16 September 2024

CPUC Sets New Energization Timelines for Calif. IOUs

The California Public Utilities Commission on Sept. 12 approved rules requiring the state's three large investor-owned utilities to meet stricter timelines and targets for connecting electricity customers to the grid. "Electricity is the fuel of our future, and the utility grid must be ready to meet customer needs for energization without delay," said CPUC President Alice Reynolds. "This decision moves us forward by improving oversight, transparency and accountability to serve the needs of EV charging stations, new housing developments, building electrification and other customer requests for service."

The timelines are meant to expedite the process for new and upgraded electrical services, enhance utility accountability, offer greater transparency for customers and support California's climate goals, according to a CPUC press release.

The new rules apply to Pacific Gas and Electric, Southern California Edison and San Diego Gas & Electric. If targets are met by IOUs, maximum timelines for grid connections could be reduced up to 49% compared with current operations, increasing the speed of energization for projects reliant on electricity connections, the press release notes.

The decision implements Senate Bill 410, known as the Powering Up Californians Act, and Assembly Bill 50, both of which direct the CPUC to define reasonable average and maximum energization timelines for new or upgraded electrical loads, publish biannual reports, establish a process for reporting delays and adopt remedial actions if they are exceeded.

SB 410 addresses the time necessary to complete customer energization requests, including upgrades to the distribution system and the extension of new electric service. It requires the commission to, no later than Sept. 30, 2024, establish the average and maximum time an IOU should take to complete upgrades or establish new service, as well as a method for customers to report instances when those energization targets are met.

"The bill recognizes that to meet California's decarbonization goals, new customers must be promptly connected to the electrical distribution system, and existing customers must have their service level upgraded in a timely manner," the decision said.

AB 50 requires the CPUC to determine the criteria for what is considered timely energization for electric customers. It also requires "each large electrical corporation that energized less than 35% of customers with completed applications exceeding 12 months in duration by Jan. 31, 2023, to submit a report to the commission, as specified, on or before Dec. 1, 2024, demonstrating that the large electrical corporation has energized 80% of customers with applications deemed complete as of Jan. 31, 2023, as specified."

The CPUC's decision sets a target for an average timeline of 182 days and a maximum timeline of 357 days for energization of the commission's Rule 15 projects, which involve distribution line extensions for IOUs. For Rule 16, which refers to service line extensions typically associated with a single customer instead of multiple customers, the target sets an average timeline of 182 days and a maximum of 335 days for energization.

Rule 29, which refers to EV infrastructure, shares the same timelines, and several other energization timing targets are set for application decisions, circuit or substation upgrades, and main panel upgrades.

"As we move further along in the energy transition, we must ensure that all customers have timely access to electric service," said CPUC Commissioner Darcie Houck. "This decision is a positive step forward in helping to meet California's ambitious clean energy goals while appropriately balancing customer need and affordability with utility capabilities."

RTO Insider

http://www.rtoinsider.com/

17 September 2024

ISO-NE supports states' successful bid for $389M energy infrastructure grant

ISO New England served as lead technical adviser to the six New England states in their successful application for a federal grant to support offshore wind and energy storage development. The effort is an example of the type of regional collaboration that will be essential to supporting a reliable clean energy transition.

The US Department of Energy recently announced that the states will share $389 million in funding for a project called Power Up New England. The project involves upgrading transmission substations and other infrastructure in Massachusetts and Connecticut, which will enable up to 4,800 megawatts of additional offshore wind resources to connect to the regional power grid. It also involves building a multiday battery energy storage system in Maine.

The grant is part of the $10.5 billion Grid Resilience and Innovation Partnerships (GRIP) program, which is intended to enhance the nation's power system in light of growing electricity demand and climate change. ISO New England is committed to providing technical support to help the states pursue federal funding opportunities like this one. Such efforts advance the clean energy transition by supporting one or more of the four pillars:

1. Significant amounts of clean energy resources;
2. Sufficient balancing resources to ensure reliability;
3. Energy adequacy via a reliable fuel supply chain or energy reserve;
4. A robust transmission system.

ISO-NE
http://www.isonewswire.com/

18 September 2024

Construction permit granted for molten salt research reactor

The US Nuclear Regulatory Commission has issued a licence to Abilene Christian University for the construction of a molten salt research reactor on its campus in Abilene, Texas. This marks the first construction permit for a liquid-fueled advanced reactor and only the second for any advanced reactor issued by the NRC.

