## **BEI Energy News**

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## Top news

### **Ontario Tech Energy News**

Ontario Tech University supports launch of international nuclear-hydrogen collaboration – Ontario Tech University

Ontario Tech's Office of the Vice-President, Research and Innovation (VPRI) joined representatives from 15 countries and international organizations for discussions on the legal and institutional aspects of nuclear-hydrogen, at the International Atomic Energy Agency (IAEA) in Vienna, Austria. Ontario Tech was designated an official IAEA Collaborating Centre in 2021, the only one in Canada among nearly 50 worldwide. The IAEA's International Project on Innovative Nuclear Reactors and Fuel Cycles will support the developers of nuclear-hydrogen systems and future users in their effort to accelerate technology development, and identify possible long-term sustainability concerns. Ontario Tech's VPRI, Dr. Les Jacobs presented on Canada's new hydrogen strategy and the role of nuclear within it. Dr. Jacobs also proposed a collaborative research project focused on the important role of Hydrogen Hubs in advancing nuclear-hydrogen capacity.

## **Clean Energy Policy**

<u>Biden-Harris Administration open applications for first round of \$2.5 billion program to build EV charging infrastructure – Clean Technica</u>

The Biden-Harris Administration opened applications for a new multi-billion-dollar program to fund electric vehicle (EV) charging and alternative-fueling infrastructure in communities across the country and along designated highways, interstates, and major roadways. This is a key step towards the President's goals of building a national network of 500,000 public EV charging stations and reducing national greenhouse gas emissions by 50 to 52% by 2030. The U.S. Department of Transportation's new Charging and Fueling Infrastructure Discretionary Grant Program will provide \$2.5 billion over five years to a wide range of applicants, including cities, counties, local governments, and Tribes. This round of funding makes up to \$700 million from fiscal years 2022 and 2023 funding available to strategically deploy EV charging and other alternative vehicle-fueling infrastructure projects in publicly accessible locations in urban and rural communities, as well as along designated Alternative Fuel Corridors.

# British Columbia Announces New Energy 'Framework' on Heels of LNG Facility Approval – Energy Now

The British Columbia government says it's rolling out a new framework for approving oil and gas projects that will ensure the province meets its emissions targets in the coming decades. Premier David Eby said Tuesday the framework will require new liquefied natural gas facilities to have a "credible plan" for net-zero emissions by 2030 and there will be an emissions cap on the industry. The government will establish a Major Projects and Clean Energy Office to fast-track

proposals that use clean technologies and create jobs. The government will also launch a task force within BC Hydro to speed up the electrification of the provincial economy with a focus on renewable energy.

EU parliament backs law aimed at saving energy by renovating buildings - Reuters Buildings across Europe could be renovated to cut emissions and save energy after the European Parliament on Tuesday approved a bill that aims to lower households' energy bills and wean EU countries off Russian gas faster. Buildings account for roughly 40% of the European Union's energy use, and most are heated by fossil fuels. The proposed new rules could require millions of buildings to be upgraded using methods such as insulation or efficient heating systems. EU countries would need to renovate non-residential buildings to an E grade by 2027, and D by 2030. Residential buildings would follow later deadlines of E by 2030 and D by 2033. The final law will now be negotiated with EU countries.

#### A Budget for net zero in the UK? – Energy Live

The Chancellor of the Exchequer, Jeremy Hunt, has delivered his fiscal plans – a big nuclear power boost, frozen domestic and business energy bills and cash for Carbon Capture and Storage (CCS). He confirmed that the Energy Price Guarantee will remain at £2,500 for the next three months and that the fuel duty would be frozen. He extended the Climate Change Agreement scheme for two years to allow eligible businesses £600 million of tax relief on energy efficiency measures for the long-term solution. The Chancellor has said he will allocate up to £20 billion for the early development of CCS. The Chancellor has also said the UK needs more nuclear power and that it will qualify for the same investment incentives as renewable energy. He announced the launch of <u>Great British Nuclear</u>, which will bring down costs and provide opportunities across the nuclear supply chain to help provide one-quarter of our electricity by 2050, and the first competition for small modular reactors.

## **Technologies**

#### Nuclear

UK, US scientists to collaborate on fusion materials research – World Nuclear News
The United Kingdom Atomic Energy Authority (UKAEA) and the US Department of Energy's
(DOE's) Oak Ridge National Laboratory (ORNL) have entered a strategic research partnership
to better understand the performance and behaviour of materials required for use in future
commercial fusion power plants. The project is part of the UK Fusion Materials Roadmap, which
was launched by UKAEA in 2021 with the aim of delivering new neutron-resilient materials as
well as irradiation and post-irradiation testing to provide design engineers with data to build
future fusion power plants. Under the GBP£3 million (USD\$3.6 million), five-year partnership,
materials will be irradiated using neutrons at the ORNL High Flux Isotope Reactor, a DOE Office
of Science user facility, located in the USA. These materials will then be tested at ORNL and at
UKAEA's Materials Research Facility at the Culham Campus in Oxfordshire, England. The
partnership will also see staff from the US and UK visit their counterpart facilities via
secondments to share industry skills.

