

WORLD POWER SYSTEMS REVIEW

1 February 2024

15 January 2024

China builds first provincial-level digital smart power grid

The first provincial-level digital intelligent power grid has been built in east China's Jiangsu Province, integrating over a trillion pieces of electric power data for the first time, local branch of State Grid said on Thursday.

It is a virtual power grid built in the digital space using advanced technologies such as industrial internet, BeiDou Navigation Satellite System and artificial intelligence, according to State Grid Jiangsu Electric Power Co., Ltd. Providing real-time insights into the operational status of the power grid, the digital power grid can greatly improve the operation efficiency of the power system. It also offers precise monitoring of the operational status of wind and photovoltaic power generation, charging piles and energy storage systems.

Using a large number of sensors and controllers, the system can dynamically monitor the operational status of the power grid covering an area of 100,000 square kilometers, said Wei Lei, a deputy director at State Grid Jiangsu. Based on the conditions and trends involving the installed capacity of new energy, the intelligent grid can automatically generate the optimal grid construction path, reducing the grid planning cycle by 60 percent, thereby, allowing more green power to be connected to the grid promptly.

In addition, the digital smart grid can automatically determine the location of the power failure by analyzing subtle anomalies in power consumption data. It then initiates remote guidance based on the intelligent maintenance program, helping swiftly restore the regional power supply. As an important pilot project for the construction of a new power system, the digital intelligent power grid will expand its interaction with other systems to provide new solutions for the construction of smart cities, Wei said.

XINGUANET
<http://news.cn/>

15 January 2024

EU industry concentration in 2021

Today Eurostat published an overview of industry concentration in the EU from 2018 to 2021 based on EuroGroups Register (ERG) data. Industry concentration measures the extent to which industry sales are dominated by one or more businesses. In this case, it focuses on employment concentration (as proxy for sales) at the 4 largest multinational enterprise groups by statistical classification of economic activities in the European Community (NACE).

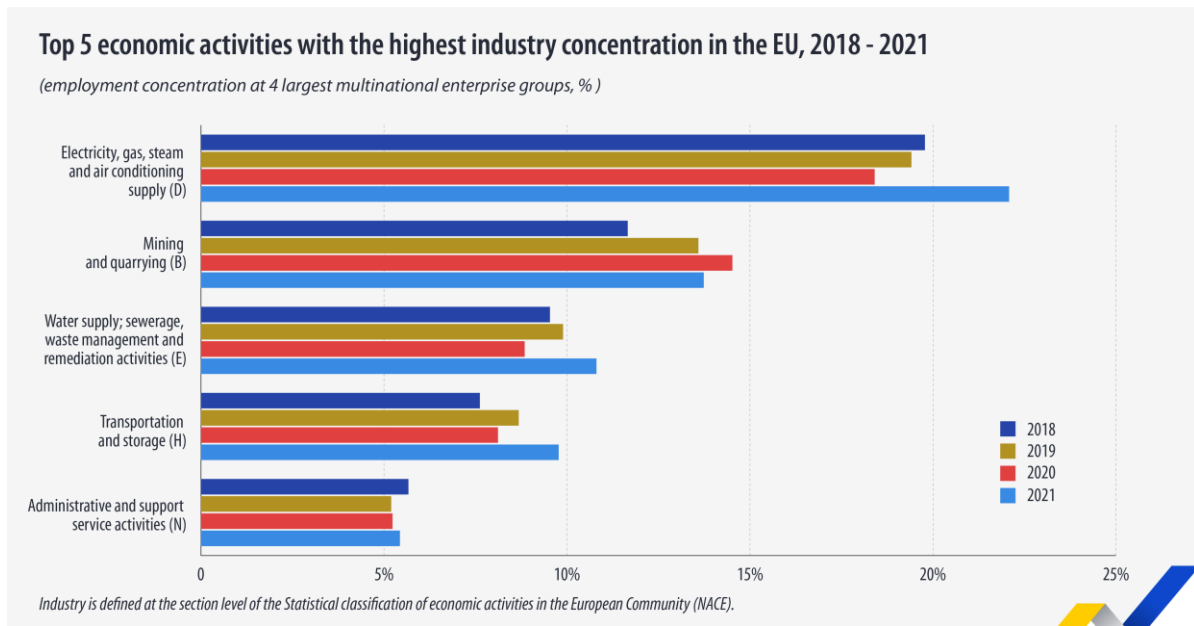
The highest values of industry concentration in 2021 in the EU were recorded in the following NACE sections: electricity, gas, steam and air conditioning supply (22.1% of employment concentrated in 4 largest enterprise groups), mining and quarrying (13.7%), water supply; sewerage, waste management and remediation activities (10.8%), transportation and storage (9.8%) and administrative and support services activities (5.4%).

In contrast, professional, scientific and technical activities (1.3%), real estate activities (1.5%) and accommodation and food service activities (1.6%) recorded the lowest levels of industry concentration in 2021.

Eurostat has used the possibilities of the EuroGroups Register to produce experimental statistics to measure industry concentration by showing how multinational enterprise groups in the EU and European Free Trade Association operate. The data and the information on the structure of the groups takes into account the links between the enterprises of the same group, as they do not compete on a certain industry but rather increase the concentration level, working towards group level profit maximization.

