

Brilliant Energy Institute

BEI Energy News

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Top News

Brilliant Energy Institute News

BEI welcomes new Programs Assistant – BEI LinkedIn

<https://www.linkedin.com/feed/update/urn:li:activity:7067225981194797056>

The Brilliant Energy Institute (BEI) welcomes fourth-year Game Development and Entrepreneurship student Alexi Charles as a summer Programs Assistant. With a strong background from experience in various tech roles and coming from the island of Saint Lucia, Alexi is determined to make his mark in the technology and energy industry. In his role, Alexi will use his web and app development skills to enhance BEI projects and he will bring his holistic skillset to BEI programs. His passion for new and emerging technologies drives him to create interactive and visually appealing experiences that captivate a wider audience.

BEI attends university's biodiversity event – BEI LinkedIn

<https://www.linkedin.com/feed/update/urn:li:activity:7067570478432882688>

The Brilliant Energy Institute (BEI) team, including our two summer students Washma Zubair and Alexi Charles and our Project Co-ordinator Shana Fillatrau, attended Ontario Tech University's Biodiversity Blitz event at the university's Windfields Farm Lands. The event, hosted by the Office of Campus Infrastructure and Sustainability (OCIS) and the Wellness Committee, invited university staff to tour the Farm to take photos of any visible wildlife or plants to add it to their biodiversity inventory, which helps to inform future land and infrastructure planning. BEI also saw some of OCIS' sustainability efforts, including the pollinator garden and beehives, solar panel installations and storm water collection. The university community continues to make strides in sustainability innovation.

Energy Policy

IEA's new report finds solar power to overtake oil production investment for the first time - IEA

<https://www.iea.org/reports/world-energy-investment-2023>

The International Energy Agency (IEA) has released the *World Energy Investment 2023* report. The report provides a global benchmark for tracking capital flows in the energy sector. The report finds that annual investment in renewable energy is up by nearly a quarter since 2021, with more than 90 per cent of this increase coming from advanced economies and China, compared to a 15 per cent rise for fossil fuels and expects solar power to overtake oil production investment for the first time; around USD\$2.8 trillion is set to be invested in energy worldwide in 2023, of which more than USD\$1.7 trillion is expected to go to renewables, nuclear power, electric vehicles, and efficiency improvements; current fossil fuel spending is significantly higher than what it should be to reach net zero by 2050.

Canada invests in a Net-Zero Roadmap to support electricity modernization in Saint John – Natural Resources Canada

<https://www.canada.ca/en/natural-resources-canada/news/2023/05/canada-invests-in-a-net-zero-roadmap-to-support-electricity-modernization-in-saint-john.html>

The Government of Canada announced nearly CAD\$4 million for Saint John's Zero30 initiative. The initiative aims to develop a comprehensive net-zero roadmap to reduce operational emissions while advancing affordability through the provision of more innovative options for ratepayers. The project is funded by Canada's Smart Renewables and Electrification Pathways Program. It includes working with key community stakeholders and partners to assess the methods and technologies needed to meet electrical load growth and emissions reduction through deep scenario modelling on energy and pollution.

U.S. offers oil and gas drilling rights in first auction since the IRA – Energy Now

<https://energynow.ca/2023/05/us-offers-oil-and-gas-drilling-rights-in-first-auction-since-bidens-ira/>

The U.S. government plans to hold its first sale of oil and gas drilling rights on federal lands in New Mexico and Kansas. This is the first auction since the passage of the Inflation Reduction Act (IRA), which requires some oil and gas auctions if federal rights of way are offered for renewable energy projects. The terms of sale will reflect new IRA requirements such as royalty rates of 16.67 per cent and bids starting at USD\$10 an acre compared to 12.5 per cent and

USD\$2 an acre, prior to the IRA. The development potential of the parcels is estimated to be 1.53 million barrels of oil and 16.66 thousand cubic feet (mcf) of natural gas in Kansas and 3.2 million barrels of oil and 18.61 mcf of gas in New Mexico.

Energy Systems

Manufacturing

Enel chooses Oklahoma for USD\$1 billion solar panel factory – Clean Technica

<https://cleantechnica.com/2023/05/24/enel-chooses-oklahoma-for-1-billion-solar-panel-factory/>

3Sun USA, a subsidiary of green energy company Enel North America, announced Inola, Oklahoma as the location for its USD\$1 billion solar panel manufacturing facility. The planned facility is expected to begin delivery of solar panels by the end of next year and produce 3 GW of solar panels every year. The facility will employ 1,800 workers during its construction and more than 1000 full-time employees upon its completion in 2024. The project includes potential to expand its production capacity to 6 GW of solar panels every year and create an additional 900 new direct jobs.

