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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 Decreased 1.5 Cents per Litre from Last Week

Canadian retail pump prices, for the week ending July 8, 2014, decreased by 1.5 cents per litre to \$1.37 per litre compared to the previous week. This is a decrease of 4 cents per litre from the last report two weeks ago and an increase of 5 cents per litre from a year ago.

Lower wholesale gasoline prices along with a decrease in crude oil prices pushed retail prices downward.

Diesel fuel declined by 1 cent per litre to \$1.34 per litre while furnace oil prices increased by 1 cent per litre to \$1.26 per litre. Diesel and furnace oil prices are 10 and 8 cents per litre higher than a year ago, respectively.

### Recent Developments

- **Higher-Octane Gasoline:** The use of high-octane 98 RON gasoline in appropriately-tuned light-duty vehicles (LDVs) could reduce U.S. gasoline consumption by 3.0-4.4%, cut LDV CO<sub>2</sub> emissions by 2.5-4.7% (after accounting for higher refinery emissions to produce higher-octane gasoline), and generate a net annual social benefit of \$1.7-8.8 billion in 2040, according to the Massachusetts Institute of Technology. Higher-octane gasoline allows for higher engine compression ratios and, for turbocharged engines, higher boost levels, thereby improving fuel economy. (Source: Environmental Science & Technology, Green Car Congress)
- **Re-opening of Libya's Sea Port Pushes Brent Oil Prices Down:** Crude oil dropped on July 3, 2014, on either side of the Atlantic, as supply fears began to recede after the Libyan government announced the resumption of oil exports from two ports. The Libyan government believes that potentially an extra 500,000 barrels per day of crude will be available for export. Brent fell to a three-week low, dropping US\$0.57 cents to US\$110.67 bbls while WTI fell US\$0.74 cents to US\$103.72 bbl. (Source: Daily Oil Bulletin)
- **Higher Energy Prices Push Inflation Up in May:** The year-over-year rise in the Consumer Price Index in May was led by energy prices, which increased 8.4% in the 12 months to May, matching the rise in April. Prices for gasoline increased 6.3% in the 12 months to May, while natural gas prices advanced 21.3%. At the national level, consumers also paid 12.7% more for fuel oil in May. (Source: The Daily, <http://www.statcan.gc.ca/daily-quotidien/140620/dq140620a-eng.htm>)

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

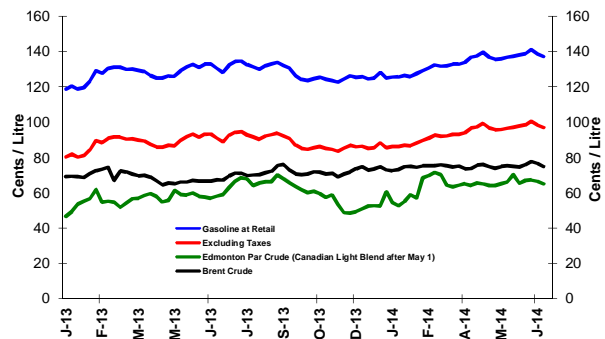
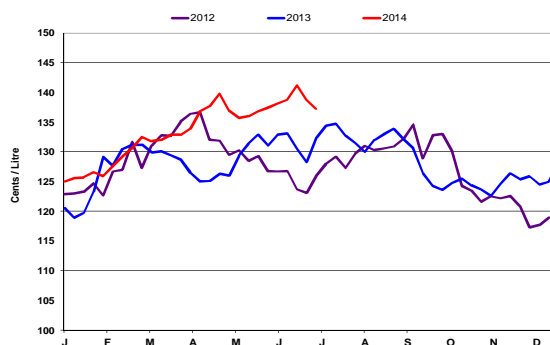


Figure 2: Weekly Regular Gasoline Prices



### Changes in Fuel Prices

¢/L	Week of:	Change from:	
	2014-07-08	Previous Week	Last Year
Gasoline	137.2	-1.5	+4.8
Diesel	134.0	-0.7	+9.6
Furnace Oil	125.6	+0.9	+8.3

Source: NRCan

### Natural Gas Prices for Vehicles

2014-07-08	¢/kilogram	¢/L gasoline equivalent	¢/L diesel equivalent
Vancouver	114.6	75.6	78.4
Edmonton	115.1	75.9	78.7
Toronto	128.3	84.6	87.8

