## 16 June 2026

### Proactive Planning Lowers Connection Costs by $ 8.7 Billion, Paves Way for More Generation

Proactive planning is lowering the cost barrier for generation developers to connect, which should lead to more generation being built and lower prices for consumers – and make the most efficient use of planned transmission lines and rights of way as supply begins to catch up with growing demand.

PJM just completed the second study phase of its last transition cycle to the new interconnection process, in which it studied 270 projects. Between Phase I and Phase II, the cost of system Network Upgrades necessary to reliably interconnect the projects dropped by $8.7 billion, attributable to broader work performed under PJM's regular Regional Transmission Expansion Plan (RTEP).

Some of the difference in cost is attributable to the withdrawal of 180 projects from the interconnection process after Phase I; but the bulk of the change is due to the PJM Board's February approval of transmission projects addressing separate needs in the eastern, southern and western areas of the PJM footprint. Proactive transmission planning that accounts for the reliability needs of the PJM system as a whole ensures that efficient and cost-effective solutions are selected.

This approach enables PJM to replace multiple, scattered upgrades with more efficient and longer-term solutions. In addition, the holistically planned upgrades through the RTEP:

- Prepare the system for forecasted growth in electricity demand.
- Ease the integration of new generation resources needed to serve that new demand.
- Allow for the orderly retirement of old generation by clearing bulk, regional transfer paths between PJM regions.

"The proactive transmission planning we do under traditional cost allocation allows more generation to come online efficiently, lowering costs for everybody," said Jason Connell, PJM's Vice President for Planning. The 270 projects studied in Phase II represent approximately 30 GW of new generation at full output. Decision Point II, the next 30-day window for developers to review their results and decide whether to proceed to Phase III with additional financial commitments, began June 8. Thirteen of the projects studied under Phase II are eligible to accelerate to Final Agreement at the end of Decision Point II.

"This is another data point to show the value of transmission to everyone in the system," Connell said. "It gets generation online; it gets that generation to the to where it's needed. And, when you have a robust system effectively connecting all this generation and load, you will see lower prices." This advanced planning is carried out ahead of PJM's implementation of FERC Order 1920 on long-term planning, Building for the Future Through Electric Regional Transmission Planning and Cost Allocation. PJM's plan to comply with Order 1920 is pending before FERC after receiving endorsement by the 13 states within the PJM service area and D.C.

***Inside Lines PJM***
***http://insidelines.pjm.com/***

## 16 June 2026

### Grenergy inaugurates Elena battery plant in Chile

Grenergy has inaugurated the Elena battery plant in María Elena, northern Chile, which has a commissioned storage capacity of 3.5 GWh. The inauguration ceremony was led by President of the Republic José Antonio Kast Rist.

Senior officials in attendance included Minister of Energy Ximena Rincón; Minister of Science, Technology, Knowledge and Innovation Ximena Lincolao; Spanish Ambassador to Chile Laura Oroz; and María Elena Mayor Viviana Cuello. The Elena facility is designed to reach 7 GWh by 2028, based on the company's expansion plans. It comprises 624 containers and 6,240 batteries.

Elena forms the initial phase of a broader renewable energy platform known as Oasis de Atacama, which integrates 2.5 GW of solar generation capacity and 14.1 GWh of battery storage. The hybridisation model developed with Oasis de Atacama is being replicated in central Chile through the Oasis Central platform, which is projected to provide 1.4 GW of solar capacity and 5.1 GWh of storage, and is also being extended to projects in Spain.

Altogether, the two Oasis platforms are expected to deliver 5 GW of solar energy and 22 GWh of storage.Grenergy has been present in Chile since 2012 and states that the country is now its principal market.

The company has invested $2.8bn (€2.42bn) in Chile to date and aims to increase its total investment to $4.8bn within two years. The Elena project is intended to support the development of what Grenergy describes as the largest clean energy generation hub in northern Chile.

This hub is expected to deliver 2.1 GW of solar power and 14 GWh of storage, with the capability to supply energy on a 24/7 basis, address peak demand and allow for greater integration of renewables into the grid. Grenergy CEO David Ruiz de Andrés said: "With Elena, the largest battery plant in the Americas, we are promoting a hub in the north based on clean and competitive energy for the industry and for all Chileans."

Grenergy stated that the Elena battery site will facilitate continued electrification, support decarbonisation efforts in sectors such as mining and transport, and may help attract further digital infrastructure investment.

***Modern Power Systems***
***http://www.modernpowersystems.com/***

## 17 June 2026

## Interior Announces New Energy Agreement to Strengthen American Energy Security and Lower Costs

Today, the Department of the Interior announced a settlement agreement with affiliates of Invenergy, North America's largest privately held developer, owner, and operator of independent power infrastructure, aimed at strengthening American security and lowering costs, advancing goals central to President Donald Trump's Energy Dominance Agenda.

