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# Fuel Focus

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

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## National Overview

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

For the week ending October 18, 2011, Canadian average retail gasoline prices increased by nearly 1 cent per litre from the previous week to \$1.26 per litre. Prices are above last year's level by 20 cents per litre.

Diesel fuel prices rose by 3 cents to \$1.27 per litre, and furnace oil prices increased by 1 cent ending at \$1.13 per litre from the previous week. Compared to a year ago, prices for diesel and furnace oil are 27 and 20 cents per litre higher, respectively.

The rise in retail gasoline prices reflects in part the greater volatility in North American wholesale gasoline prices, which in turn were firmed up by the upward trend from world crude oil prices.

## Recent Developments

- **Canadian Crude Oil Production Increase in July:** Production of crude oil and equivalent hydrocarbons increased 1% to 14.5 million cubic metres in July 2011 compared to the same month a year earlier. Exports increased 10% to 11.2 million cubic metres. About 78% of Canada's total domestic production went to the export market compared to 71% a year earlier. Imports fell 30% to 3 million cubic metres. (Statistics Canada, The Daily, <http://www.statcan.gc.ca/daily-quotidien/111007/dq111007c-eng.htm>)

- **Sunoco to Exit Refining:** Pennsylvania-based Sunoco Inc., announced September 6 that it plans to exit its refining business and has begun a process to sell its refineries located in Philadelphia and Marcus Hook, Pennsylvania. Sunoco is a leading transportation fuel provider with operations located primarily in the East Coast and Midwest regions of the United States. The company sells transportation fuels through more than 4,900 branded retail locations in 24 states. The retail network in the Northeast is principally supplied by Sunoco-owned refineries with a combined crude oil processing capacity of 505,000 barrels per day. (Source: Sunoco News Release, <http://phx.corporate-ir.net/phoenix.zhtml?c=99437&p=irol-newsArticle&ID=1603618&highlight=>)

- **Australia's New Carbon Tax:** On October 12, 2011, Australia, as one of the world's major greenhouse gas emitters, both per capita and nationally, and one of the largest exporters of coal, adopted a carbon tax. Under the plan, to begin on July 1, 2012, 500 of the nation's biggest polluters will be forced to pay AS\$23 per ton of carbon emitted. Exemptions are given to the agriculture and forestry sectors. The goal is to reduce emissions by 159 million tons of carbon by 2020.

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

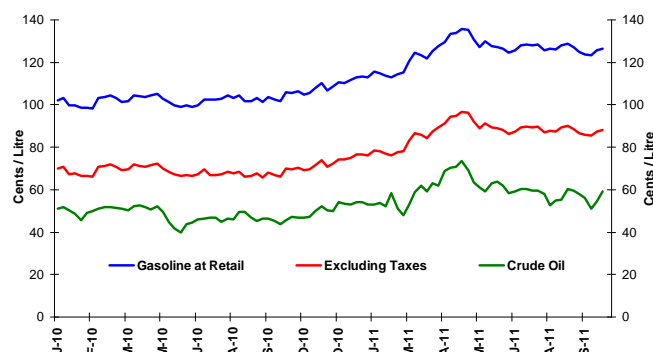
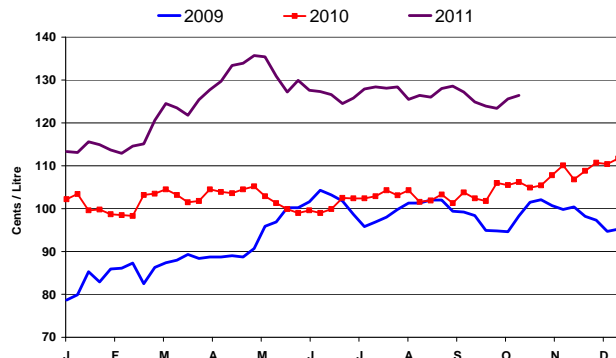


