



1 September 2023

Germany begins dismantling wind farm for coal

German energy giant RWE has begun dismantling a wind farm to make way for a further expansion of an open-pit lignite coal mine in the western region of North Rhine Westphalia. One wind turbine has already been dismantled, with a further seven scheduled for removal to excavate an additional 15m to 20m tonnes of so-called 'brown' coal, the most polluting energy source. The demolitions are part of a deal brokered last year between Robert Habeck, the Green party's minister for economy and climate action and Mona Neubaur, who is the economy minister for North Rhine Westphalia, to allow the expansion of the mine.

In return, RWE had to agree to phase out coal in 2030, eight years before the previous deadline. "It's a good day for climate protection," Habeck said at the time. But this week's move has sparked sharp criticism from activists. "The current climate emergency requires urgent and concerted efforts to accelerate the deployment of every single wind turbine, solar panel and heat pump that we can muster," said Fabian Hübner, a senior campaigner at Beyond Fossil Fuels, a German-based coalition of climate activists. "Anything that diverts from this critical endeavour, especially the dismantling of renewable energy sources to extract more fossil fuels, must be unequivocally prohibited," he added. But RWE and Germany's government have persistently justified the expansion of the so-called Garzweiler coal fields by pointing to the Russian invasion of Ukraine and the ensuing energy crisis.

According to RWE, the expansion is necessary "due to the energy crisis." The government in Berlin follows this logic. Indeed, some of the leading advocates of RWE's coal expansion plans come from the Green Party, one of three ruling parties in Germany's current 'traffic light' coalition with centre-left SPD and business-friendly FPD-party. Habeck has defended the expansion as the "right decision." Green party politician Oliver Krischer has described the expansion and earlier phase-out as "one of the greatest advances we've made in recent years." But energy consultation firm Aurora has found that expanding the Garzweiler open-pit mine would cause the country to overshoot its climate pledges. Researchers also said lignite coal is likely to end in 2030 anyway because it is rapidly becoming uneconomical compared to other cheaper energy sources such as solar and wind.

World Today News

<http://euobserver.com/>

1 September 2023

NGESO: Demand Flexibility Service returns this winter

- We've confirmed plans, subject to Ofgem approval, for the use of the Demand Flexibility Service for the coming 2023/2024 winter.
- Participants in homes and businesses across Great Britain will again be able to earn pounds, points or prizes across the winter period by shifting their energy usage outside of specified periods, helping with the cost of living and energy bills this winter.
- Alongside the potential "live" use of the service to help balance the electricity network this winter, we're looking to run 12 test events to deliver commercial value and incentive for providers, businesses, and consumers to participate.
- This year's service will offer providers a Guaranteed Acceptance Price (GAP) of £3,000MWh/£3KWh, for at least 6 of the 12 tests subject to the registered volumes from January 2024.
- Following regulatory approval from the energy regulator Ofgem, consumers and businesses will be able to sign up to participate in this year's Demand Flexibility Service in the coming months, so that they can get rewarded like a power plant



Ahead of the 2023/2024 winter, we're announcing the return of the Demand Flexibility Service used last year and have submitted our proposal for this year's service to the energy regulator Ofgem for their approval. Once approved, the Demand Flexibility Service will provide additional tools for managing the national electricity network whilst also helping consumers in homes and businesses across Great Britain to make savings on their energy bills.

While our early view of winter sets out that system margins are expected to be slightly higher than last winter, as a prudent system operator we're continuing to build further resilience. Alongside the formal submission to Ofgem, we have also today confirmed details on the Demand Flexibility Service's commercial proposition for the electricity suppliers, aggregators and businesses who directly contract with us.

By confirming the commercial proposition for providers, they can now start to prepare their offerings ahead of regulatory approval to enable their customers (consumer households and businesses) to sign up later in the year. By participating in the service, providers can enable consumers, households, and businesses to directly benefit from reducing or shifting their electricity use at key times.

Recent research about household engagement with the Demand Flexibility Service in 2022/23, undertaken by the Centre for Sustainable Energy on our behalf, found that 89% of respondents were satisfied with their experience in last winter's scheme and 83% would participate again.

Participants highlighted satisfaction from managing the challenge, rewards earned, and being part of a national collective effort as the main benefits they experienced from participating in the scheme. Against the backdrop of a cost-of-living crisis, the research found households that were finding things difficult financially were more motivated by the financial rewards of the scheme than households which were financially comfortable.

Consumers and businesses will be able to sign up to participate in this year's Demand Flexibility Service in the coming months, following regulatory approval from Ofgem.

Jake Rigg, Corporate Affairs Director, ESO

"The ESO will be reintroducing the Demand Flexibility Service for this winter and is keen for more consumers, both large and small, to get involved. We want to work with industry to build on the past success of this new and innovative service.

Across last winter the Demand Flexibility Service successfully demonstrated the interest of consumers and businesses in playing a more active role in balancing our electricity needs and to be rewarded with savings for their action in the process."