In March 2020, Abilene Christian University (ACU) submitted to the NRC a Letter of Intent to apply for a construction permit for a non-power molten salt reactor. In July 2020, it submitted a Regulatory Engagement Plan related to this project. ACU submitted its construction licence application - including a Preliminary Safety Analysis Report and an Environmental Review - to the NRC in August 2022. The NRC accepted the application for review three months later. ACU submitted updates in November 2023 and July 2024.

ACU's molten salt research reactor (MSRR) will be the first deployment of the Natura MSR-1, a 1 MWt, graphite-moderated, fluoride salt flowing fluid (fuel dissolved in the salt) research reactor. The MSRR will be used for on-campus nuclear research and training opportunities for faculty, staff and students in advanced nuclear technologies. The reactor will significantly expand the university's salt reactor research and development infrastructure, supporting US molten salt reactor design, development, deployment and market penetration.

The NRC issued its final environmental assessment for the site on 7 March with a finding of "no significant impact". On 16 September, the NRC completed its final safety evaluation for the reactor design, concluding the Natura MSR-1 meets federal regulations and is safe to construct.

"This is the first research reactor project we've approved for construction in decades, and the staff successfully worked with ACU to resolve several technical issues with this

novel design," said Andrea Veil, Director of the NRC's Office of Nuclear Reactor Regulation. "Going forward, we'll have inspectors on the ACU campus when construction gets started."

Natura Resources LLC said Zachry Nuclear Engineering will complete the detailed engineering and design of its Natura MSR-1 in "the first part of 2025, which will be followed quickly by the submission of the operating licence application to the NRC".

ACU is the lead university in the NEXT Research Alliance, which includes Georgia Institute of Technology, Texas A&M University and The University of Texas at Austin. The alliance has a USD30.5 million research agreement with Natura Resources to license and deploy the MSRR, which will be located at ACU's Dillard Science and Engineering Research Center, the USA's first advanced reactor demonstration facility outside of a national laboratory. Construction of the centre was completed in August last year.

"ACU is thrilled to have Natura as a partner as we work together to answer the world's increased demand for reliable energy, medical isotopes, and clean water through the deployment of liquid-fueled molten salt reactors," said ACU President Phil Schubert. "With the NRC's issuance of the construction permit, we are one step closer to making that a reality. The performance-driven approach of Natura Resources to advanced reactor deployment has quickly moved them from a relative unknown to a leader in the upstart advanced reactor industry."

The research reactor will be Natura's first deployment and accelerates the development of its 100 MWe systems for commercial applications. To that end, Natura is working to develop a small modular MSR system and recently announced a partnership with the Texas Produced Water Consortium to explore the deployment of Natura's liquid-fueled molten salt technology providing additional sources of reliable, dispatchable energy paired with water treatment facilities.

"If we're going to meet the growing energy needs, not only in the State of Texas but in our country and the world at large, we must begin deploying advanced nuclear reactors," said Natura Resources founder and President Douglass Robison. "The Natura MSR-1 deployment at ACU will not only demonstrate successful licensure of a liquid-fueled molten salt reactor but will provide operational data that will allow us to safely and efficiently design and deploy our commercial systems."

WWN
http://world-nuclear-news.org/

18 September 2024

EU: Call for applications – candidate energy infrastructure Projects of Common & Mutual Interest

The Commission has opened a call for applications for energy infrastructure projects under the Trans-European Network for Energy (TEN-E) Regulation to obtain Project of Common Interest (PCI) or Project of Mutual Interest (PMI) status.

The call for the electricity, hydrogen & electrolyser categories runs from 18 September to 18 November 2024, and for the smart electricity grids, smart gas grids, CO2 and the projects falling under the Article 24 derogation, from 18 September to 18 December 2024.

To be eligible for inclusion in the Union list of PCIs and PMIs, projects in electricity and hydrogen must be included in the 2024 Ten-Year Network Development Plans (TYNDP) developed by the European Network of Transmission System Operators for Electricity (ENTSO-E) or Gas (ENTSOG).

Eligible projects will be assessed against the criteria set out in the TEN-E Regulation to identify their contribution to the implementation of the respective energy infrastructure priority corridor. Projects meeting all requirements of the regulation will be assessed and

ranked by the TEN-E Regional Groups and may then be proposed for inclusion in the 2nd Union list of PCIs and PMIs.