Figure 2: Weekly Regular Gasoline Prices



Changes in Fuel Prices

¢/L	Week of:	Change from:	
	2011-10-18	Previous Week	Last Year
Gasoline	126.4	+0.8	+20.2
Diesel	127.5	+3.1	+27.2
Furnace Oil	113.1	+1.2	+20.2

Source: NRCan

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## Retail Gasoline Overview

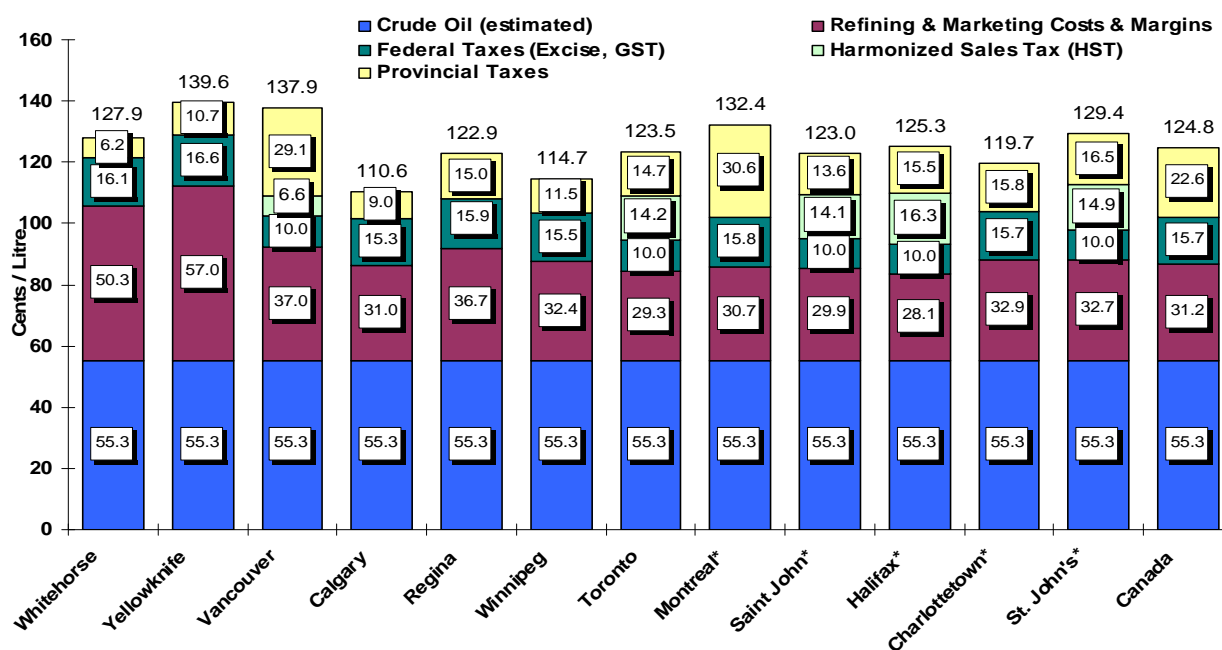
For the period ending October 18, 2011, the **four-week average** regular gasoline pump price in selected cities across Canada was \$1.25 per litre, unchanged compared to the price in the previous report of October 7, 2011. Compared to the same period in 2010, the average Canadian pump price is 20 cents per litre higher.

The **four-week average** crude component was 55 cents per litre, a decrease of 1 cent compared to two weeks ago.

Retail gasoline prices in most Western centres remain unchanged when compared to the previous report and ranged from \$1.11 per litre to \$1.38 per litre. Prices in Eastern cities decreased by 1 cent per litre and ranged from \$1.20 per litre to \$1.32 per litre.

At the national level, refining and marketing costs and margins registered an increase of nearly 1 cent per litre to 31 cents per litre compared to the previous report.