Source: ¢/kg Kent Marketing Services Limited

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## Retail Gasoline Overview

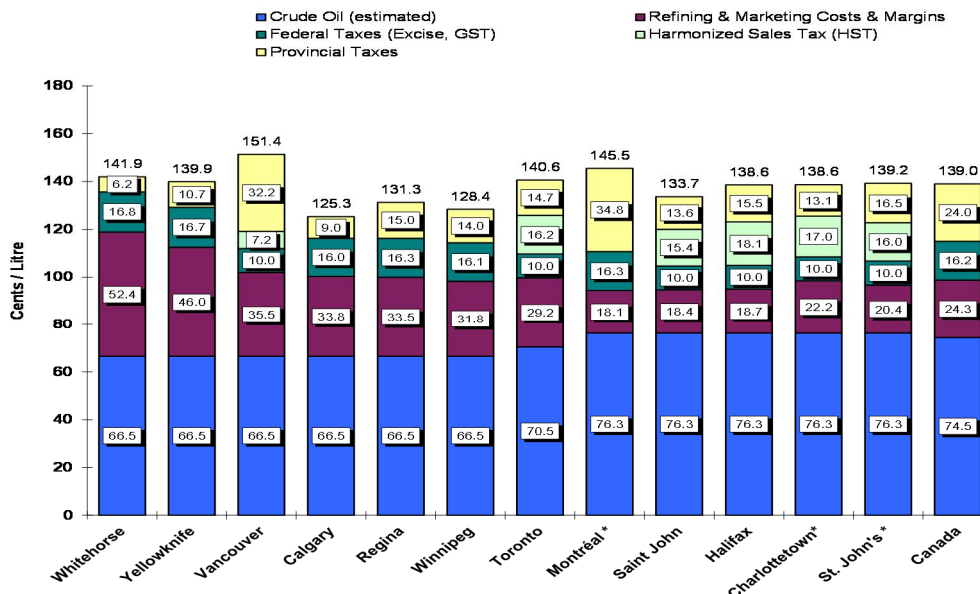
The average Canadian pump price in selected cities for the **four-week average** ending July 8, 2014, was \$1.39 per litre—an increase of 0.1 cent per litre from the last report on June 27, 2014. This represents an 8 cent-per-litre increase compared to the same period in 2013.

Overall, compared to two weeks ago, the **four-week average** crude oil prices declined by 0.4 cent per litre to 75 cents per litre.

Retail gasoline prices in Eastern centres increased marginally, on average, by 0.2 cent per litre, and ranged from \$1.34 per litre to \$1.46 per litre. Prices in Western centres declined on average by 0.3 cent per litre and ranged from a high of \$1.51 to a low of \$1.25 per litre.

At the national level, refining and marketing costs and margins increased by less than 1 cent per litre to 24 cents per litre from the previous report two weeks ago. This is nearly 5 cents per litre lower than the same period last year.

**Figure 3: Regular Gasoline Pump Prices in Selected Cities  
Four-Week Average (June 17 to July 8, 2014)**



Source: NRCan

\* Regulated Markets

Note: Toronto crude oil cost includes pipeline tolls of \$4 per barrel for light crude oil from Edmonton to Sarnia, Ontario.

### Fuel Economy Standards

The Energy Information Administration (EIA), in its recently published Annual Energy Outlook 2014, projected that more stringent vehicle fuel economy standards will be a contributing factor in the decline of gasoline consumption through 2040.

The decrease is based on the standard requirement for light-duty vehicles to average 49 miles per gallon (mpg) in model year 2025, compared to the current compliance estimate of about 33 mpg in model year 2012. A projected increase in vehicle miles travelled (VMT) would also increase fuel consumption, however higher fuel efficiency standards would offset this increase in an overall decline in gas consumption.

In contrast to the projected decline in gasoline use, even with the Environmental Protection Agency's fuel efficiency and greenhouse gas emission standards in place for heavy-duty fuel vehicles, a large rise in heavy-duty VMT will lead to an increase in consumption of diesel fuel. There is an expectation that new refinery projects will shift their focus of production of fuels from gasoline to distillate fuels to meet growing domestic and global demand for diesel.

