Energy statistics, March 2022

Released at 8:30 a.m. Eastern time in The Daily, Tuesday, June 7, 2022

Primary energy production rose 2.8% in March to 2.0 million terajoules. This was the second consecutive year-over-year, monthly increase, following February's 2.8% rise.

In March, prices for various energy products continued to rise, coinciding with the Russian invasion of Ukraine and the subsequent global sanctions banning the import of Russian oil. Simultaneously, global demand for energy products has continued to rebound as COVID-19 pandemic restrictions have been eased or removed.

In March, the production of natural gas increased by 7.1%, and the production of crude oil increased by 2.3%. Meanwhile, the generation of primary electricity, which includes hydroelectricity, nuclear and other renewables, was down 0.6% in March.

Production of secondary energy products rose 3.1% year over year to 429.8 million terajoules in March, as the refined petroleum products (+3.4%) continued to boost production.

On the trade side, exports of primary energy increased 7.7% in March compared with the same month in 2021. Exports of crude oil and equivalent products (+5.4%) and natural gas (+10.3%) both contributed to the export gains.

For more information on energy in Canada, including production, consumption, international trade and much more, please visit the Canadian Centre for Energy Information website and follow #energynews on social media.

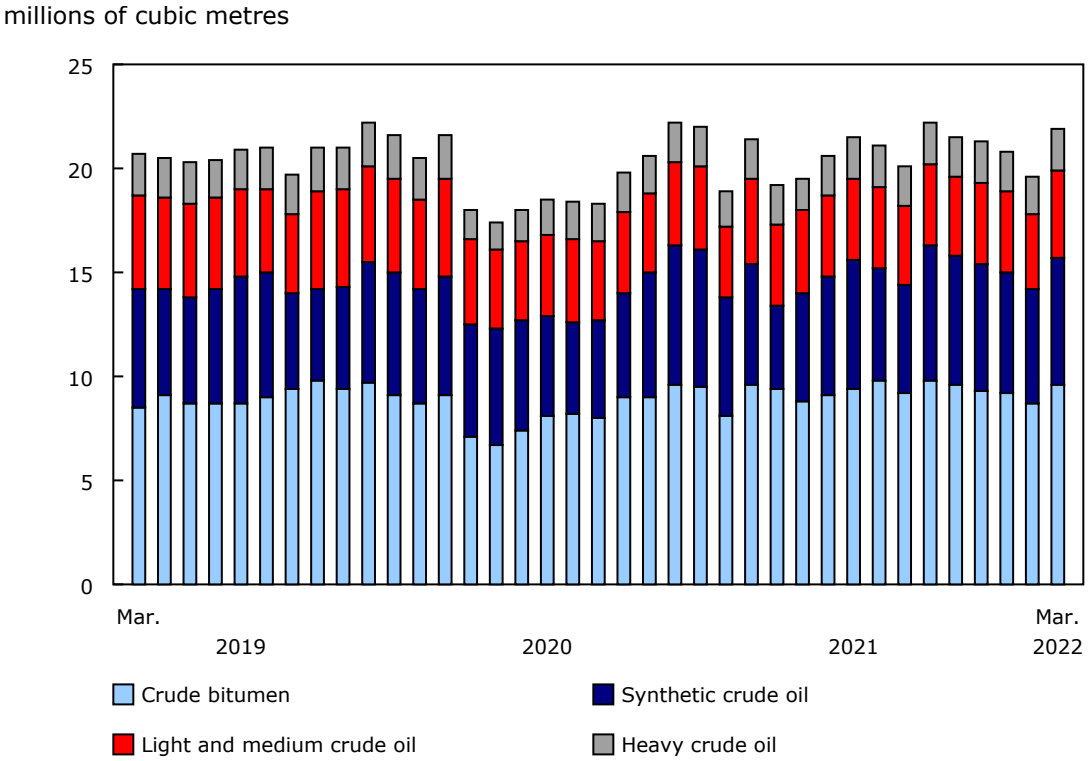
Canadian crude oil production increases to meet domestic and global demand

In March, production of crude oil and equivalent products was up 2.3% to 24.2 million cubic metres. This was the second consecutive monthly year-over-year gain as the global crude oil market faced ongoing uncertainty in reaction to the war in Ukraine.

