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Fuel Focus

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

2013 Annual Review

January 17, 2014

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2013 Annual Review

Fuel Focus 2013 Annual Review summarizes the events that characterized the Canadian retail gasoline market during 2013. Throughout the year, the bi-weekly *Fuel Focus* report provides readers with regular information on the various aspects of the Canadian gasoline markets and the economic drivers influencing prices.

Highlights

- The Canadian average retail pump prices presented in this report are based on averaging once per week snapshots of retail prices across Canada. Prices in individual markets have an even wider range than the Canadian average price range.
- Canadian retail gasoline prices in 2013 averaged \$1.28 per litre, an increase of less than 1 cent per litre from 2012. Gasoline prices fluctuated within a range of 16 cents per litre, from a low of \$1.19 per litre to a high of \$1.35 per litre in 2013. In comparison, the range was 19 cents per litre from a low of \$1.17 per litre to a high of \$1.36 per litre in 2012.
- Retail pump prices peaked at \$1.35 per litre in July with the higher demand of the summer driving season. Overall, national retail gasoline prices followed a similar pattern as in the previous two years. Most of the fluctuations in retail gasoline prices were due to crude oil price fluctuations.
- Diesel fuel and furnace oil prices rose by nearly 3 cents per litre to \$1.29 and \$1.20 per litre, respectively.
- Canadian and American wholesale gasoline prices averaged 80.7 and 78.5 cents per litre respectively in 2013, compared to 80.6 and 79.2 cents per litre respectively in 2012. Overall, average retail pump prices reflected the upward pressure from world crude oil prices.
- The average refining margin registered at 18 cents per litre, a decrease of 2 cents per litre from 2012, while marketing margins increased by 0.5 cent per litre to 7.5 cents per litre.
- Crude oil prices for the three crude oil benchmarks (Edmonton Par, WTI and Brent) averaged \$642/m³ (US\$99/bbl) in 2013—an increase of \$30/m³ (US\$2/bbl) from 2012. Overall, Edmonton Par prices averaged \$585/m³ (US\$90/bbl), an increase of \$43/m³ (US\$4/bbl). WTI averaged \$636/m³ (US\$98/bbl) from the previous year, an increase of \$44/m³ (US\$4/bbl) and Brent prices averaged \$705/m³ (US\$109/bbl), almost unchanged from the previous year.

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

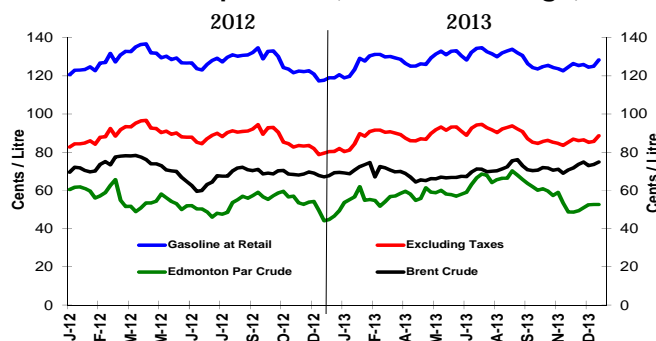
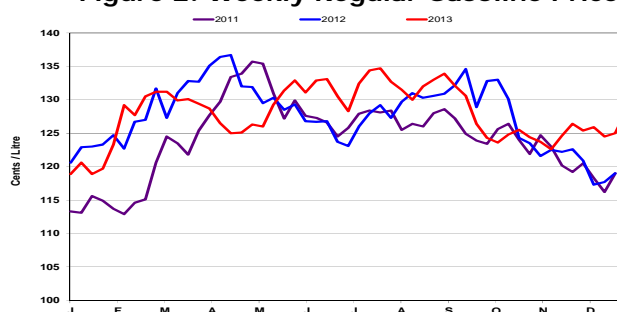


Figure 2: Weekly Regular Gasoline Prices



Changes in Fuel and Crude Oil Prices

| | Annual (National Average) | | |
|--------------|---------------------------|-------|--------|
| ¢/L | 2013 | 2012 | Change |
| Gasoline | 127.9 | 127.5 | +0.4 |
| Diesel | 128.6 | 125.4 | +3.2 |
| Furnace Oil | 120.3 | 117.7 | +2.6 |
| Edmonton Par | 58.3 | 54.4 | +3.9 |
| Brent | 70.3 | 70.3 | 0.0 |