Source: Oil and Gas Journal





## Wholesale Gasoline Prices

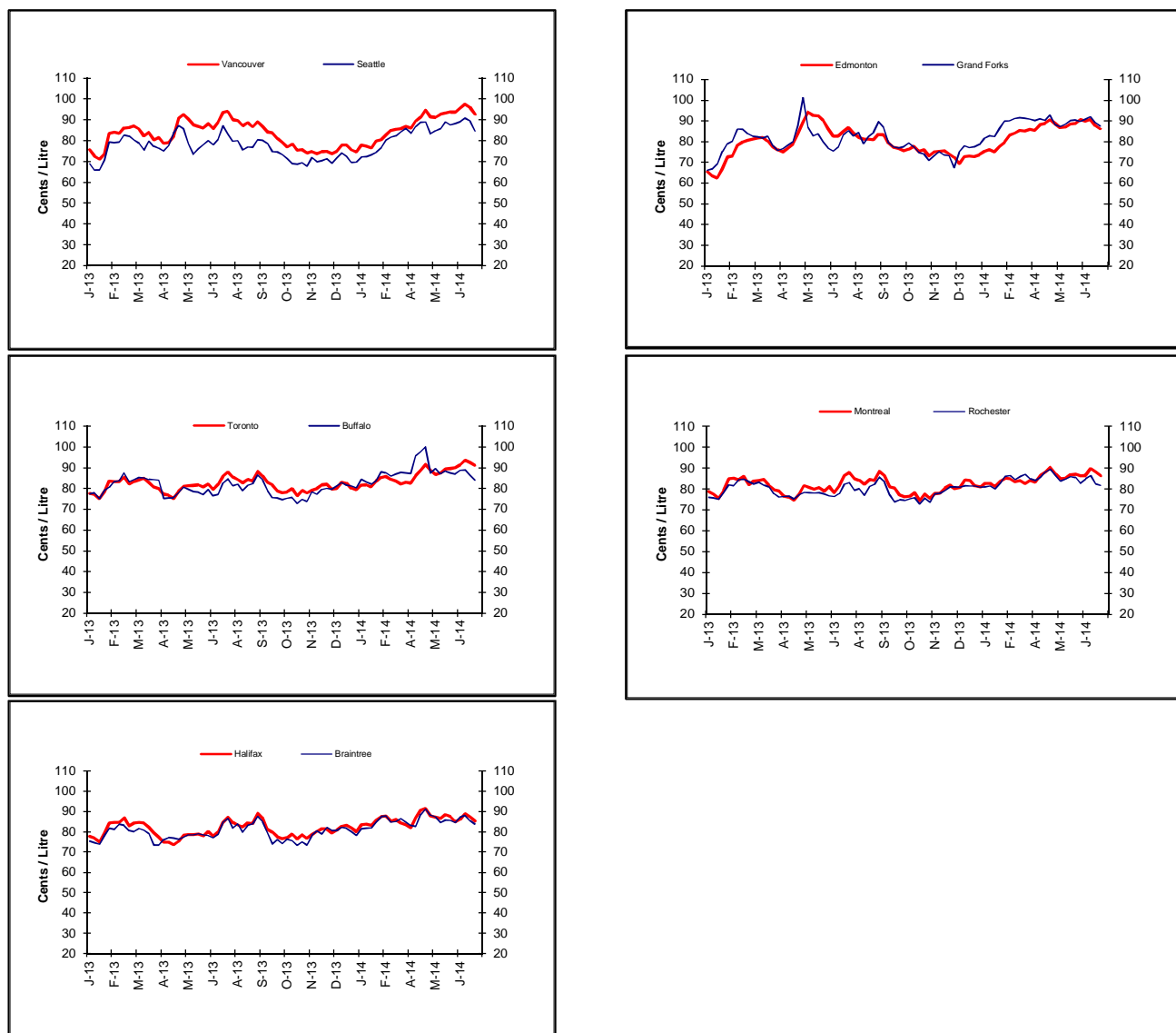
For the **week of July 3, 2014**, and compared to the previous week, prices in both Canadian and U.S. markets registered decreases ranging from less than 1 cent a litre to almost 5 cents per litre and ended the period in the 82-to-93 cent-per-litre range.

Wholesale gasoline prices in Eastern markets in both Canada and the United States registered decreases of 1 cent per litre to nearly 3 cents per litre, compared to the previous week, and ended the period in the 82-to-91 cent-per-litre range.

Wholesale gasoline prices in Western centres ranged from a decrease of more than 1 cent per litre to almost 5 cents per litre and ended the period between 85 and 93 cents per litre.

Overall, compared to the same period last year, prices registered increases ranging from 3 cents a litre to slightly more than 10 cents per litre.