**Figure 3: Regular Gasoline Pump Prices in Selected Cities  
Four-Week Average (September 27 to October 18, 2011)**



Source: NRCan

\* Regulated Markets

### Gasoline versus Diesel Engines

All new gasoline - or diesel - powered light-duty vehicles built for sale in Canada meet very similar stringent emission standards. Diesel vehicles are typically more fuel-efficient, and greenhouse gas emissions from these vehicles are correspondingly lower; this means that they offer an advantage from a climate change perspective. On the other hand, emissions of nitrous oxides (NOX) are usually higher from diesel, and diesel particulate matter (PM) has recently been declared toxic under the Canadian Environmental Protection Act (CEPA). In other words, diesel emissions can have a significant impact on human health and the environment.

PM and NOX emissions are generally much lower from gasoline-powered vehicles than from diesel vehicles. However, gasoline-powered vehicles tend to be less efficient, and therefore emit more carbon dioxide (CO<sub>2</sub>), total hydrocarbons (HC) and carbon monoxide (CO) from their tailpipes. The evaporative emissions from these vehicles are also typically much higher than for diesel vehicles, and the nature and impact of these emissions are not yet fully understood. Both fuels therefore have their advantages and disadvantages, and it is very difficult to quantify the trade-offs.

Source: Office of Energy Efficiency, Natural Resources Canada





## Wholesale Gasoline Prices

Compared to the previous week, wholesale gasoline prices for the week ending **October 13, 2011** increased in most Canadian and American centres.

Wholesale gasoline price changes ranged from an increase of more than 4 cents per litre to a decrease of less than 1 cent per litre. Prices ended in the 78 to 87 cent-per-litre range.

In the Eastern markets of Canada and the U.S., wholesale gasoline prices, compared to the previous week, ranged from an increase of less than 1 to 4 cents per litre.

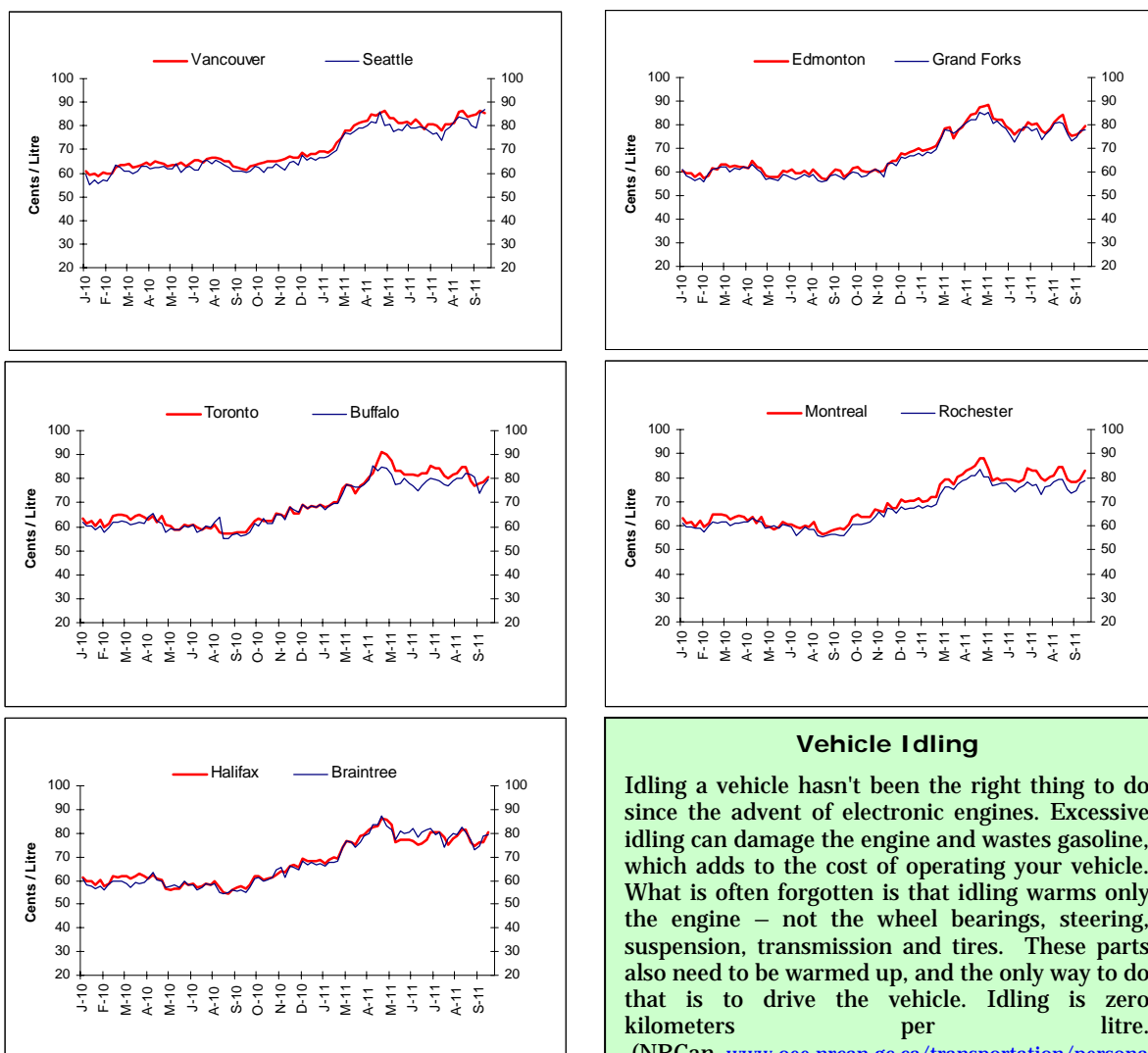
Wholesale gasoline prices in the Western centres ranged from an increase of 2 cents per litre to a decrease of less than 1 cent per litre. Prices ended in the 78 to 87 cent-per-litre range.

