

# Brilliant Energy Institute

Office of the Vice President Research and Innovation  
Ontario Tech University

## BEI Energy News

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### BEI News

On February 20, 2024, Ontario Tech's Faculty of Engineering and Applied Science (FEAS) hosts the 2nd annual Research Day where industry and academia converge to explore pathways to net-zero emissions and the pivotal role of smart, sustainable development. The event agenda features keynote lectures and panels with distinguished research experts and industry leaders from Elexicon Energy Inc., General Motors Canada, Cormor Inc., the Canadian Nuclear Safety Commission (CSNC), the Ontario Vehicle Innovation Network (OVIN), and more. The agenda encompasses diverse panel sessions, a poster exhibition, a keynote lecture, and immersive research lab tours.

The Brilliant Energy Institute (BEI) team will be in attendance, eager to connect with fellow participants. For event details and registration, please visit the **Research Day 2024**. Don't miss this opportunity to engage in meaningful discussions and contribute to the collective pursuit of sustainable solutions.

### Energy Policy

#### **Nova Scotia Power intends to introduce new 'time-varying' electricity rate plans**

<https://www.cbc.ca/news/canada/nova-scotia/nsp-time-varying-rate-pilots-1.7101667#:~:text=for%20electricity%20usage,-,Nova%20Scotia%20Power%20has%20been%20previewing%20two%20possible%20new%20%22time,%E2%80%94%20and%20off%20peak%20hours>

Nova Scotia Power is considering introducing ~~of~~ two new "time-varying" rate plans to give Nova Scotians more flexibility in electricity usage charges. The first plan involves time-of-use rates, where weekdays from November to March are divided into peak (7 a.m. to 11 a.m. and 5 p.m. to 9 p.m.) and off-peak hours,

aiming to incentivize consumers to shift their usage to off-peak times. The second plan addresses "critical peak" events during high power demand and challenging weather conditions, allowing consumers to save on regular rates but facing higher prices during specific events. Nova Scotians participating in these programs have reported average annual savings of \$93 and \$376, respectively. Experts note that while time-varying plans encourage behavioral changes and savings, they will not solve energy poverty.

### **Business funding on climate action needs to "rise exponentially": RBC report**

[https://www.thestar.com/business/business-funding-on-climate-action-needs-to-rise-exponentially-rbc-report/article\\_473fac31-e4ee-5047-95bf-70e0bfa51921.html](https://www.thestar.com/business/business-funding-on-climate-action-needs-to-rise-exponentially-rbc-report/article_473fac31-e4ee-5047-95bf-70e0bfa51921.html)

The RBC Climate Action Institute report states business funding for climate action in Canada must "rise exponentially" to achieve net-zero emissions by 2050. The report highlights that while funding from public and private sources has increased by almost 50 per cent since 2021 to \$22 billion, funding should reach \$60 billion annually for the rest of the decade to meet emission reduction targets. The report emphasizes the importance of public markets, private equity, and venture capital channeling more capital into green investments, as they have comprised only eight percent of capital flows into climate efforts since 2021. It also notes that consumer spending patterns must change, and provincial and municipal governments should intensify efforts.

## **Building Infrastructure**

### **World Energy GH2 wind energy proposal is back before the N.L. government**

<https://www.cbc.ca/news/canada/newfoundland-labrador/wegh2-impact-statement-1.7102133>

World Energy GH2's proposal for a wind energy project, coupled with a hydrogen and ammonia plant, on Newfoundland's west coast is back before the provincial government. Part of Project Nujio'qonik, plans include the installation of 328 wind turbines on the Port au Port Peninsula and in the Codroy Valley, along with a hydrogen-ammonia plant in western Newfoundland. A revised impact statement details changes and upgrades to the initial plans, including reducing the number of turbines in the Port au Port wind farm and plans for standby auxiliary backup power.