**Figure 4: Wholesale Gasoline Prices**  
Rack Terminal Prices for Selected Canadian and American Cities Ending July 3, 2014  
(CAN ¢/L)



Sources: NRCan, Bloomberg Oil Buyers Guide





## Gasoline Refining and Marketing Margins

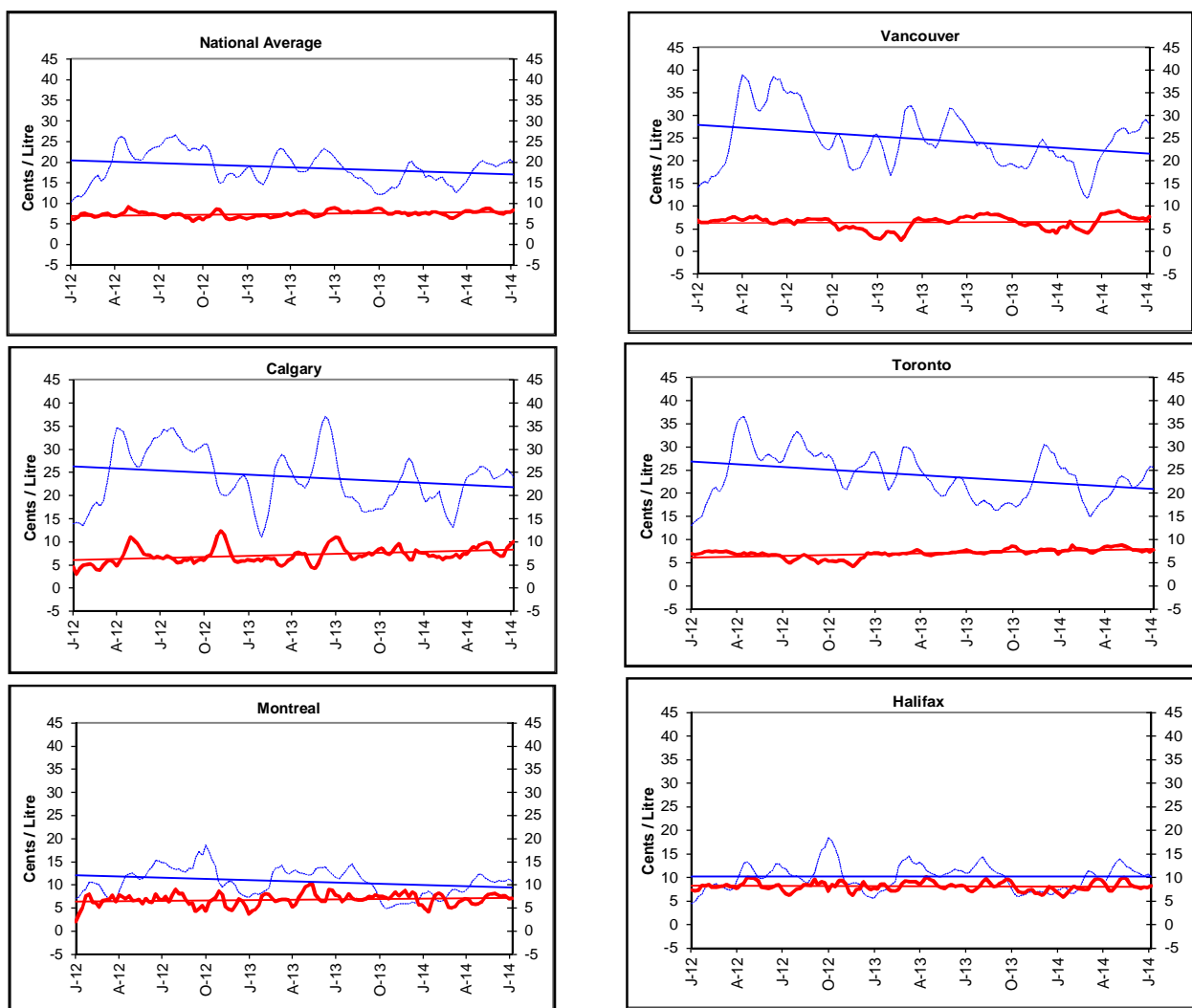
**Four-week rolling averages** are used for gasoline refining and marketing margins.

Refining margins have shown low fluctuations in the last three months, which is indicative of an adequate supply in the North American distribution system. Strong U.S. gasoline and crude oil inventories create a downward pressure on price which, in turn, moderates refining margins.

At the national level, the refining margin was around 20 cents per litre—0.1 cent higher than two weeks ago.

Overall, marketing margins remain much less volatile than refining margins and fluctuate over a much narrower range. Nationally, marketing margins hovered at 8 cents per litre.

