

# BEI Energy Update

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## Top news

### Energy Transition:

#### Strategy:

#### [Canada and EU pledge stronger economic and energy ties, reaffirm support for Ukraine – The Globe and Mail](#)

Canada and the European Union announced a suite of new measures Tuesday to strengthen economic ties and align their support for Ukraine to cement their relationship and show a united front against Russia. The two leaders announced a series of economic initiatives focused on the transition to a net-zero economy. Ms. von der Leyen said the European Union hopes Canada will be a future source of hydrogen and the governments announced a commitment to an EU-Canada hydrogen supply chain. She also stressed the need for Europe to diversify its sources of critical minerals away from China and pinned her hopes on Canada. Experts say the sweeping announcements, which among other areas target academia and social issues, show the two leaders working to bolster their ties, as countries such as Russia and China show they can't be relied on.

#### [Canada releases its Taxonomy Roadmap Report – Government of Canada](#)

The Sustainable Finance Action Council (SFAC) released its "Taxonomy Roadmap Report" to establish standardized and science-based definitions of climate-compatible investments. Backed by the 25 largest financial institutions in the country, which participated in the process as members of the Taxonomy Technical Expert Group (TTEG), the Canadian Green and Transition Financial Taxonomy Framework laid out in the *Roadmap Report* is key to aligning capital flows with Canada's climate targets and economic opportunities. The "green" label would apply to low-to-no carbon projects or activities that accelerate Canada's clean energy transition. The "transition" label would apply to projects that substantially reduce emissions from hard-to-decarbonize sectors. Transition-labelled projects would also have limited lifespans and avoid making it either harder or more expensive to transition to net zero in the future.

#### [UK and Canada sign agreement to boost green tech supply chains – Energy Live](#)

The UK and Canada have agreed to work together on critical minerals such as cobalt and lithium which are often used in technologies, including solar panels and electric vehicles. The partnership aims to help make manufacturers of these technologies more resilient to global shocks such as energy and cost of living crisis. The agreement will see both countries cooperate in research projects.

#### [EU countries urged to phase out huge energy subsidies – Financial Times | Energy](#)

Brussels has urged EU countries to start phasing out massive energy subsidies as it prepares to reimpose budget rules three years after the coronavirus pandemic broke out. The European Commission on Wednesday set out its plan for the return of the Stability and Growth

Pact (SGP), which was suspended at the start of the pandemic in 2020 as EU governments spent huge sums supporting their economies and providing healthcare. The commission said the measures should now be unwound as the cost of energy drops and deficits need to be reduced. Governments spent 1.2 per cent of EU gross domestic product in 2022 on energy subsidies and plan to spend 0.9 per cent in 2023, its figures showed. They confirmed that the general escape clause, which suspended enforcement of the SGP, would be “deactivated” at the end of this year. Under the pact countries are meant to limit budget deficits to 3 per cent of GDP and bring debt ratios to 60 per cent of GDP or below.

## Technologies:

### Nuclear:

#### [Regulatory progress for continued operation of Diablo Canyon – World Nuclear News](#)

The US Nuclear Regulatory Commission (NRC) has granted an exemption allowing the two units to continue operating while the agency considers Pacific Gas & Electric Co's (PG&E) application to renew the plant's licence, after the California Energy Commission (CEC) also approved a recommendation that Diablo Canyon should continue operating until 2030 to ensure grid reliability. Diablo Canyon unit 1's current licence expires in November 2024 and unit 2's in August 2025. PG&E applied to renew the licences in November 2009, but withdrew the application in 2018 after agreeing to close the plant at the end of its current licences. In September 2022 - as California's energy grid saw its highest-ever peak demand during a record-breaking heatwave - the state passed a law allowing the units to continue to operate until 2030 to ensure a reliable energy system.

#### [New regional centre to support Xe-100 fleet rollout – World Nuclear News](#)

X-Energy Reactor Company is to build a digital twin-based support centre as the first step in its Commercial Operations Services business to support the initial deployment of its advanced modular reactors. Meanwhile, Energy Northwest is hopeful that X-energy's recent announcement that the first Xe-100 reactor will be installed at a Dow site on the US Gulf Coast will help further plans for its own project in Washington state. X-energy's Plant Support Center-East (PSCE), a regional reactor fleet management, monitoring, and training facility, will be built in Frederick, Maryland. It will be centred on a high-fidelity main control room simulator that integrates real-time plant instrumentation and control systems with X-energy's custom 3-D virtual reality environment. The first commercial deployment of the Xe-100 had previously been expected to be a four-unit plant near Energy Northwest's Columbia nuclear power plant in Washington. Following Dow and X-energy's joint announcement on 1 March, Energy Northwest CEO Bob Schuetz said the company remains committed to deploying an advanced SMR in Washington state by the end of the decade, and that the Xe-100 is its preferred technology.