The delegated act containing the Union list will be adopted by the Commission by the end of 2025 and enter into force in early 2026 if no objection is expressed by the European Parliament or Council.

EU
http://europa.eu/

18 September 2024

Report: Stronger integration measures are needed as solar and wind soar to record levels in electricity sector

New IEA report offers first-of-its-kind global stocktake of efforts to integrate variable renewables across 50 power systems, identifying best practices and key challenges

As solar PV and wind grow at an accelerated pace around the world, governments must act to ensure that they are well integrated into power systems – or risk losing out on significant benefits, according to a new report from the IEA.

Integrating Solar and Wind: Global experience and emerging challenges, published today, explores one of the biggest hurdles for policy makers as clean energy transitions gather speed. Between 2018 and 2023, solar PV and wind capacity worldwide more than doubled, and their share of electricity generation nearly doubled. Fuelled by supportive government policies and continued cost reductions, the capacity of these renewable sources is projected to keep expanding rapidly towards 2030. Solar PV and wind are crucial technologies for decarbonisation – especially in the electricity sector, where they account for two-thirds of reductions in carbon dioxide (CO2) emissions on a pathway towards net zero by mid-century.

However, to maximise the advantages of this additional capacity, these variable renewable energy (VRE) sources need to be well integrated into power systems as they are deployed. According to the report, delaying the implementation of measures to support integration could result in electricity generation from solar PV and wind being 15% lower in 2030 and shave five percentage points off their share of the global electricity mix.

“In recent years, the world has seen a remarkable increase in solar and wind capacity as countries have looked to bolster their energy security and reduce emissions. But they won’t reap the full benefits without stronger efforts to support the integration of these technologies into power systems,” said IEA Director of Energy Markets and Security Keisuke Sadamori. “This important new report lays out the challenges ahead, as well as how to tackle them. As global experience grows, so does our understanding of how to keep clean energy transitions moving forward securely.”

The report features a first-of-its-kind global stocktake of integration measures across 50 power systems, which together account for nearly 90% of global solar PV and wind generation today. This includes updated country assessments using the IEA’s framework for the phases of variable renewable energy integration, which was originally developed in 2017 and last updated in 2019.

According to the analysis, in a scenario in which countries meet their announced energy and climate goals, those that currently have low shares of variable renewable energy in their power mixes account for two-thirds of generation growth to 2030. They can typically boost deployment without enacting sweeping, system-wide changes. Well-known and tested measures such as enhancing the flexibility of existing assets and improved forecasting – implemented gradually as the need arises – tend to be sufficient.

Tougher challenges typically materialise at higher levels of solar PV and wind penetration. However, frontrunner systems – including Denmark, Ireland, South Australia

and Spain – are finding ways to address these issues, too, clearing the way for others. Developing storage and new power grid technologies, for example, is playing an important role in managing variations in solar PV and wind output throughout the day and across seasons.

According to the report, most technological solutions to address emerging hurdles – namely, a higher need for stability and flexibility – are either mature or nearing maturity, and their successful rollout often lies in appropriate policy and regulatory action rather than new technological breakthroughs. Even so, incorporating higher levels of variable renewables into power systems requires rethinking the ways in which they have traditionally been planned and operated. This will necessitate proactive measures globally as the uptake of renewables continues apace.

IEA
http://www.iea.org/

18 September 2024

New Report: How PJM Can Reform Its Interconnection Processes to Expedite Battery Storage and Avoid Looming Electricity Shortfall

PJM Interconnection, America's largest electric grid operator with a service territory that spans 13 states and the District of Columbia, risks a shortfall of electricity within the next six years yet continues to apply processes that discourage the deployment of battery energy storage systems (BESS), according to a new Gabel Associates report commissioned by the American Council on Renewable Energy (ACORE) in partnership with the American Clean Power Association (ACP) and the Solar Energy Industries Association (SEIA).

The paper outlines how PJM has prevented storage technologies from using a tool to expedite connection to the grid, Surplus Interconnection Service (SIS), that has been endorsed by the Federal Energy Regulatory Commission (FERC) and successfully utilized by other grid operators.

"Electricity demand in the Mid-Atlantic region is rapidly rising, but the good news is that there is a large amount of clean energy waiting to come online to maintain the grid's reliability," said ACORE President and CEO Ray Long. "SIS is an important tool for efficiently accelerating the deployment of new resources, especially battery storage that will provide much-needed capacity for the region."