As part of the settlement agreement, Invenergy will voluntarily terminate its affiliates' four offshore wind leases located in the New York Bight, Central Coast of California and the Gulf of Maine totaling $765 million, and redirect that amount towards other domestic energy sources with the demonstrated capability to deliver reliable, affordable power, including the development of natural gas-fired power plants in Indiana, Wisconsin, Iowa, Kansas, and Missouri and geothermal power generation projects in the Western U.S.

These landmark settlement agreements provide partial reimbursement for offshore wind leases that required significant taxpayer support. By ending these leases and encouraging investment in reliable, cost-effective conventional energy sources, the settlement agreements promote mutually beneficial projects designed to deliver strong returns for American taxpayers.

"President Trump is committed to unleashing affordable, reliable American energy for our country's communities and putting the American people first through common-sense action," said Secretary of the Interior Doug Burgum. "The offshore wind leases were sold under the assumptions that taxpayers would indefinitely subsidize costly, unreliable projects

and that no national security concerns were implicated - both assumptions have since been proven false. Under President Trump, companies are shifting investment back toward dependable, secure energy infrastructure that can power our economy and lower utility costs. We applaud Invenergy for recognizing the importance of baseload power and investing in energy solutions that deliver real benefits to American consumers."

"Today marks a significant step in advancing President Trump's energy agenda and lowering energy prices for Americans," said Department of Justice Associate Attorney General Stanley Woodward. "By ending these offshore wind leases and pivoting investment toward dependable natural gas infrastructure in multiple states, Invenergy is helping revitalize American energy and national security. The Department of Justice looks forward to continued cooperation from companies that are reevaluating their energy investments."

"At a time of unprecedented energy demand, Invenergy is focused on delivering reliable, affordable energy for our customers and supporting disciplined investment at scale. That is why Invenergy, with our affiliates and on behalf of our various stakeholders, will deploy additional capital into projects that can be delivered on a commercially reasonable timeline and meet customer demand while continuing to evaluate opportunities as market conditions evolve," said Daniel Runyan, Invenergy's Senior Vice President for Development.

***DOI***
***http://www.doi.gov/***

## 17 June 2026

### New 339-mile transmission line brings Canadian hydropower to NYC

North America's longest fully-buried transmission line has begun delivering Canadian hydropower to New York City, state policymakers and grid officials said Tuesday.

The $6-billion Champlain-Hudson Power Express is expected to deliver 10.4 TWh annually, helping meet up to 20% of the city's electric needs. Construction was completed ahead of schedule and power flows from Hydro-Québec to New York commenced June 1.

Champlain-Hudson will help to replace the Indian Point nuclear plant, which was shuttered in 2021. Since Indian Point's closure, New York City has relied more on gas-fired plants that have caused emissions downstate to grow, according to a statement from Democratic Gov. Kathy Hochul.

According to analysis by the Times Union, more than 90% of the capacity lost when Indian Point shuttered its two 1-GW units in 2020 and 2021 was replaced by fossil fuels. The Trump administration has called for restarting Indian Point, but Hochul has rejected that idea. "This project is further proof that despite the unprecedented federal headwinds we are facing, New York will remain a national climate and clean energy leader into the future," Hochul said.

The Champlain-Hudson line was selected in 2021 as part of a solicitation administered by the New York State Energy Research and Development Authority, and project developer Transmission Developers Inc. began construction the following year. The 1,250-MW direct current line connects to the grid at the New York Power Authority's Astoria Annex substation, which was recently expanded. TDI also built a nearly four-mile underground transmission line, the Astoria Rainey Cable, connecting the Astoria Annex to Con Edison's Rainey substation.

The Champlain-Hudson project "illustrates how complex infrastructure can be delivered through sustained collaboration and shared expertise," Hydro-Québec President and CEO Claudine Bouchard said. "More importantly, it highlights the growing role of interconnected transmission grids in enhancing system reliability and resilience."

Electric reliability across the region this summer will benefit from newly completed transmission projects, the Northeast Power Coordinating Council said last week.

New York, New England and the Canadian provinces of Ontario, Québec, New Brunswick and Nova Scotia, are expected to have adequate electricity supplies for typical weather. But under grid stress, some regions "will need to rely on operating procedures in addition to imports to address resource shortages," NPCC said in its 2026 Summer Reliability Assessment.

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

## 17 June 2026

### NextEra to pay $150M to settle charges related to Florida political misconduct allegations

NextEra Energy has agreed to pay $150 million to settle allegations that the company lied about its involvement in political interference schemes in Florida, according to a proposed settlement filed Monday in a federal court.

The agreement comes about a month after NextEra and Dominion Energy said they planned to merge in a $67 billion deal. If approved, the merger would create the world's largest electric utility company, with about 10 million utility accounts in Florida, Virginia, North Carolina and South Carolina. The political scandal surrounding Florida Power and Light, a NextEra subsidiary, will likely be an issue as Virginia utility regulators review the proposed transaction.