National Grid ESO

<http://www.nationalgrideso.com/>

2 September 2023

Ultra-large-capacity offshore wind turbine sets new world record

China's self-developed 16-megawatt offshore wind turbine off the coast of east China's Fujian Province set a new world record for single-day electricity generation per unit on Friday, said its operator. The wind turbine, which the China Three Gorges Corporation operates, has worked at its maximum power capacity for a continuous 24-hour period and achieved a daily electricity output of 384,100 kilowatt-hours.

The turbine, known for its highest capacity, largest rotor size, and lightest weight per megawatt worldwide, is expected to generate over 66 million kilowatt-hours of clean electricity annually, said the company. It has been connected to the grid and has begun generating electricity since July 19, after installation in late June.

Xinhua

<http://english.news.cn/>



4 September 2023

China involvement in UK nuclear energy not a security risk, industry boss says

China's investments in the UK's nuclear energy sector are not a national security risk, the boss of the country's leading trade body has argued, as long as Beijing-linked firms are not involved in running power plants.

Tom Greatrex, chief executive of the Nuclear Industry Association, told City A.M. he did not see any issues with state-backed China General Nuclear Power Group (CGN) owning a one-third stake in under-construction power plant Hinkley Point C. "It doesn't necessarily follow that involvement from China would create security concerns," he said, while acknowledging any geopolitical issues were "way above my pay grade."

In his view, Chinese companies owning stakes in projects were only a problem if they had strategic roles in power plants. "It [CGN] is still a significant but minority shareholder in Hinkley Point C, but there's no Chinese technology," Greatrex explained. Hinkley Point C's majority owner is the French energy giant EDF, which will operate the power station based on a European pressurised reactor design. Similar reactors are already installed at the Taishan Nuclear Power Plant in the Guangdong province of China – which is also co-owned by CGN and EDF. However, the Taishan plant has been plagued with issues since construction, with one of its units shut down for over a year of repairs fix issues with fuel rod cladding and outages before becoming online again.

CGN workers are currently helping to oversee the installation of both reactors at the 3.2GW Hinkley Point C plant, which will power six million homes when it is finally completed in 2028 at a cost of £33bn.

Greatrex did not believe this presented "any national security concerns," and instead considered their presence to be "a good thing," as CGN would help with bringing the reactor design into operation in the UK. The nuclear energy sector was ultimately required to work within the conditions established by government, he argued. His comments reflect an apparent softening in the government's position on Chinese investment. Last week, Foreign Secretary James Cleverley made the first official visit to China from a frontbench minister in five years, with the government confirming it is prepared to work with the country on both investment and energy policy concerning climate change. It also follows former Energy Secretary Grant Shapps making a distinction between China investing in energy projects and the risks of data-sharing, at the launch of industry vehicle GB Nuclear in July.

He said he was still open to "pure investment" in national infrastructure as long as it was not a security risk. This contrasts with the hawkish approach Shapps initially engaged in, when he opted to buy out CGN's minority stake in Sizewell C for around £100m last year in his early days as minister. Former BEIS Secretary Kwasi Kwarteng even changed the model for funding nuclear power projects to reduce the influence of overseas partners in the energy mix such as China. Any potential government reappraisal of its position on China highlights the challenge it has in ramping up nuclear energy generation from 15 to 25 per cent of the country's supply mix as part of its energy security ambitions – with 85 per cent of its ageing fleet set to go offline in the next 12 years.

City A.M.

<https://www.cityam.com/>

4 September 2023

UK National Grid plans to use honeypots to lure attackers, improve defences

The UK's National Grid has revealed plans to use honeypots to catch attackers and improve its defences. The utilities provider, responsible for running the UK's gas and electricity networks, posted a contract worth more than ?1 million for a security expert to



help it set honeypots and plant false documents that appear valuable to attackers online. The intent is to lure potential attackers into a controlled environment, so the National Grid can observe them and then block them from its systems. A spokesperson for energy regulator Ofgem told The Telegraph that suppliers face new responsibilities under the recently updated Network and Information Systems Regulations. "We take cybersecurity incredibly seriously and work closely with energy suppliers to ensure they are doing everything they can to protect their systems and comply with their responsibilities."

This comes amid increasing cyber threats posed to UK critical national infrastructure (CNI), heightened by geopolitical and economic factors. In April, the UK National Cyber Security Centre (NCSC) issued an alert to CNI organizations warning of an emerging threat from state-aligned groups, particularly those sympathetic to Russia's invasion of Ukraine. The alert stated that newly emerged groups could launch "destructive and disruptive attacks" with less predictable consequences than those of traditional cybercriminals, with CNI organizations strongly encouraged to follow NCSC advice on steps to take when cyber threat is heightened.

In the same month, research by UK cybersecurity services firm Bridewell indicated that cost-of-living challenges could trigger a rise in cyberattacks and security risks impacting UK CNI, with over a third (34%) of organizations across UK CNI anticipating a rise in cybercrime as a direct result of the ongoing economic crisis.

The security of critical infrastructure has been high on the global agenda in 2023, with cyberattacks and other risks posing a persistent threat to the technologies and systems relied upon for essential services such as energy, food, electricity, and healthcare. In response, multiple initiatives, programs, guidance, and standards have been launched this year to enhance the cybersecurity of critical systems and tackle the growing risks that threaten CNI. Vendors, governments, industry bodies, and nonprofits have all contributed, with information-sharing and collaboration a key theme of many efforts to increase cyber resilience across the CNI spectrum.

