

Gasoline Report

a weekly summary



FOR THE WEEK ENDING APRIL 9, 2018

- o **The Ontario retail price of regular unleaded gasoline declined by 1.0 cents from a 42-month high to 128.9 cents a litre, reflecting lower crude oil and North American wholesale prices.** Prices fell by 3.4 cents in North Bay (from a seven-month high), 2.0 cents in Toronto (from a 43-month high), 1.7 cents in London, and less than a cent in Timmins (from a 42-month high), Sault Ste. Marie, and Ottawa (from a 44-month high). Prices rose by 9.5 cents in Thunder Bay (to a five-month high), 5.7 cents in Windsor (to the highest since October 2014), and 1.1 cents in Sudbury (to the highest since October 2014). Windsor had the lowest average price for the third straight week. For the first time in four weeks, the Southern Ontario average gasoline price was below the Northern price (by 3.5 cents). The Ontario average retail diesel price declined by 1.0 cents from a two-month high to 123.2 cents. **The Canadian average retail regular unleaded gasoline price declined by 1.0 cents from a 43-month high to 131.3 cents.** Prices fell by 5.6 cents in Regina (from a 32-month high), 4.0 cents in Vancouver (from a record high), 1.8 cents in Quebec City and Toronto (the latter from a 43-month high), and 1.6 cents in Montreal. Prices rose by 8.5 cents in Winnipeg (to the highest since June 2016), 4.9 cents in Edmonton, 2.8 cents in Saint John (to the highest since October 2014), 2.6 cents in Calgary, and 2.3 cents in St. John's (to a seven-month high). The Canadian average retail diesel price declined by 1.2 cents from a 37-month high to 125.7 cents.
- o **There will be a competitive market space for both battery electric (BEV) and fuel cell electric (FCEV) vehicles to meet the different needs of light-duty vehicle (LDV) consumers, says the U.S. Department of Energy Fuel Cell Technologies Office.** BEVs will have a lower total cost of ownership (TCO) per mile than FCEVs for 79-97% of the LDV fleet in 2020, but by 2040 FCEVs will be cheaper than BEVs for 71-88% of the LDV fleet. FCEVs' cost advantages will be most notable for larger vehicles and for longer driving range. As a BEV's battery capacity increases, a greater portion of that capacity is used to move the mass of the battery rather than the mass of the vehicle, passengers and cargo. By contrast, as an FCEV's driving range increases, the size of the vehicle's hydrogen storage tank, fuel cell, balance of plant components, and small battery has to increase only modestly, resulting in a relatively small impact on vehicle mass and cost. The study found that both FCEVs and BEVs have market segments with sometimes substantial cost advantages over each other, especially in the early years. For example, in 2030 a BEV pickup truck with 50 miles of all-electric driving range is more than \$1 per mile cheaper than a comparable FCEV. Over time, the number of FCEV-competitive segments increases and TCOs for FCEVs become relatively more favourable, and the hydrogen fuelling infrastructure is built. By 2040, for all vehicle segments excluding pickup trucks, only the BEVs with 50- or 100-mile electric range are cheaper than FCEVs, says the study (*Transportation Research Part C: Emerging Technologies*, Green Car Congress, <http://www.sciencedirect.com/science/article/pii/S0968090X18300056>).
- o **Secondary organic aerosol (SOA) produced by both port fuel injection (PFI) and gasoline direct injection (GDI) vehicles in the United States has been substantially reduced by controls on non-methane organic gas (NMOG) emissions, according to Carnegie Mellon University.** This trend will likely continue as new federal Tier 3 and California Low Emission Vehicle III emission standards are implemented. However, SOA production also depends on atmospheric conditions, particularly NO_x concentrations, so focusing only on NMOG emissions standards may not sufficiently reduce urban SOA levels. The study also found there is no difference in SOA production between PFI and GDI vehicles certified to the same emissions standard, so the ongoing shift from PFI to GDI should not affect SOA production. In 2016, GDI vehicles accounted for about 50% of new gasoline vehicle sales in the U.S. SOA is a major component of fine particulate matter, which has adverse health effects (*Environmental Science & Technology*, <http://pubs.acs.org/doi/10.1021/acs.est.7b05045>, Green Car Congress).
- o **U.S. ethanol production averaged 1 million barrels a day in 2017 and is expected to remain at roughly that level in 2018 and 2019, according to the U.S. Energy Information Administration.** U.S. ethanol consumption will grow from 940,000 b/d in 2017 to 960,000 b/d in 2018 and 970,000 b/d in 2019. This will increase ethanol's share of U.S. motor gasoline consumption from 10.2% in 2017 to 10.3% this year and next. U.S. biodiesel production will grow from 105,000 b/d in 2017 to 117,000 b/d in 2018 and 128,000 b/d in 2019 (https://www.eia.gov/outlooks/steo/pdf/steo_full.pdf).