<u>UK urged to be world leader in nuclear-derived synthetic fuels – World Nuclear News</u> Large-scale production of nuclear-derived net-zero synthetic fuels could help hard-to-decarbonise sectors such as aviation and shipping, according to a report by energy consultants Equilibrion and the Nuclear Industry Association. The report, <u>Synthetic Fuels: The Opportunity</u>

for Economy Scale Production of Synthetic Fuels from Nuclear Energy, says the transport sector is responsible for 27% of global greenhouse emissions, with sectors such as shipping and aviation among those hard to decarbonize. It urges the UK government to recognise the potential role of nuclear in its upcoming Sustainable Aviation Fuel Mandate, it also recommends UK government and non-government net-zero modelling should include nuclear-derived synthetic fuels and that the government should "consider amendments to the Renewable Transport Fuels Obligation to enable nuclear to be exploited for the production of fuels in the wider low carbon fuels market." The report predicts a global synthetic fuels market of USD\$15.3 billion by 2030 and USD\$600 billion by 2050.

#### **Electric Vehicles**

<u>VW ramps up investments in electric car transition with €180 billion injection – Financial</u> Times | Energy (Paywall)

Volkswagen (VW) is ramping up its investments in electric vehicles, committing €180 billion over the next five years to manufacture its own batteries and expand in the world's biggest markets in the US and China. It is a 13% increase on last year's pledge of €159 billion with just over two-thirds of the money set aside for the transition to electric vehicles and software as the car increasingly becomes a connected device. Despite pressure to diversify both supply chains and sales away from China following rising geopolitical tensions, VW aims to use investments to strengthen its position in the country, where it makes half its profits. It has taken the view that China is unlikely to invade Taiwan in the short term because of the shock this would cause to its own economy, according to one person who has been part of internal discussions.

### Hydrogen

Hydra Energy's \$62 million hydrogen production plant approved in Prince George - BIV A \$62 million hydrogen production plant and fuelling station is one step closer to reality, following a decision by city council Monday night. Following a public hearing, city council approved the first three readings to bylaws to amend the Official Community Plan and rezone Hydra Energy's proposed site at 9048 Sintich Rd., located at the intersection of Sintich Road and Northern Crescent. Final approval will be considered at a future meeting.

\$20 billion for green hydrogen | Oman signs six deals with international developers to build 15GW of electrolyser capacity – Hydrogen Insight

The sultanate of Oman has signed six agreements worth a total of \$20 billion with international developers to build green hydrogen production plants inside the country. The agreements of binding commercial terms will see the amount invested over seven years in projects that will aim to deliver a total of 15GW electrolyser capacity, on six land parcels in the al Wusta and Dhofar regions in southern Oman. Oil giant BP is set to invest in two projects, which together will have renewables capacity of 3.3GW and produce 150,000 tonnes of hydrogen, while Intercontinental Energy also signed an agreement for its Oman Green Energy Hub, which hopes to ultimately expand to 14GW of electrolyser capacity.

#### **Fossil Fuels**

# \$3.28 billion Indigenous-led LNG Project gets B.C. Environmental Certificate – Energy Now

The Haisla First Nation on British Columbia's northern coast has been granted a provincial environmental assessment certificate for a floating liquefied natural gas facility. The B.C. government says the nation, in partnership with Pembina Pipeline Corp., proposes to use electricity to operate the LNG facility and export terminal. The \$3.28 billion terminal will be supplied with natural gas from the Coastal GasLink pipeline, which is still under construction. The government release says the Cedar LNG project will have an expected export capacity of three million tonnes a year, employing 500 people during construction and 100 people when it's in operation.

#### UK to explore extending contracts for backup coal plants – Energy Live

The UK will soon engage in negotiations to keep coal power units open next winter. During National Grid Electricity System Operator's Operational Transparency Forum this morning, the system operator confirmed it received a letter from the Department for Energy Security and Net Zero requesting that it explored the procurement of winter contingency contracts for additional capacity over the 2023/2024 winter. In the past couple of months, National Grid put coal plants on standby to be used as an emergency backup. The move is expected to support Britain's energy market preparations for the upcoming winter.

#### IEA releases Monthly Oil Statistics - IEA

The latest International Energy Agency's Monthly Oil Statistics report including December 2022 data shows that Total OECD production of crude oil, NGL and refinery feedstocks decreased by 1.7% in December 2022 compared to December 2021. Refinery gross output of total products fell by 1.0% on a year-on-year basis. Net deliveries of total products decreased by 3.0% in December 2022 compared to December 2021. Oil stock levels on national territory fell by 355 kt in December 2022 compared to the closing stock levels in November 2022 and closed at 472.6 million metric tons.

#### IEA releases Monthly Gas Statistics - IEA

The latest International Energy Agency's Monthly Gas Statistics report including December 2022 data shows that Total OECD production of natural gas increased by 1.5% compared to December 2021. Imports of natural gas were 10.3% lower on a year-on-year basis, and total OECD exports decreased by 8.3% in the same period. Gross consumption of natural gas increased by 1.4% in December 2022 on a year-on year basis.

Thank you.

Regards, Mohamed Energy Co-Op Student Brilliant Energy Institute brilliantenergyinstitute.ca