

Brilliant **Energy** Institute

Office of the Vice President, Research and Innovation

Ontario Tech University

BEI Energy News

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BEI News

Canadian Nuclear Association Conference 2025

The Brilliant Energy Institute will be at the Canadian Nuclear Association Conference next week in Ottawa. Visit booths 323 and 325 to learn more about how Ontario Tech University is advancing clean energy innovation, supporting talent development and contributing to a sustainable energy future through research, partnerships and community engagement.

Hydrogen Energy Workshop



<https://research.ontariotechu.ca/discover-research/iaea-collaborating-centre/hydrogen-workshop-apr-2025/index.php>

Discover the future of clean energy at the Hydrogen Energy Workshop, hosted by the Brilliant Energy Institute at Ontario Tech University on Saturday and Sunday, April 26 and 27, 2025. This two-day event brings together industry leaders with over 80 years of combined experience to explore the technologies, challenges, and opportunities surrounding hydrogen energy. Tailored for professionals and students, the workshop will feature expert-led sessions, real-world case studies, and engaging discussions on hydrogen's role in driving sustainable innovation.

Indigenous

Ontario Pursuing New Hydroelectric Stations in Northern Ontario – Ontario Newsroom

<https://news.ontario.ca/en/release/1005756/ontario-pursuing-new-hydroelectric-stations-in-northern-ontario>

Ontario collaborates with Taykwa Tagamou Nation and Moose Cree First Nation to develop two new hydroelectric stations in Northern Ontario, potentially generating up to 430 megawatts of clean energy. This initiative aligns with Ontario's energy demand projections and includes significant community involvement and co-planning processes. The partnership aims to create sustainable jobs and support regional economic growth, emphasizing Indigenous leadership in sustainable development. The project highlights the province's commitment to meeting its growing energy needs through renewable sources.

Technologies

Made-in-Canada Fusion Breakthrough Could Change the Future of Global Energy – The Debrief

<https://thedebrief.org/made-in-canada-fusion-breakthrough-could-change-the-future-of-global-energy/>

Canadian energy company General Fusion has reached a significant milestone in clean energy by developing magnetized plasma in its Lawson Machine 26, advancing the potential for zero-carbon fusion power. This breakthrough in fusion technology will supply clean electricity globally, highlighted by their recent successful experiments. Government leaders across Canada have praised this innovation, reinforcing Canada's position as a leader in clean energy technology. This advancement represents a step towards practical and sustainable energy solutions.

Building Infrastructure

Canada approves construction license of Darlington NPP in Ontario – Enerdata

<https://www.enerdata.net/publications/daily-energy-news/canada-approves-construction-license-darlington-npp-ontario.html>

The Canadian Nuclear Safety Commission has granted Ontario Power Generation (OPG) a construction license for a new reactor at the Darlington site in Clarington, Ontario, effective until 2035, though operation will require a separate license. This project involves the potential development of up to four new reactors to produce up to 4.8 GW of electricity, with plans for a General Electric Hitachi BWRX-300 reactor. This initiative aligns with Canada's goals for a net-zero electricity grid by 2035 and zero emissions by 2050.

Energy Systems

Clean energy's share of world's electricity reaches 40%, report says – BBC

<https://www.bbc.com/news/articles/cq80ygdd3zlo>

More than 40 per cent of global electricity in 2024 was generated from clean energy sources, despite overall carbon emissions rising due to increased power demand from hot weather, reports Ember. Solar power led growth, doubling its output every three years and constituting the fastest-expanding energy source globally. The rapid rise in global electricity needs, particularly driven by cooling demands, has outpaced the expansion of renewables, indicating continued reliance on fossil fuels in many regions.

Province Prepares Tidal Energy Procurement – Government of Nova Scotia

<https://news.novascotia.ca/en/2025/04/09/province-prepares-tidal-energy-procurement>

Nova Scotia will harness the world's highest tides for tidal energy in the Bay of Fundy, launching a procurement process this spring to allocate two sites at the Fundy Ocean Research Centre for Energy (FORCE). Managed by Power Advisory LLC, the initiative will grant successful applicants licenses and power purchase agreements with Nova Scotia Power. This effort supports the province's goals to expand clean electricity generation, create green jobs, and boost investment in renewable energy.

Energy Policy

Canada's energy industry faces 'maelstrom' of uncertain global economy – Global News

<https://globalnews.ca/news/11118451/canada-energy-industry-oil-price-global-economy/>

Canada's energy industry faces a turbulent period due to recent global economic instability and fluctuating oil prices. The removal of the federal carbon tax has lowered gasoline prices. Unforeseen challenges like Trump's tariffs and OPEC's unexpected production increase have led to the lowest oil prices in four years. These developments pose risks to Canadian energy revenues and could impact provincial budgets heavily dependent on oil, like Alberta's, which is bracing for significant financial shortfalls.

Overwhelming support from engaged women across Canada for growing energy independence and expanding energy exports: Canada Powered by Women – Canada Newswire

<https://www.newswire.ca/news-releases/overwhelming-support-from-engaged-women-across-canada-for-growing-energy-independence-and-expanding-energy-exports-canada-powered-by-women-805080294.html>

A survey conducted by Canada Powered by Women shows that Canadian women strongly support boosting the country's energy independence and its ability to export energy. With 89 per cent advocating for reduced reliance on U.S. trade and 85 per cent supporting more pipelines and refining capacity, women are pushing for national energy self-reliance. The research highlights a significant increase in support from women across all provinces, emphasizing the need for Canadian policymakers to prioritize these energy and economic independence goals.

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)