ReSISting a Resource Shortfall: Fixing PJM's Surplus Interconnection Service (SIS) to Enable Battery Storage offers concrete recommendations PJM can immediately take to ensure the timely development of storage in the Mid-Atlantic region, including:

- Eliminate the current prohibition of SIS participation by grid-charging BESS resources
- Harmonize BESS and pumped hydro storage modeling assumptions
- Adopt FERC's standard allowing SIS if resources do not trigger the need for new network upgrades

"The need to accelerate the deployment of high-capacity value resources like battery storage is acute as the rapid pace of load growth and legacy generation resource retirements challenge resource adequacy in PJM," said Mike Borgatti, Senior Vice President, Gabel Associates Inc. "Surplus Interconnection Service provides an important opportunity to maximize the potential for our existing transmission grid to accommodate new resources."

"Timely deployment of new resources is necessary to meet rapidly rising energy demand and prevent impending electricity shortages," said ACP Vice President of Energy Storage Noah Roberts. "Energy storage has already proven its ability to efficiently provide substantial new capacity in other regions across the country, stabilizing the grid and

reducing costs. PJM can use several vetted and FERC-endorsed tools, including SIS, to expedite energy storage deployment and boost reliability and affordability across the region."

"To avoid a capacity shortfall in the PJM region, we need to use every tool we have to quickly and efficiently add clean energy resources to the grid," said Melissa Alfano, Senior Director of Energy Markets and Counsel at SEIA. "This report shows that we have an opportunity to fast-track interconnection approvals for additional generation and that PJM has the authority to grant these requests. Solar developers are eager to meet this growing demand for electricity, but PJM continues to ignore the dispatchable clean energy at its fingertips."

To download a copy of the report, click here.

ACORE
http://www.acore.org/

20 September 2024

Biden-Harris Administration Announces Over $3 Billion to Support America's Battery Manufacturing Sector, Create Over 12,000 Jobs, and Enhance National Security

As part of the Biden-Harris Administration's Investing in America agenda, the U.S. Department of Energy (DOE) today announced over $3 billion for 25 selected projects across 14 states to boost the domestic production of advanced batteries and battery materials nationwide. The portfolio of selected projects, once fully contracted, are projected to support over 8,000 construction jobs and over 4,000 operating jobs. Batteries are critical to strengthening the U.S. grid, powering American homes and businesses, and supporting the electrification of the transportation sector. Administered by DOE's Office of Manufacturing and Energy Supply Chains (MESC), the selected projects will retrofit, expand, and build new domestic facilities for battery-grade processed critical minerals, battery components, battery manufacturing, and recycling. Under the Biden-Harris Administration, the private sector has made a historic $120 billion investment in the EV supply chain and this program is integral to the President's clean energy industrial strategy to bolster a domestic supply chain that enhances America's energy security and economic competitiveness.

"We're in the midst of a manufacturing revival in the United States as the Biden-Harris Administration's Investing in America agenda continues to breathe new life into communities and local economies across the country," said U.S. Secretary of Energy Jennifer M. Granholm. "By positioning the U.S. at the forefront of advanced battery manufacturing, we are creating high-paying jobs and strengthening our global economic leadership and domestic energy security, all while supporting the clean energy transition."

"The Biden-Harris administration is using every available tool to onshore and friend-shore the supply chain for EVs and batteries, working with our allies and partners, for the benefit of our national security, our economy, and our planet," said John Podesta, Senior Advisor to President Biden for International Climate Policy. "Today's battery manufacturing grants from DOE will boost America's manufacturing base, create good-paying union jobs all over the country, and help tackle the climate crisis."

"Since Day One of this Administration, President Biden and Vice President Harris have acknowledged that taking action on climate change and rebuilding our domestic manufacturing capacity are mutually reinforcing goals. Nowhere is that more true than in the supply chain for a clean energy economy—whether that's batteries for electric vehicles, energy storage, or a range of other applications," said White House National Climate Advisor Ali Zaidi. "Today's game-changing announcement is helping support the technologies that we need in the market today, the components that we will need in the near future, and the

innovative technologies we need to advance our vision for a circular domestic battery supply chain that positions the United States to continue leading the global effort on clean energy."