CSO

<https://www.csoonline.com/>

4 September 2023

Electricity to cost 9,000 times more in Estonia than Finland Tuesday

The electricity links between Estonia and Finland working at peak capacity and a cable between Lithuania and Sweden being out of commission will leave the Baltic's with the region's highest electricity prices this week. Power will cost times more in Estonia compared to Finland on Tuesday. While the cost of electricity will even be negative in the wee hours and remain below €21 per megawatt-hour until 9 a.m. in Finland, the price will be €90/MWh from midnight until 9 in the morning in Estonia. The price difference will peak at 9,060 times between 5 a.m. and 6 a.m. when power will cost €0.01/MWh in Finland and €90.6 in Estonia, Nord Pool Baltic data suggests. In Estonia, the price of electricity will peak at €183.4/MWh between 8 p.m. and 9 p.m.

Experts told ERR that the difference in price is caused by limited transmission capacity between countries, keeping cheaper electricity from reaching some of them. "While wind farms and the Olkiluoto-2 nuclear reactor are back online in Finland, the total throughput capacity between the two countries (Estlink 1 and Estlink 2 cables) is just 1,000 megawatts, which is the maximum amount of power the Baltics can receive [from Finland]," Ingrid Arus, head of NordPool Baltic, told the public broadcaster.

Olavi Miller, market analysis strategist for Eesti Energia, said that while these developments in Finland will make power cheaper during hours when the Estlink cables have some capacity, the latter will be few as a 700-megawatt link between Sweden and



Lithuania being out of commission means that the two Estlink cables bear the brunt of transmission between the Baltics and Nordics. He added that the cause of the fault is still being ascertained and estimates suggest the Swedish-Lithuanian link will not be up again until Friday.

"That is why we will quite likely see major price differences between Estonia and Finland this week, with the Estlinks fully utilized for most of the time and the price much higher in the Baltics compared to Finland," Miller said. Mitigating the situation somewhat is the fact that a 730 MW link between Estonia and Latvia is also not working at full capacity, keeping more of cheaper Finnish electricity in Estonia. Electricity will cost €12-20/MWh in Estonia and €77-88/MWh in Latvia between 3 p.m. and 6 p.m. Tuesday.

ERR

<http://news.err.ee/>

4 September 2023

China Coal Giant 'Seizing' Window of Opportunity for New Plants

China's biggest coal company said it is "seizing" the opportunity to build more fossil fuel power plants before 2025 as the government prioritizes energy security after a series of power shortages. China Shenhua Energy Co. has 11.75 gigawatts of coal and gas generation under construction and is reviewing previously postponed and suspended projects to see which can be revived under current conditions, General Manager Xu Mingjun said at a briefing on Friday. The company is also renovating and expanding existing plants and expects to put the new projects into operation by 2025, he said.

"As the country's latest round of power system optimization progresses, the company is seizing the window of opportunity for thermal power development," Xu said. The comments were made amid a surge of approvals for new coal generation in China, the largest contributor to global greenhouse gas emissions. Since the beginning of 2022, China has approved 152 gigawatts of new coal plants, Global Energy Monitor and the Centre for Research on Energy and Clean Air said in a joint report last week. That's more than all the coal plants in the European Union combined.

China has vowed to begin reducing emissions by 2030 at the latest, and become carbon-neutral by 2060. Climate experts have raised concerns that the time-line will allow the country's industrial giants to build more polluting plants over the rest of this decade. "The rush to build new coal power plants and coal-based industrial plants represents the mentality of 'climbing to the peak,'" GEM and CREA analysts said in last week's report. "Officials and executives in China see the next five years as a window of opportunity to add new carbon-intensive capacity." Chinese officials have countered that coal is shifting to a supporting role in the power system to fill the gaps left by the intermittent generation of rapidly growing wind and solar farms.

Shenhua, a listed unit of China Energy Investment Corp., the country's largest coal miner, said it's investing in its fleet with that back-up role in mind. New and renovated plants will be able to operate as little as 20% of the time to operate as "peak shaving" units, Xu said.

Bloomberg

<http://www.bloomberg.com/>

4 September 2023

Prysmian completes world's longest subsea interconnector

Prysmian has completed the installation of the Viking Link Interconnector, an HVDC submarine transmission line connecting Denmark to the United Kingdom. The Italy-based



cable manufacturer said the new transmission line will begin operating by the end of this year and will operate at 525 kV DC.

The project is a joint venture between the grid operators of the two countries – National Grid and Energinet. Its cables cross through four exclusive economic zones in Dutch, German, Danish and British waters. “Each territory has its own legislation and stakeholders. The cabling crosses more than 40 other lines, such as gas and electricity connections,” Prysmian said in a statement.

