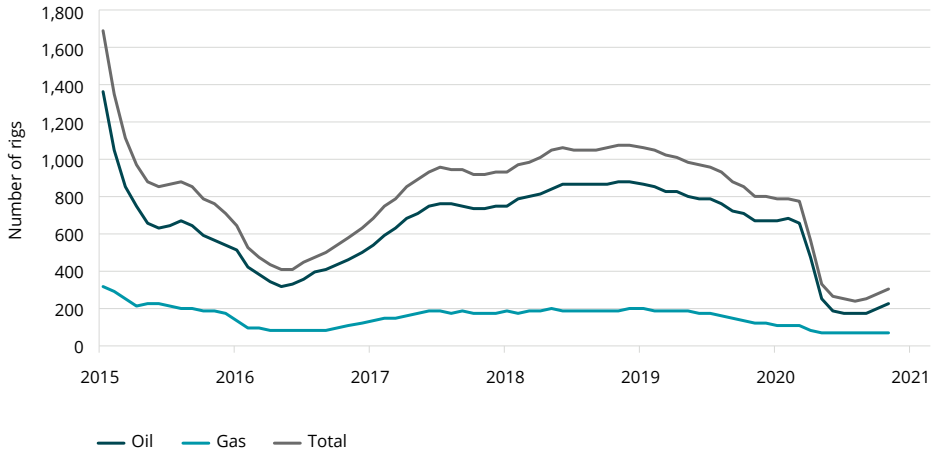
- Natural gas storage in the United States continues to trend above the five-year average. We expect that slower growth in gas production, along with forecasts of a cold winter, will result in storage levels shifting to align closer to the five-year average throughout the winter.

US natural gas storage

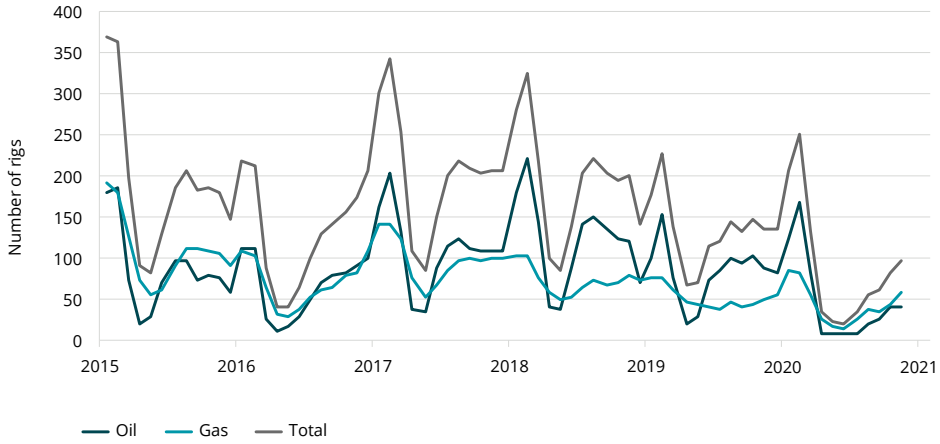


Source: Baker Hughes

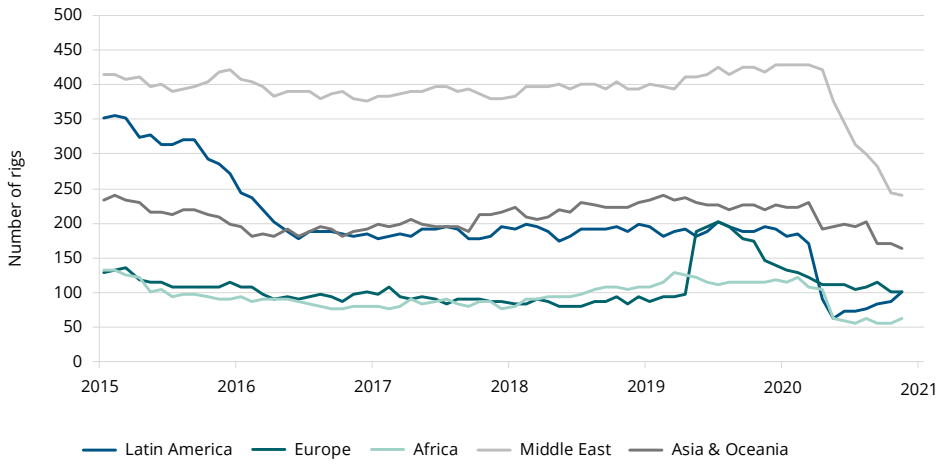
US rig counts



Canada rig counts



International rig counts



Source: Baker Hughes

Rigs

United States

- Oil rig counts have begun to grow as prices have strengthened in Q4. Gas rig counts have remained steady over the last several months but may begin to rise in response to strengthening prices heading into an expected cold winter.

