

Brilliant Energy Institute

Office of the Vice President Research and Innovation
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BEI Energy News

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Energy Policy

Alberta gives hint of changes to follow renewables pause (Paywall)

<https://www.theglobeandmail.com/business/article-alberta-gives-hint-of-changes-to-follow-renewables-pause/>

Alberta has halted approvals for renewable energy projects since August for a review. The United Conservative government ordered this pause to assess land use and clean-up costs. The Alberta Utilities Commission (AUC) is reviewing consultant reports on these issues and will advise on changes by March. Industry experts are concerned about fairness in these new rules compared to oil and gas. The renewables pause aims to balance energy development with agricultural land protection. No details on when project approvals will resume or specific funding information was provided. This move affects Alberta's renewable energy sector, which has seen significant investment and revenue growth since 2019.

Energy Systems

FCM and Government of Canada support Innovative Green Transportation Initiatives in Quebec

<https://www.canada.ca/en/natural-resources-canada/news/2023/11/fcm-and-government-of-canada-support-innovative-green-transportation-initiatives-in-quebec.html>

The Government of Canada, in collaboration with the Federation of Canadian Municipalities (FCM), is investing over \$1 million in green transportation projects across Quebec. These initiatives aim to reduce emissions, enhance community resilience, and create jobs. The funding includes \$350,000 for Mirabel's electric bicycle service program, \$175,000 for Gatineau to study emissions reduction in its vehicle fleet, \$23,750 for sustainable transportation feasibility in Outaouais, \$303,600 for Saint-Sauveur's electric truck pilot, and \$170,000 for Montreal's studies on integrating cargo tram and bike systems. The Green Municipal Fund supports these projects, contributing

to Canada's clean energy future and fostering collaboration between different levels of government.

Electric Vehicles

What exactly is EV range? How is range calculated? What can affect it?

https://www.thestar.com/autos/what-exactly-is-ev-range-how-is-range-calculated-what-can-affect-it/article_603ce144-fbba-5499-83db-318f17d9e960.html

Electric vehicle (EV) range is the maximum distance an EV can travel on a full charge. Advertised ranges, based on standardized testing, may not reflect real-world conditions. Factors like charging capacity, external elements (temperature, terrain), tire type, accessory use, and driving style can impact the actual range. Many automakers state that regularly charging to 100 per cent capacity is discouraged for battery health. It is valuable for consumers to understand that testing procedures that were originally developed over 60 years ago for internal combustion engine (ICE) should be re-evaluated for electric vehicles.

Nuclear

First-of-a-kind nuclear project is terminated in a blow to Biden's clean energy agenda

<https://nationalpost.com/pmnn/news-pmnn/first-of-a-kind-nuclear-project-is-terminated-in-a-blow-to-bidens-clean-energy-agenda>

The Biden administration's clean energy agenda faces a setback as the project for a small modular nuclear reactor plant is terminated. NuScale Power and Utah Utilities cancelled the project after a decade of work. The initiative aimed to replace closing coal plants and reduce emissions. Despite the disappointment, the Energy Department remains committed to advanced nuclear energy. NuScale plans to continue working on its technology for other projects.

Growing Support for Nuclear Energy

<https://www.nei.org/news/2023/growing-support-for-nuclear-energy>

Recent surveys by the Pew Research Center and Gallup indicate a growing support for nuclear energy in the United States. According to Pew, 57 per cent of Americans favour more nuclear power plants, showing a three-point increase from the previous year. Gallup's poll found that 55 per cent of Americans support the use of nuclear energy, marking an 11-point increase since 2016. This rising support transcends political affiliations, with both Democrats and Republicans expressing increased favourability. Factors contributing to this trend include growing climate concerns, positive

developments in the nuclear industry, and the need for reliable and abundant energy. The data suggests that nuclear energy is gaining traction as a solution to environmental and energy challenges.

Solar Energy

Are solar farms really a threat to food farms?

<https://www.cbc.ca/news/science/solar-farms-1.7025482>

In Canada, concerns about solar farms encroaching on agricultural land have prompted discussions, especially in Alberta, where the government halted large renewable energy projects. Research, however, indicates that most solar farms are on land unsuitable for crops. The debate focuses on the potential of agrivoltaics, which combines solar energy with farming. Alberta's solar expansion plan, essential for meeting net-zero emissions, is expected to use a minimal portion of agricultural land. Studies show that Canada has sufficient non-agricultural land for solar projects, suggesting a viable balance between renewable energy development and food production.

Hydrogen

Hydrogen's Role in Decarbonizing the Steelmaking Industry: Insights from the 'Hydrogen and Decarbonization of Steel Production in Canada' Report

<https://www.chfca.ca/2023/11/10/hydrogens-role-in-decarbonizing-the-steelmaking-industry-insights-from-the-hydrogen-and-decarbonization-of-steel-production-in-canada-report/>

The Canadian steel industry commits to net-zero emissions by 2050. This move aims to reduce the industry's significant carbon emissions, which contribute notably to global totals. The strategy involves integrating hydrogen into steelmaking, especially in Mini Mill methods, replacing more carbon-intensive processes. The report emphasizes hydrogen's potential in reducing emissions, contrasting the high emissions of traditional steel production methods. The Canadian government's target of an 80 per cent reduction in GHG emissions by 2050 supports this industry shift. Specific details on operational commencement dates or funding for these initiatives were not provided in the report.

Fossil Fuels

TC Energy to Focus on "Living Within its Means" Now that Coastal GasLink is Complete – Reveals Name of Crude Oil Pipeline Business

<https://energynow.ca/2023/11/tc-energy-to-focus-on-living-within-its-means-now-that-coastal-gaslink-is-complete/>

TC Energy Corp. aims to live within its means and control capital expenditures after completing the Coastal GasLink pipeline project. The 670-kilometre pipeline is a significant achievement but caused the company's budget to rise from US \$6.2 billion to US \$14.5 billion. TC Energy is under scrutiny for its heavy debt load and escalating project costs. The company plans large-scale asset divestitures to address debt, having recently sold a 40 per cent stake in Columbia Gas and Columbia Gulf systems for US \$5.3 billion. Post-2024, TC Energy commits to limiting annual capital expenditures to US \$6-7 billion and aims for long-term dividend growth of 3-5 per cent. The company plans to split into two, with the crude oil pipelines business named South Bow Corp.

*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)