Source: NRCan

Natural Gas Prices for Vehicles

| Average 2013 | ¢/kilogram | ¢/L gasoline equivalent | ¢/L diesel equivalent |
|--------------|------------|-------------------------|-----------------------|
| Vancouver | 123.6 | 81.5 | 84.5 |
| Edmonton | 115.1 | 75.9 | 78.7 |
| Toronto | 110.6 | 73.0 | 75.6 |

Source: ¢/kg Kent Marketing Services Limited

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Retail Gasoline Overview

The annual average gasoline pump price in the selected cities shown in Figure 3 was \$1.28 per litre in 2013—an increase of less than 1 cent per litre compared to 2012.

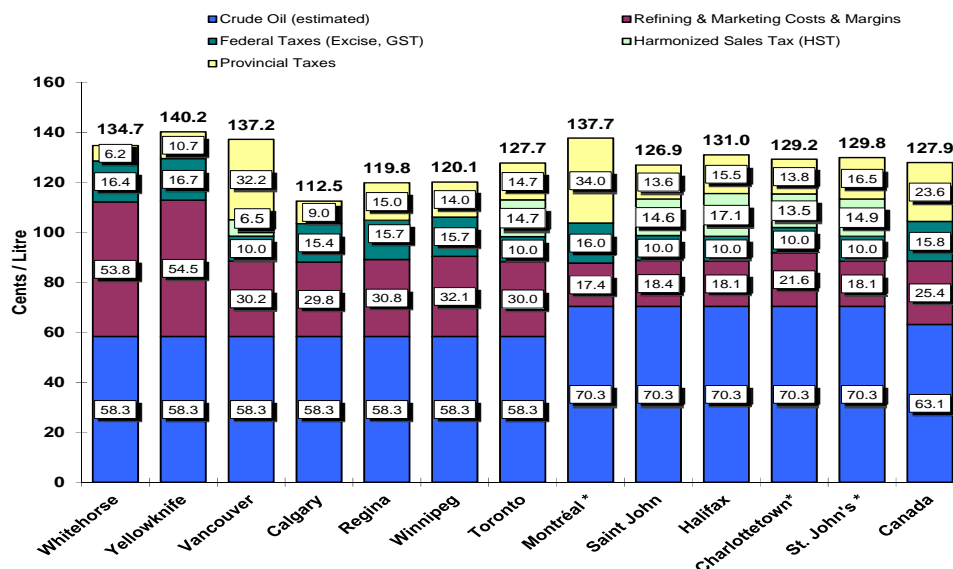
Crude oil, the main pump price component, averaged 63 cents per litre in 2013—an increase of 2 cents per litre from the previous year.

The refining and marketing costs and margins component decreased by 2 cents per litre in 2013 to 25 cents per litre.

In 2013, federal and provincial taxes accounted for 40 cents per litre of the average gasoline price at the pump, unchanged from the previous year.

Average retail gasoline prices in Charlottetown increased by nearly 5 cents per litre, mainly due to higher overall taxes, followed by Winnipeg at 2 cents per litre due to higher crude oil costs. St. John's registered a decrease of nearly 3 cents per litre as a result of lower refining and marketing costs and margins.

Figure 3: Regular Gasoline Pump Prices in Selected Cities
Annual Average for 2013



Source: NRCan

* Regulated Markets

| Regular Gasoline Pump Price Components in Selected Cities | | | | | | | | | | | | | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Change in Annual Average for 2013 over 2012 (cents per litre) | | | | | | | | | | | | | |
| Selected Cities | WH | YK | VA | CY | RE | WG | TO | ML | SJ | HX | CH | SJ's | CA |
| Provincial Taxes | | | | | | | | 0.9 | | | -2.0 | | -0.1 |
| HST | | | 0.1 | | | | 0.1 | | -0.1 | | 13.5 | -0.3 | |
| Federal Taxes | 0.1 | | | 0.1 | -0.1 | 0.1 | | | | | -5.9 | | 0.1 |
| R & M Costs and Margins | -2.3 | -3.9 | -2.9 | -3.2 | -6.2 | -1.8 | -3.0 | -0.1 | -0.7 | -0.4 | -0.3 | -2.4 | -1.7 |
| Crude Oil - (Edmonton Par and Brent) | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 | | | | | | 2.1 |
| Retail Pump Prices | 1.7 | | 1.1 | 0.8 | -2.4 | 2.2 | 1.1 | 0.9 | -0.7 | -0.4 | 5.3 | -2.7 | 0.4 |

