

# 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

#### [Meet the team: Washma Zubair – BEI LinkedIn](#)

The Brilliant Energy Institute (BEI) is committed to creating work-integrated learning opportunities for students to develop their skills before entering the workforce. We are excited to have Washma Zubair, a second-year Ontario Tech University International Software Engineering student, join BEI full-time for the summer as our Programs Assistant after working with us part-time for the fall and winter semesters. Prior to joining BEI, Washma was working at an online startup called The Ladies Work Room, which helped create awareness for mental health and provided various courses to enable the women of Pakistan to acquire skill sets to help them become financially independent. Washma's area of interest is programming, content writing and networking. At BEI, she looks forward to integrating her skills within her work, while also learning new things and gaining in-depth knowledge about the energy industry.

## Energy Policy

#### [Alberta releases Emissions Reduction and Energy Development Plan – Government of Alberta](#)

Alberta's government released its climate plan on Wednesday. It is the first time the government has made any kind of commitment to net-zero in any time frame. Alberta will look at lowering the cap on oilsands emissions if the industry can show it is practical. The use of more renewable fuels is to be considered and the province seeks to cut methane emissions by 80 per cent, slightly better than the federal target. A new committee of Indigenous Peoples and youth is also to be formed. The plan contains no interim targets for reductions, spending or investment, despite scaling up carbon capture to do more than store the small fraction of Alberta's emissions it currently sequesters. It also does not propose regulation or legislation to move the province toward net-zero.

#### [Ontario's Ministry of Energy proposes amendments to the Ontario Energy Board Act, 1998 – Government of Ontario](#)

The Ministry of Energy is proposing amendments to the Ontario Energy Board Act, 1998 that allows the Ontario Energy Board (OEB) to exempt proponents from the requirement to hold certain licenses, if they plan on undertaking any innovative pilots or demonstration projects. The proposed changes, if approved, would make it easier for proponents to pilot innovative projects as they would not need to apply for an OEB licence or abide by the conditions set out in them. If these amendments are approved, the Ministry of Energy intends to propose further amendments to regulations under various legislations, which would exempt those proponents who have received a license exemption from other statutory requirements.

## Energy Systems

### Aviation

#### [U.K.'s new green aviation company takes off towards zero-emissions future – Energy Live](#)

Cranfield Aerospace Solutions (CAS) and Britten-Norman are merging to create the “world’s first” fully integrated, zero-emissions sub-regional aircraft. HydrogenOne Capital Growth, a consortium of CAS investors consisting of HydrogenOne, Safran Corporate Ventures, and U.A.E.-based investment firm Strategic Development Fund, will invest around £10 million on the project. The new merger aims to design and manufacture an aircraft with 100 seats and plans to attain certification for passenger carrying service in 2026.

### Battery

#### [Ottawa matches U.S. with up to \\$13 billion in subsidies to land Volkswagen EV battery plant – The Globe and Mail](#)

Canada has agreed to provide up to CA\$13 billion in subsidies and a CA\$700 million grant to entice Volkswagen into building its North American battery plant in the country. The total Canadian investment, which could also include funds from the Ontario government, will largely match what Volkswagen would have received from the U.S. through the Inflation Reduction Act. Neither the government nor Volkswagen would specify how many jobs the new factory will directly create, but industry estimates have put the number between 2,000 and 3,000. The Stellantis NV and LG Energy Solution currently being built in Windsor is the only other battery plant in Canada. It has received a commitment of about \$1 billion from the federal and provincial governments combined.

## Technologies

### Nuclear

#### [Terrestrial Energy's molten salt reactor passes Canadian vendor design review – Nuclear Engineering International](#)

Terrestrial Energy's Integral Molten Salt Reactor (IMSR) has completed Phase 2 of the option Canadian Nuclear Safety Commission (CNSC) vendor design review (VDR). The VDR involved a comprehensive review of the IMSR nuclear power plant and required Terrestrial Energy to prepare technical submissions. Its scope included a systematic review of engineering management processes, confirmatory testing program for IMSR components and systems, reactor controls and safety systems, defence-in-depth strategy, safety analysis, and the requirements for safeguards, security, fire protection and radiation protection. CNSC staff concluded that there are no fundamental barriers to licensing the IMSR plant.