Canada

- Rig counts remain historically low, with both oil and gas activity down significantly. Entering the winter drilling season, both oil and gas rig counts are on the rise. Gas activity will likely exceed 2019 due to strengthening prices, while oil activity will likely remain suppressed compared to prior years.

International

- Rig counts in the Middle East have continued to fall due to continued production cuts implemented by OPEC nations. The only region which has begun to show some strength is Latin America, where drilling activity has increased in Argentina and Colombia.

Canadian domestic price tables

Year	Price Inflation	Cost Inflation	CAD to USD Exchange	Crude Oil Pricing: WTI at Cushing Oklahoma	WTI at Cushing Oklahoma	Edmonton City Gate	Edmonton City Gate	WCS 20.5 Deg. API Hardisty
				US$/bbl	US$/bbl	C$/bbl	C$/bbl	C$/bbl
	Rate	Rate	Rate	Real	Current	Real	Current	Current
Historical								
2010	1.8%	1.8%	0.971	$94.66	$79.40	$92.76	$77.80	$67.22
2011	2.9%	2.9%	1.012	$111.14	$94.88	$111.90	$95.54	$77.12
2012	1.5%	1.5%	1.001	$107.02	$94.11	$98.44	$86.57	$73.10
2013	0.9%	0.9%	0.972	$109.64	$97.91	$104.55	$93.36	$74.97
2014	1.9%	1.9%	0.906	$103.46	$93.26	$104.27	$94.00	$81.06
2015	1.1%	1.1%	0.783	$52.98	$48.69	$62.02	$57.00	$44.80
2016	1.4%	1.4%	0.755	$46.43	$43.15	$56.18	$52.22	$38.90
2017	1.6%	1.6%	0.771	$53.96	$50.88	$65.62	$61.88	$50.53
2018	2.3%	2.3%	0.772	$67.76	$64.94	$72.10	$69.10	$49.68
2019	1.9%	1.9%	0.754	$58.11	$56.98	$70.39	$69.02	$58.75
2020								
12 Mths H	0.8%	0.8%	0.746	$39.09	$39.09	$45.91	$45.91	$35.20
0 Mths F	0.0%	0.0%	-	-	-	-	-	-
Avg.	N/A	N/A	0.746	$39.09	$39.09	$45.91	$45.91	$35.20
Forecast								
2021	0.0%	0.0%	0.770	$46.00	$46.00	$53.25	$53.25	$42.85
2022	2.0%	2.0%	0.780	$53.00	$54.05	$61.55	$62.80	$49.65
2023	2.0%	2.0%	0.800	$57.50	$59.80	$65.65	$68.30	$55.30
2024	2.0%	2.0%	0.800	$57.50	$61.00	$65.65	$69.65	$56.40
2025	2.0%	2.0%	0.800	$57.50	$62.25	$65.65	$71.05	$57.55
2026	2.0%	2.0%	0.800	$57.50	$63.50	$65.65	$72.50	$58.70
2027	2.0%	2.0%	0.800	$57.50	$64.75	$65.65	$73.95	$59.85
2028	2.0%	2.0%	0.800	$57.50	$66.05	$65.65	$75.40	$61.05
2029	2.0%	2.0%	0.800	$57.50	$67.35	$65.65	$76.90	$62.25
2030	2.0%	2.0%	0.800	$57.50	$68.70	$65.65	$78.45	$63.50
2031	2.0%	2.0%	0.800	$57.50	$70.10	$65.65	$80.05	$64.80
2032	2.0%	2.0%	0.800	$57.50	$71.50	$65.65	$81.65	$66.10
2033	2.0%	2.0%	0.800	$57.50	$72.90	$65.65	$83.25	$67.40
2034	2.0%	2.0%	0.800	$57.50	$74.40	$65.65	$84.95	$68.75
2035	2.0%	2.0%	0.800	$57.50	$75.85	$65.65	$86.60	$70.15
2036	2.0%	2.0%	0.800	$57.50	$77.40	$65.65	$88.35	$71.55
2037	2.0%	2.0%	0.800	$57.50	$78.95	$65.65	$90.10	$72.95
2038	2.0%	2.0%	0.800	$57.50	$80.50	$65.65	$91.95	$74.40
2039	2.0%	2.0%	0.800	$57.50	$82.10	$65.65	$93.75	$75.90
2040	2.0%	2.0%	0.800	$57.50	$83.75	$65.65	$95.65	$77.45
2040+	2.0%	2.0%	0.800	0.0%	2.0%	0.0%	2.0%	2.0%