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eurostat

Eurostat
<http://ec.europa.eu/eurostat/>

17 January 2024

Biden-Harris Administration Announces Significant Progress to Catalyze Solar Energy Development Throughout the West

The Biden administration on Wednesday unveiled a [proposal](#) for solar energy projects on federal lands that identifies 22 million acres in 11 western states best suited for development.

The announcement is part of the Interior Department's push to site more renewable energy facilities on federal lands, a cornerstone of President Joe Biden's goal to decarbonize the U.S. electricity grid by 2035 and combat climate change. The draft plan published on Wednesday would update an Obama-era policy that established special zones for solar projects in six states - Arizona, California, Colorado, Nevada, New Mexico and Utah.

Interior said changes to the Bureau of Land Management's (BLM) 11-year-old Western Solar Plan were necessary due to advances in technology, soaring demand for renewable energy and increased interest in solar development in northern states. The new plan includes areas in Idaho, Montana, Oregon, Washington and Wyoming and is focused on lands within 10 miles of existing or planned transmission lines because those areas are easier to develop, Interior said.

It also excludes 126 million acres from development due to conflicts with things like critical wildlife habitats, recreation, historic places and old growth forests. The plan relied on federal forecasts for clean energy needs to determine that 700,000 acres of public lands would be needed for solar energy over the next 20 years.

Reuters
<http://www.reuters.com/>

17 January 2024

Poland to plan coal phase-out

Poland is planning to set an end date for coal-fuelled power, marking a change to the government's approach to climate change.

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According to the country's Secretary of State for Climate, Urszula Zielinska, the new government, which came to the fore after ending eight years of Law and Justice (PiS) party rule in October 2023, was increasing environmental efforts, including setting a phase-out date for coal power. Zielinska told reporters in Brussels: "Only with an end date we can plan and only with an end date industry can plan, people can plan. So yes, absolutely, we will be looking to set an end date." Poland derives 70% of its power from coal despite increasing wind and solar generation in recent years. In September 2023, Poland was also given the green light by the International Atomic Energy Agency to construct nuclear power plants and will begin building the first plant at Pomerania in 2026.

The previous government's agreement with trade unions to keep coal mining until 2049 has made it harder to phase-out the most CO₂-emitting fossil fuel. However, scientists have stressed that coal burning will have to be reduced drastically to avoid severe climate change, and UN secretary-general António Guterres has urged all countries within the Organisation for Economic Co-operation and Development to phase out coal by 2030. Zielinska said the new government will work to reduce output from heavily polluting industries, while considering the impact this may have on workers and communities.

Power-Technology

<http://www.power-technology.com/>

18 January 2024

The largest US solar + storage project is complete

Terra-Gen and Mortenson have substantially completed the Edwards & Sanborn Solar + Energy Storage project, the largest solar + storage project in the United States. Mortenson was the full engineering, procurement and construction (EPC) contractor on both the solar and energy storage scopes.

This project stretches over 4,600 acres and includes more than 1.9 million First Solar modules. In total, the project generates 875 MWDC of solar energy and has 3,287 MWh of energy storage with a total interconnection capacity of 1,300 MW. The project supplies power to the city of San Jose, Southern California Edison, Pacific Gas & Electric Co. and the Clean Power Alliance and Starbucks, among others. A portion of the project is situated on the Edwards Air Force Base and was the largest public-private collaboration in U.S. Department of Defense history. The project uses LG Chem, Samsung, and BYD batteries.

"Now fully operational, this facility is a transformational project in the industry and is providing resiliency to the grid," said Brian Gorda, VP of engineering at Terra-Gen. "The Mortenson team was tasked with an extremely difficult goal to build this project, and they proved to be the right partner for the job. We are excited to bring Edwards & Sanborn online and benefitting the people of California." In total, more than 1,000 craftworkers contributed to the project with more than 1 million hours of injury-free labor and a safety award by the California Association of General Contractors.

Solar Power World

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

18 January 2024

US Finalizes \$1.1 Billion in Credits for California Nuclear Plant

The administration of President Joe Biden has finalized \$1.1 billion in credits aimed to help keep open PG&E Corp's, opens new tab Diablo Canyon nuclear power plant in California, the Department of Energy said on Wednesday.

The \$6 billion Civil Nuclear Credit Program was funded by the 2021 bipartisan infrastructure law. The Biden administration set up the credit program to help existing

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nuclear power plants. It believes the plants are essential to help fight climate change and reaching its goal of what it calls 100% clean electricity by 2035.

The first payment of awards, for Diablo Canyon, California's last nuclear plant, is scheduled for 2025. Diablo's two reactors, which the Energy Department said provide 9% of California's power generation, had been slated to shut in 2024 and 2025. "Preserving the nation's nuclear fleet is critical not only to reaching America's clean energy goals, but also to ensuring that homes and businesses across the country have reliable energy," said Maria Robinson, director of the grid deployment office at the Department of Energy.

The U.S. nuclear power industry does not have a permanent place to put toxic, radioactive waste, a problem its critics say should be fixed before extending the life of reactors. Critics also say nuclear is too expensive to make a dent in fighting climate change. Friends of the Earth, an environmental group, has sued the U.S. Nuclear Regulatory Commission over allowing Diablo Canyon to keep running while they review their operating license renewal.