#### [MoU sees KAERI, Alberta cooperation on SMRs – World Nuclear News](#)

Korea Atomic Energy Research Institute (KAERI) has signed a memorandum of understanding (MoU) with the Government of Alberta on April 19, to collaborate on the deployment of small modular reactor technology. This agreement was promoted to discuss the issue of applying the System-integrated Modular Advanced Reactor (SMART) technology with almost no carbon

emissions to supply necessary steam to oil sands mining areas in Alberta. The two parties plan to share information to confirm the feasibility of the SMART's construction and obtain licences. SMART is a 330 MWt pressurized water reactor, designed for electricity generation up to 100 Mwe, with a 60-year design life and three-year refuelling cycle.

### [New North American nuclear training program launched – World Nuclear News](#)

Westinghouse Electric Company, Spanish engineering firm Tecnatom and U.S. consulting and training services provider Accelerant Solutions have signed a Teaming Agreement to form the Nuclear Excellence Academy, a nuclear training program for utilities in the U.S. and Canada. The program offers a solution to utilities seeking to retain and hire nuclear professionals. It ensures practical, cost-effective, and compliant approaches to nuclear operations. The training will be standardized to fit the needs of all utilities.

## Wind Energy

### [Moray West Offshore Wind Farm secures £2 billion investment – reNEWS](#)

The Moray West Offshore Wind Farm project has secured £2 billion of non-recourse project finance and reached financial close. It is located in north-east Scotland. The project's capacity is 882 MW and can provide an equivalent of 1.33 million households a year with access to long-term, low-cost, low-carbon electricity. It is expected to run on full capacity by 2025. The financial close allows the project to move to secure the remaining elements of supply chain activity in preparation for offshore installation works in later 2023. The project's sponsored by Ocean Winds, a JV between EDP Renewables and Engie, and Ignitis Group.

## Hydrogen

### [Toyota providing “up to 200” hydrogen cars to Uber in Germany as part of two-year trial – Hydrogen Insight](#)

As a part of the “H2 Moves Berlin” project, Toyota will provide up to 200 Mirai hydrogen cars to Uber. The project is a partnership between Toyota Germany, Ennoo, a company that provides cars and drivers to Uber, and Anglo American, a mining company that produces platinum group metals required by the Mirai's fuel cells. The hydrogen used in the trial would be 50 per cent grey and 50 per cent green. Ennoo currently has 50 Toyota Mirais available on Uber in Berlin, which will be expanded to “up to 200 vehicles” over the next six months.

### [German public transport company orders 52 hydrogen buses for €30 million – Hydrogen Insight](#)

Rebus Regionalbus Rostock, a public transport company in Germany, has ordered 52 hydrogen buses from Polish manufacturer Solaris for €30 million. The company plans to replace 170 of its diesel buses with fuel-cell vehicles. The company will also spend €10 million for two hydrogen filling stations and the conversion of its workshops. The company will receive financial support for the move to hydrogen from the German government. This will provide 80 per cent of the additional costs for the fuel-cell vehicles compared to diesel models.

## Critical Minerals

### [Chile plans to nationalize its vast lithium industry – The Globe and Mail](#)

Chile's president Gabriel Boric announced plans to nationalize the country's lithium industry. Under the plan, which is yet to be approved by lawmakers, state-owned copper producer Codelco will be tasked with negotiating a way forward with lithium industry giants SQM and Albemarle. New contracts would be approved only if they were controlled by the state and existing contracts will not be terminated, but the state will seek to take a stake in SQM and Albemarle's contracts to mine the Salar de Atacama salt flat before their licences expire in 2030 and 2043.

## **Ammonia**

### [ABB launches world's first green power-to-ammonia plant – ABB](#)

ABB has launched the world's first green power-to-ammonia (PtA) plant in Lemvig, Denmark. ABB is supplying full electrical integration for the PtA plant, with control and management of the process. Most of the plant's energy requirement is met by the energy generated from its own wind turbines. This ensures minimal requirement on the electricity grid. According to the plan, production should start early 2024 and construction is already well underway. Skovgaard Energy, Topsoe and Vestas are partners in a collaboration with ABB.

Thank you.

Regards,  
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