

Brilliant Energy Institute

Office of the Vice President Research and Innovation
Ontario Tech University

BEI Energy News

Produced twice weekly by the Brilliant Energy Institute

August 10, 2023

Top News

Clean Electricity Regulations project reduction of more than 340 Mt of greenhouse gas pollution - ECCC

<https://www.canada.ca/en/environment-climate-change/news/2023/08/canada-powers-toward-more-clean-affordable-and-reliable-electricity-with-draft-regulations.html>

The Government of Canada projects a reduction of more than 340 Mt of greenhouse gas pollution between 2024 and 2050 through its draft Clean Electricity Regulations released today, a policy aimed at decarbonizing Canada's electricity grid by 2035. According to Environment and Climate Change Canada (ECCC), if provinces and territories were to take advantage of the more than \$40 billion in new tax credits and other major federal investments, they can offset more than half the cost of the new investments needed under the draft regulations. The provinces and territories will have a minimum of 75 days to provide feedback on the draft regulations, with the final version expected to be published in 2024.

Read the regulations here:

https://www.canada.ca/content/dam/eccc/documents/pdf/climate-change/clean-fuel/electricity/81000-2-4931-CGI_Unofficial%20Version%20Non%20Officielle.pdf

Brilliant Energy Institute News

BEI attends clean electricity regulations announcement - BEI LinkedIn

<https://www.linkedin.com/feed/update/urn:li:activity:7095440222963838977>

Minister Environment and Climate Change Canada Steven Guilbeault, today, announced draft Clean Energy Regulations to build a net-zero electricity grid by 2035. BEI was there to hear the Minister's remarks and to participate in the Climate Positive Energy Annual Research Day. The minister, accompanied by NRCan Parliamentary Assistant Julie Dabrusin, said final regulations are expected in 2024, following further consultation with provinces, Indigenous peoples and industry. He said the regulations are in tandem with a federal investment to support the

provinces and territories in the transition, which Minister Guilbeault estimated will cost more than \$400 billion, nationally.

BEI clean energy campus series: Vegetated roofs - BEI LinkedIn

<https://www.linkedin.com/feed/update/urn:li:activity:7095405298915373059>

BEI is running a LinkedIn series on the many sustainable elements of the Ontario Tech University campus. Today's feature are the nine green rooftops, totaling 1,600 square metres, across four buildings. These green roofs help the buildings with drainage, heat retention, and improved air quality. The University collects roof run-off water in an underground cistern with a 250,000-litre capacity. This water management system allows the university to reuse the collected water for irrigation and toilet flushing, within the Business and Information Technology Building, reducing the University's consumption of treated water from municipal sources.

Energy Policy

Canada outlines its vision in support of a net zero electricity grid by 2035 - Natural Resources Canada

<https://www.canada.ca/en/natural-resources-canada/news/2023/08/government-of-canada-releases-vision-to-build-a-clean-affordable-and-reliable-electricity-system-to-power-canada-forward.html>

The Government of Canada plans to decarbonize its electricity grid by 2035. According to the recently published paper, *Powering Canada Forward*, the federal government is seeking feedback to help inform a clean electricity strategy expected to be published next year. The paper says Finance Canada will be consulting on the Clean Electricity Investment Tax Credit and Natural Resources Canada is seeking feedback on the design of the Smart Renewable Electrification Pathways Program, as well as views on how the federal government can best support intra-provincial transmission lines. Read the paper here:

<https://natural-resources.canada.ca/our-natural-resources/energy-sources-distribution/electricity-infrastructure/powering-canada-forward-building-clean-affordable-and-reliable-electricity-system-for/25259>

Indigenous and Community Engagement

Canada plans to sell Trans Mountain pipeline stake to Indigenous groups - Energy Now

<https://energynow.ca/2023/08/canada-looking-to-sell-trans-mountain-pipeline-stake-to-indigenous-groups/>

The Government of Canada is planning to sell a stake in the Trans Mountain oil pipeline to Indigenous groups through a special-purpose vehicle (a legal entity created for a limited purpose), allowing communities to invest without risking their own funds. The government will facilitate access to capital for the groups, granting them equity interest in Trans Mountain for cash flows and shared governing rights. Indigenous participants will not be excluded from future equity offerings and the government will begin discussions with the groups along the pipeline's

route and shipping corridor. A government agency has guaranteed commercial loans of up to \$3 billion towards the pipeline expansion project.

Energy Systems

Electric Vehicles

Canada and the City of Quinte West invest in transitioning to a full fleet of zero emission vehicles - Infrastructure Canada

<https://www.canada.ca/en/office-infrastructure/news/2023/08/the-government-of-canada-and-the-city-of-quinte-west-invest-in-transitioning-to-a-full-fleet-of-zero-emission-vehicles.html>

The Government of Canada and the City of Quinte West announced a \$125,000 investment to plan the transition of Quinte Transit's, a non-profit organization providing public transit for the City of Quinte West, fleet to zero-emission vehicles. The project planning includes evaluating economic and environmental aspects of emission-free public transit. The funding is provided through the Zero Emission Transit Fund.

Technologies

Nuclear

Bruce 6 restarted following refurbishment - World Nuclear News

<https://www.world-nuclear-news.org/Articles/Bruce-6-restarted-following-refurbishment>

Unit 6 of the Bruce Nuclear Power Plant in Ontario resumed operation after undergoing a Major Component Replacement project (MCR). The refurbishment project included the replacement of key components such as feeder tubes, fuel channels and calandria tubes, and work on a steam generator to extend the life of the plant through 2064. The pressurized heavy water reactor is expected to resume commercial operation by the fourth quarter of this year and recently achieved criticality (a sustained fission chain reaction). Mike Recheck, the CEO of Bruce Power, said the project is significant in shaping future MCRs and ensuring continued strong performance. The refurbishment of Units 3 to 8 is expected to be completed by 2033.

OPG celebrates the early completion of Darlington Unit 3 - Ontario Power Generation

https://www.opg.com/news-and-media/media-releases/media_release/opg-celebrates-the-early-completion-of-darlington-unit-3/

Ontario Power Generation (OPG) celebrated the early completion of Darlington Nuclear Generating Station's Unit 3 refurbishment project by showcasing the people and companies responsible for it. Unit 3 was reconnected to the grid in July and was 169 days ahead of schedule. OPG and its Board of Directors were joined by Ontario's Minister for Energy, Todd Smith, to mark the recent milestone. Currently, Unit 1 and 4 are in refurbishment, with Unit 1's

refurbishment expected to be completed in mid-2025 and the overall project to be completed in 2026.

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)