Reuters

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

21 January 2024

EDF's Hinkley Point C delayed again as costs continue to soar

The cost of the UK's Hinkley Point C nuclear plant has been projected to rise again, with figures from French energy major EDF published on Tuesday now suggesting final costs of up to £35bn (€32.12bn). The figure is based on 2015 price values. In today's terms, once inflation is taken into account, the number will be significantly higher.

The company, which is building and financing much of the project, also said in its 2024 update that the plant won't be operational until 2029 at the earliest, adding that the first reactor might not come online until 2031 in an "unfavourable scenario". It said that the cost of completing Hinkley will be between £31bn and £34bn, although if completion is delayed to 2031, costs would rise to £35bn.

The update delays the project's start date by a possible further four years from the previous announcement in May 2022 that the plant would be operational by 2027, a deadline which was already one decade later than the original one given in 2007 when the project was approved. EDF's latest update puts the project's completion nearly 15 years over the first deadline.

In a video message published with the written update, Hinkley Point C boss Stuart Crooks blamed recent delays on the Covid-19 pandemic, inflation and Brexit. He also said that because the project has taken so long, design plans have had to be changed several hundred times, requiring more construction materials. Less than a year ago, in February 2023, it was reported that costs at Hinkley Point would soar far beyond budget. At the time, based on inflation indices as of 30 June 2022, EDF executives said the cost of the plant could reach £32.7bn.

Power-Technology

<http://www.power-technology.com/>

22 January 2024

Transition Cycle 1 of New Interconnection Process Begins Jan. 22

Transition Cycle 1 of PJM's reformed interconnection process officially starts Jan. 22 when PJM will begin performing System Impact Studies on 308 projects representing 46,000 MW of new, mostly renewable, generation.

Projects that were classified as Transition Cycle 1 (TC1) from the recent Transition Sorting Retool analysis will be analyzed using a cluster-based study approach. After the

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Phase 1 System Impact Study is completed, PJM will post results to a new webpage that will be dedicated to Transition Cycle projects. PJM also will provide updates on study progress at the monthly public meetings of the Interconnection Process Subcommittee.

TC1 projects are expected to clear PJM's study process and be ready for construction by mid-2025. In addition to Transition Cycle 1 projects, 308 projects totaling 26,000 MW qualified for an Expedited Process, or "Fast Lane," with final documentation to be issued throughout 2024. PJM anticipates posting the study cases for those projects the week of Jan. 22. They will be updated in sequential queue order.

PJM will make periodic announcements to stakeholders as the cases and files for Expedited Process projects are available and posted on PJM.com. PJM has posted a Frequently Asked Questions (PDF) document to address developers' questions about the project re-sort. At the end of 2023, about 40,000 MW of projects that had completed the PJM study process had yet to move through construction due to issues including siting, supply chain and financing.

PJM's new interconnection process was implemented in July 2023, with 734 projects eligible to be evaluated in the first step. Of those, 118 either dropped out of the process or did not post sufficient readiness requirements by the due date, clearing the queue of projects that were less certain to be developed but still requiring the same time and resources from PJM. PJM's interconnection process reform, widely supported by stakeholders, was approved by the Federal Energy Regulatory Commission in November 2022. The reforms, devised in collaboration with stakeholders, provide an efficient and timely process for handling New Service Requests by, among other changes, transitioning from a "first-come, first-served" queue approach to a "first-ready, first-served" cycle approach.

The new process also improves project cost certainty for Network Upgrades and significantly enhances the overall process by which new and upgraded generation resources are studied and introduced onto the electrical grid in 13 states and the District of Columbia. PJM's transition to its new interconnection process sets the stage for more than 260,000 MW of mostly renewable projects to be studied over the next three years.

Insidelines PJM
<http://insidelines.pjm.com/>

22 January 2024

Further steps to prepare Sizewell C for construction

The government has made an additional £1.3 billion available to support the construction of Sizewell C, which will create thousands of jobs and enough stable, cheaper and more secure power for up to 6 million homes. The largest funding package to date will allow early construction works to continue ahead of a final investment decision later this year.

The funding – made available from existing budgets – will support ongoing preparatory works such as improvements to roads and rail lines around the Suffolk site, ensuring the necessary local infrastructure is in place before full construction begins. Committing further government support at this stage will help the project stay on schedule and keep down overall costs. The Development Consent Order (DCO) triggered by Sizewell C on 15 January gave the formal green light for construction to begin and released £250 million funding for initiatives for the local community and environment.

Investing an additional £1.3 billion consolidates the government's position as the majority shareholder in the project, reached in December 2023. It follows a £700 million funding pledge in November 2022 and a further £511 million agreed last summer. Earlier this month the government announced the biggest expansion of nuclear power for 70 years, with the Civil Nuclear Roadmap setting out how the UK will quadruple nuclear power

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generation to up to 24GW by 2050. It commits to exploring another GW-scale power plant similar in scale to Sizewell C, simplifying regulation and building a fleet of Small Modular Reactors.