Retail Prices**Regular Unleaded Gasoline**
(Canadian Cents/Litre)

Ontario	<u>Apr 2</u>	<u>Apr 9</u>	<u>+/-</u>
Ottawa	129.4	128.7	-0.7
Toronto West	131.3	129.3	-2.0
Toronto East	130.6	128.6	-2.0
Windsor	117.6	123.3	5.7
London	130.3	128.6	-1.7
Sudbury	129.6	130.7	1.1
Sault Ste. Marie	131.5	130.7	-0.8
Thunder Bay	126.3	135.8	9.5
North Bay	127.6	124.2	-3.4
Timmins	<u>138.7</u>	<u>137.8</u>	<u>-0.9</u>
<i>Ontario Average</i>	<i>129.9</i>	<i>128.9</i>	<i>-1.0</i>
Canada	<u>Apr 3</u>	<u>Apr 10</u>	<u>+/-</u>
St. John's, Nfld	128.6	130.9	2.3
Charlottetown	121.3	121.3	0.0
Halifax	123.4	123.4	0.0
Saint John, N.B.	119.8	122.6	2.8
Quebec City	128.4	126.6	-1.8
Montreal	138.2	136.6	-1.6
Toronto	131.5	129.7	-1.8
Winnipeg	106.8	115.3	8.5
Regina	118.1	112.5	-5.6
Edmonton	113.9	118.8	4.9
Calgary	118.4	121.0	2.6
Vancouver	<u>155.6</u>	<u>151.6</u>	<u>-4.0</u>
<i>Canada Average</i>	<i>132.3</i>	<i>131.3</i>	<i>-1.0</i>

Source: Ministry of Energy; Kent Group Ltd.

Rack & Spot Prices**Regular Unleaded Gasoline**
(Canadian Cents/Litre, Ex-Tax)

<u>Date</u>	<u>Toronto Rack</u>	<u>New York Spot Barge</u>	<u>Differential</u>	<u>Exchange (U.S.¢)</u>
Mar 29	79.70	65.81	13.89	77.56
Apr 6	79.40	63.57	15.83	78.35

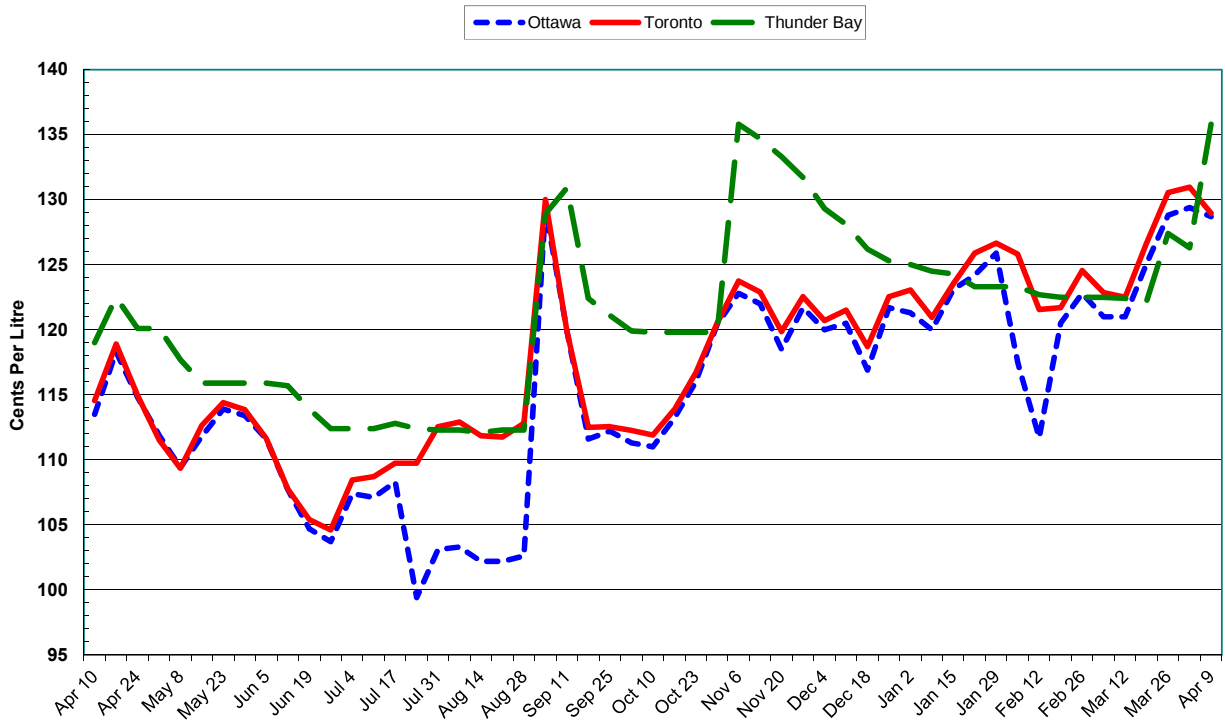
Source: Bloomberg Oil Buyer's Guide; Oil Price Information Service; Bank of Canada

