

BEI Energy News

This update is produced three times weekly by the Brilliant Energy Institute

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Top news

Brilliant Energy Institute News

[BEI's Executive Director appears on CGAI's Energy Security Cubed podcast – BEI LinkedIn](#)

The recent federal budget involves a number of new energy measures, including some historic ones, to support the government's net zero by 2050 targets. Brilliant Energy Institute's Jacquie Hoornweg joined Canadian Global Affairs Institute's Kelly Ogle to unpack the impacts, talk about international energy collaboration, and to drill down on how Canada's nuclear and hydrogen industries (and academia) are preparing for the challenge of speed and scale, on Energy Security Cubed. Listen to podcast [here](#).

Energy Policy

[Canada releases official greenhouse gas inventory report – Government of Canada](#)

Canada released the *National Inventory Report 1990 – 2021: Greenhouse Gas Sources and Sinks in Canada 2023* last week. According to the 2021 inventory data, Canada's emissions declined 8.4 per cent below 2005 levels, reaching 670 Mt CO₂e that year. Canada has committed to reduce emissions by 40 to 45 per cent below 2005 levels by 2030. Economic sectors that saw the greatest progress in 2021 included buildings (2.2 per cent reduction from 2020), electricity (3.7 per cent reduction from 2020) and agriculture (1.4 per cent reduction from 2020). In contrast, emissions from transportation were up 4.9 per cent or 7 Mt CO₂e, while heavy industry emissions increased 4.1 per cent or 3 Mt CO₂e. Oil and gas jumped 3.3 per cent from the previous year to 189 Mt CO₂e. This is 12.5 per cent higher than 2005 levels, representing a significant ongoing challenge for industry and policy makers.

[G7 countries commit to faster energy transition - Reuters](#)

At a meeting for the Group of Seven (G7) nations during the weekend, the countries committed to accelerating the transition to clean energy to reach net-zero greenhouse gas emissions by 2050 at the latest, in a 36-page [communiqué](#). The G7 also pledged to collectively increase offshore wind capacity by 150 GW by 2030 and solar capacity to more than 1 TW. But member states once again failed to set a firm timeline for phasing out coal-fired power plants amid continuing opposition from Japan. They recognized that low-carbon and renewable hydrogen and its derivatives, such as ammonia, should be developed to advance decarbonization across sectors and industries. They also committed to support the development and construction of nuclear reactors, such as small modular and other advanced reactors with advanced safety systems in line with safety standards.

[NEI survey shows even more interest in nuclear after major policy actions – Nuclear Energy Institute](#)

A poll by Nuclear Energy Institute (NEI) finds an increase in interest, demand, and activity to expand nuclear programs. The NEI poll found this increase is a direct result of current policy landscapes, as nearly two-thirds of respondents indicated that recent policy developments have led to greater interest in new nuclear within their company. The survey of 19 NEI member companies that currently operate 80 of the nuclear reactor facilities in the U.S. shows that the roughly 90 GW of new nuclear power identified in 2022 has jumped to more than 100 GW in just eight months, with the bulk of that coming online by 2050. That translates to about 330 new small modular reactors in the next 25 years, which would more than double U.S. nuclear output today.

[Emissions Reduction Alberta announces up to \\$50 million to fund projects on energy systems – Emissions Reduction Alberta](#)

Emissions Reduction Alberta launched a new \$50 million [Reshaping Energy Systems](#) funding competition through the Government of Alberta's Technology Innovation and Emissions Reduction fund. It focuses on technologies related to transportation, distribution, storage, and optimization of energy use to reduce emissions, create economic opportunities, and enable a more resilient, efficient, and reliable energy system.

[Canadian Leadership: Alberta oil and gas on track to exceed methane emissions reduction target – Energy Now](#)

A new report from the Alberta government finds that Alberta decreased methane emissions by 44 per cent between 2014 and 2021, a 10 per cent drop from 2020. The sector is now expected to surpass the target of reducing methane emissions by 45 per cent by 2025. Another report by the Alberta Energy Regulator analyzed the performance of nearly 35,000 oil and gas facilities and more than 100,000 wells, primarily producing natural gas. It found that total methane emissions for 2021 were 15 Mt CO_{2e}, compared to 27 Mt CO_{2e} in 2014. Reducing small leaks from valves, pump seals, and other equipment, as well as reducing flaring and venting, lower methane emissions.

Energy Systems

Electric Vehicles

[Coca-Cola Canada Bottling to become first food & beverage manufacturer to use electric trucks in Canada – Clean Technica](#)

Coca-Cola Canada Bottling Ltd. will purchase six Volvo VNR Electric trucks as part of a pilot program to support its "Red Fleet" customer delivery routes in the Greater Montreal Region. Among the company's fleet of 650 heavy-duty vehicles, six trucks are the first Class-8 electric trucks. They are expected to be delivered to the company over the course of 2023. The trucks perform numerous daily round trips of 150 km between the company's distribution headquarters in Montreal and customer locations and these new electric trucks can go up to 440 km on a single charge. This initiative will help the company reach its target of decreasing carbon emissions from supplied energy and direct sources by 46.2 per cent by 2030.

