

BEI Energy Update

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Top news

Nuclear:

[Westinghouse signs MoU for AP1000 in Bulgaria – World Nuclear News](#)

Westinghouse Electric Company has signed a Memorandum of Understanding (MoU) to initiate planning for the potential deployment of one or more of its AP1000 reactors at Bulgaria's Kozloduy nuclear power plant. The MoU establishes a joint working group which will "evaluate regulatory, licensing and design bases to ensure full compliance with applicable regulations as well as a streamlined execution path to enable Bulgaria to achieve its nuclear energy goals".

[Dow and X-energy advance efforts to deploy SMR – Nuclear Engineering International](#)

US-based materials science company Dow and X-energy Reactor Company have agreed to jointly to advance efforts to deploy an advanced small modular reactor (SMR). The X-energy plant will provide a Dow facility with process heat and power to make products. Dow, as a sub-awardee under the US Department of Energy's (DOE's) Advanced Reactor Demonstration Program (ARDP), will work with X-energy to install the Xe-100 at one of Dow's US Gulf Coast sites. The joint development agreement (JDA) includes up to \$50m in engineering work, up to half of which is eligible for ARDP. Dow will provide the rest. The work scope also includes preparation and submission of a construction permit application to the US Nuclear Regulatory Commission (NRC). The JDA follows a letter of intent signed by Dow and X-energy in August 2022 detailing the planned collaboration.

[ČEZ identifies two more possible sites for SMRs – Nuclear Engineering International](#)

Czech power utility CEZ says it has tentatively identified two preferred construction sites for small modular reactors (SMRs), in addition to the Temelín pilot location. The two sites in Detmarovice and Tušimice are at current coal-fired power plants, which are being transformed for emission-free operation. As part of its Vision 2030, CEZ Group it committed to preparing for the construction of SMRs with a total capacity of over 1,000 MWe after 2040. In addition to these first three SMR construction sites, CEZ is exploring other locations. These include the Prunérov, Ledvice, Porící and Melník coal sites as well as the Dukovany NPP.

[Ontario consulting with public on possibility of new, large-scale nuclear plants – Financial Post](#)

Ontario is exploring the possibility of building new, large-scale nuclear plants to meet increasing demand for electricity and phase out natural gas generation. A report by the IESO last December found that the province could fully eliminate natural gas from the electricity system by 2050, beginning with a moratorium in 2027. The province has not committed to a natural gas moratorium or phase-out, or to building new nuclear facilities other than its small modular reactor plans, but it is now consulting on the prospect. A document posted to the government's environmental registry asks for input on how best to engage the public and Indigenous communities on the planning and location of new generation and storage facilities. It also asks whether "additional investment" should be made in clean energy in the short term to decrease

reliance on natural gas, “even if this will increase costs to the electricity system and ratepayers.” The current government consultation is open until May 14.

Renewable Energy:

[More green buses to hit UK streets – Energy Live](#)

The government has committed £25 million to purchase an extra 117 buses to be rolled out in Yorkshire, Norfolk, Portsmouth, and Hampshire. The zero emission buses will be manufactured in Northern Ireland by Wrightbus and operated by FirstBus. The funding is an additional investment from the Zero Emission Buses Regional Areas scheme, which was launched in 2021 to allow local transport authorities to bid for funding for zero emission buses and supporting infrastructure.

[Iberdrola and bp to invest €1bn in fast charging infrastructure – Energy Live](#)

Iberdrola and bp plan to invest €1 billion to deploy a network of 11,700 fast and ultra-fast charging points in Spain and Portugal. The agreement will see the installation of 5,000 fast-charging points by 2025 and will reach nearly 12,000 chargers by 2030. The announcement follows an agreement reached by both companies in July 2022 with a focus on electric mobility and green hydrogen.

