## Fuel Focus

Understanding Gasoline Markets in Canada and Economic Drivers Influencing Prices

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## National Overview

## Canadian Retail Gasoline Prices Drop by 2 Cents per Litre from Last Week

For the week ending November 1, 2011, Canadian average retail gasoline prices decreased from the previous week by 2 cents per litre to $\$ 1.22$ per litrea seven-month low. Since the last report two weeks ago, average Canadian retail pump prices dropped by nearly 5 cents per litre.
Diesel fuel increased 3 cents per litre from last week to $\$ 1.32$ per litre. Furnace oil prices rose by nearly 1 cent per litre from the previous week and averaged $\$ 1.15$ per litre.
Average retail pump prices in Canada reflected lower North American wholesale gasoline prices. Wholesale gasoline prices fell, despite rising WTI and Edmonton Par crude prices.

Refiners' acquisition costs of crude oil depend on the location of the refinery and the sources of the crude oil. Accordingly, figure 1 shows both Brent and Edmonton Par prices. Western Canada and most Ontario refineries run domestically produced crude oil (Edmonton Par price) while refineries in Quebec and the eastern provinces run primarily imported crude oil delivered by tanker ships (Brent prices).

## Recent Developments

- More Pipeline Capacity Needed in Near Future: According to Calgary consultant Purvin \& Gertz, more pipeline capacity such as TransCanada Corporation's Keystone XL or a significant alternative will be needed by 2014 to 2016 to meet the re-emerging need for crude oil pipeline capacity out of Western Canada. (Source: Daily Oil Bulletin, October 24, 2011)
- European Commission Proposal: The European Commission on October 4, 2011, announced that it will propose legislation declaring that oil-sands crude from Canada must be categorized as relatively high in greenhouse gas life-cycle emissions - potentially complicating future exports of oil sands-derived ultra-low sulfur diesel from U.S. refiners to Europe. The Commission's proposal could complicate the EUCanada free-trade agreement scheduled for completion later this year. (Source: Global Refining \& Fuels Report)

Figure 1: Crude Oil and Regular Gasoline Price Comparison (National Average)


Figure 2: Weekly Regular Gasoline Prices


Changes in Fuel Prices

|  | Week of: | Change from: |  |
| :--- | :---: | :---: | :---: |
| $\Phi / L$ | $2011-11-01$ | Previous <br> Week | Last <br> Year |
| Gasoline | 121.9 | -2.0 | +16.5 |
| Diesel | 132.0 | +3.2 | +27.3 |
| Furnace Oil | 114.7 | +0.5 | +31.5 |

Source: NRCan

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## Retail Gasoline Overview

For the period ending November 1, 2011, the fourweek average regular gasoline pump price in selected cities across Canada was $\$ 1.25$ per litre, a decrease of less than 1 cent per litre compared to the previous report of October 21, 2011. Compared to the same period in 2010, the average Canadian pump price is 19 cents per litre higher.

The four-week average crude component was 64 cents per litre, an increase of nearly 2 cents per litre compared to two weeks ago.

Retail gasoline prices in most Western centresVancouver to Winnipeg-increased by less than 1 cent per litre when compared to the previous report and ranged from $\$ 1.16$ to $\$ 1.37$ per litre. Prices in Eastern cities-Toronto to St. John's-increased by less than 1 cent per litre, and ranged from $\$ 1.20$ per litre to $\$ 1.31$ per litre.

At the national level, refining and marketing costs and margins decreased by 2 cents per litre to 23 cents per litre from the previous report two weeks ago. This is less than 1 cent per litre higher than the same period last year.

Figure 3: Regular Gasoline Pump Prices in Selected Cities Four-Week Average (October 11 to November 1, 2011)


## Adjustment to Figures 3 and 5 Refining Costs and Margins

The methodology for calculating the gasoline refining margin, of the Refining and Marketing Costs and Margins component in Figures 3 and 5, has changed to reflect the different refinery input cost (crude oil) for Montreal and points east. Our previous methodology relied on using the Edmonton Par crude input cost to calculate the refining margins. Due to the substantial price differential between Brent crude oil and the West Texas Intermediate (WTI) and Edmonton Par since early 2011, this methodology no longer adequately reflects the current reality. Figure 3 will now show two types of crude oil cost input: the Edmonton Par crude oil price for all points west of Montreal and Brent crude oil prices for Montreal through Atlantic Canada. Please see the Fuel Focus Supplement of Issue 19, October 7, 2011, for further explanation on the effect of the crude oil price differential.
The methodology will more accurately reflect that refineries in Western Canada and most of Ontario run domestically produced crude oil (Edmonton Par price), while refineries in Quebec and the eastern provinces run primarily imported crude oil delivered by tanker ships (Brent prices).

## Wholesale Gasoline Prices

For the week ending October 27, 2011, wholesale gasoline prices decreased in most selected Canadian and American centres compared to the previous week. Overall, wholesale prices ranged from an increase of less than 1 cent per litre to a decrease of 4 cents per litre.