Prysmian secured a €700 million (\$755.8 million) cable installation contract for the GBP 1.7 billion (\$2.14 billion) project in August 2019. “The contract included the turn-key design, manufacture and installation of the world’s longest interconnector covering all the 1,250 km of cables for the submarine route and approximately 135 km of land cables on the UK side, for the four lots awarded to Prysmian out of a total of five lots,” it said. Viking Link is National Grid’s sixth interconnector. The company already has five operational transmission lines connecting the United Kingdom with France (IFA and IFA2), the Netherlands (BritNed), Belgium (Nemo Link), and Norway (North Sea Link).

[pv-magazine](http://www.pv-magazine.com/)

<http://www.pv-magazine.com/>

4 September 2023

Ayana Renewable Power Signs Power Purchase Agreement with Hindalco for Round-the-Clock Renewable Energy Supply

Ayana Renewable Power, an independent power producer in India, has signed a Power Purchase Agreement with Hindalco Industries Limited, the largest aluminium producer in India. The agreement entails the supply of 100 MW of round-the-clock (RTC) renewable energy to Hindalco’s smelter plants in Odisha.

This project is a significant milestone in Ayana’s efforts to become a demand-driven energy solution provider. It adds to Ayana’s cumulative capacity under management, which now stands at nearly 5 GW. With operations, maintenance, and development capabilities, Ayana solidifies its position as a key player in India’s energy transition landscape.

The partnership between Ayana Renewable Power and Hindalco Industries highlights the importance of reliable and continuous power supply in the aluminum industry. By delivering round-the-clock renewable energy from solar and wind sources, this project sets a new standard for the sector globally. It represents a pioneering feat in the industrial segment and demonstrates Ayana’s commitment to India’s energy transition journey.

In addition to the agreement with Hindalco, Ayana Renewable Power has recently won the tender to supply 300 MW of RTC power to a joint venture company of the Ministry of Railways and RITES Ltd. This achievement further strengthens Ayana’s position in the RTC solutions space in India.

Overall, Ayana Renewable Power’s efforts in expanding renewable energy capacity, specifically in the round-the-clock segment, are crucial steps towards a cleaner and more sustainable energy future for India.

[Energy Portal](https://www.energyportal.eu/)

<https://www.energyportal.eu/>

4 September 2023

Escom: Stage 6 loadshedding will be implemented from 05:00 on Tuesday until further notice

With the increase in generation planned maintenance, as previously communicated and the loss of a further two generation units today, Stage 6 loadshedding will be implemented from 05:00 on Tuesday until further notice. Overnight, a further two units at



Lethabo and Matla power stations will need to be shutdown for urgent repairs. Eskom will publish another update should any significant changes occur.

Breakdowns are currently at 16 210MW of generating capacity while the capacity out of service for planned maintenance is 5 894MW. Since yesterday, a generating unit each at Kriel and Medupi power stations was taken offline for repairs. In the same period a generating unit at Arnot, Kendal, Kriel and Lethabo power stations were returned to service. The delay in returning to service a generating unit each at Hendrina and Tutuka power stations is also contributing to the current capacity constraints.

Eskom teams are working tirelessly to return these generating units to service. Eskom's load forecast for the evening peak demand is 28 603MW and we appeal to the members of the public to continue reducing demand by switching off non-essential appliances. We would like to thank those who do heed the call to use electricity sparingly and efficiently, including switching off geysers and pool pumps from 17:00 to 21:00, as this lowers demand and helps in alleviating the pressure on the power system and contributes to lower stages of loadshedding.

Eskom

<http://www.eskom.co.za/>

5 September 2023

PJM, market participants reach agreement to resolve \$1.8B in Winter Storm Elliott fines

The agreement potentially resolving disputes with Calpine, Energy Harbor, LS Power and others is slated to be filed with federal regulators late this month.

The PJM Interconnection and most other participants in settlement talks have tentatively resolved complaints over \$1.8 billion in penalties for not delivering power during Winter Storm Elliott late last year, according to a Friday filing at the Federal Energy Regulatory Commission.

Details of the settlement are confidential and will be made public in a late September filing at FERC, Jeffrey Shields, PJM spokesman, said Monday.

Power plant owners facing non-performance penalties include Calpine, Energy Harbor, Invenergy and LS Power. Companies such as Constellation Energy, Public Service Enterprise Group and Vistra have asked FERC to reject the complaints and uphold the fines.

A majority of participants in settlement talks overseen by a FERC administrative law judge on Aug. 31 indicated they had reached an agreement in principle, Matthew Vlissides Jr., an agency ALJ, said. Starting in late June, 16 in-person settlement conferences were held, he said.

FERC in early June approved a request by PJM to hold the settlement talks aimed at resolving pending complaints over the non-performance penalties. PJM argued that resolving the disputes that could last years could help avoid market disruptions, defaults and bankruptcies.

At the peak of Winter Storm Elliott in late December, 24% of the PJM's generating capacity was unexpectedly offline, with gas-fired power plants making up about 70% of the unplanned outages, the grid operator said in a mid-July report.

In related action, PJM on Aug. 30 urged FERC to delay approving ownership changes to Heritage Power, a GenOn subsidiary that is subject to Winter Storm Elliott penalties and is seeking to reorganize in bankruptcy. Heritage Power, which owns about 2,290 MW in PJM, filed for bankruptcy in January, partly because of reduced capacity prices, lower energy margins and increased costs, according to the company.

