

Brilliant Energy Institute

Office of the Vice President Research and Innovation
Ontario Tech University

BEI Energy News

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BEI NEWS

2023 was an exciting and eventful year for the BEI team. Together with our valued partners, we are committed to playing a role in the pushback against climate change, to protect our ecosystems while strengthening our social fabric and powering our economy. Special thanks to the academic and research community at Ontario Tech, and our partners and communities for your collaboration and support.

With the academic semester officially wrapped up, our team will be taking a break to enjoy the holiday season. BEI News will return in the new year.

On behalf of our team, we wish you a very Happy Holidays! We look forward to making an impact with you in 2024.

Energy Policy

New Brunswick leans heavily on nuclear in its 12-year clean energy plan - Toronto Star (Paywall)

https://www.thestar.com/news/canada/new-brunswick-leans-heavily-on-nuclear-in-its-12-year-clean-energy-plan/article_131cb65b-8a58-5950-af67-ee9ca9807a8b.html

New Brunswick's government has announced a plan to achieve carbon neutrality by 2035 using nuclear, wind, and solar energy. The cost of the plan is not specified, but federal funding is necessary for its success. The strategy includes

the construction of small nuclear reactors, with the first operational by 2031. Currently, New Brunswick imports 35 per cent of its electricity. The new plan will change the province's energy mix to 38 per cent nuclear, 23 per cent wind, and a combination of hydro, solar, biomass, and fossil fuels. Opposition parties criticized the lack of detail and potential high costs. The project's success relies on advancements in nuclear reactor technology.

Federal government and FCM invest more than \$1.2 million to support home-energy upgrade programs in communities across Ontario - NRCAN

<https://www.canada.ca/en/natural-resources-canada/news/2023/12/federal-government-and-fcm-invest-over-12-million-to-support-home-energy-upgrade-programs-in-communities-across-ontario.html>

The Government of Canada and the Federation of Canadian Municipalities have allocated more than \$1.24 million to enhance home energy efficiency across Ontario. This funding, part of the Green Municipal Fund's Community Efficiency Financing initiative, will assist communities in developing financing programs for energy upgrades. Cities like Thunder Bay, Peterborough, Windsor, Aurora, Sault Ste. Marie and Orillia will benefit from these grants. Additionally, the Clean Air Partnership receives \$350,000 to work with seven other municipalities. This investment aims to reduce emissions, save costs for households, and support local job creation.

Nunavut looks to green energy as COP28 signals move away from fossil fuels - CBC

<https://www.cbc.ca/news/canada/north/nunavut-looks-to-green-energy-cop28-fossil-fuels-1.7058101>

In a historic move at COP28, nations including Canada committed to transitioning away from fossil fuels. Nunavut, currently reliant on diesel, is exploring green energy options led by the Qikiqtaaluk Corp. Solar and wind energy projects are in discussion, with community feedback being analyzed. These initiatives aim to significantly reduce energy costs.

Indigenous and Community Engagement

Five Nations development and Hydro One make a deal - The Daily Press

<https://www.timminspress.com/news/five-nations-development-and-hydro-one-make-a-deal>

Five Nations Energy Inc. and Hydro One Networks Inc. are partnering to boost electricity supply in northeastern Ontario, with a focus on enhancing Indigenous participation in the energy sector. The collaboration aims to increase First Nation roles in procurement, employment, and training. However, specific details on how Indigenous candidates will benefit from employment and training opportunities are not provided. The agreement also intends to involve First Nations more in upcoming transmission line projects. The goal is to ensure that economic benefits from this partnership flow directly to Indigenous communities.

Dry conditions prompt N.W.T. power corp. to seek change to water license - CBC

<https://www.cbc.ca/news/canada/north/low-water-levels-1.7058715>

The Northwest Territories Power Corporation (NTPC) is facing challenges with hydro generation due to low water levels in the Big Spruce reservoir. This has led to reduced capacity in the Snare Hydro system, which powers Yellowknife, Dettah, and Behchokò. The NTPC has applied to lower the minimum draw level at the reservoir to maintain hydro generation. Currently, diesel generation at the Jackfish power plant compensates for the shortfall. The region has experienced its sixth driest and second-warmest fall on record.

Nuclear

US nuclear regulators to issue construction permit for a reactor that uses molten salt - Toronto Star (Paywall)

https://www.thestar.com/news/us-nuclear-regulators-to-issue-construction-permit-for-a-reactor-that-uses-molten-salt/article_30fd32e5-63eb-5730-a845-38d5e0359ff8.html

The U.S. Nuclear Regulatory Commission has issued a construction permit to Kairos Power for a new type of molten salt-cooled nuclear reactor in Oak Ridge, Tennessee. The Hermes test reactor, not designed for electricity generation, is a first of its kind in the U.S. using non-water coolant. Funded by the Department of Energy, this 35-megawatt thermal reactor will test molten salt as a coolant and

new nuclear fuel types. Kairos Power aims to develop a larger commercial reactor by the early 2030s. The company's progress is part of a global initiative to expand nuclear energy as a clean energy source.

Oil and Gas

World oil demand next year to rise faster than expected, IEA says - The Globe and Mail (Paywall)

<https://www.theglobeandmail.com/business/industry-news/energy-and-resources/article-world-oil-demand-next-year-to-rise-faster-than-expected-iaa-says/>

The International Energy Agency (IEA) has raised its forecast for world oil demand in 2024, predicting an increase of 1.1 million barrels per day. This revision, up 130,000 barrels from previous estimates, cites improved economic prospects in the U.S. and lower oil prices. Meanwhile, there's a notable discrepancy between the IEA and OPEC regarding demand projections. The IEA has also cut its global demand growth forecast for the current quarter amid a worsening economic outlook. Oil prices have recently fallen to a six-month low, despite production cuts by OPEC+.

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)