Notes:

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	Natural Gas Liquids Pricing Edmonton Par Prices				Natural Gas Pricing						Sulphur
Year	Ethane	Propane	Butane	Pentanes + Condensate	Alberta Reference Avg. Price	Alberta AECO Avg. Price	Alberta AECO Avg. Price	B.C. Direct Stn. 2 Sales	NYMEX Henry Hub	NYMEX Henry Hub	Alberta Plant Gate
	C$/bbl	C$/bbl	C$/bbl	C$/bbl	C$/mcf	C$/mcf	C$/mcf	C$/mcf	US$/Mcf	US$/Mcf	C$/lt
	Current	Current	Current	Current	Current	Real	Current	Current	Real	Current	Current
Historical											
2010	$11.53	$45.19	$68.79	$84.02	$3.76	$4.78	$4.01	$4.01	$5.23	$4.39	$56.94
2011	$10.30	$52.41	$86.98	$105.24	$3.46	$4.25	$3.63	$3.34	$4.69	$4.00	$101.60
2012	$6.73	$30.80	$75.47	$99.67	$2.25	$2.72	$2.39	$2.29	$3.13	$2.75	$126.81
2013	$8.68	$38.54	$77.44	$103.52	$2.98	$3.55	$3.17	$3.11	$4.18	$3.73	$62.17
2014	$12.46	$42.93	$59.43	$101.47	$4.22	$5.00	$4.50	$4.16	$4.87	$4.39	$88.99
2015	$7.49	$5.35	$33.70	$55.15	$2.56	$2.93	$2.69	$1.81	$2.86	$2.63	$107.45
2016	$6.04	$8.71	$31.45	$52.43	$1.93	$2.32	$2.16	$1.75	$2.71	$2.52	$45.40
2017	$6.11	$27.92	$40.98	$63.65	$2.13	$2.32	$2.19	$1.56	$3.17	$2.99	$41.85
2018	$6.90	$29.76	$46.17	$75.74	$1.36	$1.61	$1.54	$1.26	$3.30	$3.17	$89.25
2019	$5.00	$15.82	$21.40	$67.57	$1.48	$1.85	$1.81	$1.02	$2.62	$2.57	$37.54
2020											
12 Mths H	$6.22	$14.60	$20.38	$46.51	$2.00	$2.25	$2.25	$2.20	$2.03	$2.03	$2.57
0 Mths F	-	-	-	-	-	-	-	-	-	-	-
Avg.	$6.22	$14.60	$20.38	$46.51	$2.00	$2.25	$2.25	$2.20	$2.03	$2.03	$2.57
Forecast											
2021	$7.30	$18.65	$23.95	$53.25	$2.40	$2.65	$2.65	$2.65	$2.70	$2.70	$10.00
2022	$7.45	$28.25	$34.55	$62.80	$2.45	$2.65	$2.70	$2.70	$2.80	$2.85	$30.60
2023	$7.60	$30.75	$44.35	$68.30	$2.50	$2.65	$2.75	$2.75	$2.90	$3.00	$31.20
2024	$7.75	$31.35	$45.25	$69.65	$2.55	$2.65	$2.80	$2.80	$2.90	$3.10	$31.85
2025	$7.90	$32.00	$46.15	$71.05	$2.60	$2.65	$2.85	$2.85	$2.90	$3.15	$32.45
2026	$8.05	$32.65	$47.10	$72.50	$2.65	$2.65	$2.95	$2.95	$2.90	$3.20	$33.10
2027	$8.20	$33.30	$48.05	$73.95	$2.70	$2.65	$3.00	$3.00	$2.90	$3.25	$33.80
2028	$8.40	$33.95	$49.00	$75.40	$2.75	$2.65	$3.05	$3.05	$2.90	$3.35	$34.45
2029	$8.55	$34.60	$49.95	$76.90	$2.80	$2.65	$3.10	$3.10	$2.90	$3.40	$35.15
2030	$8.70	$35.30	$50.95	$78.45	$2.85	$2.65	$3.15	$3.15	$2.90	$3.45	$35.85
2031	$8.90	$36.00	$52.00	$80.05	$2.95	$2.65	$3.25	$3.25	$2.90	$3.55	$36.55
2032	$9.10	$36.75	$53.05	$81.65	$3.00	$2.65	$3.30	$3.30	$2.90	$3.60	$37.30
2033	$9.25	$37.50	$54.10	$83.25	$3.05	$2.65	$3.35	$3.35	$2.90	$3.70	$38.05
2034	$9.45	$38.25	$55.15	$84.95	$3.10	$2.65	$3.45	$3.45	$2.90	$3.75	$38.80
2035	$9.65	$39.00	$56.30	$86.60	$3.15	$2.65	$3.50	$3.50	$2.90	$3.85	$39.60
2036	$9.80	$39.75	$57.40	$88.35	$3.25	$2.65	$3.55	$3.55	$2.90	$3.90	$40.40
2037	$10.00	$40.55	$58.55	$90.10	$3.30	$2.65	$3.65	$3.65	$2.90	$4.00	$41.20
2038	$10.20	$41.40	$59.70	$91.95	$3.35	$2.65	$3.70	$3.70	$2.90	$4.05	$42.00
2039	$10.45	$42.20	$60.90	$93.75	$3.45	$2.65	$3.80	$3.80	$2.90	$4.15	$42.85
2040	$10.65	$43.05	$62.15	$95.65	$3.50	$2.65	$3.85	$3.85	$2.90	$4.20	$43.70
2040+	2.0%	2.0%	2.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%