Heritage Power and J. Aron & Co., a Goldman Sachs Group subsidiary, asked FERC to approve their application by Oct. 6. A judge for the U.S. Bankruptcy Court for the Southern District of Texas has scheduled a hearing on Oct. 4 to confirm the reorganization plan.



The reorganization plan contains “defects” and “is not confirmable” by the bankruptcy court, according to PJM. Under the plan, Heritage Power Marketing — an affiliated company and PJM member — claims to be able to assume its PJM agreements and maintain good standing with the grid operator without curing defaults arising from non-performance penalties, PJM said.

Heritage Power Marketing owes PJM \$29.3 million in Winter Storm Elliott charges, according to a claim at the bankruptcy court.

“Until there is clarity as to Heritage Marketing’s assumption of its responsibilities consistent with the PJM Governing Agreement, there remain substantial questions concerning whether the transaction is in the public interest,” PJM said.

Utility Dive

<http://www.utilitydive.com/>

6 September 2023

African leaders seek global taxes for climate change at Nairobi summit

African political and business leaders have adopted a declaration to address climate challenges in Africa on the final day of a major climate summit in Kenya’s capital, Nairobi. The adoption – announced on Wednesday by the summit’s convener, Kenyan President William Ruto – proposes new global taxes and reforms to international financial institutions to help fund climate change action in a declaration that will form the basis of their negotiating position at November’s COP28 summit.

The Nairobi Declaration capped the three-day Africa Climate Summit which was dominated by discussions of how to mobilise financing to adapt to increasingly extreme weather, conserve natural resources and develop renewable energy. Ruto has been spearheading a new narrative, focusing on Africa’s switch to clean energy even as the continent reels from climate-related disasters. “In Africa, we can be a green industrial hub that helps other regions achieve their net zero strategies by 2050,” he said at the summit. “Unlocking the renewable energy resources that we have in our continent is not only good for Africa, it is good for the rest of the world.” According to the United Nations, the continent contributes only about 2-3 percent of global emissions but suffers the most from the changing climate. Extreme weather events like drought – in the Horn of Africa – and flood – in parts of Central and West Africa – have become more frequent in recent years.

“Renewable energy could be the African miracle but we must make it happen. We must all work together for Africa to become a renewable energy superpower,” UN Secretary-General Antonio Guterres said on Tuesday at the summit. He also urged leaders at the G20 – the 20 advanced economies meeting in Delhi, India this week – to commit to reaching net zero before 2040. Ruto says Africa is well placed to take advantage of the need to move away from carbon-spewing fossil fuels, boasting a young population, vast renewable potential and natural resources. This includes some 40 percent of global reserves of cobalt, manganese and platinum crucial for batteries and hydrogen fuel cells. Efforts at the summit to up investment in renewables were given a boost as the Africa Development Bank (AfDB) announced \$23bn in financing “for green growth, mitigation and adaptation efforts” to the Africa Climate Fund for the next 27 years. The UAE also pledged \$4.5bn, while Germany committed \$482.31m to help with the development of green energy infrastructure. But there are daunting challenges for a continent where hundreds of millions lack access to electricity.

The International Energy Agency (IEA) says Africa hosts 60 percent of the world’s best solar resources, but only three percent of energy investments. In a report published on Wednesday, the IEA and the AfDB urged donors and development finance institutions to scale up concessional funding to encourage private sector investment in Africa’s energy



sector. “Concessional capital of around \$28bn per year is needed to mobilise \$90bn of private sector investment by 2030 a more than tenfold increase from today,” the report said.

Analysts and activists are split about the effectiveness of the summit and evidence of political willpower to follow through on recommendations. “I think the political will is there, I think resource constraints are real,” Serah Mekka, Africa executive director at ONE Campaign, told Al Jazeera. “I think the impact of climate change is very real for Africa ... so there is the urgency of the situation, I think where there is a will, there is a way.” Kevin Juma, of The Nature Conservancy, called for immediate action. “Even before today, there were announcements made on delivering climate finance to the Global South to a tune of \$100bn per year – that was 14 years ago,” he told Al Jazeera on Wednesday. “So I think what needs to be done is to translating those commitments and announcements to tangible actions on the ground.” Another environmental activist told summit participants on the event’s final day that carbon markets are “bogus solutions”.

“We reject forced solutions on our land,” said Priscilla Achakpa, founder of the Nigeria-based Women Environmental Programme. She urged the so-called “Global North” to “remove yourself from the perspective of the colonial past”. Carbon markets, in which polluters effectively offset emissions by investing in tree planting or conservation initiatives, are cheaper to purchase in Africa than in many other parts of the world where schemes are more strictly regulated. African nations seek a better price to help achieve their own emission-reduction targets. In Africa’s market, the continent earns less than \$10 per tonne of carbon. Other regions can receive over \$100 for the same amount. In carbon trading, one credit issued equals one tonne of carbon dioxide or another greenhouse gas equivalent removed from the atmosphere.