Through grants and loans, DOE is developing a diversified portfolio of projects that help deliver a durable and secure battery manufacturing supply chain for the American people. Through MESC, the Investing in America agenda will generate $16 billion in total investment for battery manufacturing and recycling through the Battery Materials Processing and Battery Manufacturing and Recycling Program. Using market, economic and supply chain security-related technical analysis, MESC collaborates with experts to identify gaps and growth opportunities across the nation's energy supply chains, from raw materials to processing and manufacturing. These analyses inform investment and program implementation. Today's announcement of round two selections builds on this progress and aims to further address existing and future supply chain challenges. The selected projects span strategic segments across the supply chain, building and expanding commercial-scale facilities to extract and recycle critical minerals including lithium, graphite, and manganese, as well as manufacture components. These components represent the most essential building blocks of the battery supply chain, like electrolyte salts, solid state electrolytes, polymers for separators, cathode and anode materials, that are critical to onshore a robust and reliable energy supply chain. The selected projects also cover traditional and next-generation lithium-ion chemistries, as well as non-lithium-ion technologies, to ensure that the U.S. has a diverse portfolio of domestic battery technologies that can strengthen our overall energy security.

Of the 25 projects selected, more than half have committed to or already have signed a Project Labor Agreement commitment and 10 have an agreement with labor or a neutrality pledge. Union partners represented across selected projects include NABTU (North America's Building Trades Unions), Boilermakers, SMART International Association of Sheet Metal, Air, Rail, and Transportation Workers (SMART), Carpenters, Operating Engineers, UFCW (United Food and Commercial Workers International Union), IBEW (International Brotherhood of Electrical Workers) and the UA (United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada).

Nearly 90% of selectees are located in or adjacent to disadvantaged communities, advancing President Biden's Justice40 Initiative, which sets the goal that 40 percent of the overall benefits of certain federal investments in climate, clean energy, clean transportation, and other areas flow to disadvantaged communities that are marginalized by underinvestment and overburdened by pollution.

Selection for award negotiations is not a commitment by DOE to issue an award or provide funding. Before funding is issued, DOE and the applicants will undergo a negotiation process, and DOE will complete environmental review. DOE may cancel negotiations and rescind the selection for any reason during that time.

DOE
http://www.energy.gov/

20 September 2024

NESO: White knight or whipping boy?

On 1 October, the NESO will rise from the ashes of the National Grid's ESO and a new era of energy system governance will begin.

If only it were true. While there can have been few other organisations in the history of business and industry established with such a weight of expectation upon them, the fact is that NESO will be knee deep in some very sticky problems on the first day it opens shop.

From getting its own house in order to finding its place in a suddenly overcrowded landscape of net zero-enabling entities, NESO has its work cut out. But time waits for no system operator. The clock is ticking on our 2030 net zero power mission and there are plenty of voices clamouring for some immediate proof points that the NESO is going to make a material difference in getting us there…in a fair, equitable and affordable manner.

Inside NESO, the will to live up to industry expectations is strong. But to start fulfilling its varied and challenging roles – from whole system planning to market development, safeguarding of resilience and more – with new teams in an organisation characterised by a mashup of old establishment and start-up enterprise presents a systems and management headache.

With great enthusiasm, ESO has been recruiting hard to build out from its incumbent capabilities and make ready for its NESO reincarnation. It is rolling out foundational training to hundreds of employees on important stuff – like what it means to think about whole systems.

But gelling these big intakes of new staff with the significant numbers of ESO and National Grid veterans is a huge people and culture challenge which, it might be reasonable to assume, is best not conducted under pressure and scrutiny.

On the theme of people, it's also worth noting that NESO's continued quest for individuals with the right talent and resolution to bring weight behind the "Herculean effort" of decarbonising power by 2030 is now running parallel with the spin up of two new significant entities – Mission Control for Clean Power 2030 and GB Energy.

If a scramble between this trio of new players for the cream of a limited crop of suitable skills and experience doesn't cause friction, confusion around the boundaries of authority and accountability between them certainly offers the potential.

There's a broad idea that NESO will do the planning, Mission Control the delivery and GB Energy drive the financing for the energy transition. But the detail of governance frameworks and modes of interaction remains murky. There's a risk this leaves NESO being seen as accountable for things which are without its control, turning it from White Knight to whipping boy.

Much of the energy sector is willing the NESO to succeed. Certainly it's worth considering the counterfactual of not having it in place and what this would mean for our chances of establishing resilience and adaption in the face of climate change.