Compared to two weeks ago, prices in both Canadian and American centres increased in the range of 1 to 8 cents per litre following the increase in world crude oil prices.

Compared to the previous year, wholesale prices in Canadian and American centres are 16 to 22 cents per litre higher.

**Figure 4: Wholesale Gasoline Prices**

Rack Terminal Prices for Selected Canadian and American Cities Ending October 13, 2011  
(Can ¢/L)



Sources: NRCan, Bloomberg Oil Buyers Guide

### Vehicle Idling

Idling a vehicle hasn't been the right thing to do since the advent of electronic engines. Excessive idling can damage the engine and wastes gasoline, which adds to the cost of operating your vehicle. What is often forgotten is that idling warms only the engine – not the wheel bearings, steering, suspension, transmission and tires. These parts also need to be warmed up, and the only way to do that is to drive the vehicle. Idling is zero kilometers per litre.

(NRCan, [www.oeenrcan.gc.ca/transportation/personal/ldling.cfm?attr=8](http://www.oeenrcan.gc.ca/transportation/personal/ldling.cfm?attr=8))





## Gasoline Refining and Marketing Margins

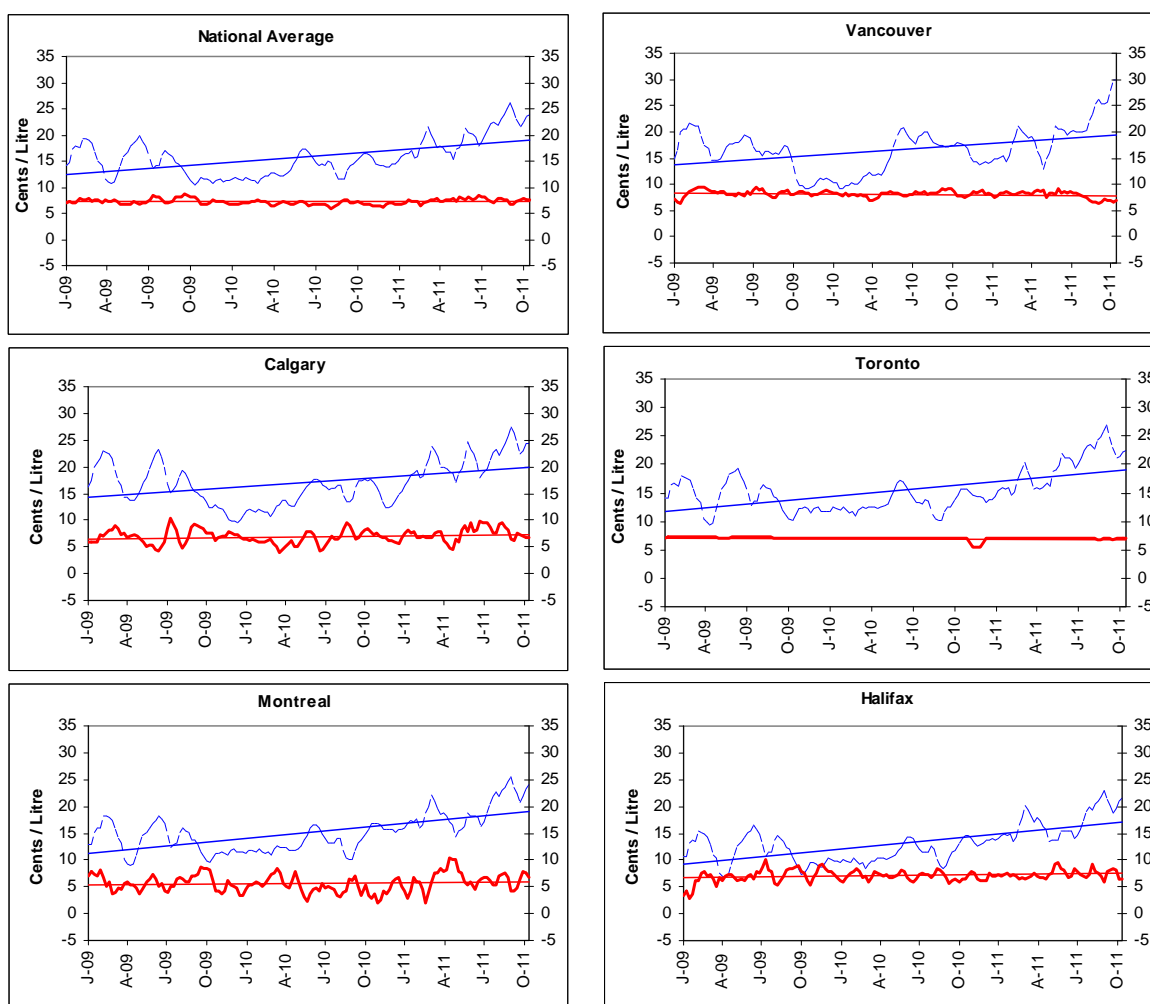
**Four-week rolling averages** are used for gasoline refining and marketing margins.

Refining margins for gasoline fluctuated on average around 23 cents per litre in the last eight weeks, reflecting an adequate supply in the North American distribution system. Margins are hovering at 24 cents per litre at the national level for the week ending October 18, 2011, an increase of 7 cents per litre compared to the same period last year.

Nationally, marketing margins registered around 7.5 cents per litre, essentially unchanged compared to the same time last year. Marketing margins for the five selected centres were between 6 and 7 cents per litre.

The marketing margin is the difference between the pump price (excluding taxes) and the price paid by the retailer to purchase the gasoline.