In addition to the 500 people employed so far, Sizewell C has plans to award 70% of the value of construction to UK businesses, helping to create thousands of jobs in Suffolk and nationwide. The project will also create 1,500 apprenticeships, helping to build the skills base to support the UK's long-term plans for new nuclear. Once operational, the plant will generate 3.2GW of electricity, equating to 7% of the UK's needs and enough to power up to 6 million British households for over 60 years.

GOV.UK

<http://www.gov.uk/>

22 January 2024

Japan Launches Auction for Two Offshore Wind Power Projects

The Japanese government has opened a tender for two new offshore wind areas, for which the country will designate developers by the end of this year. On 19 January, Japan's Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism launched the tender for an offshore wind site in the Sea of Japan, off the coast of Aomori Prefecture, and a site off the coast of the town of Yuza in Yamagata Prefecture.

The tender is open until 19 July and the developers of the two project sites will be selected by December this year. According to the Ministry of Land, Infrastructure, Transport and Tourism, the two sites were designated for offshore wind development in October 2023, with public consultation held over the two following months. The launch of the tender for the two new areas comes shortly after the Japanese government announced the winners of its previous auction in December 2023.

As reported last month, three consortia, one led by JERA, one by Sumitomo Corporation, and one by German RWE, have been selected to develop projects off Akita, Nagasaki and Niigata Prefectures. Japan has also put another, fourth site out to tender in that round, but the winner of this site is expected to be announced in March.

Offshorewind.biz

<http://www.offshorewind.biz/>

23 January 2024

Clean sources of generation are set to cover all of the world's additional electricity demand over the next three years

Global electricity demand is expected to grow at a faster rate over the next three years as the clean energy transition gathers speed, with all the additional demand forecast to be covered by technologies that produce low-emissions electricity, according to a new [report](#) from the IEA.

Electricity 2024 is the latest edition of the IEA's annual analysis of electricity market developments and policies, providing forecasts for demand, supply and carbon dioxide (CO₂) emissions from the sector through 2026. The report finds that while global growth in electricity demand eased slightly to 2.2% in 2023 due to falling electricity consumption in advanced economies, it is projected to accelerate to an average of 3.4% from 2024 through 2026. About 85% of the increase in the world's electricity demand through 2026 is expected to come from outside advanced economies – most notably China, India and countries in Southeast Asia.

However, record-setting electricity generation from low-emissions sources – comprising renewables, such as solar, wind and hydro, as well as nuclear power – should reduce the role of fossil fuels in providing power for homes and businesses. Low-emissions

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sources are expected to account for almost half of the world's electricity generation by 2026, up from a share of just under 40% in 2023.

Renewables are set to make up more than one-third of total electricity generation by early 2025, overtaking coal. By 2025, nuclear power generation is also forecast to reach an all-time high globally as output from France climbs, several plants in Japan come back online, and new reactors begin commercial operations in many markets, including in China, India, Korea and Europe. When the share of fossil fuels in global generation falls beneath 60%, this will mark the first time it has gone below this threshold in IEA records dating back more than five decades.

“The power sector currently produces more CO₂ emissions than any other in the world economy, so it's encouraging that the rapid growth of renewables and a steady expansion of nuclear power are together on course to match all the increase in global electricity demand over the next three years,” said IEA Executive Director Fatih Birol. “This is largely thanks to the huge momentum behind renewables, with ever cheaper solar leading the way, and support from the important comeback of nuclear power, whose generation is set to reach a historic high by 2025. While more progress is needed, and fast, these are very promising trends.”

The report finds that the increase in electricity generation from renewables and nuclear appears to be pushing the power sector's emissions into structural decline. Global emissions from electricity generation are expected to decrease by 2.4% in 2024, followed by smaller declines in 2025 and 2026.

The decoupling of global electricity demand and emissions would be significant given the energy sector's increasing electrification, with more consumers using technologies such as electric vehicles and heat pumps. Electricity accounted for 20% of final energy consumption in 2023, up from 18% in 2015, though meeting the world's climate goals would require electrification to advance significantly faster in the coming years.

Electricity prices were generally lower in 2023 than in 2022. However, price trends varied widely among regions, affecting their economic competitiveness. Wholesale electricity prices in Europe declined by more than 50% on average in 2023 after having reached record highs in 2022 following Russia's invasion of Ukraine. Yet electricity prices in Europe last year were still more than double pre-Covid levels, while prices in the United States were about 15% higher than in 2019. Electricity demand in the European Union declined for the second consecutive year in 2023, and it is not expected to return to levels seen before the global energy crisis until 2026 at the earliest.

Although demand for electricity in Europe and the United States declined in 2023, many emerging and developing economies recorded robust growth that is set to continue through 2026 in response to increasing populations and industrialisation. During the outlook period, China is expected to account for the largest share of the global increase in electricity demand in terms of volume, even as its economic growth slows and becomes less reliant on heavy industry. Meanwhile, India is set to see electricity demand rise the fastest among major economies, with demand added over the next three years forecast to be roughly equivalent to the current electricity consumption of the United Kingdom.

As a region, Africa remains an outlier in electricity demand trends, according to the report's analysis. While electricity use per capita in India and Southeast Asia has risen rapidly, it has been effectively stagnant in Africa for more than three decades.