Futures Prices**Petroleum Futures Prices**

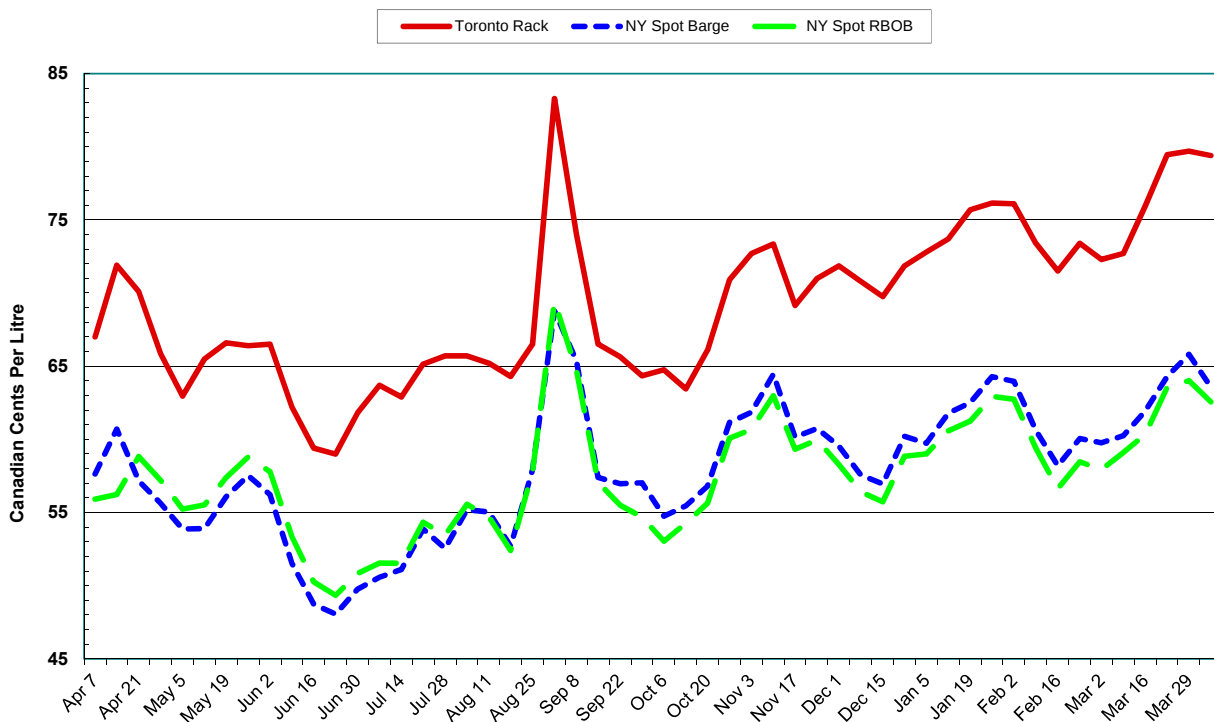
<u>Date</u>	<u>WTI Crude (NY) (US\$/bbl)</u>	<u>Reg.Unleaded RBOB (NY) (US¢/USgal)</u>	<u>Crack Spread (US\$/bbl)</u>
Mar 29	64.94	201.79	19.81
Apr 6	62.06	195.47	20.04

Source: CME Group (NYMEX)

Retail Gasoline Prices (2017-2018)
Regular Unleaded



Toronto Rack/NY Spot Barge/NY Spot RBOB (2017-2018)
Regular Unleaded



Petroleum Futures Prices (2017-2018)

