

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

BEI surpasses 500 followers on LinkedIn. Thanks community!

<https://www.linkedin.com/feed/update/urn:li:activity:7109665149493379072>

Last week, the BEI LinkedIn page surpassed 500 followers and we thought we'd celebrate the milestone with a big THANK YOU!!! to everyone who is part of our community. Together we are energy experts, learners, leaders, innovators and investigators. Together we will make net-zero carbon and clean energy systems part of a brilliant future!

Energy Policy

Undo Line 5 shutdown order, federal government's filing urges U.S. appeals court

<https://energynow.ca/2023/09/undo-line-5-shutdown-order-federal-governments-filing-urges-u-s-appeals-court/>

The Canadian government is urging a U.S. appeals court to overturn a Wisconsin judge's order threatening the Line 5 cross-border pipeline's shutdown by June 2026, citing potential violations of Canada's treaty rights. The order, issued in June, gave Enbridge Inc. an ultimatum to reroute the pipeline around an Indigenous reserve within three years or face closure. Enbridge has proposed a 66 km detour to replace a 19 km stretch on the Bad River Band of Lake Superior Chippewa's sovereign territory. Legal battles continue as Enbridge seeks more time for the rerouting, while the Band and environmental allies call for a permanent shutdown.

Indigenous and Community Engagement

Ontario Celebrates Indigenous Leadership in Clean Energy Storage

<https://news.ontario.ca/en/release/1003521/ontario-celebrates-indigenous-leadership-in-clean-energy-storage>

Ontario celebrates Indigenous leadership in clean energy storage as it procures 880 MW of storage, the largest in Canada. Over half of the selected projects boast 50 per cent Indigenous ownership, fostering local opportunities and advancing reconciliation. The government says these facilities will fortify Ontario's clean grid by storing surplus electricity and releasing it during peak demand, enhancing grid stability. Scheduled for operation by 2026, the projects complement the Province's goal of clean energy growth and economic development.

Technologies

Nuclear

X-energy to develop second Project Pele microreactor design

<https://www.world-nuclear-news.org/Articles/X-energy-to-develop-second-Project-Pele-microreact>

The US Department of Defense (DOD) has awarded X-energy a contract to develop an enhanced microreactor design under Project Pele. This project, launched in 2019, aims to create a prototype mobile nuclear reactor suitable for commercial and defense use. X-energy's contract option will fund preliminary engineering and regulatory analysis. The prototype microreactor, being built by BWX Technologies, is on track for completion in 2024, with testing planned for late 2025. The DOD seeks nuclear solutions for energy resilience.

UK and Japan to co-operate on radioactive waste management

<https://www.neimagazine.com/news/newsuk-and-japan-to-co-operate-on-radioactive-waste-management-11150626>

The UK and Japan are teaming up with £1 million in funding from the UK Engineering & Physical Sciences Research Council to address challenges in radioactive waste management and nuclear decommissioning. Led by Dr. Paul Murray from the University of Strathclyde, one project aims to enhance radioactive debris detection and disposal using advanced sensor technologies. Dr. Brant Walkley from the University of Sheffield is heading another project exploring geopolymer binders for safe cementation of solid radioactive fuel debris. This collaboration highlights the importance of international

cooperation in advancing nuclear science and safety. The project start dates will be announced later.

Solar Energy

Government of Canada and FCM Invest \$15.2 Million in Four Projects in Communities Across Southern Ontario

<https://www.canada.ca/en/natural-resources-canada/news/2023/09/government-of-canada-and-fcm-invest-152-million-in-four-projects-in-communities-across-southern-ontario.html>

The Government of Canada and the Federation of Canadian Municipalities (FCM) are injecting \$15.2 million into four sustainability projects in Southern Ontario. These initiatives, which prioritize energy efficiency in homes and buildings, aim to cut emissions and boost climate resilience. Guelph receives \$15 million for its Greener Homes program, offering residents energy-efficient retrofits and solar panel installations. Additionally, feasibility studies in Brantford, Waterloo, and Halton will explore emission reduction strategies. Administered by FCM, the Green Municipal Fund has disbursed over \$1.11 billion since 2000, with an extra \$950 million from the Canadian government in 2019. These investments align with Canada's net-zero emissions goals and will soon kick off operations for a cleaner, more sustainable future.

Critical Minerals

Cameco shares surge on uranium prices as governments warm to nuclear power

<https://www.theglobeandmail.com/business/article-cameco-shares-surge-on-uranium-prices-as-governments-warm-to-nuclear/> (Paywall)

Cameco's shares are soaring because uranium is back in demand, thanks to more countries using nuclear power to cut pollution. Cameco's stocks are close to their 2007 high point as people see nuclear energy as a cleaner choice. After the Fukushima accident, interest in uranium dropped, but now, it's making a comeback due to global changes and supply worries. Cameco is facing production problems, which could affect uranium supplies. Political unrest in Niger might also slow down uranium production. The world needs more uranium projects to keep up with future needs, even though ~~prices are lower than in 2007, and there are some people still have safety concerns.~~

Fossil Fuels

WPC CALGARY UPDATE: Carbon-Cutting Market Needed in Energy Transition, Exxon CEO Says

<https://energynow.ca/2023/09/wpc-calgary-update-carbon-cutting-market-needed-in-energy-transition-exxon-ceo-says/>

Exxon Mobil CEO Darren Woods insists that government policies alone won't suffice to reduce emissions and transition to cleaner energy. He stresses the need for a carbon-emission reduction market, noting that clear global emission-reduction policies are crucial. While he acknowledges the impact of the US Inflation Reduction Act on energy-transition investments, Woods emphasizes that governments can't perpetually subsidize emissions reduction. Market forces must take center stage, necessitating the creation of a carbon reduction market. Woods conveyed these sentiments at the World Petroleum Congress in Calgary, underscoring the urgency of market-driven solutions in the clean energy transition.

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)