Brilliant Energy Institute

Office of the Vice President Research and Innovation

Ontario Tech University

BEI Energy News

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Brilliant Energy Institute News

BEI asks the experts: Glenn Harvel – BEI LinkedIn
https://www.linkedin.com/feed/update/urn:li:activity:7090329941254311936
The Brilliant Energy Institute's (BEI) is asking energy experts to give us their top media picks about all things energy from academic literature to popular culture. This week, we get a recommendation from Dr. Glenn Harvel, a professor in Ontario Tech University's Faculty of Engineering and Applied Science whose nuclear expertise was developed working as a design engineer at Atomic Energy Canada Ltd. before he began teaching nuclear engineering at Ontario Tech University and as a visiting professor in Japan. Click the link above to learn about Glenn's nuclear research and teaching and his recommendation where he shares why science fiction is a great entry into innovation.

Ontario Tech News

Ontario Tech professor launches sustainability blog – BEI LinkedIn
https://www.linkedin.com/feed/update/urn:li:activity:7090008548369186817
With the backdrop of the global effort to drive toward sustainability set against the perils that pull us away from it, Ontario Tech University researcher and Associate Professor Dr. Daniel Hoornweg has launched a year-long blog series to measure progress. In it, he will explore "where we are on the journey to a sustainable, flourishing planet, why movement seems so slow despite the clear and urgent warnings, and maybe, what our communities might look like if we do get to sustainability." The monthly Sustainability Today series will include an examination of topics like peak waste and population, urban vs. rural, and living in the Anthropocene.

Energy Policy

Saskatchewan reviewing federal decision to end fuel subsidies as environmental group welcomes decision – CBC News
https://www.cbc.ca/news/canada/saskatchewan/sask-fuel-subsidies-phaseout-1.6916552

Saskatchewan is reviewing the federal government's recent decision to end fossil fuel subsidies, expressing concern over its impact on provincial industries. The federal government released new guidelines eliminating subsidies to produce fossil fuels in Canada unless those subsidies are aimed at decarbonizing the emissions of the sector. Saskatchewan's Minister of Energy and Resources Jim Reiter said, "The information available lays out criteria but does not provide specifics as to which programs will actually be affected." His statement did not indicate whether the province would change provincial subsidies, following the new guidelines.

Indigenous and Community Engagement

Sagkeeng youth taking lead in clean energy efforts - Winnipeg Free Press (Sign-up required)

https://www.winnipegfreepress.com/breakingnews/2023/07/25/sagkeeng-youth-taking-lead-in-clean-energy-efforts

A new solar-powered greenhouse was built at the Sagkeeng Anicinabe High School in the Sagkeeng First Nation, MB. A cohort of Sagkeeng youth and several partners started this greenhouse project two years ago. The project was funded by a $50,000 grant through the ImaGENation program, an Indigenous youth mentorship program by Indigenous Clean Energy, SevenGen Council and Student Energy. The project also received a donation from Powertec Electric and support through Sagkeeng Employment and Training Services. The greenhouse aims to provide learning and work opportunities, in addition to nutritious food.

Energy Systems

Electric Vehicles

Seven major automakers unite to build North American EV charging network - The Globe and Mail (Paywall)

https://www.theglobeandmail.com/business/industry-news/energy-and-resources/article-seven-major-automakers-unite-to-build-north-american-ev-charging/

Automakers General Motors, BMW, Honda, Hyundai, Kia, Mercedes, and Stellantis will share in a multi-billion-dollar investment to build high power charging stations with 30,000 plugs in urban areas and along travel corridors in North America. This joint-venture investment is intended to speed the adoption of electric vehicles. The new network is expected to have 10 to 20 charging plugs per station, meaning there would be a minimum of 1,500 stations and a maximum of about 3,000. This network would be public and open to all electric vehicle owners. The automakers will seek to use US government funds from the Bipartisan Infrastructure Law to help pay for the network.

Canada invests in Stratford's transition to zero-emission transit - Infrastructure Canada

https://www.canada.ca/en/office-infrastructure/news/2023/07/the-government-of-canada-invests-in-stratfords-transition-to-zero-emission-transit.html

The Government of Canada announced an investment of $96,000 for the transition of the City of Stratford's transit fleet to zero-emission buses. This investment will enable the City to conduct a feasibility study that will assist with the transition to electric buses, resulting in a comprehensive report that will inform the City's procurement process and identify first steps for transitioning to a zero-emission bus fleet.

Technologies

Nuclear

Key upgrade completed at Darlington - World Nuclear News

https://www.world-nuclear-news.org/Articles/Key-upgrade-completed-at-Darlington

Ontario Power Generation (OPG) completed a 10-year project at the Darlington Nuclear Generating Station, installing three new emergency power generators (EPGs). The EPGs provide 8 MWe each, ensuring backup power for the plant's continued operation. This upgrade coincides with the ongoing refurbishment of four CANDU units, enabling the plant to continue operating for the next 30 years. The project involved multiple local vendors, creating hundreds of trades jobs. One decommissioned EPG finds new purpose at a training centre in Port Hope, Ont., supporting future millwright training under the Millwright Regional Council of Ontario's program.

NEA releases assessment of 21 SMRs supplement to its SMR Dashboard - Nuclear Engineering International

https://www.neimagazine.com/news/newsnea-issues-supplement-to-its-smr-dashboard-11030329

The Nuclear Energy Agency (NEA) assessed the progress of 21 additional small modular reactors (SMRs) in a recently released supplement to *The NEA Small Modular Reactor Dashboard* published in March 2023, which initially assessed 21 other SMRs. The 60-page supplement assesses progress in six additional dimensions of readiness: licensing, siting, financing, supply chain, engagement, and fuel. It aims to help public and private sector decision-makers understand the pace of progress to commercial deployment. Within the two reports are several technologies being considered and going through regulatory review in Canada.

Hydrogen

Germany doubles its green hydrogen production target for 2030 - Hydrogen Insight

https://www.hydrogeninsight.com/policy/germany-doubles-its-green-hydrogen-production-target-for-2030-in-new-update-of-national-strategy/2-1-1491715

Germany announced plans to double the capacity of its electrolyzers to 10 MW, producing one million tonnes of green hydrogen annually. This would meet around 26 to 35 per cent of the country's hydrogen demand in 2030, according to the country's updated national hydrogen strategy. To cover the remaining demand and avoid new dependencies, Germany says it will

develop a comprehensive import strategy to accelerate hydrogen's market uptake, with increased usage in industrial applications, commercial vehicles, aviation, and shipping. The government will provide financial support to emissions-intensive companies transitioning to hydrogen.

Fossil Fuel

US to spend US$1.55 billion for oil and gas sector to cut methane emissions - Energy Now

https://energynow.ca/2023/07/u-s-to-spend-1-55-billion-for-oil-and-gas-sector-to-cut-methane-emissions/

The US government will provide up to US$1.55 billion in funding to monitor and reduce methane emissions from the oil and gas sector. States will get as much as US$350 million through the US Department of Energy's National Energy Technology Laboratory to help companies voluntarily identify and permanently reduce methane emissions from low-producing wells. According to Michael Regan, an administrator at the Environmental Protection Agency, the overall impact is expected to reduce the equivalent of 15 billion metric tons of greenhouse gas emissions between 2022 and 2055.

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)