Hydrogen:

[Hundreds of residents' vent anger over 'entirely pointless' hydrogen heating trial during hostile public meeting – Hydrogen Insight](#)

Hundreds of furious residents affected by the planned Whitby hydrogen heating trial in northwest England shouted and jeered at representatives of project developer Cadent and local officials during a hostile public meeting about the scheme on Tuesday night. Gas distributor Cadent's proposal to replace natural gas in 2,000 houses for a two-year trial in Whitby as part of a hydrogen village “competition” engineered by the UK government has been fiercely opposed by many in the area, who are concerned about safety, cost, and a perceived lack of public consent. Independent experts and H2 heating advocates debated merits of Whitby pilot scheme in front of the furious crowd. Influential energy analyst Michael Liebreich and University of Cambridge mechanical engineering professor David Cebon drew attention to [the now 32 independent studies showing that hydrogen boilers would require about five times more renewable energy than heat pumps](#) likely making them significantly more expensive to run.

[Neom becomes first gigawatt-scale green hydrogen project to secure funding, with \\$8.5bn lined up – Hydrogen Insight](#)

The 2.2GW Neom green hydrogen project planned in the desert of northwest Saudi Arabia has become the first gigawatt-scale renewable H₂ scheme to secure the financing it needs to begin construction, with \$8.5bn lined up from two government funds and a consortium of 21 financial institutions. A total of 4.6GW of wind and solar power will provide the green electricity to the 2.2GW of electrolyzers, which are due to be supplied by Thyssenkrupp Nucera under a December 2021 agreement. About 600 tonnes of green hydrogen will be produced every day, all of which will be converted into liquid ammonia on site and sold to US industrial gases company Air Products, which plans to export it around the world.

Fossil Fuel:

[Alberta band chief angry over silence from Imperial Oil after oilsands tailings spill – Energy Now](#)

A northern Alberta Indigenous leader has accused Imperial Oil Ltd. of a nine-month coverup over a massive release of toxic oilsands tailings on land near where his band harvests food. Chief Allan Adam of the Athabasca Chipewyan First Nation said Thursday that Imperial executives had several chances to tell him in person about the 5.3 million litre leak after it was discovered in May. But he didn't learn about it until the province's energy regulator issued an environmental protection order on February 6th. Imperial expressed regret over the communication. The tailings leaked onto muskeg and forest as well as a small lake and tributaries of the Firebag and Muskeg rivers. Band members have photographed moose tracks going through the affected area. People have been told not to consume wildlife from the area, and the community of Fort Chipewyan has diverted its water source from the Athabasca River to a reservoir.

[Norway's Equinor buys Suncor Energy UK in \\$850 million deal – Energy Now](#)

Equinor said on Friday it will acquire the British oil and gas business of Canada's Suncor Energy for \$850 million, giving the Norwegian company stakes in several key North Sea petroleum assets. Equinor said the deal includes a 29.9% stake in the Buzzard oilfield, an additional 40% stake in the Rosebank development and will also see the Norwegian firm taking on Suncor's UK-based employees who work with these assets.

Other happenings to note

[ABB and Pace CCS partner to drive carbon capture and storage – Energy Digital](#)

In an effort to enhance the accessibility and affordability of capturing, transporting, and storing industrial carbon dioxide emissions, ABB has entered into a partnership agreement with Pace CCS, a leading global provider of engineering solutions in this market. ABB and Pace CCS are leveraging digital twin technology, which creates a virtual replica of a physical process or facility. This technology enables simulation of the design stage and testing of various scenarios to provide proof of concept, ensuring that the design is appropriate for the intended purpose. By demonstrating how customers can transition seamlessly into CCS operations, the solution will map out different scenarios, including subsurface modeling. The ABB Ability™ OPTIMAX® energy management system will also be integrated to forecast and manage power consumption.

[Urenco USA, USNC in advanced reactor uranium supply 'first' – World Nuclear News](#)

A newly announced agreement under which Urenco USA will supply enriched uranium to Ultra Safe Nuclear Corporation to manufacture fuel for its Micro-Modular Reactor (MMR) has been described by the companies as the first commercial supply of enriched uranium product (EUP) for use in an advanced nuclear reactor anywhere in the world.

[Oil and gas investment in Canada to hit \\$40 billion in 2023 – Energy Now](#)

The Canadian Association of Petroleum Producers says it expects investment in oil and natural gas production in this country to hit \$40 billion this year. The industry group says that's 11 per cent higher than last year and surpasses pre-COVID-19 pandemic levels. CAPP says conventional oil and natural gas capital investment for 2023 is forecast at \$28.5 billion, while oilsands investment is expected to reach \$11.5 billion.