**Figure 5: Gasoline Refining and Marketing Margins**  
Four-Week Rolling Average Ending July 8, 2014  
----- Refining Margin      — Marketing Margin



Source: NRCan





## Crude Oil Overview

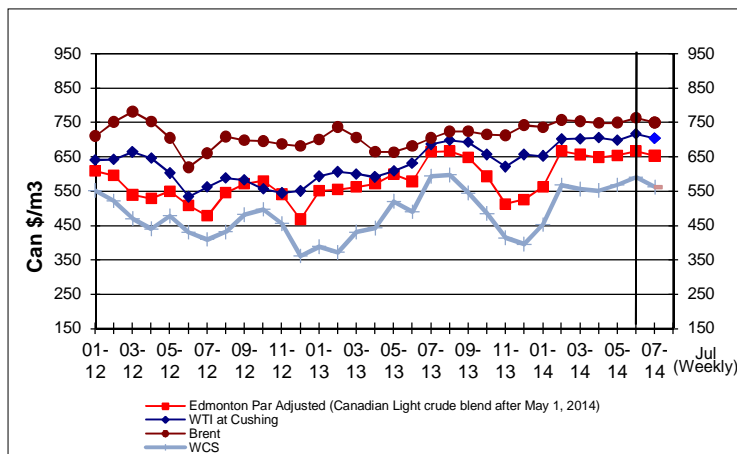
### Crude Oil Prices Decline as Supply Concern Ease

For the week ending July 4, 2014, prices for the three marker light crudes averaged between \$652/m<sup>3</sup> and \$749/m<sup>3</sup>, (US\$97 to US\$112 per barrel). This is a decrease of \$13 to \$18/m<sup>3</sup> (US\$1.53 to US\$2.10 per barrel) compared to the previous week. Compared to last year at the same time, prices are higher ranging from \$29/m<sup>3</sup> to \$53/m<sup>3</sup>, (US\$3 to US\$7 per barrel). Western Canadian Select prices averaged \$561/m<sup>3</sup> (US\$84 per barrel), down \$17/m<sup>3</sup> (US\$2.06 per barrel) from the previous week.

Brent crude oil prices moved downward as fear of supply disruption eased in Libya and Iraq. Meanwhile, continuing peace negotiations between Ukraine, France, Germany, and Russia also contributed to ease crude oil supply concerns and lower prices.

High U.S. crude oil inventory levels, currently at their highest five-year average range, helped moderate the rise in WTI crude oil prices which in turn put downward pressure on refined product prices.

Figure 6: Crude Oil Price Comparisons



As of May 1, 2014, Edmonton Par prices are no longer available. The Canadian Light Sweet Crude is a blend of Canadian light sweet (low sulphur) crudes delivered at Edmonton, Alberta. The blend has an API gravity of approximately 40 degrees and 0.3% sulfur content, and so is very similar in quality to WTI. The Canadian Light Sweet crude blend is traded daily on the Net Energy Index, at prices listed in US Dollars, and is considered a benchmark crude for the Canadian crude market. Net Energy Index reports NYMEX's WTI future settlement prices and the differential between Canadian Light Sweet and WTI; NRCan calculates the Canadian Light Sweet price from this information.

### Changes in Crude Oil Prices

Crude Oil Types	Week Ending: 2014-07-04		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
Canadian Light	651.71	97.16	-13.49	-1.53	+29.30	+3.19
WTI	703.00	104.81	-11.79	-1.24	+37.04	+4.30
Brent	749.35	111.72	-17.76	-2.10	+52.86	+6.60
WCS	561.05	83.65	-16.59	-2.06	-12.66	-2.94

Source: NRCan

### EIA Short-Term Energy Outlook

According to the U.S. Energy Information Administration (EIA) *Short-Term Energy Outlook* released July 8, 2014, unrest in Iraq put upward pressure on world oil prices last month, helping North Sea Brent crude oil spot prices reach their highest daily level of the year at just over \$115/barrel (bbl) on June 19. North Sea Brent crude oil spot prices increased from a monthly average of \$110/bbl in May to \$112/bbl in June. This was the 12th consecutive month in which the average Brent crude oil spot price ranged between \$107/bbl and \$112/bbl. EIA projects Brent crude oil prices to average \$110/bbl in 2014 and \$105/bbl in 2015, \$2/bbl and \$3/bbl higher than projected in last month's STEO, respectively. The West Texas Intermediate (WTI) crude oil price discount to Brent is expected to average \$9/bbl and \$10/bbl in 2014 and 2015, respectively.

The WTI crude oil spot price increased from an average of \$102/bbl in May to \$106/bbl in June. Driven in part by the relocation of crude oil to refining centers along the Gulf Coast through new pipelines, crude oil inventory levels at the Cushing, Oklahoma, storage hub, the delivery point for WTI, have fallen by more than half since the start of the year, from 42 million barrels on January 24 to below 21 million barrels on June 27, the lowest level since November 2008. The discount of WTI crude oil to Brent crude oil, which averaged more than \$13/bbl from November 2013 through January 2014, has since fallen to \$6/bbl in June. EIA expects the discount to average \$10/bbl in 2015.

Source: EIA, *Short-Term Energy Outlook*, July 8, 2014.