Manufacturing

[Future of low carbon manufacturing showcased at ABB – Energy Digital](#)

ABB's production facility in Xiamen, China is combining new energy monitoring systems with on-site renewable energy generation and storage. This has enabled the facility to reduce emissions and costs, making it a flagship site for sustainable manufacturing. The facility has reduced its CO₂ equivalent emissions by 13,400 tons as part of ABB's global Mission to Zero program and will be showcasing its smart digital technology to other manufacturers in China to help them achieve similar results.

Technologies

Nuclear

[Germany closes its last nuclear plants – World Nuclear News](#)

Germany switched off its last three nuclear reactors (Isar II, Emsland and Neckarwestheim II) on April 15, exiting atomic power even as it seeks to wean itself off fossil fuels and manage an energy crisis caused by the war in Ukraine. The operators of the last three nuclear power plants have marked their closures by saluting their operational records and contribution to providing low-carbon energy in the country for more than three decades. Germany intended to leave behind nuclear power since 2002, but the phase-out was accelerated by former chancellor Angela Merkel in 2011 after the Fukushima nuclear disaster in Japan.

[ISL mooted for second Canadian uranium project – World Nuclear News](#)

Denison Mines Corp. is investigating the use of in-situ leach (ISL) mining methods at the Phoenix deposit at its flagship Wheeler River project in Saskatchewan and had completed a pre-feasibility study in 2018. The company has since then developed a technical team to evaluate the application of ISL methods to high-grade uranium deposits in the Athabasca Basin. They plan to complete additional evaluation work following the completion of a conceptual study of the potential application of ISL mining methods at the Midwest project in Saskatchewan. More than half of the world's uranium production is now produced by ISL, but the technique has not so far been used in Canada.

[Cameco, Energoatom fuel deal implemented – World Nuclear News](#)

The *Agreement for weighing, sampling, storage, analysis and transportation of uranium oxide concentrate* was signed in Canada on April 11 by Energoatom and Cameco. This agreement is to implement the bilateral agreement signed between the two firms in March to export all of Ukraine's uranium production for processing in Canada to produce fuel for Ukrainian nuclear power plants. This will ensure that Cameco meets 100 per cent of Energoatom's need for natural uranium hexafluoride from 2024 to 2035 for the nine nuclear reactors at the Rivne, Khmelnytsky, and South Ukraine plants.

Hydrogen

[Toyota unveils its first new hydrogen car in a decade, to go on sale this autumn – Hydrogen Insight](#)

Japanese automaker Toyota has announced its intention to launch the Mirai, a new hydrogen fuel cell car (FCEV), along with an FCEV version of the Crown sedan this autumn. The announcement marks the first new hydrogen car from the Japanese company for nearly a decade, following the introduction of the Mirai in 2014. A little over 56,000 FCEVs have been

sold to date globally, [according to one consultant](#), while 10.5 million BEVs and plug-in hybrid EVs were [delivered worldwide in 2022 alone](#).

Fossil Fuels

[Royal Bank of Canada was biggest fossil fuel funder in the world in 2022 at US\\$42 billion - CBC](#)

A report from a coalition of environmental groups shows that Royal Bank of Canada was the biggest fossil fuel financier in the world last year after providing over US\$42 billion in funding. The annual Banking on Climate Chaos report shows the bank's funding between 2016 and 2021 put it as the fifth-largest fossil fuel funder, but 2022 was the first year it provided the most money. According to the data, Bank of Nova Scotia ranked ninth globally last year with US\$29.5 billion in funding and Toronto-Dominion Bank was just behind it at about US\$29 billion, while Bank of Montreal ranked 15th and CIBC 16th at US\$19.3 billion and US\$17.9 billion

Grid Management

[IEA releases monthly electricity statistics - IEA](#)

The International Energy Agency (IEA) released their monthly electricity statistics. Their data shows that for the Organisation for Economic Co-operation and Development (OECD), total net electricity production amounted to 941.9 TWh in January 2023, down by 5.9 per cent compared to January 2022. Electricity production from renewables went up by 1.6 per cent to 313.4 TWh in January 2023, driven by strong wind (5.9 TWh) and solar (2.4 TWh) output. This growth could not compensate the negative trend witnessed by fossil fuels, amounting to a loss of 56.8 TWh (0.9 per cent) compared to 2022. Electricity production from coal fell by 16.4 per cent or 34.1 TWh. Electricity production from natural gas went down by 5.5 per cent or 15.6 TWh. Nuclear electricity production in the OECD decreased by 4.3 per cent or 7.3 TWh in January 2023.

Thank you.

Regards,
Mohamed Mohamed Khaja
Energy Co-Op Student
Brilliant Energy Institute
brilliantenergyinstitute.ca