BEI Energy Update

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Top news

Energy Transition:

Strategy:

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.

Getting more women in nuclear 'crucial to hitting climate targets' – World Nuclear News
If the ambitious targets for nuclear expansion around the world are to be met more women need to be attracted to the sector, according to a Nuclear Energy Agency (NEA) report on the international gender balance in the nuclear sector released to mark International Women's Day. The report found that just under a quarter of workers in the nuclear sector are female. It found that "only 24.9% of the nuclear sector workforce in NEA countries is female" with the numbers in science, technology, engineering, and mathematics (STEM) and leadership roles "lower still … this lack of diversity represents a loss of potential innovation and growth and a critical threat to the viability of the field".

US and EU to launch new talks on critical minerals trade in green tech race – Financial Times | Energy
US and EU officials will launch new talks on trade in critical minerals as Ursula von der Leyen visits the White House on Friday, in a move EU officials hope will boost its companies' access to America's green subsidies. US officials said the talks would help the two sides build secure supply chains for electric vehicle batteries. In turn, EU officials hope a deal will make its supplies of raw and processed critical minerals eligible for generous US subsidies under Biden's flagship climate legislation. The US Inflation Reduction provides tax credits for groups that source parts and materials from countries with which the US has a free trade agreement. That excludes the EU and Japan, which lack such deals with the US.

[Will the UK grant green status to nuclear power? – Energy Live News]

The government is reportedly considering a move to classify nuclear power as a form of “green energy” in a bid to attract greater private investment to the sector. Ministers are set to launch a public consultation on plans to alter the current “taxonomy” for energy, which would enable nuclear power projects to be classified as sustainable investments. This move would represent a significant shift from the Treasury’s decision in 2021 to exclude nuclear power from the green investment framework.

[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.

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.

[EDF to extend Heysham 1 and Hartlepool for two extra years – World Nuclear News]

Nuclear operator EDF has announced that it is to keep the Heysham 1 and Hartlepool nuclear power units operating until 2026, two years longer than previously planned. Both the plants, in the north of England, have been operating for 40 years and EDF announced last September it was reviewing the case for a "short extension" given the impact of the Russian war with Ukraine and energy price rises. Hartlepool and Heysham 1 are among the four of seven AGR fleet which continue to generate electricity and were due to continue doing so until March 2024.

[Polls find strong support for nuclear in UK and Switzerland – World Nuclear News]

Britain's energy crisis and rising heating bills have fuelled support among voters for new nuclear reactors to be built in the UK, a survey has found. Meanwhile, a public opinion poll in Switzerland suggests that about half of the population favours the continued use of nuclear energy. A UK poll by international strategy consultancy Stonehaven found a 25% increase in net support for new nuclear power since June 2021, with support growing across every age group, nation and region in the country. Today, net support overall stands at 24% (with 46% agreeing and 22% disagreeing). In Switzerland, a poll conducted by market research institute DemoSCOPE on behalf of the Swiss Nuclear Forum has confirmed that support for nuclear energy remains stable. According to the online survey of 1019 people from 15 to 26 February 2023 in German and French speaking Switzerland, 49% of the population is still in favour of the continued use of nuclear energy, while 38% reject it.

South Korean NPP project moves forward in Poland – Nuclear Engineering International
Polish private energy company ZE PAK (Zespól Elektrowni Patnów-Adam-Konin) and state-controlled Polska Grupa Energetyczna (PGE) have established a special-purpose vehicle (SPV) to manage the proposed deployment of South Korea's APR-1400 NPPs in Poland. In October 2022, ZE PAK and PGE signed a letter of intent with Korea Hydro and Nuclear Power (KHNP) for eventual deployment of the company's APR-1400 PWR technology at the Patnow coal-fired generation site, owned by ZE PAK. The SPV will represent Poland in future talks with KHNP. PGE and ZE PAK will each hold 50% of the shares in the newly established company, making decisions based on consensus. The establishment of the SVP is conditional on obtaining the approval of the Office of Competition & Consumer Protection (UOKiK - Urzad Ochrony Konkurencji i Konsumentów).

Battery Technology:

China's CATL cements position as world leader in battery market – Financial Times | Energy
China's CATL has cemented its position as the world's largest maker of electric car batteries. CATL said in a regulatory filing on Thursday that annual net income rose 92.9% to Rmb30.7 billion in 2022, beating analysts' expectations of Rmb28.8 billion. Its full-year revenue surged 152% to a record of Rmb328.6 billion. The company, based in south-east China, has a wide range of western customers, including Tesla, Daimler, BMW, and Volkswagen. CATL also supplies Chinese EV makers including Nio, XPeng and Li Auto. It accounted for 37 per cent of global EV battery sales in the first 11 months of 2022, according to data from South Korea's SNE Research.