Notes:

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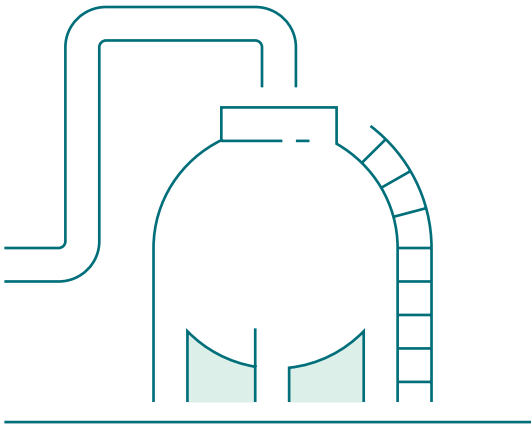
Additional crude reference prices

Year	Crude oil pricing			Natural gas pricing
	Lt. Sour 35 Deg. API Cromer, SK	MSO 31 Deg. API Hardisty	Synbit (AWB) 70% Bitumen 30% Cond. 21 Deg. API	Ontario Dawn Reference Point
	C$/bbl	C$/bbl	C$/bbl	C$/mcf
	Current	Current	Current	Current
Historical				
2010	$76.40	$72.32	$67.64	$4.79
2011	$92.13	$83.39	$80.29	$4.34
2012	$84.27	$77.53	$74.75	$3.11
2013	$91.76	$82.65	$76.90	$4.13
2014	$92.91	$89.39	$82.03	$5.76
2015	$55.46	$54.70	$44.28	$3.72
2016	$51.37	$48.29	$39.58	$3.46
2017	$62.06	$58.16	$50.60	$3.97
2018	$73.06	$62.82	$54.46	$4.07
2019	$69.68	$65.72	$58.85	$3.22
2020				
12 Mths H	$44.03	$42.57	$35.60	$2.50
0 Mths F	-	-	-	-
Avg.	$44.03	$42.57	$35.60	$2.50
Forecast				
2021	$54.25	$49.25	$43.15	$3.30
2022	$63.80	$58.70	$50.05	$3.45
2023	$69.35	$64.15	$55.55	$3.60
2024	$70.75	$65.40	$56.65	$3.65
2025	$72.15	$66.75	$57.80	$3.75
2026	$73.60	$68.05	$58.95	$3.80
2027	$75.05	$69.45	$60.15	$3.90
2028	$76.55	$70.80	$61.35	$3.95
2029	$78.10	$72.25	$62.55	$4.05
2030	$79.65	$73.70	$63.80	$4.10
2031	$81.25	$75.15	$65.10	$4.20
2032	$82.85	$76.65	$66.40	$4.30
2033	$84.55	$78.20	$67.70	$4.40
2034	$86.20	$79.75	$69.10	$4.45
2035	$87.95	$81.35	$70.45	$4.55
2036	$89.70	$82.95	$71.85	$4.65
2037	$91.50	$84.65	$73.30	$4.75
2038	$93.35	$86.30	$74.75	$4.85
2039	$95.20	$88.05	$76.25	$4.95
2040	$97.10	$89.80	$77.80	$5.05
2040+	2.0%	2.0%	2.0%	2.0%