#### [Nine Mile Point starts supplying hydrogen – World Nuclear News](#)

The USA's first-of-its-kind 1 MW demonstration scale, nuclear-powered clean hydrogen production facility has begun operating at Constellation's Nine Mile Point nuclear power plant in Oswego, New York. The company said the new facility will help demonstrate the potential for hydrogen to power a clean economy. In 2022, the US Department of Energy (DOE) approved the construction and installation of an electrolyser system at Nine Mile Point with an award of USD 5.8 million. The project is funded by the DOE's Hydrogen and Fuel Cell Technologies Office, through the H2@Scale programme. The Hydrogen Generation System at Nine Mile Point

is one of four projects supported by DOE to demonstrate clean hydrogen production at commercial nuclear power plants. Constellation said the facility will also prepare for possible large-scale deployments at other clean energy centres in the company's fleet that would couple clean hydrogen production with storage and other on-site uses.

## Battery / Energy Storage:

### [‘Europe’s biggest’ battery in East Yorkshire opens – Energy Live News](#)

Investment company Harmony Energy Income Trust (HEIT) has announced ‘Europe’s biggest’ battery energy storage system has been officially opened. Located at Pillswood near Cottingham, East Yorkshire, the £75 million facility has been developed by HEIT employing Tesla Megapack technology. The project has the capacity to store up to 196MWh of electricity in a single cycle – enough energy to power around 300,000 homes in Yorkshire for two hours. The first phase of the offshore wind farm is expected to go live this summer. The system is designed to provide critical balancing services to the electricity grid network.

### [VW prioritises North American battery plant over Europe as it seeks €10 billion from US – Financial Times | Energy](#)

Volkswagen is putting on hold a planned battery plant in eastern Europe and prioritising a similar facility in North America after estimating it could receive €10 billion in US incentives. The decision is the latest fallout from Joe Biden’s \$369bn package of subsidies and tax incentives for green technology that is luring European companies to the US. Volkswagen told EU officials last week that it expected to reap €9 billion - €10 billion in subsidies and loans from the US president’s Inflation Reduction Act and other US schemes over the lifetime of the factory, according to people at the meeting.

## Clean Power:

### [UK grid smashes new green record with ‘longest time’ on record – Energy Live News](#)

The UK grid ran on 100% clean electricity for 25 hours in December. That’s according to a new report by the Imperial College London shows that clean power, which includes renewable energy sources – biomass, hydro, wind and solar – as well as nuclear has broken the record for the volume of clean surplus power produced, an estimated 2.9GW. The report notes there were nearly 100 hours where the grid delivered more clean power than it needed last year. Analysts added that on 30th December, Britain saw a record of 3GW of surplus clean power produced – clean power sources produced more than 26.4GW while demand was only 23.4GW.

### [‘UK’s first’ deep geothermal plant moves forward – Energy Live News](#)

Geothermal Engineering Limited (GEL), the developer of what is described as the UK’s first deep geothermal plant, has secured £15 million in funding from Kerogen Capital and Thrive Renewables PLC. The funding will be used to advance GEL’s flagship project at the United Downs site in Cornwall and its Geogen geothermal development portfolio. It will also enable GEL to complete power production at the United Downs plant by 2024 and develop new geothermal sites in Cornwall that have recently received planning permission. The investment will ultimately support the production of 25MWe of renewable electricity and 100MWh of renewable heat across GEL’s portfolio by 2028.

## Hydrogen:

### [Fusion Fuel & Toyota to sell green hydrogen forklifts – Energy Digital](#)

Fusion Fuel and Toyota Material Handling España, S.A. (TMHES) have announced a collaboration agreement to develop the green hydrogen fuel cell forklift market in Spain. This partnership aims to enhance TMHES's leadership position in the zero-emissions forklift truck segment by providing end-to-end solutions of fuel cell forklifts, green hydrogen production, and hydrogen refuelling infrastructure. They plan to offer fully financed solutions that combine Hydrogen-as-a-Service with TMHES's operational rental and leasing solutions for their range of forklift products. Both companies see the logistics and material handling sector as uniquely positioned to benefit from hydrogen energy, especially fuel cell forklift solutions, as a critical decarbonisation vector, especially in operations requiring heavy loads and high operating hours. They intend to deploy their green hydrogen solutions to existing forklift fleets, as well as to integrated hydrogen logistics projects encompassing fuel cell vehicles for supply chain, distribution, and materials handling operations.