The voluntary carbon market, which remains dominant in Africa, has been plagued by integrity and transparency concerns. Environmental groups are concerned it is a free pass to keep polluting. The summit is part of Africa’s preparation for the next United Nations climate change conference, which is scheduled to take place in Dubai in December. It has largely featured leaders in government, business and civil society, many of them veterans of other climate gatherings. “Heading from event to event doesn’t leave us with a lot of constructive thinking time” to bridge the gaps that still divide communities on the best ways to reduce emissions,” said Simon Stiell, the executive secretary of the United Nations Framework Convention on Climate Change.

Aljazeera

<http://www.dieselgasturbine.com/>

7 September 2023

Germany's electricity export surplus decreases significantly in first half of 2023

Germany's net exports of electricity in the first half of this year were significantly lower than in the same period in 2022. The export surplus fell from 16.5 billion kilowatt hours (kWh) in the first six months of 2022 to 2.0 billion kWh in the same timeframe in 2023, according to preliminary data by the Federal Statistical Office (Destatis). "If we consider only the 2nd quarter of 2023, in which the nuclear power plants generated only 1.0 billion kilowatt hours of electricity until they were shut down on 15 April 2023, significantly more electricity was imported (18.5 billion kilowatt hours) than exported (11.4 billion kilowatt hours)," Destatis wrote. According to the statistical office, the import surplus of just over seven billion kWh roughly corresponds to the amount that the German nuclear power plants fed into the grid in the second quarter of 2022, at 7.3 billion kWh.

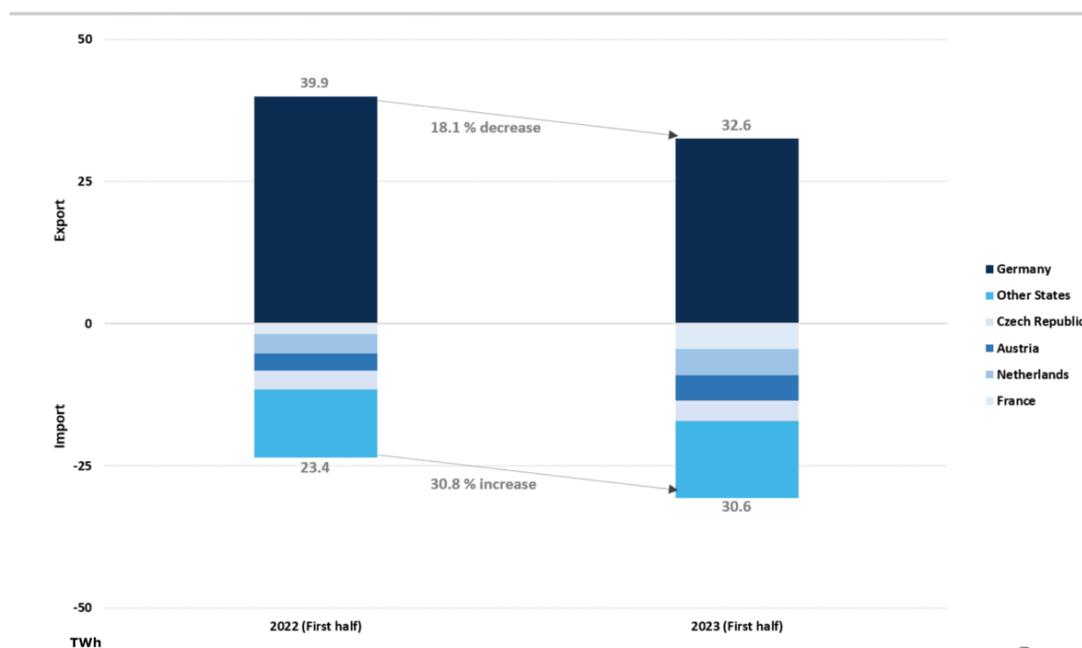
Energy industry association BDEW told news agency dpa that Germany's import balance was a sign of a functioning internal EU electricity market as it had been cheaper to generate electricity abroad in recent months, and thus replace inland fossil power



generation. Between 2003 and 2022 Germany was an annual net electricity exporter, although during that period there were individual months in summer in which Germany was a net importer of electricity. "Higher electricity imports in the summer months do not mean dependence on other European countries for electricity supply, nor are they an indication of shortages in Germany," BDEW head Kerstin Andreae said. The EU has been working for decades to integrate its internal electricity market and increase electricity flows across borders, as this can lower costs and strengthen supply security.

Germany's electricity imports and exports in H1 2022/2023

Source: Destatis



CC BY SA 4.0

Renewable energy sources supplied the majority (53%) of Germany's public net electricity consumption in the first half of 2023 (first half of 2022: 48.4%), according to Destatis. Electricity generation from coal fell by nearly a quarter compared to the first half of 2022, while wind power overtook coal to gain the highest share in electricity generation (29% and 27% respectively). Destatis counted net public electricity supply, and did not include the electricity power plants produce and use directly for their operation. The numbers therefore don't correspond to total electricity consumption.