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International price tables

Year	Crude Oil Pricing															
	Average WTI Spot	Alaskan North Slope	California Midway-Sunset	Louisiana Heavy Sweet	Louisiana Light Sweet	MARS Blend	Wyoming Sweet	Brent Spot	Gulf Coast Argus Sour Crude Index ASCI	Average OPEC Basket	Venezuelan Merey	Nigerian Bonny Light	Arabia UAE Dubai Feteh	Mexico Maya	Russia Urals	Indonesia Minas
	US$/bbl	US$/bbl	US$/bbl	US$/bbl	US$/bbl	US$/bbl	US$/bbl	US$/bbl	US$/bbl	US$/bbl	US$/bbl	US$/bbl	US$/bbl	US$/bbl	US$/bbl	US$/bbl
	Current	Current	Current	Current	Current	Current	Current	Current	Current	Current	Current	Current	Current	Current	Current	Current
Forecast																
2021	$46.00	$41.00	$45.00	$44.00	$44.50	$44.00	$41.00	$50.00	$44.00	$49.50	$40.00	$51.00	$49.00	$45.00	$49.50	$47.00
2022	$54.05	$48.95	$53.05	$52.00	$52.55	$52.00	$48.95	$58.15	$52.00	$57.65	$47.95	$59.15	$57.10	$51.00	$57.65	$55.10
2023	$59.80	$54.60	$58.80	$57.75	$58.25	$57.75	$54.60	$64.00	$57.75	$63.45	$53.60	$65.05	$62.95	$56.70	$63.45	$60.85
2024	$61.00	$55.70	$59.95	$58.90	$59.45	$58.90	$55.70	$65.25	$58.90	$64.75	$54.65	$66.35	$64.20	$57.85	$64.75	$62.10
2025	$62.25	$56.85	$61.15	$60.05	$60.60	$60.05	$56.85	$66.55	$60.05	$66.05	$55.75	$67.65	$65.50	$59.00	$66.05	$63.30
2026	$63.50	$57.95	$62.40	$61.30	$61.85	$61.30	$57.95	$67.90	$61.30	$67.35	$56.85	$69.00	$66.80	$60.15	$67.35	$64.60
2027	$64.75	$59.10	$63.65	$62.50	$63.05	$62.50	$59.10	$69.25	$62.50	$68.70	$58.00	$70.40	$68.15	$61.40	$68.70	$65.90
2028	$66.05	$60.30	$64.90	$63.75	$64.35	$63.75	$60.30	$70.65	$63.75	$70.05	$59.15	$71.80	$69.50	$62.60	$70.05	$67.20
2029	$67.35	$61.50	$66.20	$65.05	$65.60	$65.05	$61.50	$72.05	$65.05	$71.45	$60.35	$73.25	$70.90	$63.85	$71.45	$68.55
2030	$68.70	$62.75	$67.50	$66.35	$66.95	$66.35	$62.75	$73.50	$66.35	$72.90	$61.55	$74.70	$72.30	$65.15	$72.90	$69.90
2031	$70.10	$64.00	$68.85	$67.65	$68.25	$67.65	$64.00	$74.95	$67.65	$74.35	$62.80	$76.20	$73.75	$66.45	$74.35	$71.30
2032	$71.50	$65.30	$70.25	$69.00	$69.65	$69.00	$65.30	$76.45	$69.00	$75.85	$64.05	$77.70	$75.20	$67.75	$75.85	$72.75
2033	$72.90	$66.60	$71.65	$70.40	$71.00	$70.40	$66.60	$78.00	$70.40	$77.35	$65.30	$79.25	$76.75	$69.10	$77.35	$74.20
2034	$74.40	$67.90	$73.10	$71.80	$72.45	$71.80	$67.90	$79.55	$71.80	$78.90	$66.60	$80.85	$78.25	$70.50	$78.90	$75.70
2035	$75.85	$69.25	$74.55	$73.25	$73.90	$73.25	$69.25	$81.15	$73.25	$80.50	$67.95	$82.45	$79.85	$71.90	$80.50	$77.20
2036	$77.40	$70.65	$76.05	$74.70	$75.35	$74.70	$70.65	$82.75	$74.70	$82.10	$69.30	$84.10	$81.45	$73.35	$82.10	$78.75
2037	$78.95	$72.05	$77.55	$76.20	$76.90	$76.20	$72.05	$84.45	$76.20	$83.75	$70.70	$85.80	$83.05	$74.80	$83.75	$80.30
2038	$80.50	$73.50	$79.10	$77.70	$78.40	$77.70	$73.50	$86.10	$77.70	$85.40	$72.10	$87.50	$84.70	$76.30	$85.40	$81.90
2039	$82.10	$75.00	$80.70	$79.25	$80.00	$79.25	$75.00	$87.85	$79.25	$87.10	$73.55	$89.25	$86.40	$77.85	$87.10	$83.55
2040	$83.75	$76.50	$82.30	$80.85	$81.60	$80.85	$76.50	$89.60	$80.85	$88.85	$75.05	$91.05	$88.15	$79.40	$88.85	$85.20
2040+	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%

