

Brilliant Energy Institute

Office of the Vice President Research and Innovation
Ontario Tech University

BEI Energy News

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BEI News

Next week the nuclear sector comes together in Ottawa for the annual Canadian Nuclear Association (CNA) Conference, February 28 to March 1. The conference theme, Foundations for Success, is driven by an agenda focused on capitalizing on and building future talent, fostering public and private financing, accelerating research and innovation, and forging meaningful Indigenous partnerships and ensuring future fuel supply.

Ontario Tech's nuclear and energy systems research experts, faculty, students, alumni and staff members, including BEI's Director, Jennifer Alsop, are attending. Visit us at the Ontario Tech booth, #327.

Energy Policy

Federal government scales back carbon tax rebates for small businesses

<https://www.cbc.ca/news/politics/federal-government-scales-back-carbon-tax-rebates-small-businesses-1.7120443#:~:text=The%20federal%20government%20is%20cutting,is%20providing%20to%20rural%20families.>

The federal government is reducing the financial relief provided to small businesses from carbon pricing revenues to increase rebates for rural families. Despite owing organizations over \$2.5 billion in promised carbon pricing revenues from the first five years of the program, the government is cutting the share for small businesses. The change reduces the small business share of carbon pricing revenues from seven per cent to five per cent.

Indigenous and Community Engagement

First Indigenous equity loan from Canada Infrastructure Bank supports Mi'kmaw investment in green energy

<https://windspeaker.com/news/windspeaker-news/first-indigenous-equity-loan-canada-infrastructure-bank-supports-mikmaw>

The Canada Infrastructure Bank (CIB) has made its first Indigenous Equity Initiative with an \$18-million loan to Wskijinu'k Mtmotaqnuow Agency (WMA), an economic limited partnership owned by 13 Mi'kmaw communities in Nova Scotia. The loan will support WMA's partnership with Nova Scotia Power Inc. for the construction and deployment of energy storage facilities in White Rock, Bridgewater, and Waverley. The project, subject to regulatory approval, is part of the CIB's commitment to empowering Indigenous communities in the renewable energy sector. The loan covers 90 per cent of the financing, with the other 10 per cent accessed through a loan from Ulnooweg Development Group.

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Building Infrastructure

Ansaldo Nucleare, SACE and Nuclearelectrica sign Cernavoda MoU

<https://www.world-nuclear-news.org/Articles/Ansaldo-Nucleare,-SACE-and-Nuclearelectrica-sign-C>

Ansaldo Nucleare, in collaboration with Italian finance and insurance group SACE and Romania's Nuclearelectrica, has signed a memorandum of understanding (MoU) for the life extension of Cernavoda Unit 1 and the development of units 3 and 4 at the Cernavoda nuclear power plant in Romania. The MoU outlines a financing line backed by SACE of up to EUR two billion, with Ansaldo Nucleare providing engineering, project management services, procurement, and commissioning of components and systems. The project aims to enhance Romania's clean energy capacity and strengthen Italy's leadership in the nuclear energy sector.

Nuclear

Feasibility for AP1000s at Borssele to be studied

<https://www.world-nuclear-news.org/Articles/Feasibility-for-AP1000s-at-Borssele-to-be-studied>

The Dutch government has awarded Westinghouse Electric Company a contract to conduct a technical feasibility study (TFS) on deploying two AP1000 reactors at the Borssele nuclear power plant site. The study aligns with the Netherlands' goal of achieving carbon neutrality by 2050 and carbon-neutral electricity production by 2035. Korea Hydro & Nuclear Power (KHNP) secured an earlier contract for a feasibility study

on Korean-supplied reactors at Borssele. EDF of France expects to be awarded a contract next. The Netherlands' new coalition government aims to complete the two new reactors around 2035, providing 9-13 per cent of the country's electricity production.

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Global Nuclear Fuel receives approval to manufacture higher enrichment fuel

<https://www.neimagazine.com/news/newsglobal-nuclear-fuel-receives-approval-to-manufacture-higher-enrichment-fuel-11533316>

Global Nuclear Fuel (GNF), a subsidiary of GE Vernova, has received approval from the US Nuclear Regulatory Commission (NRC) to manufacture, ship, and analyze the performance of nuclear fuel with Uranium-235 enrichments of up to eight per cent weight. This approval makes GNF's manufacturing facility in Wilmington, North Carolina, the first commercial facility in the United States to be licensed for fabricating fuel enrichments up to eight per cent weight. The NRC has issued a Certificate of Compliance, allowing GNF to ship nuclear fuel bundles with enrichments up to eight per cent weight. The approval is part of GNF's efforts to enhance accident tolerance and operational flexibility in nuclear fuel technologies.

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Energy Storage

How industrial waste is keeping these Ottawa-area buildings warm

<https://www.cbc.ca/news/science/zibi-waste-heat-recovery-1.7117832>

Residents of the Zibi development in Ottawa-Gatineau use waste heat from a local paper plant to warm their homes, showcasing an innovative approach to sustainable heating. The Zibi development utilizes a district heating system that captures waste heat from the nearby Kruger Products Plant in Gatineau, heating residential and office spaces across the Ottawa River. The innovative heating system involves a network of water pipes distributing industrial waste heat, providing both heating and cooling. This initiative is part of a growing trend to repurpose industrial waste for energy-efficient and climate-friendly heating solutions.

Jackfish power plant in Yellowknife working overtime to compensate for low water levels, resulting in spill

<https://www.cbc.ca/news/canada/north/jackfish-power-plant-spill-1.7120036>

Low water levels in the Snare River have impacted hydro generation, prompting increased use of the Jackfish diesel plant in Yellowknife. Plant overuse resulted in a 500-litre spill on January 25. The Northwest Territories Power Corporation (NTPC) uses 1.3 million litres of diesel per month to meet electricity demands,

leading to increased spending and an application to raise power rates. The spill, primarily water, had no environmental impact, and NTPC has repaired the ruptured unit.

Fossil Fuels

Scientists to study health impacts of Squamish, B.C., LNG plant

<https://www.cbc.ca/news/canada/british-columbia/woodfibre-lng-health-impacts-1.7118880>

A joint study involving Vancouver Coastal Health (VCH) and scientists from four universities is set to investigate the health impacts of air pollutants from the Woodfibre LNG project near Squamish, B.C. The federally-funded air quality study, commencing next month, will assess the effects of gas flaring, a process that burns excess methane during LNG production. While the Woodfibre LNG project claims to minimize flaring, researchers emphasize the need for more data on the potential health risks. The study aims to provide insights into the impacts of flaring on air quality and public health, especially for vulnerable populations.

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Looking for a lump of coal in Alberta? This mine is your last chance

<https://www.cbc.ca/news/canada/edmonton/looking-for-a-lump-of-coal-in-alberta-this-mine-is-your-last-chance-1.7114019>

Dodds Coal Mine, located near Ryley, Alberta, is the only active coal mine in the province that still sells coal to the public. With a long history of coal mining, Alberta has witnessed a transition away from coal in the last decade, primarily shifting to renewables. Dodds Coal Mine, run by the Bowal family since the 1950s, faces challenges due to declining demand, increasing prices, and the impact of the federal carbon levy. While the mine used to have numerous customers, now the mine has only a handful of customers each day, indicating the changing landscape of energy consumption in the province.

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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)