**Figure 5: Gasoline Refining and Marketing Margins**  
Four-Week Rolling Average Ending October 18, 2011  
----- Refining Margin      — Marketing Margin



Source: NRCan





## Crude Oil Overview

### Prices Buoyed by Supply and Demand Outlook

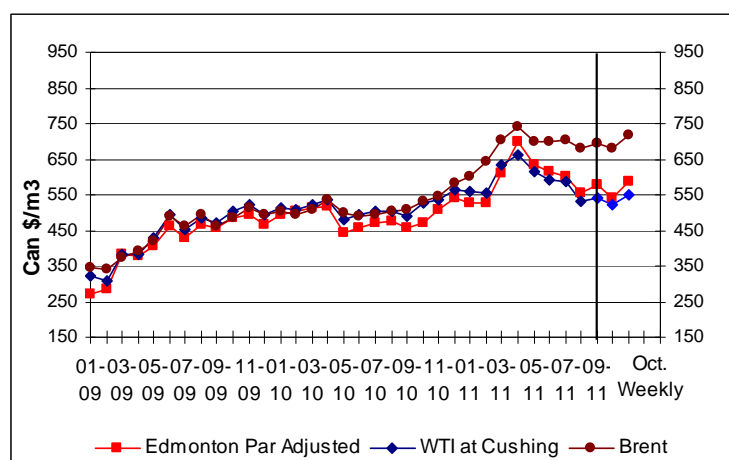
For the week ending October 14, 2011, prices for the three marker crudes averaged between \$551/m<sup>3</sup> and \$716/m<sup>3</sup>, (US\$86 to US\$111 per barrel). This is an increase of \$27 to \$47/m<sup>3</sup> (US\$6 to US\$9 per barrel) from the previous week.

Every week a range of events contributes to the volatility of world crude oil prices. Lately, prices have been fluctuating upward one day only to decline the next as world markets await the outcome of a reassuring plan for the European debt crisis from the G-20 leaders.

Overall, persistent global economic uncertainties contribute to the volatility in world crude oil prices amid concerns about future energy demand.

On October 12, 2011, the International Energy Agency released a report which reduced its global oil demand projections for 2012. Similarly, the Organization of Petroleum Exporting Countries also reduced its demand forecast in its October 2011 Market Report. In contrast, the U.S. Energy Information Administration increased its outlook for global oil demand.

Figure 6: Crude Oil Price Comparisons



### Canada Leading Crude Oil Supplier to the U.S.

About half of U.S. petroleum imports come from the Western Hemisphere (North, South, and Central America, and the Caribbean including U.S. territories) during 2010. About 25% of the U.S. crude oil and petroleum products comes from Canada and 18% from the Persian Gulf countries.

U.S. dependence on imported oil has dramatically declined since peaking in 2005. This trend is the result of a variety of factors including a decline in consumption and shifts in supply patterns. The economic downturn after the financial crisis of 2008, improvements in efficiency, changes in consumer behavior and patterns of economic growth, all contributed to the decline in petroleum consumption. At the same time, increased use of domestic biofuels (ethanol and biodiesel), and strong gains in domestic production of crude oil and natural gas plant liquids expanded domestic supplies and reduced the need for imports.

Source: U.S. Energy Information Administration, [http://www.eia.gov/energy\\_in\\_brief/foreign\\_oil\\_dependence.cfm](http://www.eia.gov/energy_in_brief/foreign_oil_dependence.cfm)

### Changes in Crude Oil Prices

Crude Oil Types	Week Ending: 2011-10-14		Change From:			
			Previous Week		Last Year	
	\$Can/ m <sup>3</sup>	\$US/ bbl	\$Can/ m <sup>3</sup>	\$US/ bbl	\$Can/ m <sup>3</sup>	\$US/ bbl
Edmonton Par	588.81	91.50	+46.80	+9.02	+119.34	+17.48
WTI	550.71	85.56	+26.92	+5.86	+29.56	+3.40
Brent	715.61	111.19	+34.47	+7.56	+186.82	+27.82

Source: NRCan

