

Brilliant Energy Institute

Office of the Vice President Research and Innovation
Ontario Tech University

BEI Energy News

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Brilliant Energy Institute News

Youth invited to apply for Durham Climate Roundtable Leadership Committee

<https://www.linkedin.com/feed/update/urn:li:activity:7113178896316985345>

The Durham Climate Roundtable (DCR) is seeking a volunteer youth member to join its Leadership Committee to represent youth on the DCR Leadership Committee. On the committee, the youth member will contribute to climate change strategies by local government, businesses and other community organizations, across Durham Region. The position is open to high school and post-secondary students, living in Durham Region. BEI serves as secretariat for the Roundtable, which includes leaders from the Region of Durham, all eight local area municipalities, as well as corporate and community organizations. High school students in Grade 10-12 or post-secondary students can submit a brief letter of interest, sharing their knowledge of climate change issues and how they would hope to contribute. The submission deadline is Friday, Oct. 13, 2023. Email submissions to: brilliantenergy@OntarioTechu.ca.

Ontario Tech News

Still time to register for today's event: TALENT hosts discussion on Indigenous representation and consultation in the energy sector

[Indigenous Talent and Consultation in the Energy Sector Tickets, Fri, 29 Sep 2023 at 12:00 PM | Eventbrite](#)

There is still time to register for today's lunchtime online discussion about Indigenous representation and consultation in the development of Canada's Energy sector workforce. The event will feature Dakota Norris, Strategist at Warshield, Ian Jacobsen, Director of Indigenous Relations, Ontario Power Generation and Rachel Sumner, CEO at TALENT (Ontario Tech Talent). Register at the link above.

Energy Policy

Minister Wilkinson releases Canada's carbon management strategy - NRCAN

https://www.canada.ca/en/natural-resources-canada/news/2023/09/minister-wilkinson-releases-canadas-carbon-management-strategy.html?utm_medium=organic_social&utm_source=linkedin.com&utm_campaign=carbon-mgmt&utm_content=nr&hsid=9b7de022-f832-4458-9848-9b614475c653

The government of Canada has unveiled its Carbon Management Strategy, emphasizing five critical priorities for achieving a prosperous net-zero economy by 2050. These priorities include accelerating innovation in carbon management technologies, ensuring predictable policies and regulations, attracting investments and trade opportunities, scaling up infrastructure, and fostering partnerships and inclusive workforces. Natural Resources Canada says carbon management is vital for reducing emissions from heavy industries, such as cement, iron and steel, and chemicals, which account for more than 10 per cent of Canada's emissions. The strategy aligns with Canada's commitment to address climate change and complements substantial investments, such as the \$1.36 billion carbon-capture-enabled cement plant in Edmonton, Alberta, furthering the nation's progress towards a sustainable, low-carbon future.

Canada Invests in Battery Innovation Roadmap - NRCAN

<https://www.canada.ca/en/natural-resources-canada/news/2023/09/canada-invests-in-battery-innovation-roadmap.html>

The Canadian federal government is investing \$500,000 in Accelerate Alliance to support the development of a Battery Innovation Roadmap. This roadmap will play a crucial role in advancing Canada's capacity to create a sustainable domestic battery innovation ecosystem for both mobile and stationary applications. It is part of Canada's commitment to achieving a net-zero future by 2050 and is funded through Natural Resources Canada's Energy Innovation Program. This initiative will bring together

industry, academia, and government stakeholders to promote Canada's leadership in battery innovation globally.