### **Mohawk Council of Kahnawake to benefit from new wind farm**

<https://globalnews.ca/news/10264482/mohawk-council-of-kahnawake-to-benefit-from-new-wind-farm/>

Hydro-Québec, the Mohawk Council of Kahnawake, the MRC des Jardins-de-Napierville, and the Township of Hemmingford have reached a new agreement for a wind farm project named Les Jardins. The partnership involves the construction of 21 wind turbines generating 147 MW of power, equivalent to powering over 30,000 homes. The Mohawk Council of Kahnawake holds a 25 per cent stake in the project, emphasizing the importance of Indigenous communities' involvement in renewable energy initiatives. The wind farm is expected to be commissioned by the end of 2028, contributing to Quebec's efforts to meet rising energy demands and double its wind energy production.

### **Funding announced for paid internships in sustainable energy at University of Regina**

<https://globalnews.ca/news/10276790/funding-announced-paid-internships-sustainable-energy-university-of-regina/>

The University of Regina will benefit from a four-year funding agreement totaling \$6.05 million to create hundreds of paid student internships in cleantech research and development. The funding comes from the Petroleum Technology Research Centre (PTRC) and Mitacs from 2024 to 2028. The collaborative program will cover projects in geothermal energy, blue hydrogen, CO2 capture and storage, integrated power systems with AI, and reducing environmental impacts in hydrocarbon production.

## **Nuclear**

### **Environmental permitting of Polish SMR plant progresses**

<https://www.world-nuclear-news.org/Articles/Environmental-permitting-of-Polish-SMR-plant-progr>

The General Director for Environmental Protection (GDOŚ) in Poland has issued the scope of the environmental report for Orlen Synthos Green Energy's (OSGE) proposed small modular reactor (SMR) project in Stawy Monowskie, Małopolska, Poland. OSGE, a joint venture between chemical producers Synthos Green Energy and PKN Orlen, can now initiate environmental and siting research for the project. The Stawy Monowskie site is among seven locations shortlisted by OSGE for SMR plants based on GE Hitachi Nuclear Energy's BWRX-300 design, for which it holds exclusive rights in Poland. The issuance of the environmental report is an important step toward building BWRX-300 reactors in Poland.

## **Critical Minerals**

## Canada Announces Over \$4 million to Support Critical Minerals Value Chain and Create Good Jobs in Ontario

<https://www.canada.ca/en/natural-resources-canada/news/2024/02/canada-announces-over-4-million-to-support-critical-minerals-value-chain-and-create-good-jobs-in-ontario.html>

Canada is allocating a \$4.2 million investment to Ucore Rare Metals Inc. (Ucore) as part of the Critical Minerals Research, Development, and Demonstration (CMRDD) program. The investment supports the scale-up and commercial demonstration of Ucore's patent-pending rare earth element separation technology platform under simulated commercial conditions. Funded by Budget 2021's \$47.7 million allocation to NRCan for the CMRDD program, the project will enhance Canada's capabilities in the responsible and sustainable production of critical minerals. Ucore's initiative is crucial for developing a domestic electric vehicle value chain by increasing essential metals for electric vehicle motors.

## Fossil Fuels

### Airlines call for road map to increase production of sustainable jet fuel

[https://www.thestar.com/business/airlines-call-for-road-map-to-increase-production-of-sustainable-jet-fuel/article\\_92c364ca-c182-5dad-8f93-0c0bfb8a099f.html](https://www.thestar.com/business/airlines-call-for-road-map-to-increase-production-of-sustainable-jet-fuel/article_92c364ca-c182-5dad-8f93-0c0bfb8a099f.html)

Canadian airlines are pressing the federal government to implement measures to stimulate the production of sustainable aviation fuel (SAF) in the country. The Canadian Council for Sustainable Aviation Fuels and the National Airlines Council of Canada emphasized the need for incentives to support the production of greener aviation fuel. The groups propose an investment tax credit of 50 per cent for manufacturing facilities and a production tax credit with a 10-year horizon, similar to incentives provided in the United States. Canada has yet to commercially produce any SAF, and the aviation industry aims to achieve 10 per cent SAF use by 2030.

*Do you have any milestones, events, or news updates to share with the energy community? Email your submission to [BrilliantEnergy@ontariotechu.ca](mailto:BrilliantEnergy@ontariotechu.ca) for consideration in an upcoming edition.*

Thank you.

The Brilliant Energy Institute news team

[brilliantenergyinstitute.ca](http://brilliantenergyinstitute.ca)

*(With a little help from ChatGPT)*