Note: Empty fields indicate no changes from 2012 to 2013. Shaded areas indicate the tax is not applicable. Federal taxes include the excise tax and the GST where applicable.



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Wholesale Gasoline Prices

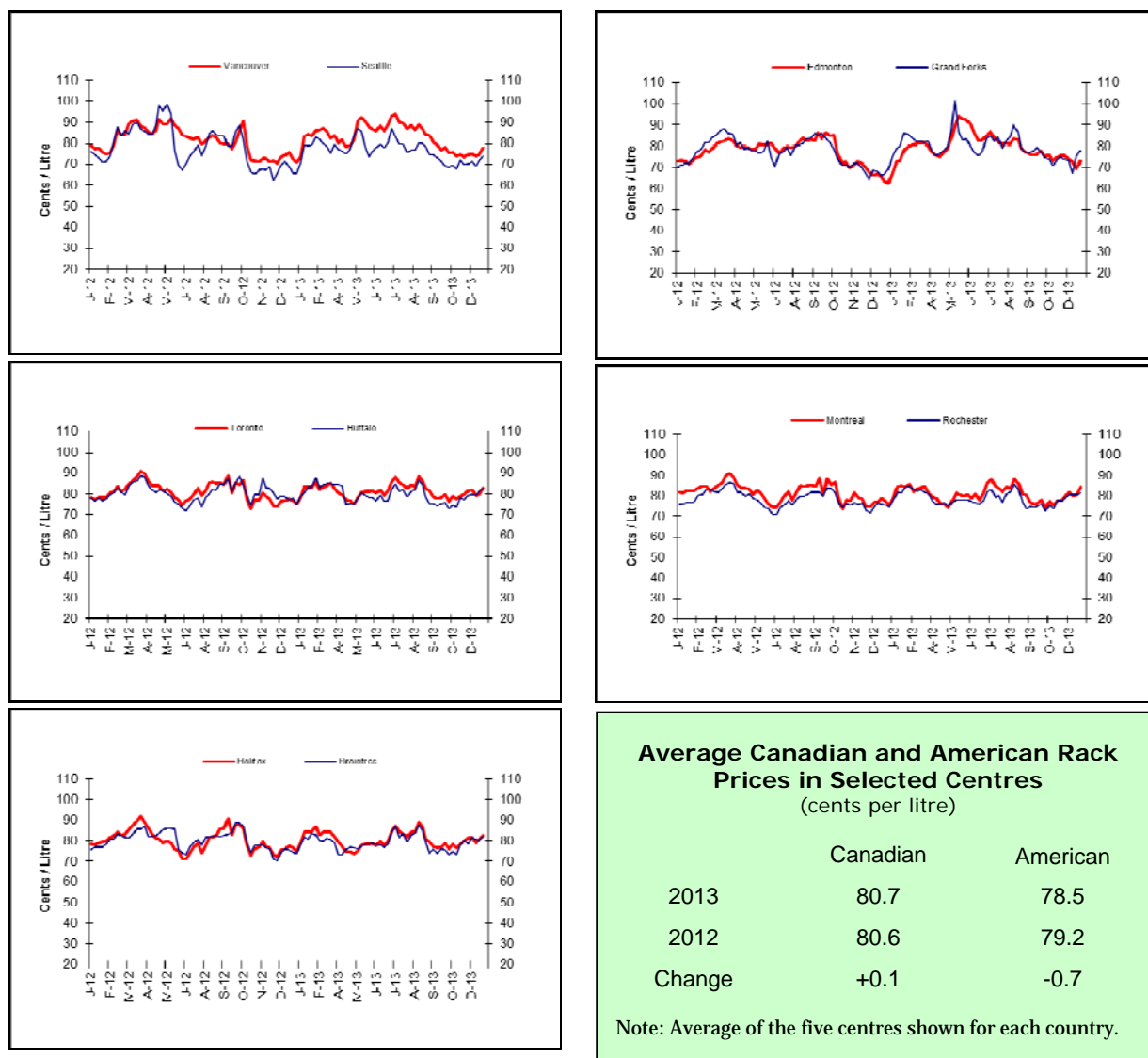
In 2013, wholesale gasoline prices in Canada and the U.S. followed similar trends, with the annual average in Canada at 81 cents per litre, 2 cents per litre higher than the 79 cents per litre average for selected American centres.