### [Strong winds could make green hydrogen produced in Ireland the cheapest in Europe, says analyst – Hydrogen Insight](#)

The Republic of Ireland could be producing green hydrogen more cheaply than either Spain or Germany by 2030, making it the lowest-cost renewable H<sub>2</sub> in Europe, modelling from research house Aurora Energy Research has suggested. In new analysis, the firm found that under “optimal conditions” Ireland could be producing green hydrogen at a levelized cost of €3.50/kg (\$3.70/kg), 8% lower than Spain is expected to manage and 35% lower than Germany. Ireland's potential is mostly due to high wind speeds in the west of the country as well as growing congestion on its electricity grid, which could push offshore wind operators to consider connecting their assets to electrolyzers to make green hydrogen.

## Fossil Fuel:

### [Pathways Alliance injects \\$10 million to advance oil sands CCS pipeline – Energy Now](#)

Canada's oil sands producers have taken a \$10 million step toward building one of the world's largest carbon capture and storage (CCS) projects. Engineering firm Wood will now begin design work on the 400-kilometer pipeline to be the backbone of the project, connecting an initial 14 oil sands facilities to a storage hub in northern Alberta. The project, being developed by the Pathways Alliance, is expected to remove up to 12 million tonnes of emissions annually by 2030, at a development cost of \$16.5 billion.

### [The Big Dine & Dash: Unpaid Oil Patch Taxes Rise Again Despite Industry Boom, Say Rural Municipalities – Energy Now](#)

Rural Municipalities of Alberta says the total of unpaid taxes from the oilpatch keeps rising despite the industry's boom. In a release, the group says energy companies owe towns and villages in which they operate a total of \$268 million. That's up more than six per cent from last year. As well, the rate of non-payment is increasing. Paul McLaughlin, president of the group, says \$53 million was left unpaid last year and \$38 million the year before. McLaughlin says the problem is occurring at a time of record profits in the industry and he notes that nearly half the unpaid taxes are due from operating companies.

## **Other happenings to note**

### [Ottawa mulls ramping up critical minerals funding to ensure 'level playing field' with big-spending Biden administration – The Globe and Mail](#)

Ottawa is considering a major new round of spending on critical minerals that could help Canada become more competitive with the United States and boost the fortunes of junior miners struggling to raise funds after the federal crackdown on Chinese investment. Ottawa in last year's federal budget committed to spending \$3.8 billion over eight years. In a bid to help smaller companies, Minister Wilkinson on Tuesday announced \$14 million in much-needed funding for junior miners. The recipients were Sherritt International, E3 Lithium, FPX Nickel Corp., Search Minerals, Geomega Resources and Prairie Lithium. The federal Critical Minerals Technology and Innovation Program will receive \$144 million, \$79 million will go toward improving geoscience and mapping to help government scientists identify early-stage minerals projects, and \$40 million will be directed toward improving Indigenous consultation and regulatory dialogue in northern Canada.

### [Hamburg buys modern coal-fired power plant for conversion into green hydrogen production hub – Hydrogen Insight](#)

Hamburg is one step closer to getting its own 100MW green hydrogen production hub after its municipal energy company Hamburg Energiewerke signed a deal last week with Swedish utility Vattenfall to buy the Moorburg coal-fired power plant. It was considered one of Germany's most modern and efficient coal-fired electricity plants when it went online in 2015, producing 11TWh annually and covering almost Hamburg's entire electricity needs. However, it never paid off for Vattenfall, which shut it down in 2021 due to cost-cutting measures and its obligation to the German government's plans to cease all coal-fired power in the country by 2038. The Hamburg Green Hydrogen Hub, as the project is known, is among eight H<sub>2</sub> projects in the city in line to receive a slice of the €223 million fund approved last year by the City of Hamburg. The hub is also expecting more financing from the German government, if it is granted the status of an Important Project of Common European Interest (IPCEI) from the European Commission, which will allow it to receive state funds.