Gasoline Report

a weekly summary

Ontario

FOR THE WEEK ENDING MAY 14, 2018

- **Higher crude oil and North American wholesale prices pushed up the Ontario retail price of regular unleaded gasoline by 0.9 cents to 136.0 cents a litre, the highest since July 2014.** Prices rose by 1.7 cents in Toronto (to a 46-month high), 1.3 cents in Windsor (to a 46-month high), and less than a cent in Sudbury (to a 43-month high) and Ottawa (to a 46-month high). Prices fell by 3.0 cents in London and North Bay (from a 46-month high), and 1.2 cents in Sault Ste. Marie. The Ontario average retail diesel price rose by 2.1 cents to 128.2 cents, the highest since August 2014. **The Canadian retail regular unleaded gasoline price rose by 1.1 cents to 139.5 cents, the highest since June 2014.** Prices rose by 6.3 cents in Regina (to a 44-month high), 5.5 cents in Quebec City (to a 44-month high), 5.0 cents in Montreal (to a 47-month high), 4.0 cents in Winnipeg, 2.3 cents in Charlottetown (to a 43-month high), 1.9 cents in Vancouver (to a record high), 1.4 cents in Toronto (to a 46-month high), and 0.7 cents in Halifax (to a 43-month high). Prices fell by 5.6 cents in Calgary (from a 59-month high), 4.0 cents in Edmonton (from a 59-month high), and 0.1 cents in Saint John (from a 43-month high). The Canadian retail diesel price rose by 2.1 cents to 131.0 cents, the highest since November 2014.

- **A typical electric car today produces about 50% of the GHG emissions that an average European passenger car does, and an electric car that runs on the average European electricity mix has nearly 30% lower lifecycle GHG emissions than the most efficient internal combustion engine vehicle (ICEV) on the market, says the International Council on Clean Transportation (ICCT).** In countries with very low-carbon electricity, like Norway and France, electric vehicles produce less than one third the lifecycle GHG emissions of the average ICEV. The higher GHG emissions resulting from the EV battery manufacturing process are paid off after two years compared to driving an ICEV, or 1½ years if the EV is fuelled with renewable electricity. About 50% of the battery's emissions come from the electricity used in the manufacturing process, and battery manufacturing emissions appear to be similar to those of manufacturing the internal combustion engine, or about 25% of an EV's lifecycle GHG emissions. ICCT says that battery manufacturing emissions are likely to decline significantly over the next few decades, especially with the use of cleaner electricity throughout the production cycle. A 30% decline in grid carbon intensity would result in a 17% decline in GHG emissions from battery manufacturing, not to mention the even greater reductions in the EV use phase. ICCT says that including EV manufacturing lifecycle GHG emissions in vehicle regulations would be misguided, because all vehicles, not just EVs, would have to be likewise assessed, which would be an onerous and not at all rigorous process (Green Car Congress).

- **U.S. energy consumption will grow by 0.4% annually from 2017-2050 and surpass its 2007 peak by 2033, according to the U.S. Department of Energy's *Annual Energy Outlook 2018*.** The U.S. economy will grow by 2.0% annually, and the real inflation-adjusted price of North Sea Brent crude oil will rise to $114 a barrel by 2050. U.S. energy intensity per unit of economic growth will fall by 42%, and carbon intensity will decline by 9%, from 2017 levels by 2050. U.S. energy production in 2050 will be 31% higher than in 2017, with growth led by non-hydro renewables, natural gas, and crude oil. Natural gas will account for 39% of U.S. energy production in 2050, making it the largest energy source as production continues to grow from shale gas and tight oil (with its large reserves of associated gas). U.S. crude oil production will exceed the 1970 peak of 9.6 million barrels a day in 2018 and plateau at 11.5-11.9 million b/d. Natural gas liquids plant production (ethane, propane, butanes) will grow by nearly 35% to 5.0 million b/d in 2023, supported by continued development of tight oil and shale gas resources. The U.S. has been a net importer of energy since 1953 but will become a net exporter by 2022 as energy imports decline and energy exports increase. The U.S. will continue to import mostly crude oil and export mostly petroleum products such as gasoline and diesel through 2050, but will remain a net importer of petroleum and other liquids on an energy basis (https://www.eia.gov/outlooks/aeo/pdf/AEO2018_FINAL_PDF.pdf).