“Electricity use is a key indicator of economic development in any country, and it's a grim sign that it has flatlined in Africa on a per capita basis for over three decades,” Dr Birol said. “Access to reliable, affordable and sustainable energy for all citizens is essential for African countries to achieve their economic and climate goals. The international community

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needs to work together with African governments to enable the urgent progress that is needed.”

IEA

<http://www.iea.org/>

24 January 2024

IEA: US electric demand set to grow 1.5% annually through 2026 on manufacturing, electrification

After falling 1.6% last year on mild weather, U.S. electricity use is set to grow 1.5% per year from 2024 through 2026, driven by increased manufacturing and electrification in the transportation and building sectors, the International Energy Agency, or IEA, said Wednesday. About a third of the additional demand is expected to come from the rapidly growing data center sector, according to the agency’s annual electricity report. In part, the anticipated demand growth is spurred by provisions in the Inflation Reduction Act and the bipartisan infrastructure law that offer incentives for electric heat pumps, water heaters and other energy saving electric appliances, the IEA said. In September, for example, governors from 25 states and the Biden administration announced plans to quadruple the number of heat pumps in U.S. homes by 2030, to 20 million from 4.7 million, the IEA said.

Looking at last year, U.S. electricity use fell because of milder winter and summer weather compared to 2022, according to the IEA. Also, manufacturing activity fell amid a drawdown of inventories, strikes in the automotive industry and inflationary pressures, the agency said.

In Canada, electric demand fell 1% last year, but the IEA expects it will grow by about 1% annually through 2026, according to the report. After growing 2.2% in 2023, the IEA expects global electricity use will surge 3.4% a year in the next three years, driven by growth in China and other emerging markets. On the generation side, the IEA U.S. wind and solar production to outpace coal-fired generation for the first time in 2024.

“Installations of wind and solar are expected to increase renewable generation by around 10% annually between 2024 to 2026, although financing and supply chain issues are causing delays and cancelations of some [U.S.] projects, particularly for offshore wind,” the agency said. It expects U.S. coal-fired output to fall by nearly 10% a year through 2026 as power plant retirements continue, although at a slower pace than in the last two years. The agency expects gas-fired generation to remain roughly the same over the three-year period starting this year. With growing renewables and declining coal generation, the IEA said it anticipates U.S. power sector carbon emissions and emissions intensity will fall at annual rates of 4% and 5%, respectively, between 2023 and 2026.

IEA

<http://www.iea.org/>

25 January 2024

PJM Review: System Performed Well During Winter Storm Gerri

A preliminary review of system operations during Winter Storm Gerri Jan. 13–18 revealed strong generator and transmission performance, accurate load forecasting, and successful coordination with other regions.

PJM served a peak load of 134,777 MW at 8:10 a.m. Jan. 17, at the depth of the frigid weather that swept from the western part of the PJM region through to the East Coast, said Dave Souder, Executive Director – System Operations, in a presentation (PDF) to the Markets & Reliability Committee Wednesday. More details will be discussed at upcoming February meetings of the Market Implementation Committee and Operating Committee, Souder said.

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Souder began his presentation by thanking generation and transmission owners for their solid performance and close coordination, and noted that PJM implemented only a limited set of emergency procedures to handle system stress, including:

- Cold Weather Advisory, Western Zone, Jan. 14–22
- Cold Weather Alert, Western Region, Jan. 14–17 and Jan. 19–22
- Conservative Operations, Jan. 13–17
- NERC Transmission Loading Relief Level 1, Jan. 17

Natural gas generation in particular showed improved performance from Winter Storm Elliott in December 2022, due in part to fewer outages from the gas production and transportation sectors. At its peak, the forced outage rate during the recent cold weather was 16,119 MW; outages during Elliott reached as high as 46,000 MW. Souder noted that the extreme low temperatures during Winter Storm Gerri did not impact the entire PJM footprint, as they did during Elliott.

Souder said fewer well freeze-offs and limited pipeline disruptions allowed for consistent gas supply, and the PJM Gas-Electric Team maintained continuous communication with the pipeline control centers to monitor and share operating conditions and forecasts.

PJM's forecasts of electricity demand, or load, were consistently within 3% of the actual peak load, and the number of generator outages matched anticipated outage levels. Throughout the week, PJM exported anywhere from 5,000 MW to 12,000 MW, with an average of approximately 8,000 MW, to neighboring systems, Souder said. During the coldest periods, Souder said, PJM's exports represented nearly 10% of its own needs.

Insidelines PJM

<http://insidelines.pjm.com/>

25 January 2024

China's energy storage capacity soars to support clean energy transition

China's energy storage capacity is rocketing to facilitate the utilization of growing renewable power amid the country's efforts to pursue low-carbon development. China's installed new-type energy storage capacity had reached 31.39 gigawatts by the end of 2023, the National Energy Administration (NEA) said on Thursday.

Last year alone, 22.6 gigawatts of such capacity was installed, which was more than 3.6 times the figure at the end of 2022 and nearly 10 times that at the end of 2020. Lithium-ion batteries accounted for 97.4 percent of China's new-type energy storage capacity at the end of 2023 and other technologies are developing rapidly, said Bian Guangqi, an NEA official, at a press conference. The NEA will actively encourage technological innovation and push ahead with the diversified and high-quality development of new-type energy storage, Bian said.