Wholesale gasoline prices in selected centres ranged from a decrease of 3 cents per litre to an increase of 1 cent per litre from last year's level. In 2013, prices fluctuated between approximately 79 and 82 cents per litre in Canadian markets and between 76 and 79 cents per litre in nearby U.S. markets.

Overall, Canadian and American wholesale gasoline prices followed each other closely. The exception was in Vancouver where the price spread fluctuated above Seattle for most of the year.

Higher prices in Vancouver were mainly due to tighter gasoline supplies. Limited capacity on the Kinder Morgan Trans Mountain Pipeline (which supplies most of Vancouver gasoline) and scheduled and unscheduled refinery maintenance contributed to the supply constraint. Edmonton also saw some temporary price increases in May-June due to refinery supply issues.

Figure 4: Wholesale Gasoline Prices (Weekly Average)
Rack Terminals Prices for Selected Cities Ending December 26, 2013
(Can \$/L)



Sources: NRCan, Bloomberg





Refining and Marketing Margins

Refining margins for gasoline increased in 2013 compared to the previous year. Overall, compared to 2012, average refining margins decreased by 2 cents per litre to 18 cents per litre in 2013.

The **four-week rolling national average** refining margins ranged from a low of 12 cents per litre to a high of 23 cents per litre in 2013. In comparison, margins fluctuated in the range of 10 to 27 cents per litre in 2012.

Overall refinery margins reflect market conditions. In 2013, refinery margins were lower than in the previous year. Refinery margins showed the traditional spike in spring and summer which relates to higher seasonal demand for gasoline with the summer driving season.

Sufficient gasoline and crude oil inventories in the U.S. moderated the rise in refining margins. There were also few market supply constraints. When supplies are

tight, margins rise as markets adjust, using higher prices as a mechanism to bring supply and demand into balance.