Technologies

Nuclear

SNC-Lavalin appoints Gary Rose as new leader of Canadian nuclear business – SNC-Lavalin

<https://www.snclavalin.com/en/media/trade-releases/2023/25-05-2023>

SNC-Lavalin, a Canadian engineering company, announced the appointment of Gary Rose as their Executive Vice-President, Canada, Nuclear. Rose's appointment is effective as of July 14 and will also serve as the President and CEO of Candu Energy Inc. He will oversee all operations carried out by SNC-Lavalin's Canadian Nuclear business unit, including the design and development of CANDU technology, building of new small modular reactors in Canada and CANDU reactors globally, oversight of CANDU life-extension projects at the Bruce and Darlington Nuclear Power Plants and in Romania, and operations and maintenance services for the CANDU fleet, both in Canada and international markets.

BWRX-300 meets Polish safety requirements – World Nuclear News

<https://www.world-nuclear-news.org/Articles/BWRX-300-meets-Polish-safety-requirements,-says-re>

The President of the Państwowa Agencja Atomistyki (PAA), the National Atomic Energy Agency of Poland, said in a general opinion that GE Hitachi Nuclear Energy's BWRX-300 small modular reactor technology is compliant with Polish nuclear safety and radiological protection standards. PKN Orlen and Synthos Green Energy, through their joint venture Orlen Synthos Green Energy, applied to the PAA for an assessment of the BWRX-300 in July 2022. The documentation submitted was based on those prepared for the Canadian Nuclear Safety Commission as part of its Vendor Design Review process, for which it received a positive decision in March 2023. The opinion aims to determine whether the planned organizational and technical solutions comply with the requirements of the provisions of the Atomic Law Act, or whether the investor should make appropriate modifications.

Bruce Power completes loading fuel into Unit 6, keeping MCR projects on schedule – Bruce Power

<https://www.brucepower.com/2023/05/24/bruce-power-successfully-completes-loading-fuel-into-unit-6-reactor-mcr-projects-on-track-to-power-ontario-forward/>

Bruce Power announced the successful fuelling of the Unit 6 reactor, thereby keeping the Major Components Replacement (MCR) project on schedule to resume production of energy and medical isotopes. The construction phase of Unit 6's MCR was completed in early May and the fuelling involved loading 5,760 fuel bundles into the reactor core, each contained 37 fuel rods made by Cameco. Unit 6's refurbishment is the first of the six units planned to be refurbished between 2020 and 2033.

Critical Minerals

Ring of Fire project at risk due to red tape and cumbersome consultation process – The Globe and Mail (Paywall)

<https://www.theglobeandmail.com/business/article-ring-of-fire-forrest-trudeau-letter/>

Andrew Forrest, owner of Australian company Wyloo Metals Pty Ltd., says the viability of the Ring of Fire's Eagle's Nest nickel project is at risk due to Canada's regulatory process. Wyloo Metals acquired Ring of Fire Metals for CAD\$617 million last year. The Ring of Fire is a region in northern Ontario and a key part of both Canada's and Ontario's plans to become a player in

metals for electric-vehicle batteries. In a letter to Prime Minister Justin Trudeau, Mr. Forrest said the timelines to advance environmental assessments, permitting, and construction of the infrastructure corridor and Eagle's Nest would not allow the development of the Ring of Fire, or of the battery metals plant, before mid to late 2030s.

Hydrogen

German cabinet approves creation of a national core hydrogen pipeline network – Hydrogen Insight

<https://www.hydrogeninsight.com/policy/german-cabinet-approves-creation-of-a-national-core-hydrogen-pipeline-network-to-become-law-this-year/2-1-1455681>

The German cabinet approved the creation of a national core hydrogen network to speed up the use of hydrogen across the country. They also agreed on an amendment to the existing Energy Industry Act to set a new regulatory framework for the hydrogen network. The routes of the pipeline along the network will be modelled by gas network operators and broad public consultation involving other countries and various market participants would be conducted.

Grid Management

BC Hydro receives significant interest from North Coast industries looking to use clean electricity – BC Hydro

https://www.bchydro.com/news/press_centre/news_releases/2023/north-coast-eoi-results.html

BC Hydro received significant interest from industrial customers in the North Coast region wanting to use clean electricity, through their Expression of Interest (EOI) issued in January in response to the industrial growth in that region. The EOI aimed to gather information about electricity needs and assess interest in connecting to the transmission system to ensure that BC Hydro's plans reflect demand in the region. The 29 submissions indicate strong support for planning of the proposed 500 kilovolt transmission infrastructure from Prince George to Terrace. Among the responses, the largest were from the mining sector (for individual demand) and hydrogen sector (for proposed future demand).

Thank you.

The Brilliant Energy Institute news team

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