

Brilliant Energy Institute

Office of the Vice President Research and Innovation
Ontario Tech University

BEI Energy News

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Energy Policy

OEB supports six projects through its Innovation Sandbox Challenge - OEB

<https://www.oeb.ca/newsroom/2023/oeb-supports-six-projects-through-its-innovation-sandbox-challenge>

The Ontario Energy Board (OEB) is allocating funds to support innovative projects that foster renewable energy adoption and consumer participation. Alectra Utilities Corp. will receive \$325,000 to enhance customer engagement in demand response events. Hydro One Networks Inc. has been granted \$174,000 to assist low-income customers in understanding the impact of demand response. Similarly, Oakville Hydro Electricity Distribution Inc. will utilize its \$120,000 fund to create a digital tool that facilitates consumers' transition to renewable energy. Moreover, Pollution Probe, Powerconsumer Inc., and Taykwa Tagamou Nation have been awarded funds for their respective initiatives. These funds are sourced from administrative monetary penalties accrued by the OEB.

Nuclear

EPRI and NEA to collaborate on waste management for SMRs - Nuclear Engineering International

<https://www.neimagazine.com/news/newsepri-and-nea-to-collaborate-on-waste-management-for-smrs-11261047>

The Electric Power Research Institute, based in the United States, and France's Nuclear Energy Agency have joined forces for the Waste Integration for Small & Advanced Reactor Designs (WISARD) project. Both organizations, with their expertise

in electricity generation and advocating for safe nuclear energy, will collaborate to drive the WISARD project forward. WISARD will focus on waste management strategies for small modular reactors and advanced nuclear energy systems, with an emphasis on long-term disposal, transportation, treatment, recycling, and intermediate storage. The project is scheduled to run from 2024 to 2027, following a planning phase in 2023 and 2024.

Indigenous and Community Engagement

Government of Canada announces 10 indigenous communities advancing clean energy solutions - Natural Resources Canada

<https://www.canada.ca/en/natural-resources-canada/news/2023/11/government-of-canada-announces-10-indigenous-communities-advancing-clean-energy-solutions.html>

The Government of Canada announced 10 Indigenous communities completed Phase 1 of the Indigenous Off-Diesel Initiative (IODI) Cohort 2. The communities will be eligible for funding in Phase 2 for projects like training and community engagement. The IODI is part of Canada's Strengthened Climate Plan, which allocated \$300 million for clean energy projects in Indigenous, rural, and remote communities. The initiative is administered by various federal departments, with Wah-ila-toos serving as a single access point for funding and resources. The Indigenous Clean Energy Social Enterprise is co-delivering IODI with Wah-ila-toos.

Hydrogen

Bruce Power backing study exploring hydrogen production from electricity - The Sun Times

<https://www.owensoundsuntimes.com/news/local-news/bruce-power-backing-study-exploring-hydrogen-production-from-electricity>

Bruce Power is contributing to a study on producing hydrogen with nuclear-generated electricity. The research, conducted by Kinectrics and FuelCell Energy, will assess the feasibility of a hydrogen hub in Toronto. The study will analyze the economic viability of hydrogen production, storage, and distribution. It will also examine the use of solid oxide fuel cells for power generation and vehicle fuel. The Independent Electricity System Operator (IESO) is funding the study through its Hydrogen Innovation Fund. The study aims to provide insights on leveraging Ontario's electricity grid for low-carbon hydrogen production.

Hydrogen: Ontario can make it or break it - CHFCA

<https://www.chfca.ca/2023/11/01/hydrogen-ontario-can-make-it-or-break-it/>

H2GO Canada, a nonprofit focused on hydrogen energy and cutting emissions, recently shared its new report, "*Forecasting Low-Carbon Hydrogen Market Characteristics in Ontario to 2050*". The report introduces a hydrogen ecosystem model to predict job growth, greenhouse gas emissions, and costs in Ontario's low-carbon hydrogen market. Report findings show Ontario must build hydrogen production capacity to meet demand and avoid high import costs. It also suggests investment in low-carbon energy sources and innovation in hydrogen production is crucial. The report identifies key market characteristics such as the importance of low-carbon electricity and natural gas distribution systems.

Critical Minerals

Government of Canada to enhance critical minerals sector with launch of \$1.5 billion infrastructure fund - NRCAN

<https://www.canada.ca/en/natural-resources-canada/news/2023/10/government-of-canada-to-enhance-critical-minerals-sector-with-launch-of-15-billion-infrastructure-fund.html>

The Government of Canada will open the Critical Minerals Infrastructure Fund (CMIF) for applications in late fall 2023. The CMIF, with \$1.5 billion available over seven years, supports clean energy and transportation projects. This initiative aims to connect resources to markets and enable sustainable critical mineral production. It's part of the Canadian Critical Minerals Strategy, driving economic growth and job creation. The fund will address infrastructure gaps in remote areas with critical mineral deposits.

Natural Gas

Canada's golden goose: more than us\$ 227 billion in government revenues from Canada's natural gas sector expected through 2050 - EnergyNow

<https://energynow.ca/2023/11/over-us227-billion-in-government-revenues-from-canadas-natural-gas-sector-expected-through-2050/>

The Canadian Energy Centre released a report on Canada's natural gas sector. It uses data from Rystad Energy UCube and predicts government revenues and capital expenditures until 2050. With Henry Hub natural gas prices between US\$ 3.00 and US\$ 4.00, government revenues could top US\$ 227 billion, and capital expenditures could be more than US\$ 297 billion. The report highlights the positive impact of low-emission technologies on the sector's growth.

Hydro

Hydro-Quebec plans to spend at least \$90-billion on new power generation over next decade - The Globe and Mail (Paywall)

<https://www.theglobeandmail.com/business/article-hydro-quebec-plans-to-spend-at-least-90-billion-on-new-power/>

Hydro-Québec plans to invest \$90 billion in new power facilities and transmission lines over the next decade. The utility aims to triple wind power, add more hydropower, double energy efficiency, and build 5,000 km of power lines. Former senior bureaucrat Michael Sabia is leading the new growth phase and has warned that business customers may face higher power costs. The move is part of Hydro-Québec's plan to achieve carbon neutrality by 2050 and will require 150 to 200 terawatt hours of additional power. The utility plans to fund the project through external financing, including issuing bonds. Operations are estimated to commence by 2035.

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

Thank you.

The Brilliant Energy Institute news team
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(With a little help from ChatGPT)