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 Grid:

[ABB invests in Direct Current microgrid – Energy Digital]

ABB has formed a strategic partnership with Direct Energy Partners (DEP), a startup that employs digital technology to hasten the adoption of Direct Current (DC) microgrids. As part of the partnership, ABB's venture capital unit, ABB Technology Ventures (ATV), has made a minority investment in DEP, but the financial specifics of the investment were not revealed. DEP's focus is on local energy generation and distribution through scalable DC microgrids that provide customers with greater operational autonomy while simultaneously lowering their overall energy and operating expenses. The company's systems are 10% more efficient than the industry standard and have a 30% lower total cost of ownership.

[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 – clear power sources produced more than 26.4GW while demand was only 23.4GW.

Solar Energy:

[US solar power installations slow in setback for climate goals – Financial Times | Energy]

The pace of new US solar power installations decelerated last year for the first time since 2018, undercutting goals to cut carbon emissions from electricity supplies. The 20.2 gigawatts of added generating capacity amounted to a 16 per cent decline from 2021 as a result of "policy-driven supply constraints". The drop came despite state-level clean energy incentives and run against US president Joe Biden's goal of halving emissions by the end of the decade. Installations are expected to rebound this year, in part thanks to new federal green subsidies included in the landmark Inflation Reduction Act which passed last August. However, solar trade groups warn the government support does little to relieve other impediments to the country's energy transition.

Hydrogen:

[Leaked document: Germany will need to import 50-70% of its hydrogen by 2030, and that share will only grow – Hydrogen Insight]

A leaked draft of a new update to Germany's 2020 national hydrogen strategy shows the country will rely mostly on imported hydrogen (50% -70% by 2030) and that this import share will increase over time. The document also states that the country plans to double its 2030 target for green hydrogen production from 5GW in the 2020 strategy to 10GW of installed electrolyser capacity. Germany will also look at establishing a national reserve for hydrogen and H_2 derivatives.

[Oil giant Total reveals 30GW green hydrogen pipeline in Australia as it exits gigawatt-scale HyEnergy project – Hydrogen Insight]
French oil major TotalEnergies' renewables arm, Total Eren, has built a green hydrogen project pipeline of up to 30GW in Australia, after a team of 40 spent the past 18 months identifying potential developments, it revealed today. That capacity of green hydrogen projects would require more renewable energy than all the wind and solar power currently installed across Australia. But Total Eren also confirmed today that it had exited the HyEnergy green hydrogen project in Gascoyne, Western Australia, which was to be powered by 8GW of wind and solar as part of a partnership with local developer Province Resources.

Carbon Capture:

[Carbon Clean opens US headquarters in Houston – Energy Digital]
Carbon Clean, a renowned global company providing solutions for carbon capture, has announced a significant expansion in North America in response to increasing demand for its carbon capture technology. The company has established its US headquarters in Houston, Texas, and plans to double its US staff to cater to the growing market for its fully modular technology, CycloneCC. This expansion is expected to make North America Carbon Clean's biggest market. Carbon Clean, based in the UK, offers cost-effective industrial carbon capture solutions for essential hard-to-abate industries such as cement, steel, refineries, and energy from waste. The company's technology has been implemented in 49 locations globally and has captured over 1.8 million tonnes of CO2.

[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.

Fossil Fuel:

[UK oil and gas group Harbour Energy says windfall tax 'has all but wiped out' profit – Financial Times | Energy]
Harbour Energy, the biggest oil and gas producer in the UK North Sea, has warned it will shift investments overseas after the government's windfall tax hit its profits. The company said its profit after tax fell to $8 million in 2022 from $101 million the previous year, despite higher oil and gas prices and the company raising production by almost a fifth. It said the windfall tax had resulted in a $1.5 billion "one-off non-cash deferred tax charge". Harbour's "cash" tax paid in the

UK was more than $500 million, almost four times the amount paid by Shell. The company has long been among the most vocal critics of the UK windfall tax, which was introduced last year after energy bills soared in the wake of Russia's invasion of Ukraine.

[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 McLauchlin, president of the group, says $53 million was left unpaid last year and $38 million the year before. McLauchlin 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

[UKAEA, University of Sheffield to collaborate on fusion R&D – World Nuclear News]
The UK Atomic Energy Authority (UKAEA) and the University of Sheffield have entered a partnership that is set to drive the development of fusion technology and the UK's future fusion industry. The collaboration will see Sheffield appoint two Chairs who will establish new research programmes to address global fusion challenges.

[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.