The overall increase was driven by oil sands extraction, up 1.8% in March to 15.7 million cubic metres. Production of synthetic crude rose 3.6% compared with March 2021 to 6.1 million cubic metres. Despite the increase, synthetic production was not at full capacity due to an equipment failure at an Alberta upgrader, in addition to preparations for the upcoming maintenance season. Meanwhile, production of crude bitumen was up 0.7% to 9.6 million cubic metres.

Oil extraction rose 3.4% in March to 6.2 million cubic metres compared with the same month in 2021. Heavy crude production was the main driver, up 5.6% to 2.0 million cubic metres. Heavy crude production was 1.8% lower than in March 2020, just before demand and production dropped off sharply due to the pandemic. Light and medium crude production was up 2.4% to 4.2 million cubic metres in March.

Chart 1
Production of crude oil, by type of product



Source(s): Table 25-10-0063-01.

Prices for energy products continued on a strong upward trend in 2022. In March, according to the Raw Material Price Index, the price for crude oil and bitumen jumped 21.0% compared with February 2022, and 79.8% higher compared with March 2021, as the conflict in Ukraine and sanctions imposed on Russia caused major disruptions in energy markets.

Exports of crude oil and equivalent products rose 5.5% to 19.1 million cubic metres in March. Exports by pipeline to the United States was the sole contributor to the increase, up 6.8% to 17.3 million cubic metres. In contrast, exports to the United States by other means (-1.4%) and exports to other countries (not including the U.S.) (-18.8%) were down.

Imports of crude oil and equivalent products rose 17.5% in March to 3.7 million cubic metres, marking the first monthly year-over-year increase in eight months. Imports by refineries rose 39.1%.

Higher production of refined petroleum products continues

In March, production of finished petroleum products rose 7.6% to 9.8 million cubic metres, marking the fifth consecutive monthly year-over-year increase, as demand for refined products continued to rise. Production of finished motor gasoline was up 13.0% to 3.1 million cubic metres. Likewise, production of jet fuel rose 51.7% to 0.4 million cubic metres, while distillate fuel oil production increased 2.6% to 3.6 million cubic metres in March.

Renewable fuel production increased 1.5% in March to 0.2 million cubic metres compared with the same month in 2021. The increase was mainly due to higher production of ethanol (+7.3%), which was partially offset by lower production of other renewable fuels (-21.9%).

Canadian demand for finished petroleum products fell 1.5% in March to 7.9 million cubic metres. Supplied finished motor gasoline was down 4.7% to 3.3 million cubic metres in addition to lower demand for distillate fuel oils (-2.5%) and other refined products (-9.6%). On the other hand, supplied jet fuel sharply increased 104.9% to 0.5 million cubic metres, compared with March 2021. Aircraft movements at Canada's major airports increased 6.2% in March from the same month in 2021, as demand for domestic and international air travel continued to rebound.

Similar to raw material inputs, prices for refined petroleum products continued to increase in March, up 19.3% from February and up 66.3% compared with March 2021. According to the Industrial Product Price Index, the price for finished motor gasoline rose 16.1% compared with February 2022, while jet fuel was up 19.2% compared with February 2022. The price of diesel fuel also continued to rise in March, climbing 23.7% month over month.