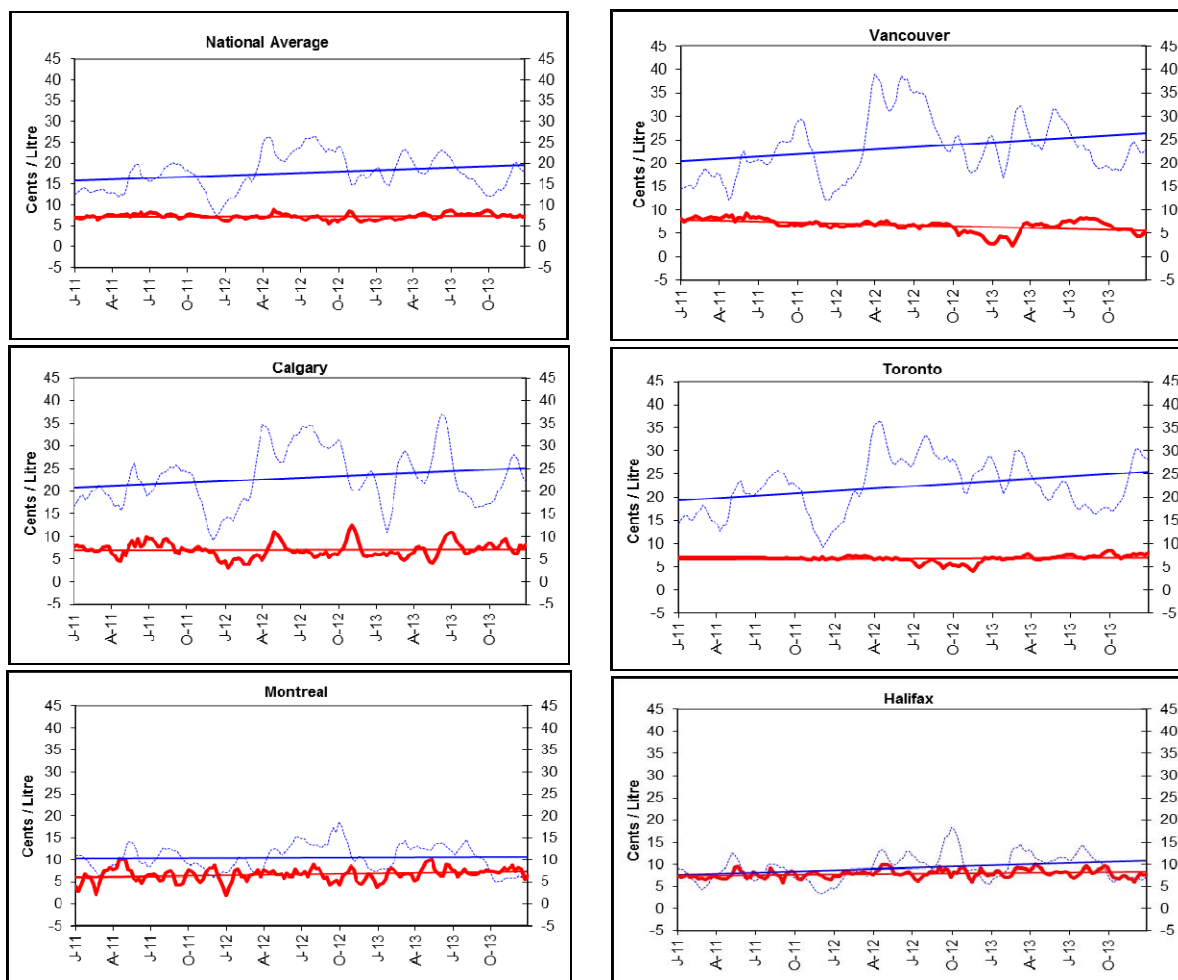
However, Canadian centres using Edmonton Par crude oil feedstocks for refineries located in Sarnia and Western Canada saw higher refining margins, albeit lower than in the previous year. Conversely, Eastern Canadian refineries using higher cost Brent type of crude oil feedstocks showed much lower margins.

By comparison, **marketing margins** fluctuated over a narrow range and were much more stable than refining margins. Nationally, the average margin increased marginally from last year by 0.5 cent per litre to 7.5 cents per litre. Halifax registered the highest marketing margin at 8 cents per litre while Vancouver registered the lowest level at 6 cents per litre.

Figure 5: Refining and Marketing Margins (Four-Week Rolling Average)

..... Refining Margin

— Marketing Margin



Source: NRCan





Crude Oil Overview

In 2013, crude oil prices for the three crude oil benchmarks (Edmonton Par, WTI and Brent) averaged 642/m³ (US\$99/bbl) an increase of \$30/m³ (US\$2/bbl) from 2012. The following is a summary of the more significant events affecting the price of crude oil in 2013.

Edmonton Par prices averaged \$585/m³ (US\$90/bbl), an increase of \$43/m³ (US\$4/bbl), while WTI averaged \$636/m³ (US\$98/bbl) from the previous year, an increase of \$44/m³ (US\$4/bbl) and Brent prices averaged \$705/m³ (US\$109/bbl), almost unchanged from the previous year. Prices for the three benchmark crude oil prices narrowed by mid-year and widened again during the last quarter of 2013. Edmonton Par prices fluctuated in the range of \$512/m³ to \$665/m³; WTI in the range of 590/m³ to 697/m³; and Brent in the range of 663/m³ to 741/m³.

The price differential between Brent global crude oil prices and the North American benchmarks narrowed considerably in 2013 compared to 2012. While the price gap appeared to reach historic pre-2010 levels by mid-year, the gap increased again in the latter part of the year. In 2013, the discount for Edmonton Par compared to Brent ranged from \$40/m³ to 216/m³ (US\$6 to US\$32 per barrel), while the discount for WTI compared to Brent ranged from \$18/m³ to \$131/m³ (US\$3 to US\$21 per barrel).

