

Brilliant Energy Institute

Office of the Vice President Research and Innovation
Ontario Tech University

BEI Energy News

This update is produced twice weekly by the Brilliant Energy Institute

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Top news

Brilliant Energy Institute News

BEI celebrates Pride Month – BEI LinkedIn

<https://www.linkedin.com/feed/update/urn:li:activity:7072637830929272832>

The Brilliant Energy Institute celebrates and commemorates Pride Month in support of the 2SLGBTQIA+ community. This month, as a team, we will reflect on ways we can take action in our community to further cultivate an inclusive and supportive environment. Ontario Tech University will host several events throughout the month of June to mark Pride Month.

Energy Policy

U.S. released National Clean Hydrogen Strategy and Roadmap – U.S. DOE

<https://www.hydrogen.energy.gov/clean-hydrogen-strategy-roadmap.html>

The U.S. Department of Energy (DOE) released the *National Clean Hydrogen Strategy and Roadmap*. It is a framework to accelerate the production, processing, delivery, storage, and use of clean hydrogen. The document provides a vision for clean hydrogen to contribute towards national decarbonization goals. The document identifies three key strategies for the deployment of clean hydrogen, such as targeting strategic, high impact uses for clean hydrogen, reducing cost of clean hydrogen through innovation, investments and development of supply chains, and focusing on regional networks with large-scale clean hydrogen production and end-use in close proximity.

EU aims to put an end to windfall levy on renewable energy sources – Energy Live

<https://www.energylivenews.com/2023/06/07/eu-aims-to-put-an-end-to-windfall-levy-on-renewables/>

The European Commission (EC) announced plans to end the windfall levy on renewable energy sources as emergency measures implemented to stabilize energy markets are no longer deemed necessary. These measures, which included a maximum limit of €180 per MWh on wind and solar power revenues, were introduced last year to curb energy usage and stabilize power prices. In a recent report, the EC stated that the temporary measures have brought stability to the energy markets in Europe, and due to significant changes in the European Union (EU) electricity market's supply and pricing, extending these emergency measures are not

currently necessary or advisable. This decision reflects a positive development in the overall stability of the energy sector in Europe.

Energy Systems

Automotive

Formula 1 meets biofuel as DHL enables sustainable logistics – Energy Digital

<https://energydigital.com/renewable-energy/formula-1-meets-biofuel-as-dhl-enables-sustainable-logistics>

DHL, a global logistics firm, introduced a fleet of biofuel trucks to support the Formula 1 World Championship, marking a significant step towards decarbonizing motorsport. The trucks run on hydrotreated vegetable oil (HVO100) and will cover approximately 10,600 kilometers during the European races this season. The use of biofuel offers a reduction in carbon emissions without compromising load capacity or travel distance. DHL's initiative aligns with Formula 1's sustainability strategy, aiming to achieve net zero emissions by 2030. The partnership between DHL and Formula 1 focuses on creating an eco-friendly logistics network, with a range of initiatives already implemented to reduce their carbon footprint. The introduction of biofuel trucks contributes to a lower emission DHL fleet and supports the goal of sustainable Formula 1 racing.

Technologies

Nuclear

Fortum, Westinghouse study new build opportunities – World Nuclear News

<https://www.world-nuclear-news.org/Articles/Fortum,-Westinghouse-study-new-build-opportunities>

Fortum, a Finnish state-owned energy company, and Westinghouse Electric Company, a U.S.-based nuclear power company, have signed a memorandum of understanding (MoU) to explore the development and deployment of new nuclear energy in Finland and Sweden. This collaboration is part of Fortum's ongoing nuclear feasibility study, which began in November 2022. The two-year study will evaluate the necessary conditions for nuclear new builds, including both small modular reactors and conventional large reactors. It will examine commercial, technological, and societal factors, as well as progress in planning, siting, licensing, and potential partnerships and business models. Fortum's existing nuclear power plants, such as Loviisa in Finland, play a significant role in the region's electricity supply. The MoU aligns with Fortum's strategic focus on delivering clean energy and driving decarbonization efforts.

DOE begins scoping for HALEU supply – World Nuclear News

<https://www.world-nuclear-news.org/Articles/DOE-begins-scoping-for-HALEU-supply>

The U.S. Department of Energy (DOE) has initiated the Environmental Impact Statement (EIS) scoping process for its proposed program to support the commercial production of high-assay low-enriched uranium (HALEU) fuel. The DOE is seeking public feedback on the scope of the EIS and has also released two draft requests for proposals (RFPs) to acquire HALEU. The program aims to establish a domestic supply chain for HALEU to meet the demand of advanced reactor technologies and support the country's clean energy goals. The DOE envisions a public/private partnership and modular expansion of HALEU production to ensure a sustainable

market for HALEU. The scoping period for public comment will end on July 20, while feedback on the draft RFPs can be provided until July 6.

Wind Energy

UAE and Egypt to build Africa's largest wind farm – Energy Live

<https://www.energylivenews.com/2023/06/07/uae-and-egypt-to-build-africas-largest-wind-farm/>

UAE-based energy firms, Masdar and Infinity Power, and investment firm Hassan Allam Utilities entered into an agreement to construct a massive 10 GW onshore wind farm in Egypt, which is set to become the largest in Africa. Valued at more than USD\$10 billion, the project aims to reduce Egypt's carbon emissions by nine per cent and save USD\$5 billion annually in natural gas costs. The wind farm is expected to generate 7.7 GWh of clean energy each year, playing a crucial role in helping Egypt achieve its goal of sourcing 42 per cent of its energy from renewable sources by 2030. This collaboration highlights the UAE's commitment to supporting Egypt's renewable energy objectives and represents a significant stride towards a cleaner and more sustainable future for Africa.

Hydrogen

South Korean capital city signs deal for 1,300 new hydrogen buses by 2026 – Hydrogen Insight

<https://www.hydrogeninsight.com/transport/south-korean-capital-city-signs-deal-for-1-300-new-hydrogen-buses-by-2026-says-hyundai/2-1-1463347>

Automaker Hyundai, South Korean SK Group, and the South Korean Ministry of Environment signed an agreement to have 1,300 new hydrogen buses in the City of Seoul by 2026. The Ministry pledged financial support, while Hyundai will supply the buses, SK Group will produce and supply the liquid hydrogen fuel, and T Map Mobility will be involved in bus transportation to nearby airports. This initiative aims to enhance the city's public transportation system with hydrogen buses, known for their shorter charging time and long-distance capabilities.

Mercedes-Benz commits to buy hundreds of thousands of tonnes of hydrogen-produced green steel – Hydrogen Insight

<https://www.hydrogeninsight.com/industrial/mercedes-benz-commits-to-buy-hundreds-of-thousands-of-tonnes-of-hydrogen-produced-green-steel/2-1-1463371>

Mercedes-Benz, a German automaker, has entered into a binding offtake agreement with Sweden's H2 Green Steel, the world's first commercial-scale green steel plant, to purchase hydrogen-produced green steel. The deal involves supplying 350,000 tonnes of decarbonized steel to Mercedes-Benz's European factories over a seven-year period, from 2025 onwards. This agreement marks H2 Green Steel's fourth offtake deal, securing around two per cent of its annual production capacity. Additionally, H2 Green Steel has expressed its ambitions to expand into North America, with a memorandum of understanding signed for potential green steel supply to Mercedes-Benz facilities in North and South America. The partnership also aims to establish a closed-loop recycling system for scrap steel.

Thank you.

The Brilliant Energy Institute news team

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