Clean Energy Wire

<https://www.cleanenergywire.org/>

7 September 2023

ERCOT forced to declare emergency conditions in extreme heat as Texas flirts with blackouts

Experts say battery resources may have kept the grid operator from declaring rolling blackouts amid low renewables output and high thermal outages.

- The Texas grid narrowly avoided blackouts Wednesday evening as cooling demand from extreme heat combined with thermal outages and low solar and wind output to force the state's grid operator into emergency operating conditions.
- The Electric Reliability Council of Texas declared an Energy Emergency Alert 2 around 7:30 p.m. local time, allowing it to bring all available generation online, utilize reserve power and call on demand response. The EEA 2 was lifted after a little more than an hour.



- The extreme heat led to a new ERCOT September peak demand record of 82,705 MW. Last September, the highest demand recorded was 72,370 MW, the grid operator said.

ERCOT typically declares a less severe emergency, EEA 1, before turning to demand response and deploying operating reserves — but the situation moved so quickly Wednesday that the grid operator skipped that step.

“Due to low reserves and a drop in frequency, ERCOT entered directly into EEA 2. To protect the stability of the electric system, ERCOT has access to additional reserve sources only available during emergency conditions,” Pablo Vegas, ERCOT president and CEO, said in a statement.

An EEA 1 is called if operating reserves drop below 2,300 MW and are not expected to recover within 30 minutes. EEA 2 is called when operating reserves drop below 1,750 MW with similar recovery expectations. However, the grid operator indicated it was a drop in frequency that led to the EEA 2.

“High demand, lower wind generation, and the declining solar generation during sunset led to lower operating reserves on the grid and eventually contributed to lower frequency, which precipitated the emergency level 2 declaration,” Vegas said.

Grid frequency must be maintained between 60.1hz and 59.9hz, according to the grid operator.

Data from the ERCOT web site yesterday appeared to show frequency dropping to 59.8 hz, Texas energy analyst Alison Silverstein said in an email. She added that while wind output was low, it also appeared there was about 6,100 MW of thermal plants offline around 8 p.m. last night and ERCOT’s “general forecast for thermal outages anticipates 5 GW of thermal unavailable.”

That drop could be caused by a transmission line or power plant suddenly going out of service, Silverstein said. Battery resources kicked in between 7 p.m. and 8 p.m., she noted.

The EEA was likely triggered by a large power plant tripping offline, Texas energy market analyst and Stoic Energy President Doug Lewin tweeted. “Storage set an all-time record when it was needed most, almost certainly preventing rolling outages,” he added.

ERCOT posted an operational note after midnight, noting “no sudden loss of generation greater than 450 MW occurred” Wednesday.

“Thermal outages were not a factor in the ERCOT EEA last night. In fact, the thermal fleet performed extremely well, supplying more than 90% of the power Texans needed during that critical time,” Michele Richmond, executive director of Texas Competitive Power Advocates, said in an email.

Generators have been maintaining power plants, she said, taking small outages to make repairs or adjustments when anticipated demand was low or at times that other resources were expected to be available.

“This has been part of the effort to run as efficiently as possible and to be available to meet the record-breaking demand,” Richmond said. ERCOT has run the thermal fleet “exceptionally hard for an extended period of extreme heat to meet Texans’ needs. These resources will need to take time in the fall to perform required maintenance. ... This means that tight conditions may occur in the fall if other resources on which ERCOT depends underperform.”

Utilities warned customers to conserve energy and brace for blackouts.

“If rotating outages are called, we anticipate these controlled outages will last for approximately 15 minutes,” CPS Energy, which serves the San Antonio area, told its customers. “These situations move very quickly, and we will give you as much notice as possible but expect a short window from notice to impact.”



Wednesday's EEA 2 was the first time ERCOT has called a grid emergency since February 2021, according to Bloomberg. In that instance, frigid temperatures triggered blackouts that ultimately led to an overhaul of the state's energy markets and the development of weatherization standards for energy assets.

The Texas grid has remained stable this summer despite the state experiencing several heat waves and higher demand from population growth and economic expansion.

Travis Kavulla, vice president of regulation for NRG Energy and a former Montana regulator, tweeted congratulations to ERCOT for its "nimble actions to tap all available reserves, imports, and demand response to prevent outages." He added, "the big story here continues to be just the gobsmackingly huge growth in demand for electricity."

Utility Dive

<http://www.utilitydive.com/>

8 September 2023

California central buyer proposal could boost Pacific offshore wind industry, advocates say

California has adopted preliminary planning goals to install between 2 GW and 5 GW of offshore wind by 2030 and 25 GW by 2045.

- An agreement between California Gov. [Gavin Newsom, D, and state legislators](#) for a legislative package that includes creating a central power buyer for the state could give the West Coast's nascent offshore wind industry a significant boost, clean energy advocates say.
- The governor and lawmakers announced the agreement on Assembly Bill 1373 Aug. 31, noting that the proposal includes the creation of a central buyer to procure clean electricity, "focusing on sources like offshore wind and long-duration storage to diversify our energy portfolio."
- "It's hugely important for the offshore wind industry," Molly Croll, director of Pacific coast offshore wind at American Clean Power, said. "Right now, it's very difficult for any developer... to see a viable pathway to market and offtake," she added.