In early 2013, Edmonton Par and WTI prices were heavily discounted versus Brent. However, the price differential between all three benchmark crudes narrowed by mid-2013, particularly due to North

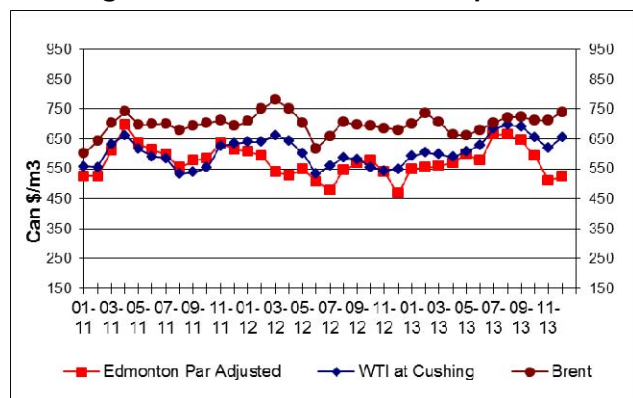
American crude oil becoming increasingly moved by rail to refinery markets.

In 2013, the supply of North American crude oil also increased significantly compared to the previous year, mainly from the Bakken crude oil formation in North Dakota and Canadian crude oil from the oil sands.

By the latter part of 2013, an oversupply of crude oil on the North American market and a decrease in U.S. oil consumption contributed to renewed downward pressure on North American prices, particularly compared to prices in global markets. Generally, the North American situation in 2013 was characterized by a growing oversupply of oil and sluggish oil consumption. U.S. crude oil inventories rose in the upper range of their five-year average, helping moderate prices. In addition, a significant amount of refinery maintenance in the U.S. further reduced the demand for crude.

While Brent crude oil prices remained firm compared to North American crude oil prices, Brent prices weakened early in the year mainly due to a poor world economic outlook. The strengthening of the U.S. dollar then provided upward pressure on prices. By mid-year, Brent crude oil prices moved upward, buoyed by the political risk premium stemming from oil-producing countries in the Middle-East and the fear that violence could extend to Europe. While in 2012, global crude oil prices were dampened by the European debt crisis, Brent oil prices in 2013 were partly affected by uncertainties due to unrest in Egypt, Syria and Libya.

Figure 6: Crude Oil Price Comparisons



Source: NRCan

Changes in Crude Oil Prices

| Crude Oil Types | Annual | | | | | |
|-----------------|-----------------------|-----------|-----------------------|-----------|-----------------------|-----------|
| | 2013 | | 2012 | | Change | |
| | \$Can/ m ³ | \$US/ bbl | \$Can/ m ³ | \$US/ bbl | \$Can/ m ³ | \$US/ bbl |
| Edmonton Par | 584.72 | 90.15 | 541.97 | 86.23 | +42.75 | +3.92 |
| WTI | 635.91 | 97.99 | 591.84 | 94.16 | +44.07 | +3.83 |
| Brent | 705.27 | 108.72 | 703.40 | 111.93 | +1.87 | -3.21 |



Federal and Provincial Consumption Taxes on Petroleum Products

(In Cents/Litre or in % as indicated as of December 31, 2013)