- **Chinese ethanol production grew by nearly 17% annually from 2004 to just over 1 billion gallons in 2016, fourth-highest after the United States, Brazil and the European Union (EU), says Iowa State University.** Chinese ethanol production in 2018 is expected to total 1.04 billion gallons. Ethanol production will have to increase by another 3.6 billion gallons in order to meet the government's target of 10% ethanol content in gasoline starting in 2020 and reduce excess corn stocks. The 10% ethanol requirement would make China the world's third-largest ethanol consumer, displacing the EU, said the study (Green Car Congress, https://www.card.iastate.edu/ag_policy_review/display.aspx?id=71).

Retail Prices

Regular Unleaded Gasoline
(Canadian Cents/Litre)

Ontario	**May 7**	**May 14**	**+/-**
Ottawa	135.4	135.7	0.3
Toronto West	135.8	137.8	2.0
Toronto East	135.2	136.6	1.4
Windsor	135.1	136.4	1.3
London	130.2	127.2	-3.0
Sudbury	133.5	134.4	0.9
Sault Ste. Marie	132.2	131.0	-1.2
Thunder Bay	141.4	141.4	0.0
North Bay	135.1	132.1	-3.0
Timmins	139.9	139.9	0.0
Ontario Average	*135.1*	*136.0*	*0.9*

Canada	**May 8**	**May 15**	**+/-**
St. John's, Nfld	135.6	135.6	0.0
Charlottetown	130.0	132.3	2.3
Halifax	128.7	129.4	0.7
Saint John, N.B.	127.9	127.8	-0.1
Quebec City	132.6	138.1	5.5
Montreal	141.8	146.8	5.0
Toronto	136.0	137.4	1.4
Winnipeg	122.8	126.8	4.0
Regina	120.7	127.0	6.3
Edmonton	127.5	123.5	-4.0
Calgary	131.8	126.2	-5.6
Vancouver	159.5	161.4	1.9
Canada Average	*138.4*	*139.5*	*1.1*

Source: Ministry of Energy; Kent Group Ltd.

Rack & Spot Prices

Regular Unleaded Gasoline
(Canadian Cents/Litre, Ex-Tax)

Date	**Toronto Rack**	**New York Spot Barge**	**Differ-ential**	**Exchange (U.S.¢)**
May 4	83.95	69.22	14.73	77.75
May 11	86.05	71.94	14.11	78.25

