

# BEI Energy News

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

April 3, 2023

## Top news

### BEI News

#### [Working with partners for a net-zero future - BEI LinkedIn](#)

Brilliant Energy Institute (BEI) was pleased to participate in the Energy Modelling Hub (EMH) Technical Workshop - Model Conversations: Toward Net Zero Modelling, last week. The event was held simultaneously in Ottawa and Calgary with interactivity between participants in the two cities from government, industry and knowledge institutes. Models from five organizations were presented along with an opportunity for participants, including BEI executive director Jacquie Hoornweg, to participate in breakout groups to contribute to collaborative solutions for advancing to net zero. At BEI, we are always happy to be part of clean energy and net zero solutions whether we are leading, contributing or learning alongside partners in the journey.

## Energy Policy

#### [OPEC+ makes a shocking million-barrel cut in oil production – Energy Now](#)

OPEC+ announced a surprise oil production cut of more than 1 million barrels a day, abandoning previous assurances that it would hold supply steady and posing a new risk for the global economy. Saudi Arabia led the cartel by pledging its own 500,000 barrel-a-day supply reduction. Other members including Kuwait, the United Arab Emirates and Algeria followed suit, while Russia said the production cut it was implementing from March to June would continue until the end of the 2023. The initial impact of the cuts, starting next month, will add up to about 1.1 million barrels a day. From July, due to the extension of Russia's existing supply reduction, there will be about 1.6 million barrels a day less crude on the market than previously expected.

#### [Canada launches Oil to Heat Pump Affordability Program – Government of Canada](#)

The Canadian Government had launched the Oil to Heat Pump Affordability (OHPA) Program to enable homes to switch from expensive home heating oil to efficient electric heat pumps. Eligible homeowners can now apply for the OHPA program through the Canada Greener Homes Initiative and receive up to \$10,000 in federal funding. This amount includes up to \$5,000 from the Canada Greener Homes Grant. Homeowners may also benefit from combining federal support with other existing local, provincial, territorial and utility programs.

#### [Canadian Chamber of Commerce releases new report on the role of natural gas in energy security – Canadian Chamber of Commerce](#)

The Canadian Chamber of Commerce has released its new report "Canada and Global Energy Security: The Role of Natural Gas in a Lower Carbon Future." The report says Canada could be leveraging its natural-gas riches to help fuel both, as the world struggles to find the right balance between a carbon-free future and a present that still runs on fossil fuels. The report urges the federal government to finally get serious about building the infrastructure necessary to fast-track the extraction and export of liquid natural gas. The report encourages Canada to retool its

regulatory processes and give Indigenous Peoples a greater stake in natural gas projects. The report also lists several measures to develop and promote Canadian gas as a global low-carbon alternative as well as challenges towards achieving this goal.

### [New Jersey releases proposal for a permanent community solar program – Renewable Energy World](#)

The New Jersey Board of Public Utilities has released a straw proposal and proposed regulations for a permanent community solar program. The proposed permanent community solar program differs in several significant respects from the pilot program. Some of the significant changes are that all projects will be required to serve a minimum of 51 per cent low and moderate-income subscribers, projects need to be more matured in terms of commercial operation upon registration and projects on farmland will not be allowed to participate in the community solar program, among others.

### [IEA releases Energy and Emissions per Value Added Database – IEA](#)

The International Energy Agency (IEA) has released its Energy and Emissions per Value Added Database. The database includes a compilation of value-added data from various third-party sources around the globe, and energy intensity indicators coupled with value added with energy and emissions data from the IEA. Value added data is used to analyze how economies are structured and monitors trends in economic efficiency of various activities. Combined with energy consumption data, energy intensity indicators can be derived from value added, offering a better geographical coverage compared to commodity data, and homogeneous indicators in terms of unit across all sectors.

## **Energy Systems**

### [Global heat pump sales continue double-digit growth – IEA](#)

According to latest International Energy Agency (IEA) data, global sales of heat pumps grew by 11 per cent in 2022. This marks the second year of double-digit growth for the technology. Key drivers behind this growth are increased policy support and incentives for heat pumps, considering high natural gas prices, and efforts to reduce greenhouse gas emissions. In Europe, heat pump sales grew by nearly 40 per cent. Sales of air-to-water models, which are compatible with typical radiators and underfloor heating systems, jumped by almost 50 per cent in Europe. In the U.S., heat pump purchases exceeded those of gas furnaces. However, in China, the world's largest heat pump market, sales remained stable amidst a general slowdown of the economy.

## **Technologies**

### **Nuclear**

### [CNL, Kyoto Fusioneering join forces for fusion tech development – World Nuclear News](#)

A Memorandum of Understanding (MoU) has been signed between Canadian Nuclear Laboratories (CNL) and Kyoto Fusioneering, a Japanese company, to partner on providing technical services to supporting the growth of the international fusion reactor market, primarily related to testing tritium. Tritium is an isotope of hydrogen that will provide the fuel for many fusion reactor designs. CNL's Tritium Facility at its Chalk River Laboratories site in Ontario has a long history in the development of technologies and systems to safely manage the isotope.

Under the MoU, CNL will work with Kyoto Fusioneering to identify and co-develop fusion products and services, helping to accelerate the progression of fusion as a source of clean energy.