| | Gasoline | Diesel | Propane (motor vehicle) | Furnace Oil/ Natural Gas (for heating) |
|--|--------------|--------------|----------------------------|--|
| Federal Taxes | | | | |
| Excise Tax | 10.0 | 4.0 | - | - |
| Goods and Services Tax | 5% | 5% | 5% | 5% |
| OR: Harmonized Sales Taxes ⁽¹⁾ in: Newfoundland and Labrador, Ontario, and New Brunswick | 13% | 13% | 13% | 13% |
| Nova Scotia ⁽²⁾ | 15% | 15% | 15% | 5% |
| Prince Edward Island | 14% | 14% | 14% | 5% |
| British Columbia ⁽³⁾ | 5% | 5% | 12% | 5% |
| Provincial Taxes | | | | |
| Newfoundland and Labrador | 16.5 | 16.5 | 7.0 | |
| Prince Edward Island ⁽⁴⁾ | 13.1 | 20.2 | | |
| Nova Scotia | 15.5 | 15.4 | 7.0 | |
| New Brunswick | 13.6 | 19.2 | 6.7 | |
| Quebec ⁽⁵⁾ | 19.2 | 20.2 | | |
| Quebec Sales Tax | 9.975% | 9.975% | 9.975% | 9.975% |
| Ontario | 14.7 | 14.3 | 4.3 | |
| Manitoba | 14.0 | 14.0 | 3.0 | |
| Saskatchewan | 15.0 | 15.0 | 9.0 | |
| Alberta | 9.0 | 9.0 | 6.5 | |
| British Columbia ⁽⁶⁾ Additional Carbon Tax | 14.5 6.67 | 15.0 7.67 | 4.62 | 7.67/5.70 |
| Yukon | 6.2 | 7.2 | | |
| Northwest Territories ⁽⁷⁾ | 10.7/6.4 | 9.1 | | |
| Nunavut ⁽⁷⁾ | 10.7/6.4 | 9.1 | | |
| Transportation Taxes (in addition to federal and provincial taxes) | | | | |
| Montreal ⁽⁵⁾ | 3.0 | | | |
| Vancouver ⁽⁶⁾ | 11.0 | 11.0 | | |
| Victoria ⁽⁶⁾ | 3.5 | 3.5 | | |

Notes:

- Where the HST is in place, the federal portion of the tax is 5%.
- NS has a point of sale tax rebate of the provincial portion of the HST (8%) on furnace oil.
- HST of 12% applies to gasoline and diesel fuel, but the 7% provincial portion is refunded at the point of sale. However, the full 12% is charged on propane (whether for a vehicle or not) http://www.sbr.gov.bc.ca/documents_library/bulletins/mft-ct_005.pdf
- In Prince Edward Island (PEI), gasoline and diesel taxes are calculated based on volume and a fixed rate tax is applied to every litre of product sold. More detailed information is available on PEI's website at <http://www.taxandland.pe.ca>
- In QC, gasoline, diesel and propane taxes are reduced by varying amounts in certain remote areas and within 20 kilometres of the provincial and U.S. borders. The QC provincial retail sales tax (QST), which is 9.975% as of January 1, 2013, applies to all petroleum products. An urban tax of 3.0 cents per litre is also added to gasoline sold in Montreal and surrounding municipalities.
- BC applies a carbon tax on all fuels. In the Greater Vancouver and Victoria areas, there are additional transportation taxes of 11.0 and 3.5 cents per litre, respectively, on gasoline and diesel. More information is available on BC's website at http://www.sbr.gov.bc.ca/business/Consumer_Taxes/consumer_taxes.htm
- In the Northwest Territories and Nunavut, gasoline is taxed at 6.4 cents per litre in communities not served by a highway system.

Notes:

The order in which taxes are applied is as follows: a) consumption and excise taxes (municipal, provincial and federal) are added to the ex-tax price, then b) the GST/HST is calculated and added onto the sum from a), then c) (in Quebec only) the QST is calculated and added onto the result of b).





2013 Fuel Focus Supplements

The following provides an index of the information and analysis provided as Supplements in the Fuel Focus Reports throughout the year. To view the full content of each Supplement, please follow the link.

Issue 11, June 14, 2013

Benchmark Crude Oil Price Differentials

<http://www.nrcan.gc.ca/energy/fuel-prices/gasoline-reports/12478#sup>

Issue 12, June 28, 2013

The Cost of Operating a Vehicle

<http://www.nrcan.gc.ca/energy/fuel-prices/gasoline-reports/12480#sup>

Issue 14, July 26, 2013

Factors Behind the Narrowing of the WTI/Brent Price Differential

<http://www.nrcan.gc.ca/energy/fuel-prices/gasoline-reports/12484#sup>

Issue 22, November 15, 2013

Price Differentials for Similar Quality Light Crude Oils

<http://www.nrcan.gc.ca/energy/fuel-prices/gasoline-reports/13860#supsup>

Issue 23, November 29, 2013

Price Differentials for Similar Quality Heavy Crude Oils

<http://www.nrcan.gc.ca/energy/fuel-prices/gasoline-reports/13854#supsup>