

Brilliant Energy Institute

Office of the Vice President Research and Innovation
Ontario Tech University

BEI Energy News

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BEI asks the experts: Daniel Hoornweg – BEI LinkedIn

<https://www.linkedin.com/feed/update/urn:li:activity:7092882274823634944>

The Brilliant Energy Institute (BEI) is asking energy experts to share their top media picks about all things energy. This week's recommendation is from Dr. Daniel Hoornweg, an Associate Professor at Ontario Tech University and Richard Marceau Chair. Dr. Hoornweg specializes in energy and material flows, mostly in cities where the opportunities and challenges are greatest. Click the link above to learn about Dr. Hoornweg's recommendation where he shares a book on systems engineering and sustainability.

Energy Policy

EU attempt to tax polluting aviation fuel hits impasse - The Globe and Mail (Paywall)

<https://www.theglobeandmail.com/business/industry-news/energy-and-resources/article-eu-attempt-to-tax-polluting-aviation-fuel-hits-impasse/>

The European Union's (EU) plan to tax polluting aviation fuels has hit a deadlock among member states. Disputes centre on making green fuels cheaper and fossil fuels more expensive. The proposed plan involves gradual tax increases for aviation fuel over a decade, promoting sustainable alternatives. One concern raised is the potential for voter backlash leading up to European Parliament elections. The outcome remains uncertain as talks continue.

Guelph program provides homeowners with no-interest loans for energy efficient upgrades - CBC News

<https://www.cbc.ca/news/canada/kitchener-waterloo/guelph-greener-homes-program-launches-zero-interest-loans-1.6924084>

The Government of Guelph introduced the Greener Homes Program, offering zero-interest loans up to \$50,000 for energy-efficient property upgrades. Solar panel installations, insulation,

window and door repair or replacement, heat pump installations and smart thermostats are eligible projects. Low-income applicants may receive a \$15,000 grant for air source heat pumps. Guelph aims to cut emissions by 63 per cent by 2030. The Region of Waterloo also has plans for a similar RetrofitWR program, partnering with Reep Green Solutions, an environmental charity in Waterloo. Pending approval, the initiative seeks to ease upfront costs for homeowners and encourage eco-friendly upgrades.

Indigenous and Community Engagement

Second Indigenous-led floating Canadian LNG project moves to engineering stage - Energy Now

<https://energynow.ca/2023/08/second-proposed-indigenous-led-floating-canadian-lng-project-moves-to-engineering-stage/>

The Ksi Lisims Liquefied Natural Gas (LNG) project in northwest British Columbia, led by Nisga'a Nation and its partners, awarded an engineering and design contract to a collaboration of US-based Black & Veatch and Samsung Heavy Industries of South Korea. The project is expected to produce 12 million tonnes of LNG per year, processing 1.7 to 2 billion cubic feet of natural gas per day. The \$10 billion project is currently undergoing environmental assessment and is expected to start operations in late 2027 or 2028.

Energy Systems

Electric Vehicles

Canada and Prince Edward Island invest in the expansion and electrification of public transit in Charlottetown - Infrastructure Canada

<https://www.canada.ca/en/office-infrastructure/news/2023/08/the-governments-of-canada-and-prince-edward-island-invest-in-the-expansion-and-electrification-of-public-transit-in-charlottetown.html>

The Government of Canada and Prince Edward Island announced a joint investment of more than \$22.7 million in support of Charlottetown's transit expansion and electrification. The initiative features a new maintenance facility accommodating 19 electric buses, including seven battery-electric and three diesel buses. The project will also include a 400kWh solar battery energy storage system and four electric vehicle chargers to stabilize energy demand and reduce utility costs.

Technologies

Nuclear

TerraPower selects suppliers for Sodium demo project including BWXT Canada - World Nuclear News

<https://www.world-nuclear-news.org/Articles/TerraPower-selects-suppliers-for-Natrium-demo-proj>

TerraPower, an American nuclear reactor design and development engineering company, chose four firms to supply services and equipment for its Natrium reactor demo project in Wyoming, US, including BWXT Canada, which will design the intermediate head exchanger. The initiative involves a 345 MWe sodium-cooled fast reactor with molten salt energy storage, capable of a peak output of 500 MWe. In addition to BWXT Canada, Western Service Corp. will develop the engineering simulator, James Fisher Tech will build an injection casting furnace, and Curtiss-Wright Flow Control Service will develop the reactor protection system.

Wind Energy

Great Lakes are promising for wind energy, NREL says - Renewable Energy World

<https://www.renewableenergyworld.com/wind-power/offshore/great-lakes-are-promising-for-wind-energy-nrel-says/>

The Great Lakes, which include lakes Superior, Huron, Michigan, Erie, and Ontario, have potential for significant wind energy development, according to the National Renewable Energy Laboratory's (NREL) *Great Lakes Wind Energy Challenges and Opportunities Assessment*. The Great Lakes have an estimated capacity of 160 GW from fixed-bottom turbines and 415 GW from floating wind systems. According to NREL, the challenges include adapting to narrow waterways and icy conditions, but the benefits could include economic revitalization. NREL's recommendations to deploy offshore wind in the Great Lakes region by 2035 include comprehensive site assessment, port suitability evaluation, technology exploration, and environmental impact minimization. Read the report here:

<https://www.nrel.gov/docs/fy23osti/84605.pdf>

Hydrogen

Alberta announces \$50 million for hydrogen projects - Emissions Reduction Alberta

<https://www.eralberta.ca/media-releases/new-funding-to-advance-hydrogen-innovation/>

The Government of Alberta allocated \$50 million in partnership with Alberta Innovates and Emissions Reduction Alberta (ERA) to drive hydrogen and natural gas advancements. \$25 million in funding will come from ERA for later-stage innovations through their Accelerating Hydrogen Challenge and \$20 to \$25 million will come from Alberta Innovates to support early-stage innovations through the Hydrogen Centre of Excellence Competition 2, and additional funding will also come from Natural Resources Canada. Focus areas encompass hydrogen production, storage, and application across sectors like transport, industry, and heating.

Fossil Fuel

Strathcona Resources Ltd. to acquire Pipestone Energy – The Globe and Mail

<https://www.theglobeandmail.com/business/article-strathcona-resources-ltd-to-acquire-pipestone-energy-looks-to-go/>

Strathcona Resources Ltd., a private oil and gas company in North America, announced plans to acquire Pipestone Energy Corp., a Canada-based oil exploration and production company, in an all-stock deal. This move will create Canada's fifth-largest oil producer with a market capitalization of \$11.5 billion. Strathcona's acquisitions led to a production increase from 5,000 to 185,000 barrels of oil per day. The company plans to implement carbon capture at its Cold Lake operation, aiming to reduce emissions and further expand its large-scale business model. Shareholder and regulatory approvals are pending for the Pipestone deal.

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)