GOV.CN

www.gov.cn

25 January 2024

New Jersey approves two offshore wind projects totaling 3.7 GW

The New Jersey Board of Public Utilities announced Wednesday that it has awarded 2.4 GW of capacity to the Leading Light Wind project and around 1.3 GW of capacity to Attentive Energy Two as part of the state's third offshore wind solicitation. Leading Light Wind is being developed by Invenergy and energyRe, and Attentive Energy Two is a joint venture of TotalEnergies and Corio Generation. Both have an estimated completion year of 2031. The announcement puts New Jersey's offshore wind commitments back on track after

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the state lost a potential 2.2 GW in November, when Ørsted canceled two projects along the coast.

The two procurements come close to meeting the maximum goal of 4 GW that the state had set for this solicitation round. New Jersey's funding for offshore wind is based on awarding Offshore Wind Renewable Energy Certificates to qualifying projects. "New Jersey now has more than 5.2 GW contracted, marking substantial progress toward its 11 GW by 2040 goal," the Oceanic Network said in a statement. "Along with these projects and Atlantic Shores Offshore Wind, which is currently under development, the state has already made huge strides in developing its offshore wind supply chain."

Oceanic Network CEO Liz Burdock congratulated New Jersey Governor Phil Murphy, D, and the NJBPU on a "bold and successful procurement process." After Ørsted canceled its two Ocean Wind projects, Murphy had faced criticism from New Jersey Senate Minority Leader Anthony Bucco, R, who called the projects a "boondoggle" and said the cancelations had exposed Murphy's "failed progressive offshore wind agenda. Murphy's administration doubled down on its offshore wind commitments after the cancelations, however, announcing later in November that it would accelerate the schedule for its fourth offshore wind solicitation. That solicitation is expected to launch early this year, with project awards granted in early 2025. "Governor Murphy's leadership is positioning New Jersey as a significant hub for offshore wind development," said Anne Reynolds, the American Clean Power Association's vice president for offshore wind.

Both Leading Light Wind and Attentive Energy Two have committed to supporting the creation of a tower manufacturer at the New Jersey Wind Port, and sourcing monopiles from an EEW facility at the Port of Paulsboro, according to the NJBPU. Reynolds said this announcement marked "a significant commitment to developing the New Jersey Wind Port, which will generate up to \$500 million in new economic activity annually for the Garden State." In separate news releases, TotalEnergies said the development of Attentive Energy Two "is expected to provide up to \$105 million in community investments across the state," and Invenergy said the Leading Light Wind project partners have allocated up to \$150 million for a "comprehensive" community benefits program.

Utility Dive

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

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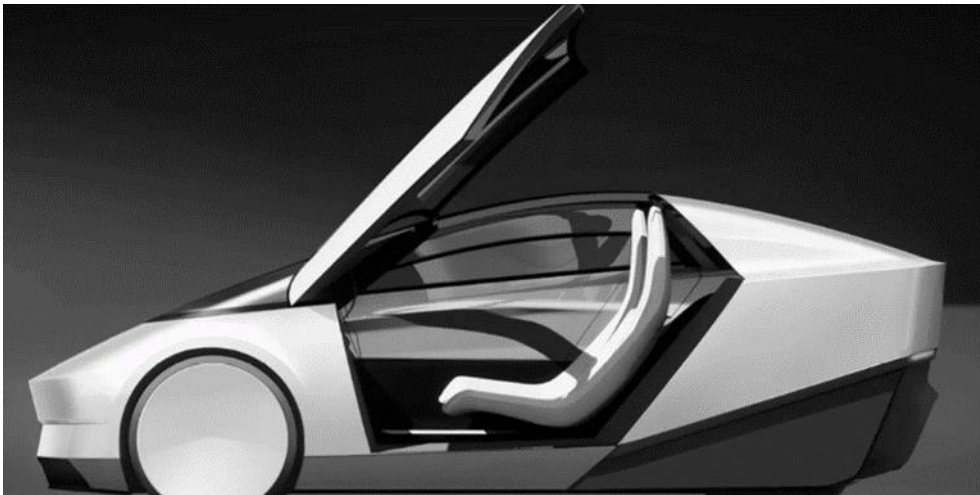
Elon Musk: Tesla Aims for Next-Gen EV to Come in Late 2025

Elon Musk has disclosed that Tesla is currently aiming for its next-generation electric vehicles, which will include a much cheaper electric car, to come in late 2025.

At Tesla's 2023 Investor Day in March, the automaker unveiled a new car manufacturing system, which CEO Elon Musk claimed would be faster, more efficient, and enable the production of cheaper electric vehicles. The general idea is that Tesla wants to be able to work on separate sections of the vehicle individually and only bring the car together at a new "more final" assembly.

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It differs from the more traditional car manufacturing model to move the entire vehicle body down a line all the way to the final assembly. Tesla's next-generation vehicles, a cheaper "\$25,000 model" and a robotaxi, are expected to be the first to use this new system. With the release of Tesla's Q4 2023 earnings, Musk briefly commented on the timeline for Tesla's next-generation vehicles.