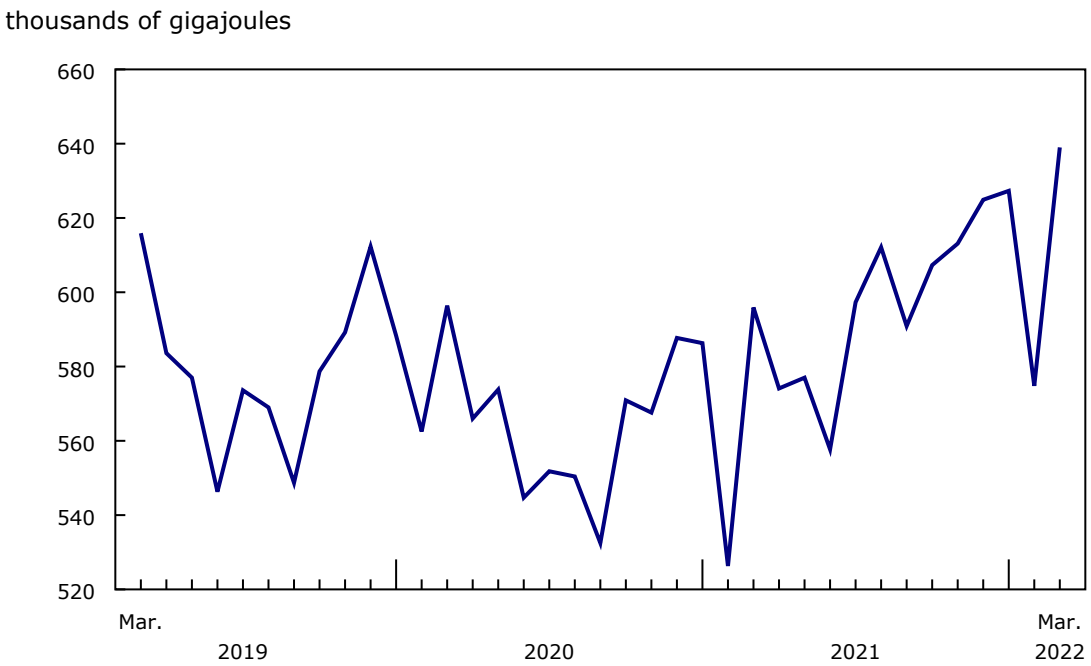
In March, exports of finished petroleum products fell 2.2% to 1.5 million cubic metres. Contributing to the decrease were lower exports of finished motor gasoline (-62.8%) and distillate fuel oil (-14.6%). Exports of jet fuel were up 108.9% compared with March 2021, while other refined petroleum products rose 59.6%.

Imports of finished petroleum products increased 10.7% in March to 0.7 million cubic metres. The increase was mainly due to higher jet fuel imports, which sharply increased 207.7%. On the other hand, imports of finished motor gasoline (-12.4%), distillate fuel oils (-7.5%) and other refined petroleum product (-6.1%) decreased.

Natural gas production increases, inventories continue to decline

Production of marketable natural gas in Canada increased 7.2% year over year in March to 639.0 million gigajoules. This was the highest monthly production level recorded since the beginning of this series in January 2016, and the 12th consecutive month of year-over-year production increases. Alberta accounted for the bulk of natural gas production (67.2% of total production) with 429.2 million gigajoules, up 4.9%, while production in British Columbia rose 13.3% compared with March 2021, totalling 202.1 million gigajoules.

Chart 2
Marketable production of natural gas



Source(s): Table 25-10-0055-01.

Total deliveries to residential, commercial and institutional, and industrial sectors in Canada rose 6.5% year over year in March to 465.7 million gigajoules. Deliveries to the industrial sector increased 7.4% to 305.1 million gigajoules, 65.5% of all deliveries. The industrial sector in Alberta was the primary consumer of natural gas, accounting for 45.4% of all deliveries in Canada.

Inventories of natural gas held in Canadian facilities fell 23.4% year over year to 428.4 million gigajoules in March. This was the lowest inventory level since the start of the series in January 2016, due in large part to strong demand for heating and industry over the winter months of 2022 as well as increased demand in the United States. Inventories generally begin to be restocked in April.

Exports of natural gas by pipeline to the United States rose 10.3% in March to 290.8 million gigajoules. Meanwhile, imports of natural gas rose 8.6% compared with March 2021 to 134.3 million gigajoules, primarily due to increased demand in Ontario.

According to the natural gas price index, Canadians were paying 27.9% more for natural gas in March compared with the same month in 2021. Prices were up 3.4% compared with February 2022.