Indigenous and Community Engagement

Seven First Nations in N.B invest in small modular nuclear reactors - CBC

<https://www.cbc.ca/news/canada/new-brunswick/first-nations-small-modular-nuclear-reactors-1.6977721>

First Nations communities in New Brunswick, including the North Shore Mi'kmaq Council, are investing \$3 million in small modular nuclear reactor (SMR) technology. They have signed an equity agreement with Moltex Energy and ARC Clean Energy, with \$2 million in shares for Moltex and \$1 million for ARC. The goal is to protect the environment while gaining a return on investment. Both companies have received substantial government funding, with ARC's 100-megawatt reactor expected to be operational by 2029 and Moltex's 300-megawatt reactor by the early 2030s. The Moltex SMRs are designed to use recycled nuclear fuel, to reduce high-level, long-lived waste by up to 99 per cent, the Moltex CEO says. Energy prices are projected to decrease, reaching as low as seven cents per kWh by the late 2030s.

Nuclear

Ontario plans to extend life of Pickering nuclear plant, eyes refurbishment - CBC

<https://www.cbc.ca/news/canada/toronto/picking-nuclear-extension-ontario-1.6600102>

Ontario is considering extending the operational life of four units of the Pickering Nuclear Generating Station by up to 30 years through a refurbishment project. At the same time, it is seeking an additional one year of operation on its existing licence, potentially keeping it in service until September 2026, instead of the end of 2025, based on safety analysis and an increased electricity demand. The demand is driven by factors such as electric vehicle manufacturing and steel production using electric arc furnaces. The immediate alternative to a permanent shut down at Pickering would be natural gas generation. Extending Pickering's operations until 2026 alone, is expected to cut emissions by 2.1 million tonnes, like taking 640,000 cars off the road, and maintain jobs, the government says. As well, the added year of operation strengthens the return on investment in the plant, says OPG President Ken Hartwick. The refurbishment potential also holds promise for ensuring a reliable power supply and creating jobs in sectors like electric vehicles and green steel production.

Nuclear groups suggest staged approach to increase regulatory efficiency - NEI

<https://www.neimagazine.com/news/newsnuclear-groups-suggest-staged-approach-to-increase-regulatory-efficiency-11175461>

A joint report by the World Nuclear Association, Nuclear Energy Institute, and Canadian Nuclear Association proposes regulatory changes to promote standardized reactor designs globally. The report focuses on addressing climate change and energy security by enhancing collaboration and multilateral agreements. Key recommendations include increased government support, phased regulatory design reviews, and better coordination of harmonization efforts. Early alignment and government backing are crucial for successful collaboration, and the report stresses the need for innovative approaches and resources to meet nuclear deployment goals by 2050. This effort aims to bolster export markets and regulatory efficiency for national bodies in the future.

Critical Minerals

Canada and France deepen cooperation on critical minerals - NRCAN

<https://www.canada.ca/en/natural-resources-canada/news/2023/09/canada-and-france-deepen-cooperation-on-critical-minerals.html>

Canada and France have announced a bilateral dialogue on critical minerals, highlighting their significance in various industries like electric vehicles, semiconductors, and renewable energy. The main objectives include securing critical mineral supplies, promoting investment, and collaborating on research and development. They also aim to promote global environmental and governance standards. This partnership aligns with environmentally sustainable mining practices through their involvement in the Sustainable Critical Minerals Alliance. Canada's Critical Minerals Strategy seeks to increase the supply of responsibly sourced critical minerals, supporting economic growth and global security.

Electric Vehicle

Quebec earmarks nearly \$3 billion for Northvolt EV battery plant outside Montreal - The Globe and Mail

<https://www.theglobeandmail.com/business/article-northvolt-ab-quebec-legault-electric-vehicle-battery/>

Quebec's government is investing more than \$1 billion in Northvolt AB, a Swedish battery manufacturer, to strengthen the province's electric vehicle battery industry. The

investment totals \$1.37 billion for the first phase of Northvolt's \$7 billion lithium-ion battery factory near Montreal. Most of the funding consists of partly forgivable loans, with additional equity investment, supported by a \$1.34 billion federal loan. Construction is set to begin this year, with operations expected to commence in 2026. Despite the risks associated with early-stage investments in the battery industry, Quebec views this as an opportunity to create high-quality jobs and maximize the value of its natural resources.

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
brilliantenergyinstitute.ca

(With a little help from ChatGPT)