But as pent up anxiety about the pace of change needed to hit decarbonisation targets fizzes with growing passion, stones are bound to be thrown. A first volley came from the ADE last week. More will follow.

To give NESO the time it needs to orientate itself, executives with plenty of inward facing worries to address arguably need a buffer from this external noise. NESO's chair Paul Golby has remained relatively low profile since his appointment in March. A more assertive role may now be in order.

Utility Week
http://www.utilityweek.co.uk/

22 September 2024

Western Australia seeks projects in move to expand transmission capacity

Western Australia's government has issued expressions of interest to build out transmission capacity in several corridors of Pilbara, aiming to increase the penetration of renewable energy in the country. As part of the Expressions of Interest (EOI) process, the Government will seek proponents that can build transmission to decarbonise industry while minimising on-Country impacts. Successful proponents in the EOI will be granted Priority Project status – meaning the project can benefit from State Government facilitation.

They would also receive the State's recommendation to negotiate with the Clean Energy Finance Corporation to access funding through the Commonwealth Government's AUD3 billion ($2 billion) Rewiring the Nation fund. The EOI process, says the government in a release, falls under the Pilbara Energy Transition Plan, which aims to accelerate decarbonisation and meet increasing energy demands.

Applicants are being sought to develop projects in the following transmission corridors:

- The Burrup (Murujuga) Corridor linking the Maitland Strategic Industrial Area (SIA), with Karratha and the Burrup SIA;
- The Chichester Range Corridor connecting the Maitland SIA with a high-quality wind zone proximate to the Chichester Range;
- The Hamersley Range Corridor connecting the Boodarie SIA and Port Hedland with the eastern edge of the Hamersley Range; and
- The Great Sandy Desert Corridor connecting the Boodarie SIA and Port Hedland with proposed renewable generation projects near the Great Sandy Desert.
- Commenting in a release was Australian Energy minister Reece Whitby: "Through the Pilbara Energy Transition Plan we are driving the region's decarbonisation in a way that supports existing industry, unlocks new business and job opportunities, and minimises impact on Country.

"This is a world-class infrastructure investment opportunity that will play a pivotal role in global decarbonisation. The Pilbara will be a clean energy powerhouse, with potential to amplify the economic success of our mining industry, and I encourage all interested parties to engage in this generational opportunity." Added Pilbara MLA Kevin Michel: "I am excited about this new EOI process for priority transmission projects in the Pilbara. This is another step in our journey to cleaner energy and will support existing industries and create new opportunities. By focusing on key transmission corridors, we can drive growth and ensure the Pilbara remains a key player in Australia's economy. I encourage all interested parties to apply and be part of the Pilbara's bright, sustainable future."

Smart-Energy
http://www.smart-energy.com/

23 September 2024

India's electricity authority approves 2.5GW hydro pumped storage projects

The Central Electricity Authority (CEA) of India has greenlit two hydroelectric PSPs to be developed in the western state of Maharashtra. The 1.5GW Bhavali PSP is being developed by JSW Energy and the 1GW Bhivpuri PSP by Tata Power.

The PSPs will collectively provide a storage capacity of more than 15 gigawatt-hours (GWh), meeting peak demand during non-solar hours and supporting grid stability. According to the CEA, the project developers have indicated that they will fast-track the commissioning of the PSPs for completion by 2028. PSPs store energy in the form of gravitational potential energy in reservoir water and are the most established large-scale energy storage technology, accounting for approximately 90% of the world's installed storage capacity.

The CEA has targeted a minimum of two PSPs each month throughout 2024. During 2024–25, the authority aims to approve 15 hydro PSPs of 25.5GW capacity. Four PSPs of 5.1GW capacity have so far been confirmed. The electricity authority has also established an online portal to provide information required for PSP projects, supported by the Central Water Commission, Geological Survey of India, and Central Soil and Materials Research Station.

Another major PSP project in India is located in Madhya Pradesh, with an intended capacity of 1.9GW once it is completed in 2025 by Greenko Energies. The CEA noted that the approval of such projects, spearheaded by private developers, underscores the growing role of the private sector in driving India's energy transition. India aims to install 500GW of capacity and achieve 50% cumulative renewable electric power by 2030 after falling short of its 2022 goal.

In May, Tata Power announced that it had entered negotiations to secure a loan of up to $1bn (Rs83.57bn) – the largest local currency loan in India for the fiscal year – to finance its hydro PSPs in the state of Maharashtra.