Electricity generation up slightly year over year

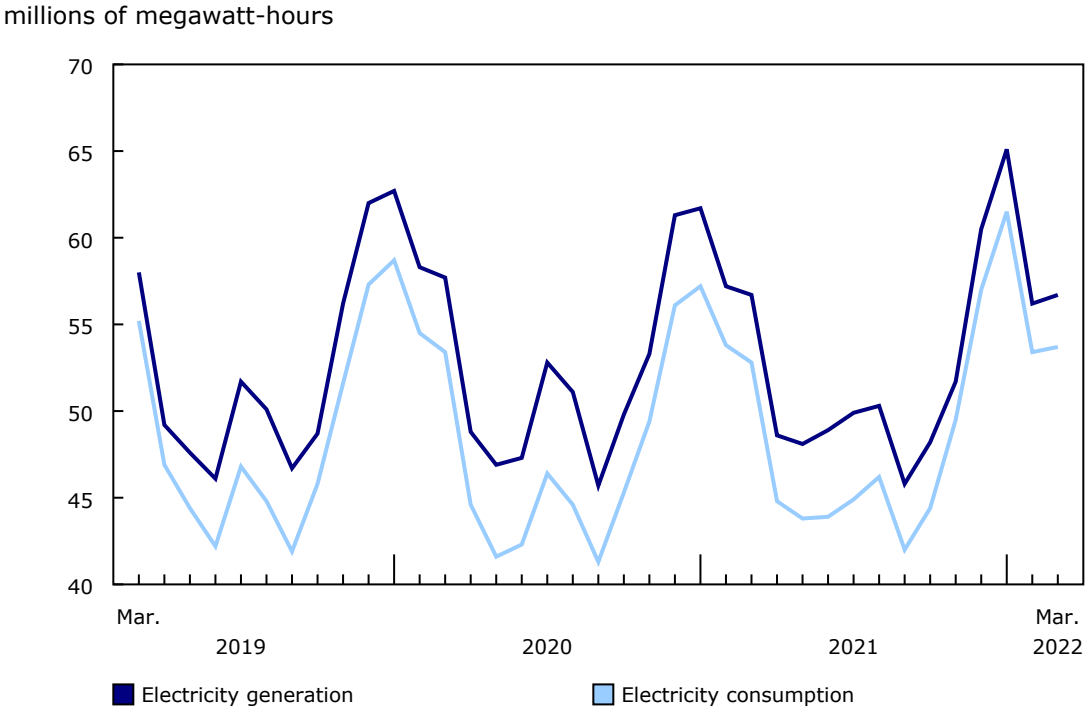
Electricity generation in Canada edged up 0.1% year over year to 56.7 million megawatt-hours (MWh) in March, following a 1.7% decline in February.

Compared with March 2021, total hydroelectricity generation declined 0.2% in March to 35.4 million MWh. However, hydroelectricity continued to be the single largest contributor to Canadian electricity generation, with 62.4% of total generation.

Nuclear energy generation rose 6.7% in March, mainly due to fewer maintenance outage days at some generation stations. Electricity generation from combustible fuels including biomass increased 2.9% compared with March 2021, while generation from wind turbines (-13.5%) and solar (-16.5%) declined.

Electricity from all renewable sources supplied 70.9% of all electricity generated in Canada (40.2 million MWh) in March. This was the highest percentage of Canadian electricity generated by renewables since March 2021.

Chart 3
Electricity generation and consumption



Source(s): Table 25-10-0016-01.

In March, electricity consumption across Canada increased 1.8% year over year to 53.7 million MWh, with consumption rising in Quebec (+6.2%), Manitoba (+8.6%), and Ontario (+1. 5%).

Exports of electricity to the United States declined 10.3% year over year in March, as Quebec (-13.9%), Manitoba (-35.7%), and British Columbia (-18.0%) reduced exports compared with March 2021.

Imports of electricity from the United States increased 50.2% year over year to 1.3 million MWh. The increase was driven by British Columbia (+41.4%) and Manitoba (+237.1%). In Manitoba, while imports remained high year over year, they were at the lowest level (168.2 MWhs) since June 2021. This may be a sign of a gradual return to more normal hydroelectricity generation activity, as Manitoba started to recover from the drought conditions of 2021.