California has adopted preliminary planning goals to install between 2 GW and 5 GW of offshore wind by 2030 and 25 GW by 2045. In December, the U.S. Department of the Interior's Bureau of Ocean Energy Management held its first offshore wind lease sale in the Pacific Ocean. The sale drew winning bids from five companies totaling \$757.1 million — lower bid prices than those seen on the East Coast, which experts say indicate uncertainties with the West Coast offshore wind market, but could also be a boon to ratepayers in the long run.

Industry experts say that to move forward, project developers will need to see clearer market signals on how the state plans to procure offshore wind.

The new legislative agreement could, if approved, help do just that, clean energy advocates say. It would involve creating a central buyer for power procurement, accelerating permitting for electric transmission projects, and strengthening the state's strategic reliability reserve, a pool of resources that can kick in to support the grid during extreme conditions, like heat waves.

Electricity procurement in California is primarily based around three regulatory proceedings — integrated resource planning, resource adequacy, and the renewables portfolio standard, Croll said. As part of the integrated resource planning effort, the California Public Utilities Commission assesses the state's needed portfolio of resources, individual power providers' plans, and identifies any gaps, following which the agency might order procurement of resources by load-serving entities.



This new agreement, however, would allow for central procurement by the state's Department of Water Resources, she added. In this scenario, the department would sign a power purchase agreement with an offshore wind owner and operator, and the CPUC would determine whether the contract is just and reasonable before execution, according to Croll. The department would recover the costs of the contract through a non-bypassable charge approved by the commission, and paid for by customers of all state load-serving entities.

"So it's creating a new central procurement function within a state entity... with the capability of procuring large-scale, very long lead-time resources, in some cases utilizing new technologies for the benefit of all [load-serving entities] in the state," she said.

For most clean energy resources, like solar and battery storage, this wouldn't change a lot. But it could make a difference for large-scale resources like offshore wind that have long lead times, and can be challenging for individual power providers to procure on their own without state support, according to Croll.

Offshore wind developers and California's five leaseholders in particular might find it difficult to see a viable pathway to market and offtake, given the number of power providers and the typical timeframe and process for power procurement in California, she said.

"It's very hard to have confidence in a pathway to market and without that, developers would be really struggling to be making the next step of major investments," like permitting and port upgrades, according to Croll.

While a mechanism like the central buyer framework is by no means a guarantee of procurement, "it's hugely important as a practical tool and as a market signal," Croll said.

Offshore Wind California Executive Director Adam Stern also commended the agreement in a statement, noting that it would help get the state to its 25 GW of offshore wind goal by 2045. Procuring at scale is one of the key next steps California needs to bring offshore wind online, Stern said.

"AB 1373 will establish a robust mechanism to facilitate procurement and offer a clear path to market for diverse clean energy such as offshore wind and other resources," he added.

Utility Dive

<http://www.utilitydive.com/>

13 September 2023

ESS delivers 3 MWh iron flow battery systems to SMUD as part of larger 2 GWh deal

The technology's 10 to 12-hour duration was an important factor for the Sacramento Municipal Utility District, a utility official said.

Long-duration energy storage provider ESS Tech has delivered six energy storage systems, totaling 3 MWh, to California electric provider Sacramento Municipal Utility District, [the company announced Monday](#).

The six systems are the first delivery in a broader deal, announced last year, under which ESS will provide up to 200 MW/2 GWh of iron-flow long-duration energy storage systems to SMUD. The company estimates that these systems will reduce the utility's carbon emissions by 284,000 metric tons per year.

ESS iron flow technology's 10 to 12-hour duration was an important factor for SMUD, Chief Zero Carbon Officer Lora Anguay said. "It really complements renewable resources here at SMUD that we're looking at installing," including utility-scale and behind-the-meter solar, she added.

SMUD is aiming to deliver entirely [carbon-neutral electricity by 2030](#), 15 years ahead of California's 2045 goal of achieving 100% zero-carbon power.

Utility Dive

<http://www.utilitydive.com/>



13 September 2023

China achieves breakthrough in ocean thermal energy power generation

Chinese scientists and engineers have completed an offshore test of an ocean thermal energy electricity generation device in the South China Sea.

The 20 kW device, developed chiefly by the Guangzhou Marine Geological Survey (GMGS) under direct control of the China Geological Survey, was returned to Guangzhou, capital city of the southern Guangdong Province, after the test was completed.

During the test, the device generated electricity for four hours and 47 minutes, reaching a maximum power output of 16.4 kW.

"This offshore test verified the theoretical viability of the indigenously-developed ocean thermal energy power generation system, as well as its practicability, marking a crucial step in China's journey to develop and harness ocean thermal energy, from the land test stage to offshore applications," said Ning Bo, a senior engineer at the GMGS.

Ocean thermal energy harnesses temperature differences between the surface and deep seawater to generate electricity, thus being a source of renewable energy. According to Ning, China is rich in ocean thermal energy reserves, but relevant research had previously remained in the laboratory and land test stage.

State Council
<http://english.www.gov.cn/>