Power Technology
http://www.power-technology.com/

24 September 2024

'The climate is crazy' Ecuador minister says as country faces 12-hour power cuts

Power cuts in Ecuador will run nationwide for 12 hours per day, up from a planned eight, the government said on Monday, citing the country's urgent energy crisis caused by the worst drought in the Andean country's recent history.

Authorities last week said power cuts would take place across the country for up to eight hours per day but adverse weather conditions continue in areas where the country's dams are located, Energy Minister Antonio Goncalves told journalists.

"The important issue is that the climate is crazy, it has changed a lot," Goncalves said, adding that the dry season started two months early. "We depend a lot on hydrology. I can't predict something that only God knows."

Earlier, speaking at the United Nations General Assembly, President Daniel Noboa said Ecuador was experiencing its worst drought in 61 years. "It's chaos and much worse than expected," he said.

Electricity providers also updated timetables of planned cuts to go through Sunday; initially the cuts were planned to run through Thursday.

Reuters
http://www.reuters.com/

26 September 2024

First stage of ESO's Pennine Voltage Pathfinder goes live

The first three shunt reactors of the ESO's Pennine Voltage Pathfinder are now live, helping to manage voltages on the national electricity transmission network.

- First three shunt reactors are now live, helping to manage voltages on the national electricity transmission network.
- These pathfinder reactors allow the ESO to maintain control of system voltages in the Pennines area, following the recent closure of large conventional power stations.
- Two reactors were able to start early in May 2024 and have operated on a near continuous basis since, allowing the ESO to avoid using more expensive and polluting options to maintain necessary voltage levels on the electricity network.
- The final asset from the Pennines Pathfinder is expected to go live in early 2026.

As part of the ESO's 2025 ambition to deliver a national electricity network capable of operating safely and reliably whilst producing zero carbon, the ESO has been developing new solutions and alternatives to separate the delivery of electricity from the delivery of system services that keep the network in operational balance.

As older conventional coal and gas power stations close, the ESO has sought alternative solutions that can deliver a range of system services to maintain the optimal

levels of voltage, inertia and other physical properties that allow Great Britain's electricity network to be one of the most reliable in the world.

The latest of the ESO's voltage pathfinders has recently gone live in the Pennines region with three shunt reactors installed by National Grid Electricity Transmission at its Stalybridge, Stocksbridge and Bradford West substations. The capability of these three reactors will maintain voltage on the network in this region, replacing the reactive power services from several power stations which have recently closed.

Since the first two reactors went live in May they have provided near continuous service, providing critical voltage management tools to the ESO's control room and reducing the need to call upon other options such as fossil fuelled power stations. With the introduction of the third unit, further cost and carbon savings are expected, as they will further reduce the requirement to deliver voltage management from fossil fuelled power stations, reducing costs for consumers as a result.

In 2026, a further asset from Dogger Bank C windfarm will be introduced in the North-East to maintain voltage levels in this area and replace capability provided by current power stations.

Julian Leslie, Director of Strategic Energy Planning and Chief Engineer

"Delivering new services that can produce the reactive power tools such as voltage management that we use on a daily basis to keep the electricity network stable and secure is paramount to delivering our 2025 ambition and to deliver net-zero."

"The continuous use of these shunt reactors since May demonstrates their incredible value for the electricity network and their importance in keeping bills down for consumers as we decarbonise the electricity system."

Jon Davies, Director of Network Operations and Intelligence at National Grid Electricity Transmission, said:

"Making sure electricity supplies are stable and reliable is paramount as Britain's energy system decarbonises. Our installation of these shunt reactors on our network as part of this innovative project is an engineering solution that supports ESO's safe and secure operation of the system into the future, with significant savings for consumers."

NGESO
http://www.nationalgrideso.com/

27 September 2024

SSEN Transmission and NGET begin construction of EGL2 subsea link

SSEN Transmission and National Grid Electricity Transmission (NGET) have commenced work on the Eastern Green Link 2 (EGL2), a 2GW subsea link, which will connect Scotland and England.

The £4.3bn project features a high voltage direct current (HVDC) subsea transmission cable stretching from Peterhead in Scotland to Drax in Yorkshire. The EGL2 subsea cable will extend 436km beneath the sea from Peterhead, making landfall on the East Yorkshire coast at Fraisthorpe Sands. From there, it will continue underground for 68km to a new HVDC converter station at Drax.