Electricity prices in March declined 4.5% month over month, according to the Electric Power Selling Price Index.

Coal production and exports continue to decline

In March, total coal production was 3.0 million metric tonnes, down 25.9% compared with March 2021, and the fifth consecutive monthly decline. Coal exports also declined compared with March 2021, down 13.1% to 2.5 million tonnes, which represented 85.2% of total monthly production.

Coke production declined 17.8% year over year to 147.7 million tonnes in March.

Energy production on the rise in the first quarter of 2022

In the first quarter of 2022, several Canadian provinces and territories relaxed or removed COVID-19 restrictions, contributing to an increase in the production and trade of energy products. In addition, the first quarter also saw geopolitical tensions escalate into war as Russia invaded Ukraine in February 2022. These tensions contributed to significant global uncertainly in supply of energy products and the resulting sharp increases in prices for crude oil, various refined petroleum products and natural gas.

Following a 2.9% increase in the fourth quarter of 2021, primary energy production rose 1.4% in the first quarter of 2022 compared with the same period in 2021. The increase was driven by higher production of natural gas (+7.7%) and crude oil (+0.3%). Secondary energy production increased 4.8% in the first quarter, as production of refined petroleum products rose 5.3% and secondary electricity generation rose 3.4%. Overall, energy production increased in seven of the nine commodity groups in the first quarter.

Total energy exports were up 3.9% year over year in the first quarter. An increase in exports of natural gas (+4.8%) and crude oil (+3.1%), was offset by decreases in exports of refined petroleum products (-4.5%), and primary electricity (-4.9%).

Energy imports decreased 3.4% year over year in the first quarter.

Note to readers

The consolidated energy statistics table (25-10-0079-01) presents monthly data on primary and secondary energy by fuel type in terajoules (crude oil, natural gas, electricity, coal, etc.) and supply and demand characteristics (production, exports, imports, etc.) for Canada. The table uses data from a variety of survey and administrative sources. Estimates are available starting with the January 2020 reference month. For more information, please consult the Consolidated Energy Statistics Table: User Guide.

The survey programs that support the energy statistics release include the following:

- *Crude oil and natural gas (survey number 2198, tables 25-10-0036-01, 25-10-0055-01 and 25-10-0063-01). Data from January 2021 to February 2022 have been revised.*
- *Energy transportation and storage (survey number 5300, tables 25-10-0075-01 and 25-10-0077-01).*
- *Natural gas transmission, storage and distribution (survey numbers 2149, 5210 and 5215, tables 25-10-0057-01, 25-10-0058-01 and 25-10-0059-01).*
- *Refined petroleum products (survey number 2150, table 25-10-0081-01).*
- *Renewable fuel plant statistics (survey number 5294, table 25-10-0082-01). National estimates of renewable fuel plant statistics are presented by supply and disposition characteristics (production, shipments, inventories, etc.).*
- *Electric power statistics (survey number 2151, tables 25-10-0015-01 and 25-10-0016-01). Data for February 2022 have been revised.*
- *Coal and coke statistics (survey numbers 2147 and 2003, tables 25-10-0045-01 and 25-10-0046-01).*

Data are subject to revisions. Energy data are revised on an ongoing basis for each month of the current year to reflect new information provided by respondents and updates to administrative data. Historical revisions are also performed periodically.

Definitions, data sources and methods for each survey program are available under their respective survey number.

The Energy Statistics Program uses respondent and administrative data.

Data in this release are not seasonally adjusted.

For more information about liquid renewable fuels, consult Liquid renewable fuels in Canada, 2020.

Available tables: 25-10-0015-01, 25-10-0016-01, 25-10-0036-01, 25-10-0045-01, 25-10-0046-01, 25-10-0055-01, 25-10-0063-01, 25-10-0079-01, 25-10-0081-01 and 25-10-0082-01.

Definitions, data sources and methods: survey numbers 2003, 2147, 2149, 2150, 2151, 2198, 5210, 5215, 5294 and 5300.

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; **infostats@statcan.gc.ca**) or Media Relations (**statcan.mediahotline-ligneinfomedias.statcan@statcan.gc.ca**).