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

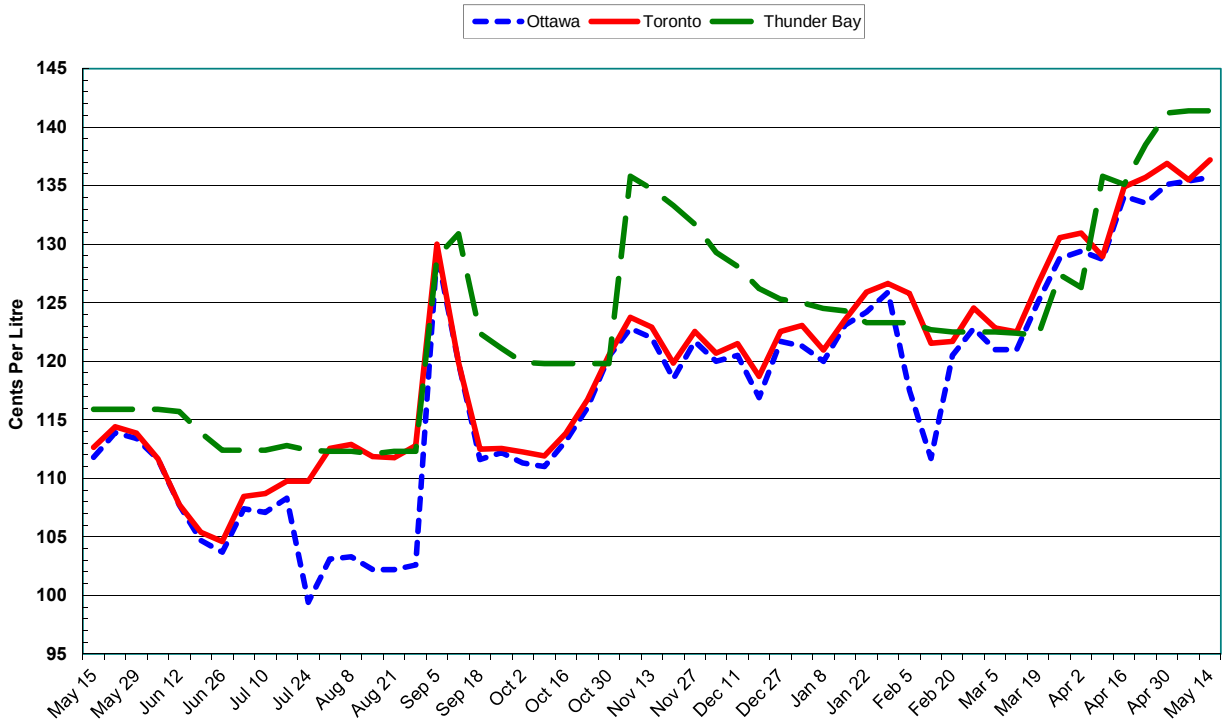
Futures Prices

Petroleum Futures Prices

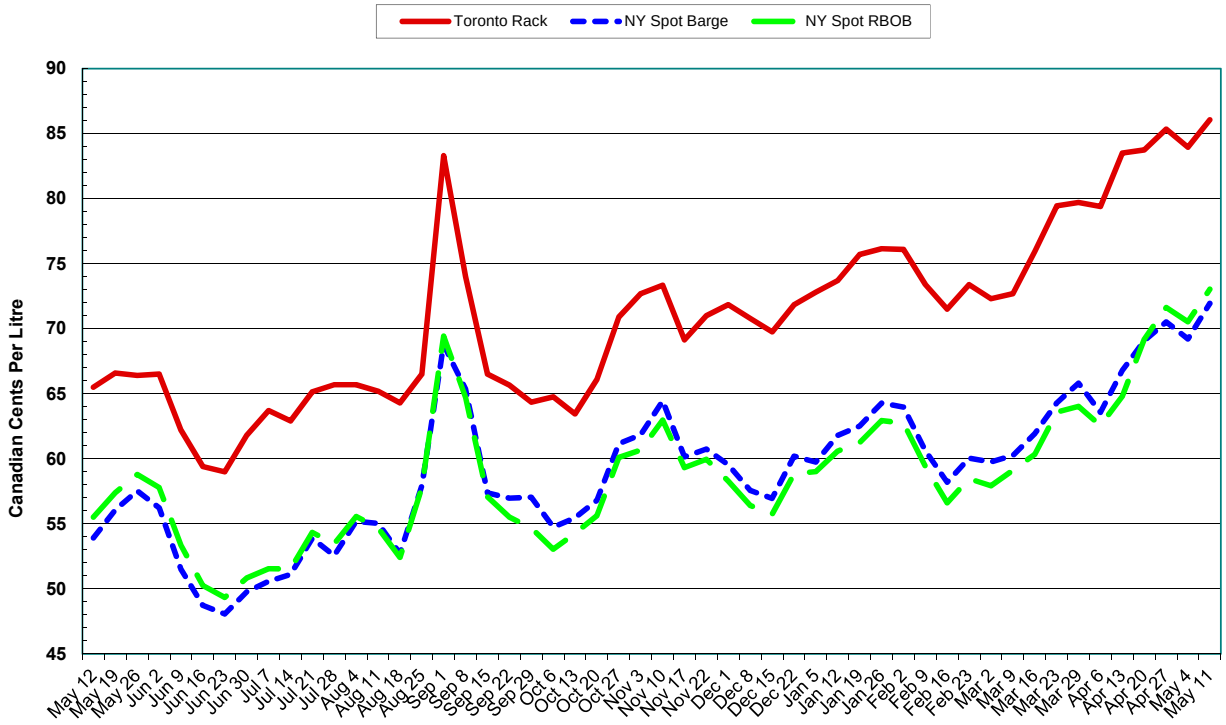
Date	**WTI Crude (NY) (US$/bbl)**	**Reg.Unleaded RBOB (NY) (US¢/USgal)**	**Crack Spread (US$/bbl)**
May 4	69.72	211.40	19.07
May 11	70.70	218.88	21.23

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)