At the groundbreaking ceremony, National Grid representatives were accompanied by colleagues from HVDC cable supplier Prysmian and teams from Hitachi Energy and BAM, who are supplying the converter stations that will anchor the project at both ends. The EGL2 subsea link will be operational by 2029.

National Grid Offshore delivery director Zac Richardson stated: "Today marks an important moment for all involved in the project and the commitment of both National Grid and SSEN in delivering major projects which will play a key role in supporting the UK's transition to a net zero economy. The project will bolster local employment, with hundreds

of jobs in Yorkshire anticipated during peak construction periods. Ofgem Infrastructure Group director general Akshay Kaul stated: “Today is a historic occasion.

“Not only is construction starting on EGL2, Britain’s biggest ever electricity transmission project, but we’re also standing here two years earlier than we might have been thanks to Ofgem’s fast track new process which cuts red tape to get consumers across the country connected to renewable energy more quickly.

“Harnessing homegrown clean energy will help build a secure energy future for Britain, and projects like EGL2 are pivotal in our move towards that. This is the first project to successfully complete our new process and many more major energy projects are going through this fast track pipeline.” In September 2024, SSEN Transmission finalised contracts for the construction of the 220kV subsea link between Orkney and Caithness off the coast of Scotland.

Power-Technology
http://www.power-technology.com/

27 September 2024

PGE to shut coal units at Rybnik power plant by end of 2025

Poland's biggest power utility PGE (PGE.WA), opens new tab plans to end production of electricity in the four-remaining coal-fired units at its Rybnik power plant by the end of 2025, Polish Press Agency reported on Thursday, citing a company official.

The units, with a combined power capacity of 900 megawatts (MW), have capacity market contracts that run until the end of 2025.

Coal dominates Poland's electricity generation but state-controlled utilities are grappling with falling profitability of coal-fired generation as they expand their renewable capacity and face banks' reluctance to finance coal assets. PGE has already phased out four coal fired units at the Rybnik plant and plans to replace them with a 882 MW gas-fired unit that is set to be commissioned by the end of 2026.

PGE said in an emailed statement that it was implementing a decision that had been made in 2020. It said that it had delayed the deadline for ending heat production at the coal-fired units until Aug. 31, 2026.

Reuters
http://www.reuters.com/

27 September 2024

Millions without power after Hurricane Helene rocks Southeast

The storm struck Florida as a Category 4 and moved inland. More than 4 million customers lacked power Friday morning.

Millions of Southeastern U.S. customers were without power Friday morning after Hurricane Helene hit Florida as a Category 4 storm and moved inland.

By 5 a.m., the National Hurricane Center had downgraded Helene to a tropical storm and warned of damaging wind gusts across the Carolinas and Georgia and the potential for “catastrophic and life-threatening flash and urban flooding” across portions of the southern Appalachians. Flood warnings were also issued for parts of Florida.

Data from PowerOutage.us, shortly after 9 a.m. EDT, showed 1.14 million customers in Florida without service, as well as 1.1 million in Georgia, 1.4 million in South Carolina and more than a half million in North Carolina.

By 6 a.m., Florida Power & Light said it had restored power to more than 460,000 customers, more than 65% of those impacted by the storm.

“Though our system held up well and our team of thousands continues to work around-the-clock, some of our customers remain without power,” FPL President and CEO

Armando Pimentel said in a statement. “To them, we have a simple message: We will not stop until your lights are back on.”

Along with its restoration efforts, FPL said it was continuing to assess damage, including by using drones, which it said could speed recovery times, and it was coordinating with local emergency management officials to clear roads for lineworkers.

Duke Energy said Friday morning that it had restored power for almost 200,000 customers in Florida — but it still had more than 400,000 customers without power.

“Our crews worked through the night to assess the immense damage caused by Hurricane Helene and get the lights back on where conditions allowed,” Todd Fountain, Duke Energy Florida storm director, said in a statement. “We’ve made significant progress over the last 24 hours, but we still have a lot of work ahead of us.”

Recovery operations were being aided by mutual assistance crews from 27 states and the District of Columbia.

Nearly 50,000 workers were staged in strategic locations prior to landfall, the Electricity Subsector Coordinating Council said Thursday. The council works as a liaison between industry and the federal government to coordinate response efforts to national-level incidents and threats.

Utility Dive
http://www.utilitydive.com/