Notes:

- Data sources include: EIA, OPEC, ARC Energy, Marex Spectron
- Venezuelan Merey replaced BCF-17 in the OPEC basket March 1, 2009.

Year	Natural Gas pricing								Ethanol
	USD to GBP	USD to EUR	NYMEX Henry Hub	Permian Waha	San Juan Ignacio	Rocky Mtn. Opal	UK NBP	India Domestic Gas	US CBOT Ethanol
	Exchange rate	Exchange rate	US$/Mcf Current	US$/Mcf Current	US$/Mcf Current	US$/Mcf Current	US$/Mcf Current	US$/Mcf Current	US$/gal Current
Forecast									
2021	1.300	1.200	$2.70	$1.70	$2.30	$2.50	$4.25	$1.80	$1.30
2022	1.300	1.200	$2.85	$2.10	$2.45	$2.65	$4.80	$2.55	$1.35
2023	1.300	1.200	$3.00	$2.25	$2.60	$2.80	$5.35	$2.80	$1.35
2024	1.300	1.200	$3.10	$2.30	$2.65	$2.85	$5.45	$3.10	$1.40
2025	1.300	1.200	$3.15	$2.35	$2.70	$2.90	$5.55	$3.15	$1.40
2026	1.300	1.200	$3.20	$2.35	$2.75	$3.00	$5.70	$3.20	$1.45
2027	1.300	1.200	$3.25	$2.40	$2.80	$3.05	$5.80	$3.25	$1.45
2028	1.300	1.200	$3.35	$2.45	$2.85	$3.10	$5.90	$3.35	$1.50
2029	1.300	1.200	$3.40	$2.50	$2.95	$3.15	$6.05	$3.40	$1.50
2030	1.300	1.200	$3.45	$2.55	$3.00	$3.25	$6.15	$3.45	$1.55
2031	1.300	1.200	$3.55	$2.60	$3.05	$3.30	$6.30	$3.55	$1.60
2032	1.300	1.200	$3.60	$2.65	$3.10	$3.35	$6.40	$3.60	$1.60
2033	1.300	1.200	$3.70	$2.75	$3.15	$3.40	$6.55	$3.70	$1.65
2034	1.300	1.200	$3.75	$2.80	$3.25	$3.50	$6.65	$3.75	$1.70
2035	1.300	1.200	$3.85	$2.85	$3.30	$3.55	$6.80	$3.85	$1.70
2036	1.300	1.200	$3.90	$2.90	$3.35	$3.65	$6.95	$3.90	$1.75
2037	1.300	1.200	$4.00	$2.95	$3.45	$3.70	$7.05	$4.00	$1.80
2038	1.300	1.200	$4.05	$3.00	$3.50	$3.80	$7.20	$4.05	$1.80
2039	1.300	1.200	$4.15	$3.05	$3.55	$3.85	$7.35	$4.15	$1.85
2040	1.300	1.200	$4.20	$3.15	$3.65	$3.95	$7.50	$4.20	$1.90
2040+	1.300	1.200	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%

