## Fuel Focus

## Understanding Gasoline Markets in Canada and Economic Drivers Influencing Prices

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## National Overview

## Canadian Retail Gasoline Prices Increased 1 Cent per Litre from Last Week

After a five-week decline, Canadian average retail gasoline prices increased by 1 cent per litre to $\$ 1.25$ per litre for the week ending October 15, 2013. Prices are below last year's level by 5 cents per litre.
Diesel fuel prices rose by 1 cent to $\$ 1.29$ per litre, and furnace oil prices increased by less than 1 cent, ending at $\$ 1.20$ per litre from the previous week. Compared to a year ago, prices for diesel and furnace oil are 4 and 12 cents per litre higher, respectively.

## Recent Developments

- U.S. to be Largest Producer of Petroleum and Natural Gas in 2013: The U.S. Energy Information Administration estimates that the United States will be the world's top producer of petroleum and natural gas hydrocarbons in 2013, surpassing Russia and Saudi Arabia. For the United States and Russia, total petroleum and natural gas hydrocarbon production, in energy content terms, is almost evenly split between petroleum and natural gas. (Source: EIA, http:// www.eia.gov/today inenergy/ detail.cfm?id=13251 )
- U.S. Refiners Export More Fuel Than Ever: As crude production soars in places like the Eagle Ford shale formation in Texas, U.S. refiners along the Gulf Coast are increasingly using local oil, which is less expensive than the North Sea crude that European refiners use. That often means diesel and other fuels made in the U.S. are a bargain abroad even after adding shipping costs. U.S. refiners have large supplies of finished products to sell because drivers in the U.S. are buying less gasoline, largely thanks to more energy-efficient automobiles and even though the price of gasoline has fallen over the past year to about $\$ 3.35$ a gallon down from $\$ 3.82$ a year ago. (Source: Wall Street J ournal)
- More Oil Refinery Shutdowns Ahead in Europe: Total SA, the French multinational integrated oil and gas company, is backing out of European oil processing and sales as domestic demand shrinks for the region's third largest oil company and gains in faster-growing economies. Total plans to cut the proportion of investment in western and eastern European marketing and services over four years and raise it in Africa, Asia and the Middle East. Oil product demand is expected to drop 5\% in OECD nations by 2020 from 2010 - and rise 25\% in other nations. (Source: Global Refining and Fuels Report)

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


Figure 2: Weekly Regular Gasoline Prices


|  | Week of: | Change from: |  |
| :--- | :---: | :---: | :---: |
| $\Phi / L$ | $2013-10-15$ | Previous <br> Week | Last Year |
| Gasoline | 124.8 | +1.1 | -5.3 |
| Diesel | 129.2 | +1.3 | +3.5 |
| Furnace Oil | 119.5 | +0.4 | +12.1 |

Source: NRCan
Natural Gas Prices for Vehicles

| 2013-10-15 | ¢/kilogram | ¢/L gasoline <br> equivalent | $\Phi / L$ diesel <br> equivalent |
| :--- | :---: | :---: | :---: |
| Vancouver | 119.4 | 78.8 | 81.7 |
| Edmonton | 115.1 | 75.9 | 78.7 |
| Toronto | 110.6 | 73.0 | 75.6 |

Source: $\ddagger / k g$ Kent Marketing Services Limited

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## Retail Gasoline Overview

For the period ending October 15, 2013, the fourweek average regular gasoline pump price in selected cities across Canada was $\$ 1.25$ per litre, representing a 4 cent-per-litre decrease compared to the price in the previous report of October 4, 2013. The average Canadian pump price is 6 cents per litre lower than during the same period in 2012.

The four-week average crude component was 65 cents per litre, a decrease of 3 cents compared to two weeks ago.

Retail gasoline prices in most Western centres increased by 3 cents per litre when compared to the previous report and ranged from $\$ 1.11$ to $\$ 1.34$ per litre. Prices in Eastern cities decreased by 4 cents per litre and ranged from $\$ 1.24$ to $\$ 1.33$ per litre.
At the national level, refining and marketing costs and margins registered a decrease of 1 cent per litre to 20 cents per litre compared to the previous report.

Figure 3: Regular Gasoline Pump Prices in Selected Cities Four-Week Average (September 24 to October 15, 2013)


Source: NRCan

* Regulated Markets


## Petroleum Product Movement - Refineries to Terminals

Product terminals are more widely distributed than refineries and are generally located near major markets. Pipelines are the safest, most reliable and cost-effective way of transporting the large volume of petroleum products. However, where the volume of petroleum products cannot justify the construction of a pipeline, petroleum products are transported to terminals across land by truck and rail and over water by marine tanker.

Terminal locations are governed by proximity to markets and alternative transportation modes. Each product has a different delivery system from the terminal depending on the customer base. For example, jet fuel is often moved by pipeline directly to the airport. Diesel fuel is distributed through retail outlets, large commercial card lock facilities where trucking companies can fill up at unattended distribution sites, or by truck delivered directly to customer tankage. Furnace oil is distributed from the terminal directly to home heating customers.
Gasoline, the most visible and widely used of all the products, has the most dispersed distribution network. Before the gasoline leaves the terminal, some gasoline retailers will add performance and detergent additives to distinguish their brand from those of their competitors. The formula for each additive package is unique to that specific brand. As many companies pick up product from the same terminal, the proprietary additives are generally added at the terminal and are the only way to differentiate gasoline at retail outlets.