The CEO said that Tesla's current "tentative" internal timeline is to start production in "late 2025". He noted that this timeline is to be taken with a grain of salt and that a lot of things can negatively affect it. The comment came after a report from Reuters this morning alleging that Tesla was planning to bring the vehicles to production in "mid-2025". Musk also warned that the production ramp is going to be difficult, which is why the company decided to start production at Gigafactory Texas, where its engineering team is located, rather than the upcoming Gigafactory Mexico. We learned from Musk's approved biography that the next-generation vehicles will be futuristic-looking and 'Cybertruck-like'.

Electrek

<http://electrek.co/>

25 January 2024

Korea: Cold wave drives up electricity consumption

In the midst of a cold wave that began on Monday, a surge in electricity demand this week prompted the government to check supply and demand.

The Ministry of Trade, Industry and Energy held a meeting to inspect the winter power situation on Thursday with second vice minister Choi Nam-ho and officials from the Korea Power Exchange and Korea Electric Power Corporation (KEPCO) in attendance. The maximum daily power demand jumped from 81 to 86 GW last week to 89-point-two GW on Tuesday. The ministry said that it is managing supply and demand in a stable manner while maintaining a reserve capacity of over 15 GW. The second vice minister said the country has sufficient reserves, adding that it will ensure that there are no disruptions in supply during the remaining winter season.

KBS World

<http://world.kbs.co.kr/>

25 January 2024

Iran, Turkiye ink contract to connect power grids

Iran and Turkey inked 10 cooperation documents and memorandums of understanding (MOUs) to boost bilateral investment and economic cooperation between the

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two countries during Iranian President Raisi's official trip to the neighboring country on Wednesday, IRNA reported.

During President Raisi's visit to Ankara, the two sides held the eighth meeting of the Iran-Turkey Supreme Council of Economic Cooperation which was also attended by the Turkish President Recep Tayyip Erdogan. The signed documents and memorandums of understanding (MOUs) cover a variety of areas including the use of Iran's foreign currency resources in Turkey, connecting power grids, railway and road construction, investment in gas fields, construction of a new gas pipeline from Iran to Turkey, strengthening air transportation cooperation, and easing the trade between the two countries traders and businesspersons.

Iran Grid Management Company and the Turkish Electricity Transmission Company (TEIAS) also signed an agreement on the sidelines of the mentioned gathering to make the Khoy-Van grid line operational. Iran's Mehdi Moghimzadeh and Turkey's Orhan Kaldirim signed the contract for the connection of the 400-kilovolt BtB HVDC line between Khoy (Iran) and Van (Turkey) during a meeting in Ankara on Wednesday with the presence of Raisi and Erdogan.

Moghimzadeh said that the operation requires state-of-the-art equipment and is also Iran's first experience in cross-border grid connection via HVDC infrastructure. The pilot operation of the BtB HVDC was successfully carried out last year, the Iranian manager said, adding that the new agreement paves the way for real operation, which can create an opportunity to exchange power with Turkey and some European countries.

Iran News

<http://irannewsdaily.com/>

26 January 2024

National Grid Corporation of the Philippines holds ceremonial switch-on for P51 billion Mindanao-Visayas Interconnection

The completion of the 450-megawatt Mindanao-Visayas Interconnection Project (MVIP) of the National Grid Corp. of the Philippines (NGCP) will unlock enormous socio-economic opportunities in the two regions, President Marcos said yesterday.

In his speech during the ceremonial switch-on of the P51.3-billion interconnection at Malacañang, Marcos said this is the first time in the nation's history that the three major power grids – Luzon, Visayas and Mindanao – are now physically connected. The energization ceremony was simultaneously held at Malacañang, NGCP's Dumanjug Converter Station in Cebu and Lala Converter Station in Lanao del Norte. "The realization of our 'One Nation, One Grid' aspiration is definitely a crucial turning point for this country in ensuring reliable power at all times," Marcos said.

Under the project, a 184-circuit-kilometer High-Voltage Direct Current submarine cable with a transfer capacity of 450 megawatts now connects the Mindanao and Visayas grids through Dapitan, Zamboanga del Norte and Santander, Cebu. Marcos said the infrastructure allows power generation in Mindanao to supply homes and establishments in the Visayas and Luzon, and vice versa.

An initial load of 22.5 MW was carried by the high voltage submarine and overhead lines from Mindanao to the Visayas during its energization on April 30 last year and was gradually ramped up to full capacity, according to a statement from the NGCP. Parts of the MVIP were already completed in 2022, including the Lala-Aurora 138kV Transmission Line, the 350kV Submarine Cable and Cable Terminal Stations in Santander, Cebu and Dapitan, Zamboanga del Norte.

The President, meanwhile, urged the NGCP to complete the 230 kilovolts (kV) Cebu-Negros-Panay backbone project by March this year to prevent a repeat of the Panay Island

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blackout early this month that caused P3.8 billion in economic losses to Iloilo and inconvenience to thousands of residents.

“This incident emphasized the vital role of these interconnection projects. We cannot afford to have another round of this costly interruption, not only in Panay Island but anywhere in the country,” Marcos said. The Chief Executive also looks forward to the completion of the Hermosa-San Jose 500 kV transmission lines next month. “Let me reiterate the need for greater responsibility, transparency and accountability among key players in our power sector, with the NGCP as the singular operator of our country’s united power grid,” Marcos said.