### [Moltex vows to help Canada recycle its nuclear waste. Critics say the byproducts would be even worse – The Globe and Mail \(Paywall\)](#)

Moltex Energy, a Saint John-based startup, is proposing to recycle the spent fuel assemblies in the Point Lepreau Solid Radioactive Waste Management Facility into fresh fuel for a new 300-megawatt reactor called the Stable Salt Reactor-Wasteburner, or SSR-W. Moltex's plan involves extracting half per cent of elements, that are radioactive for 300,000 years, from the spent fuel and using them as fuel for their new reactor. Critics warn that the resulting wastes from Moltex's project would be harder to dispose of than the assemblies themselves and accuse Moltex of misleading the public. Gordon Edwards, president of the Canadian Coalition for Nuclear Responsibility said the company's claim that the fission products would remain radioactive for only three centuries is "outrageous" and expressed skepticism over Moltex's plan to separate all of the fission products from the spent fuel.

### [Fortum permitted to operate Loviisa repository longer – World Nuclear News](#)

Finland's State Council has granted a new operating licence to Fortum for its low and intermediate-level waste disposal facility at the Loviisa nuclear power plant. The new licence allows the repository to be operated until 2090, instead of 2055 under the previous licence, and now includes waste from the decommissioning of the Loviisa plant. The facility is located on the island of Hättholmen and built in the 1990s. The facility began operation in 1998. It was built at a depth of 110 metres and later expanded between 2010 and 2012. Fortum has plans to expand the facility in the late 2040s, before the Loviisa plant begins decommissioning.

## **Wind Energy**

### [Hydro-Québec issues tender call for 1,500 MW of wind power – Hydro Québec](#)

Hydro-Québec has issued a tender call for 1,500 MW of electricity generated from wind power to meet the long-term electricity needs of its Québec customers. The company expects an increase in Québec's electricity demand of 25 TWh or 14 per cent over 2022 to 2032. The minimal requirements for bidders include the obligation to show that the proposed project has the support of the host community, and the project must be carried out in the areas identified by the company. The company expects commissioning and connection to the grid to take place between Dec. 1, 2027 and Dec. 1, 2029.

### [Vestas lands 1.3 GW wind turbine order in Brazil – Renewable Energy World](#)

Wind turbine manufacturer, Vestas, has secured a 1.3 GW order for two projects in Brazil. This is the company's largest onshore wind turbine order to date. The company reached an agreement with Casa dos Ventos to support the Serra do Tigre wind park in the state of Rio Grande do Norte, and Babilônia Centro in the state of Bahia. Vestas will provide the supply, installation, operation, and maintenance of 168 V150-4.5 MW turbines for the 756 MW Serra do Tigre project and 123 V150-4.5 MW turbines for the 554 MW Babilônia Centro project. The delivery is expected to begin in the third quarter of 2024 and the commissioning is expected to begin in the first quarter of 2025. Along with this order, Vestas has secured around 10 GW of orders in Brazil for its 4 MW turbines since 2018.

## **Hydrogen**

### [Wind turbine maker to become an electrolyser manufacturer and gigawatt-scale green hydrogen producer – Hydrogen Insight](#)

Nordex, the world's eighth largest wind turbine supplier, has unveiled plans to become both an electrolyser manufacturer and a gigawatt-scale green hydrogen producer. Nordex has formed a joint venture called Nordex Electrolysers with Sodena, an investment arm of the government of Navarre in Spain. The venture will see both entities investing €15 million over the next five years to “develop, manufacture and market electrolysers using proprietary technology.” The venture hopes to develop a commercial prototype for first industrial deployment over the next five years to meet the expected demand for 400GW of electrolysers by 2030. Nordex has also formed a joint venture with Acciona, a Spanish infrastructure group, called Nordex H2. This venture aims to amass a 50 GW pipeline of projects at off-grid, high-wind sites and produce 500,000 tonnes of green hydrogen annually within the next ten years.

## **Fossil Fuel**

### [Germany sets 2035 date for fossil-gas networks to switch to hydrogen – Hydrogen Insight](#)

According to a new draft law released by the German government, all fossil-gas networks in Germany that are used to generate heat in buildings must be converted to hydrogen by the start of 2035 or be switched off. The previous version of this bill, which aims to ban fossil-fuel heating in Germany by 2045, has been opposed by members of the government but a compromise agreement was made last week. The new draft law allows “hydrogen-ready” gas boilers to be installed until 2035, but only if gas networks are switched to run on hydrogen by Jan. 1, 2035 and from 2045 onwards, “all heating systems must be operated entirely with renewable energies”.

## **Grid Management**

### [Scotland generates record-breaking renewable energy – Energy Digital](#)

According to official data, Scotland broke previous records by generating 35.3 TWh of renewable electricity in 2022, marking a 28.1 per cent increase from 2021 and 9.8 per cent from 2020. This amount of electricity could power all households in Scotland for over three years. The fourth quarter of 2022 saw the largest increase in renewable electricity generation in Scotland's history, rising by 14 per cent. Wind energy was the primary contributor to Scotland's renewable electricity generation in 2022, accounting for 27.5 TWh. Of this amount, 5.8 TWh came from offshore wind, while 21.8 TWh was generated from onshore wind.

Thank you.

Regards,  
Mohamed Mohamed Khaja  
Energy Co-Op Student  
Brilliant Energy Institute  
[brilliantenergyinstitute.ca](http://brilliantenergyinstitute.ca)