

BEI Energy News

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Ontario Tech/ BEI News Electric Vehicles

Ontario opens application process for EV ChargeON funding.

<https://electricautonomy.ca/2023/10/27/ev-chargeon-funding-ontario-ev-chargers/>

Ontario has launched the application process for its EV ChargeON program, allocating \$91 million to enhance electric vehicle charging infrastructure, specifically targeting smaller communities and Indigenous regions. Aimed at supporting the predicted increase of EVs to over one million by 2030, the initiative seeks to bridge the gap in public charging availability, particularly in rural areas. The deadline for the funding applications is set for January 31, 2024, as the province works towards expanding its network of charging stations, including on government-owned properties. This move underscores Ontario's commitment to an electrified transportation future and addresses the existing disparity in charging infrastructure across the province.

Nuclear

What lies ahead for nuclear energy in Canada?

<https://www.theglobeandmail.com/events/article-what-lies-ahead-for-nuclear-energy-in-canada/>

Canada is increasingly looking to nuclear energy to lower emissions, with a focus on small modular reactors (SMRs) and transitioning remote communities away from diesel. At a recent Globe and Mail event, energy leaders discussed investments and strategies for nuclear's future, including the development of Candu reactors and engagement with Indigenous communities. Panelists debated nuclear's role in Canada's energy mix, the logistics of micro-reactors, and the importance of a robust nuclear supply chain. While innovation in nuclear technology was a key topic, concerns were raised about the unproven cost-effectiveness of SMRs. Discussions underlined a need for clear policies and public education on nuclear energy, although specifics on operation dates or funding were not disclosed.

Doosan Enerbility to design used fuel storage system.

<https://www.world-nuclear-news.org/Articles/Doosan-Enerbility-to-design-used-fuel-storage-syst>

Doosan Enerbility of South Korea has secured a contract from Korea Hydro & Nuclear Power for designing a used fuel storage system. The firm will engineer a dry storage solution, which includes certified casks for nuclear fuel containment. The initiative aligns with Doosan's strategy to advance its nuclear cask business, with projections hinting at a multi-trillion-won market by 2060. Partnering with over 140 local Small and Medium-sized enterprises, Doosan aims to strengthen Korea's nuclear sector. The design work is slated for completion by 2027, tapping into an estimated market worth KRW 8.4 trillion.

Energy Storage

Containment shell in place for Chinese SMR.

<https://www.world-nuclear-news.org/Articles/Containment-shell-in-place-for-Chinese-SMR>

The ACP100 small modular reactor's steel dome has been set atop its containment vessel at the Changjiang site in Hainan, advancing China's nuclear energy capabilities. This marks a key phase for the China National Nuclear Corporation-led project, streamlining construction with innovative modular techniques. The project, launched in July 2019, promises cleaner energy and is poised to serve the needs of 526,000 households. Built through a joint venture, the Changjiang ACP100 has received full funding and is on track to start operations by late 2026, within its 58-month construction schedule.

Hydrogen

First commercial shipment of green hydrogen-based e-fuel headed from Chile to the UK.

<https://www.hydrogeninsight.com/transport/first-commercial-shipment-of-green-hydrogen-based-e-fuel-headed-from-chile-to-the-uk/2-1-1548584>

Chile's HIF Global has just shipped its first batch of eco-friendly synthetic gasoline to the UK, with Porsche set to use the 24,600 litres in its sports cars. This innovative fuel is made by combining green hydrogen with captured CO₂, creating a cleaner alternative to traditional gasoline. Despite currently high production costs, there's potential for price reductions as operations expand. HIF Global plans to increase output substantially by 2025 and is constructing a large-scale facility in Texas. The shift to green e-fuels could signal a new era in sustainable transportation, although challenges in cost and production scalability remain.

Grid Management

Tesla Energy Unveils VPP Plan For Puerto Rico & \$0 Down Solar For Tesla Drivers.

<https://cleantechnica.com/2023/11/04/tesla-energy-unveils-vpp-plan-for-puerto-rico-0-down-solar-for-tesla-drivers/>

Tesla Energy has announced a Virtual Power Plant (VPP) initiative for Powerwall owners in Puerto Rico, offering grid stability and compensation for energy provided during high demand. The company is also promoting a \$0 down solar and Powerwall package for qualifying Tesla vehicle owners, facilitating the use of renewable energy for home and car. The program aims to reinforce the power infrastructure in Puerto Rico, which is prone to outages, by using customer-stored energy. While the VPP program is currently open for enrollment, financial details and specific operational start dates have not been disclosed, but Tesla's track record suggests prompt implementation following successful precedents in places like South Australia.

A Nuclear Alternative for Puerto Rico.

<https://www.nei.org/news/2023/fissionary-episode-5-jesus-nunez>

According to Jesus Nunez, CEO of the Nuclear Alternative Project, Puerto Rico's electricity challenges could be aided by nuclear energy. Frequent power outages and hurricane damage have prompted Nunez to propose advanced nuclear reactors as a reliable power source. With a background in structural engineering and personal ties to the island, he advocates for nuclear to strengthen the grid. The NAP's mission is educational, aiming to shift public opinion on nuclear energy — a goal seemingly within reach, as a study reveals 94 per cent of Puerto Ricans are open to the idea. Details on funding and project timelines remain undisclosed, but the progressing discussion on nuclear continues as Puerto Rico continues its energy debate.

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)