Marcos renewed his order to the Energy Regulatory Commission (ERC) to complete the reset of NGCP’s rates without further delay to ensure compliance with its statutory and regulatory obligations and to defend against any attempt to defer, delay or prevent the implementation of regulatory measures. He also directed the Department of Energy and ERC to look into the proposal of allowing third parties to construct transmission projects at the pace required by the country’s power needs as it grows out of the pandemic economy.

Philstar Global

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

29 January 2024

China’s solar power capacity soared by 55% in 2023 and wind capacity by 21%

China’s National Energy Administration (NEA) has released its power industry statistics for 2023, which show that solar power capacity soared by 55% to surpass 609 GW, while wind power installed capacity rose by nearly 21%, surpassing 441 GW. Thermal power capacity increased by 4.1% in 2023 to around 1,390 GW, nuclear capacity by 2.4% to nearly 57 GW and hydropower capacity by 1.8% to above 421 GW. Overall, China’s installed capacity rose by nearly 14% in 2023 to reach nearly 2,920 GW.

China’s capacity growth has been driven by a set of government targets announced in the country’s Five-Year Plan released in 2020, under which China plans to achieve peak emissions by 2030 and carbon neutrality by 2060. The Chinese Government has committed to build 1,200 GW of renewables capacity by 2030.

In addition, the NEA announced that electricity consumption in China increased by 6.7% in 2023 (including +6.5% for industry, +12% for services and +0.9% for households).

Enerdata

<http://www.enerdata.net/>

30 January 2024

EU needs trillions of investments for 2050 climate target – research

The European Union will need 1.5 trillion euros (\$1.6 trillion) per year of investments to meet its 2050 net zero emissions target, research backed by Green EU lawmakers said on Monday. The European Commission is set to recommend next week that the EU cuts net emissions 90% by 2040, from 1990 levels, and outline the huge upfront increase in investments needed to get Europe on track to have zero net emissions by 2050.

Most of the funding needed for net zero - 1.16 trillion euros per year - could be secured by redirecting existing spending, much of it on polluting activities, according to the research by the Institut Rousseau think-tank, which was commissioned by Green EU lawmakers. That would imply a huge divestment from areas like combustion engine cars, fossil fuel production and new airports, and a jump in investments into public transport, renovating buildings and expanding renewable energy, the researchers said.

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"Much of the money needed is out there, but we need massive divestment from climate killing projects," said Philippe Lamberts, Co-President of the Green lawmakers group in the European Parliament.

As climate change unleashes increasingly costly extreme weather, EU policymakers are gearing up for EU elections in which climate policy is set to be a key issue. Some governments are pushing back on the EU's green agenda, citing its costs, while farmers protesting in France have called for the rolling back of some EU environmental rules. Opinion polls suggest the EU election could make passing ambitious climate policies harder, if it results in more lawmakers from populist and right-wing parties.

A draft of the Commission's internal modelling for the 2040 climate target, seen by Reuters, suggested a similar scale of investment would be needed, of roughly 1.5 trillion euros per year in less polluting energy systems. The researchers said the investments needed to reach net zero emissions would mostly come from the private sector, but public spending on the green transition would also need to double, to 490 billion euros per year. For comparison, the EU currently spends 359 billion euros per year on fossil fuel subsidies, they said.

Reuters

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

31 January 2024

Coastal Virginia Offshore Wind Project secures final federal approvals

Dominion Energy has officially secured the final two significant federal approvals required to initiate the construction of its 2.6GW Coastal Virginia Offshore Wind (CVOW) project. This milestone ensures that the largest offshore wind farm in the US remains on track to produce ample clean and renewable energy, with the capacity to power up to 660,000 homes upon completion in late 2026.

The Bureau of Ocean Energy Management (BOEM) has granted its ultimate approval for the Construction and Operations Plan (COP) of Coastal Virginia Offshore Wind (CVOW), signifying the authorisation for offshore construction. Simultaneously, the US Army Corps of Engineers has issued the necessary permit, allowing for regulated impacts to US waters.

This includes approval for the route of the electric transmission line, facilitating the connection of the clean, renewable energy generated offshore to the onshore electric grid. The economic development and job opportunities generated by offshore wind represent a transformative impact on Hampton Roads and the Commonwealth. Over 750 workers based in Virginia, with nearly 530 in the Hampton Roads region, have actively participated in the Coastal Virginia Offshore Wind (CVOW) project and other supporting businesses.

This involvement spans various activities, including redevelopment initiatives at the Portsmouth Marine Terminal, construction of the offshore wind Monitoring and Coordination Center, maritime provisioning, ship maintenance, heavy lift and rigging, cybersecurity, as well as roles in food service and hospitality. Anticipating ongoing operations and maintenance, the project is expected to create over 1,000 local jobs following the commencement of commercial operation. The Coastal Virginia Offshore Wind (CVOW) project is designed to incorporate 176 turbines and three offshore substations within an expansive 113,000-acre lease area off the coast of Virginia Beach.

Commencing with onshore construction activities in November 2023, following the Bureau of Ocean Energy Management's (BOEM) favorable Record of Decision, these activities are set to intensify with the recent receipt of the last necessary approvals. Furthermore, initial offshore construction endeavors, including work on the export cable and the installation of monopile foundations, are slated to commence in the second quarter of this year.

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NS Energy

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