Broad market indices are one the many vital signs measuring the health of the economy. Energy demand is a function of economic health. 

Source: Bloomberg, ARC Financial Corp.

Performance of Canadian and US oil & gas equities are compared against each other.

Source: Bloomberg, ARC Financial Corp.

The performance of Canadian oil and gas service and midstream equities are plotted in tandem with the corresponding US Oilfield index.

Source: Bloomberg, Petroleum Services Association of Canada

Much of Canada’s oil and gas production is sold in US dollars. As such, the exchange rate significantly impacts corporate revenues and profits.

Source: Bloomberg
5 United States: New and Active COVID-19 Cases
Daily (5-Day Rolling Average); March 9, 2020 to Current

New Cases (Thousands)

Active Cases (Thousands)

Daily infection rates and active cases of COVID-19 will determine reopening and recovery of the world’s largest economy.
Source: Worldometer

6 United States: Daily New Deaths
Deaths per Day (5-Day Rolling Average); March 9, 2020 to Current

The growth rate of daily deaths is a useful statistic for tracking the progress of COVID-19 and predicting healthcare needs.
Source: Worldometer

7 TomTom Traffic Index: Chicago, U.S.
Congestion Level of Last 7 Days Compared with Year Prior

Traffic congestion levels show a real-time picture of the number of vehicles on the road; an indication of gasoline demand and economic recovery.
Source: TomTom International BV

8 TomTom Traffic Index: Beijing, China
Congestion Level of Last 7 Days Compared with Year Prior

Traffic congestion levels show a real-time picture of the number of vehicles on the road; an indication of gasoline demand and economic recovery.
Source: TomTom International BV

9 U.S. Weekly Jobless Claims
Initial and Continuing Claims

Jobless claims are an important leading indicator on the state of the employment situation and the health of the economy.
Source: US Labor Department

10 TSA Checkpoint Screening Numbers
Number of Travelers in 2020 as % of Same Period in 2019

Monitoring the daily number of passengers screened at TSA checkpoints in the United States is a leading indicator of recovery in air travel.
Source: Transportation Security Administration
North American crude oil prices can sometimes disconnect from global prices depending on regional supply and demand dynamics. 
*Source: Bloomberg*

The differential should reflect quality differences and transportation costs. Greater discounts can result from infrastructure or refinery outages. 
*Source: Bloomberg*

Natural gas liquids have become critical contributors to producer’s cash flow. Prices are influenced by the price of oil as well as local supply and demand. 
*Source: Bloomberg, ARC Financial Corp.*

Long contracts take the position that WTI oil price will increase, while short contracts expect a decline. 
*Source: Bloomberg, U.S. Commodity Futures Trading Commission*
US crude oil stock levels can affect crude oil prices. Stock levels for the current year are represented by the blue line. Source: U.S. Energy Information Administration

Refinery utilization rates change the supply of refined products, impacting price. Utilization for the current year is blue. Source: U.S. Energy Information Administration

Weekly production is modelled by the EIA. It is less accurate then monthly reported numbers, but is instructive of up to date changes. Source: U.S. Energy Information Administration

Gasoline, diesel and jet fuel consumption represent the majority of oil use in the US. Source: U.S. Energy Information Administration
Crude oil imports from Canada are taking market share from overseas imports. 
*Source: U.S. Energy Information Administration*

The advancement of drilling and completion methods is increasing US crude oil production. 
*Source: Bloomberg, U.S. Energy Information Administration*

Most of Canada’s oil production comes from Alberta; split between oil sands and conventional production. 
*Source: Alberta Energy Regulator*

The US exports more refined products than crude oil. With the rapid growth of tight oil, most export growth should come from crude oil exports. 
*Source: U.S. Energy Information Administration*

OPEC's production levels relative to its sustainable and spare capacity influences global crude prices. Note: scale has been expanded. 
*Source: Petroleum Intelligence Weekly*

OECD stock levels can affect crude oil prices. 
*Source: International Energy Agency*
Near-Month North American Natural Gas Prices

Daily Prices; Rolling 12-Month History

Near-month prices at AECO track Henry Hub prices, the exchange rate and the cost of transportation. Local factors can also affect price.

Source: Bloomberg

Long and Short Contracts – Henry Hub

Managed Money - Futures

Long contracts take the position that Henry Hub gas price will increase, while short contracts expect a decline.

Source: U.S. Commodity Futures Trading Commission

Global Natural Gas Prices

Japanese LNG, UK NBP, Henry Hub; Average Monthly Prices

International natural gas prices strongly impact the economics of proposed LNG projects.

Source: Bloomberg, Japanese Ministry of Economy, Trade and Industry

US Natural Gas Futures

Nymex (Henry Hub) Next 36 Months

Forward contract prices are plotted for the next 36 months, and compared against the curve one month prior.

Source: Bloomberg

Canadian Natural Gas Futures

AECO Hub (Bloomberg Estimate) Next 36 Months

AECO forward prices mimic Henry Hub futures minus a differential.

Source: Bloomberg

US Coal and Natural Gas Power Generation Cost

Converted to a $/MWh Equivalent

This graph illustrates when it may be economic to begin coal-gas switching in power generation. Average power plant efficiencies are assumed.

Source: Bloomberg
North America has an integrated natural gas market. Prices are determined by regional supply and demand, and pipeline flows.

Source: Bloomberg

All prices in $US/MMBtu

North America has an integrated natural gas market. Prices are determined by regional supply and demand, and pipeline flows.

Source: Bloomberg

Pipeline Flows Out of Western Canada

Daily; Historical Tracks and Current Year Levels

The ability of gas producers to move gas out of the WCSB to eastern markets and the US is a major factor in local natural gas prices.

Source: Various Pipeline Companies

US Natural Gas Exports – Excluding Canada

Daily; Historical Tracks and Current Year Levels

Between exports to Mexico and LNG shipments, the US is growing as a natural gas exporter. Robust US supply growth has driven this trend.

Source: S&P Global Platts
Alberta natural gas demand has grown steadily in recent years, largely driven by new oil sands demand and power generation projects. 
*Source: TransCanada Pipelines*

Total US demand fluctuates in the summer and during the winter as weather is an important driver of consumption. 
*Source: S&P Global Platts*

US production started ramping up in late 2007 and continues to grow year over year. 
*Source: S&P Global Platts*

Canada’s natural gas storage level provides a good metric if the country is well stocked. Abnormally high or low storage can affect the basis. 
*Source: Bloomberg*
Unlike US drilling activity, Canadian rigs are dispatched seasonally. Capital allocation by operators is driven by views of future oil and gas prices.

Source: Baker Hughes

Tracking US gas drilling by major play provides insight into the composition of US gas supply and growth trends.

Source: Baker Hughes

Unlike US drilling activity, Canadian rigs are dispatched seasonally. Capital allocation by operators is driven by views of future oil and gas prices.

Source: Baker Hughes

Source: EIA

Total wells drilled in US Drilling Productivity Report regions are shown. These are the most active onshore US plays.

Source: EIA
Estimated Capital Flow in the Canadian Oil and Gas Economy for 2020

Industry Revenue, Cash Flow, Reinvestment, Drilling Activity and Production

Canadian Industry Statistics: Historical Data and Forecast

Canadian Industry Metrics

<table>
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<tr>
<th>Price</th>
<th>Production Volume</th>
<th>Capital Inflow</th>
<th>Reinvestment</th>
<th>Drilling</th>
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<td>Conv. Oil and Gas</td>
<td>After-tax Cash Flow</td>
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