Notes:

- Data sources include: EIA, OPEC, ARC Energy, Marex Spectron
- Venezuelan Merey replaced BCF-17 in the OPEC basket March 1, 2009.

Pricing philosophy

Price forecasting takes into account many variables that can influence future prices. Our experience tells us that we must continually review the forecasting tools we use to predict where oil and gas prices are heading. However, one constant influence on oil and gas pricing is the geo-political landscape. This impact is most accurately reflected in the financial industry's futures market for commodities, a main influence when Deloitte creates its price forecast. In other words, Deloitte looks to both the futures and the past when we create our forecasts.

This pricing philosophy challenges conventional thinking. The traditional view is based on the mean-reversion view of commodities presented by economists. Following this model, industry forecasts from 2000 to 2006 reflected a drop in prices over the long term from the current prices of the day – even though the futures market indicated otherwise. While the mean-reversion approach definitely has some merit, history has tended to reflect that the futures market is a more accurate barometer.

Client focus

At Deloitte, we believe it is part of our role to help our clients in both the oil and gas sector and the investment community make better long-term business decisions by providing them with the most accurate and realistic information. We understand that sound analysis of changing trends can influence decisions on mergers, acquisitions, divestitures and investments. One way we ensure our price forecasts are as accurate as possible, given the continuing impact of near-term volatility, is to review our pricing assumptions on a quarterly basis.

Our process

In preparing the price forecast, Deloitte considers the current monthly trends, the actual price and trends for the year-to-date and the prior year actual prices. The base forecast for both oil and gas is based on New York Mercantile Exchange (NYMEX) futures in US dollars.

Crude oil and natural gas forecasts are based on yearly variable factors, weighted to a higher percent for the current data and then reflect a higher percent 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 historical oil-to-gas ratios for the latter years of the gas forecast.

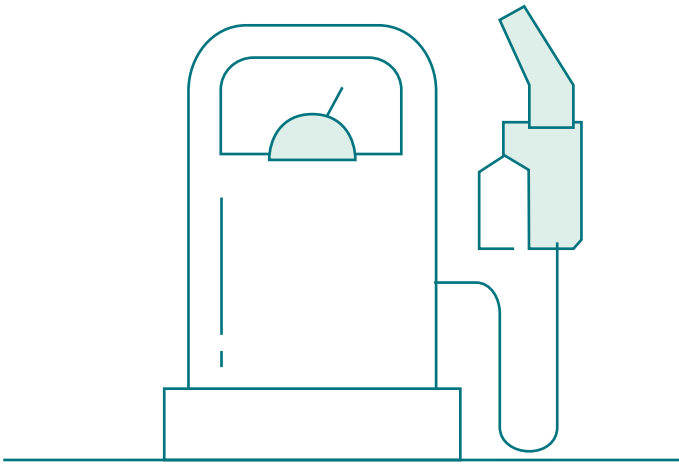
Deloitte prepares our price and market forecasts based on information we collect from numerous government agencies, industry publications, oil refineries, natural gas marketers and industry trends. Inflation forecasts and exchange rates are also an integral part of the forecast.

These forecasts are Deloitte's best estimate of how the future will look, and while they 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
CAPP	Canadian Association of Petroleum Producers
CBOT	Chicago Board Of Trade
CGA	Canadian Gas Association
CME	Chicago Mercantile Exchange
DCQ	Daily Contract Quantity
DOB	Daily Oil Bulletin
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
NGX	Natural Gas Exchange
NIT	Nova Inventory Transfer
NRC	Natural Resources Canada
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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