## Wholesale Gasoline Prices

Compared to the previous week, wholesale gasoline prices for the week ending October 10, 2013 increased in most selected Canadian and American centres.

Overall, wholesale gasoline price changes ranged between decreases of 2 cents per litre to increases of 2 cents per litre. Prices ended in the 71 to 79 cent-perlitre range.

In the Eastern markets of Canada and the United States, wholesale gasoline prices, compared to the
previous week, increased from less than 1 cent per litre to more than 2 cents per litre. Prices ended in the 75 to 78 cent-per-litre range.

Wholesale gasoline price changes in Western centres ranged from a decrease of 2 cents per litre to an increase of less than 2 cents per litre. Prices ended in the 71 to 79 cent-per-litre range.

Compared to last year at this time, price changes ranged between increases of less than 1 cent per litre to decreases of 14 cents per litre.

Figure 4: Wholesale Gasoline Prices
Rack Terminal Prices for Selected Canadian and American Cities Ending October 10, 2013 (CAN $\ddagger / \mathrm{L}$ )


Sources: NRCan, Bloomberg Oil Buyers Guide

## Gasoline Refining and Marketing Margins

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

Overall, refining margins rose by less than 1 cent per litre to 12 cents per litre from two weeks ago. Declining refining margins in the last few months reflect the decrease in North American demand for gasoline and a well-supplied market.

The refining margins shown here are calculated as the difference between the estimated crude oil feedstock
price and the wholesale price of gasoline at a point in time.

Nationally, marketing margins increased by 1 cent per litre compared to the same period last year. Marketing margins represent the difference between the wholesale and retail price of gasoline. This margin pays for the costs associated with operating a service station.

Figure 5: Gasoline Refining and Marketing Margins Four-Week Rolling Average Ending October 15, 2013
------- Refining Margin



Source: NRCan


## Crude Oil Overview

## Crude Oil Prices Trading Downward

For the week ending October 11, 2013, prices for the three marker crudes averaged between $\$ 610 / \mathrm{m}^{3}$ and \$708/ m ${ }^{3}$ (US\$94 to US\$109 per barrel). Edmonton Par increased by $\$ 13 / \mathrm{m}^{3}$ (US\$2 per barrel) while WTI retreated by $\$ 20 / \mathrm{m}^{3}$ (US\$4 per barrel), from the previous week.

WTI traded downward for the week under review as the U.S. budget stalemate undermined consumer confidence, contributing to lower demand for crude oil. Brent oil prices remained in a hiatus compared to the previous week.

As the U.S. is a major consumer of crude oil, a decrease in the country's consumption could lead to a surplus of oil on the international market, leading to decreased prices. Although Edmonton Par prices traded high compared to last week, they are for the most part trending downward following the other major benchmarks.
U.S. crude oil inventories continue to climb and are in the upper range of their five-year historical average.

Figure 6: Crude Oil Price Comparisons


Changes in Crude Oil Prices

| Crude Oil Types | $\begin{array}{c}\text { Week Ending: } \\ \text { 2013-10-11 }\end{array}$ |  | Change From: |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{c}\text { PCan/ } \\ \mathrm{m}^{3}\end{array}$ |  | $\begin{array}{c}\text { \$US/ } \\ \text { bbl }\end{array}$ | $\begin{array}{c}\text { \$Can/ } \\ \mathrm{m}^{3}\end{array}$ | $\begin{array}{c}\text { \$US/ } \\ \mathrm{bbl}\end{array}$ | $\begin{array}{c}\text { \$Can/ } \\ \mathrm{m}^{3}\end{array}$ |
| Edmonton Par | 610.31 | 93.65 | +12.87 | +1.58 | +23.93 | -1.63 |
| bbl |  |  |  |  |  |  |$]$

Source: NRCan

## Lower Home Heating Cost Expected in the U.S.

In petroleum markets, October is typically the time when attention shifts to heating fuels. In its October 2013 Short-Term Energy and Winter Fuels Outlook, EIA is projecting the retail price of heating oil to average $\$ 3.68$ per gallon ( 97 cents per litre) this winter heating season (October 2013 March 2014).
This price would be 19 cents per gallon ( 5 cents per litre) lower than the average price during the winter of 2012-13 and reflects EIA's lower price forecast for Brent crude oil, which petroleum product prices in the Northeast track, along with narrower crack spreads for distillate fuel.
The Northeast accounts for $80 \%$ of total U.S. oil use for space heating. EIA expects households heating primarily with heating oil to spend an average of $\$ 46$ (2\%) less this winter than last winter, reflecting a $5 \%$ decrease in retail prices and a 3\% increase in consumption. However, relatively low inventory levels as a result of strong global demand for distillate fuel could contribute to price volatility if temperatures significantly below forecast levels result in higher demand.
The largest component of the price of heating oil is the cost of crude oil. This winter, EIA expects the price of Brent crude oil to average $\$ 105$ per barrel ( $\$ 2.50$ per gallon), about $\$ 6$ per barrel ( 14 cents per gallon) lower than last winter.
Source: EIA, This Week in Petroleum, http:// www.eia.qov/ oog/info/twip/twip.asp