Wholesale gasoline prices in the Eastern centres, for both Canadian and American centres, ranged from an
increase of less than 1 cent per litre to a decrease of more than 1 cent per litre. Prices ended between 75 and 79 cents per litre.

In the Western centres, price decreases ranged from 1 to 4 cents per litre, with prices closing at 76 to 83 cents per litre.

In the last two weeks, wholesale prices in both Canadian and American centres have declined in the range of 2 to 9 cents per litre.

Figure 4: Wholesale Gasoline Prices
Rack Terminal Prices for Selected Canadian and American Cities Ending October 27, 2011 (Can $\downarrow /$ L)


Sources: NRCan, Bloomberg Oil Buyers Guide



## Petroleum Product Trade

Canada is a net exporter of petroleum products. Yet, at times, product imports can play a significant role in satisfying petroleum product demand. The availability of both crude oil and petroleum product imports in every region hinges on geographic constraints. Each of these regions has its own natural features and this creates some unique situations. For more information on the Canadian petroleum products market, please consult the Fuel Focus website at: http:// www.nrcan.gc.ca/ energy/s ources/petroleum-products-market/ 1519

## Gasoline Refining and Marketing Margins

Four-week rolling averages are used for gasoline refining and marketing margins.

The refining margins continue to move downward in all selected centres. This downward trend reflects the decrease in demand for gasoline, with the end of the summer driving season, and an adequate supply in the distribution system. For the four-week period ending November 1, 2011, refiner margins were 15 cents per litre, above last year's level by 2 cents per litre.

At the national level, marketing margins were, on average, about 7 cents per litre. These margins are expected to pay for the cost associated with the marketing of gasoline.

Part of the cost associated with retailing gasoline varies with the volume of gasoline sold, while other costs are fixed regardless of the volume of business.

Figure 5: Gasoline Refining and Marketing Margins
Four-Week Rolling Average Ending November 1, 2011
------- Refining Margin




Source: NRCan




## Crude Oil Overview

## Major World Events Continue to Impact Crude Oil Prices

For the week ending October 28, 2011, prices for the three marker crudes averaged between $\$ 583 / \mathrm{m}^{3}$ and $\$ 706 / \mathrm{m}^{3}$ (US\$92 to US\$112 per barrel). Prices fluctuated between a decrease of $\$ 7 / \mathrm{m}^{3}$ for Brent to an increase of $\$ 26 / \mathrm{m}^{3}$ for WTI from the previous week.

Overall prices moved upward on news of the European debt relief agreement and on signs of a growing U.S. economy. The U.S. economy grew at an annual rate of $2.5 \%$ last quarter according to the U.S. Commerce

Department. However, some analysts believe that the reason behind the volatility in world crude oil prices is the extreme tightness in physical markets.

The oil market tightening that started in Europe and J apan has now spread to the U.S. with U.S. crude and oil product inventories declining below the 5 -year average. For now, world crude oil prices remain volatile and are partly moderated by the European debt crisis.

Figure 6: Crude Oil Price Comparisons


Changes in Crude Oil Prices

| Crude Oil Types | $\begin{array}{c}\text { Week Ending: } \\ \text { 2011-10-28 }\end{array}$ |  | Change From: |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{c}\text { \$Can/ } \\ \mathrm{m}^{3}\end{array}$ |  | $\begin{array}{c}\text { \$US/ } \\ \text { bbl }\end{array}$ | $\begin{array}{c}\text { \$Can/ } \\ \mathrm{m}^{3}\end{array}$ | $\begin{array}{c}\text { \$US/ } \\ \text { bbl }\end{array}$ | $\begin{array}{c}\text { \$Can/ } \\ \mathrm{m}^{3}\end{array}$ |  |
| Edmonton Par | 615.87 | 97.56 | +19.07 | +4.58 | +143.14 | +24.06 |  |
| bbl |  |  |  |  |  |  |  |$]$

[^0]
## Higher Heating Costs Projected This Winter

According to the U.S. Energy Information Administration (EIA) projections in the October 2011 Short-Term Energy and Winter Fuels Outlook (STEO), residential heating oil prices this winter are expected to set a new winter record, averaging $\$ 26.77$ per MMBtu ( $\$ 3.71$ per gallon), an increase of $10 \%$ over last winter. EIA expects Northeast residential natural gas prices to rise by $5 \%$ from last winter to $\$ 12.93$ per MMBtu, still well below the peak $\$ 15.96$ per MMBtu during the winter of 2005-06.

Heating oil prices largely reflect crude oil prices. For example, the average cost of crude oil to U.S. refiners increased from an average of $\$ 24$ per barrel in 2003 to an average of $\$ 99$ per barrel in 2011 (The October STEO produces this price using actual prices for J anuary-September and forecast prices for October-December).

It is expected that the price increase will also be reflected in Canada's residential heating oil sector. Approximately $10 \%$ of Canadian homes use furnace oil for heat. Atlantic Canada has the greatest dependence on oil heating, with Prince Edward Island by far the most dependent with close to $85 \%$ of all households using heating oil.

Source: EIA, http://www.eia.gov/ todayine nergy/ detail.cfm?id=3450 and NRCan.


[^0]:    Source: NRCan