"NextEra has been connected to election manipulation, surveillance of journalists, co-optation of civil rights organizations and the use of dark money networks to capture regulators and defeat energy competition," Clean Virginia, an advocacy group focused on political and utility regulation reform, said after the merger was announced. NextEra noted in an April 23 U.S. Securities and Exchange Commission filing that it had reached an agreement in March to pay $150 million to settle the shareholder lawsuit, but that the details needed to be worked out. Insurance will cover the payout, the company said.

Some of the allegations against NextEra include using a political consulting firm to fund "ghost" candidates to defeat state lawmakers deemed a threat to Florida Power & Light and spying on a reporter. The settlement is the largest settlement of a securities class action lawsuit in the U.S. District Court for the Southern District of Florida since the Private Securities Litigation Reform Act of 1995 became law, according to the agreement.

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

## 17 June 2026

### PJM highlights the latest milestones of its reformed interconnection process

PJM highlights the latest milestones of its reformed interconnection process in an updated fact sheet. More than 800 projects reflecting 220 GW of capacity are being studied in the first Cycle of the new process.

There is no longer a backlog of new service requests, as all generation projects seeking to connect with the PJM grid are now being actively studied or undergoing preliminary review.

The processing time is now one to two years. PJM has developed internal automation to handle the large number of applications while also working with Google's Tapestry to leverage artificial intelligence to help further streamline the process.

PJM is working with stakeholders to devise paths for faster connection for some generation, including a temporary Expedited Interconnection Track for large, state-sponsored projects that can come online within three years to address immediate reliability needs of the system. In the transition to the new process, PJM has studied more than 170 GW of generation.

The PJM study process is just the beginning of a developer's road to develop and build a project and start generating electricity. There are more than 50 GW of projects that have signed agreements with PJM that could plug in to the grid today, but many are facing challenges beyond PJM's control, including permitting and supply chain delays.

***Inside Lines PJM***
***http://insidelines.pjm.com***

## 18 June 2026

## FERC Launches Aggressive Targeted Action to Speed Large Load Integration

*Commission orders all six regional grid operators to justify or reform tariffs for data centers and other large energy users, delivering speed-to-power that is critical to supporting the innovation economy and national security while protecting ratepayers.*

The Federal Energy Regulatory Commission (FERC) today issued tailored show cause orders under section 206 of the Federal Power Act to each of the six regional grid operators under its jurisdiction, directing them to justify or reform the rules that govern how data centers, manufacturing facilities, and other large energy users connect to the electric grid. The orders mark one of the most significant actions the Commission has taken to modernize the nation's electric markets and push the economy into the future by speeding integration of large energy users onto the grid with additional rigorous consumer safeguards. By requiring Regional Transmission Organizations (RTOs)/Independent System Operators (ISOs) and their transmission operators to either defend or revise their tariffs, FERC is moving to ensure that Americans have reliable, affordable power—even as electricity demand and technology accelerates.

Today's orders advance the Secretary of Energy's Advance Notice of Proposed Rulemaking directives, delivering the speed to power that is critical to supporting the innovation economy, leading the global race on artificial intelligence, and reshoring manufacturing jobs back to the United States.

*"We are setting the stage for a resilient, reliable, and forward-thinking grid that empowers communities and safeguards consumers by transforming the way large energy users access the grid. It also is critical that FERC provide certainty for investors by directing the markets to protect existing deals and unlock opportunities for technological advancement and economic expansion. We can facilitate both, which is exactly what we did today,"* said FERC Chairman Laura V. Swett.

FERC's action focuses on the unique operational profiles of large energy users, including those co-located with their own generation, and on the distinct challenges each regional grid operator faces in meeting soaring demand from the proliferation of large loads. Because the six grid operators are unique in their individual advancement toward large load innovation and structure, market design, stakeholder composition and geography, the Commission's orders recognize that a one-size-fits-all solution is not the current most efficient solution for integrating large, energy-intensive loads onto the nation's electric grid.

**Tailored Orders, Five Categories of Reform**

Under the orders, each RTO/ISO, and its transmission owners have 60 days to either justify why their current tariffs remain just and reasonable without provisions tailored to large loads, or to file tariff changes that address the issues the Commission identified. Each tailored order tees up five categories of reform for the grid operators to address:

- Developing efficient transmission service application and study processes, including consideration of alternative transmission technologies
- Preventing cost shifting and requiring transparency into transmission costs
- Accommodating co-location agreements and behind-the-meter generation
- Providing new transmission services for flexible large loads

- Developing a process to study generating facilities that serve electrically proximate large loads and co-located loads

Additionally, within 30 days, each grid operator and its transmission owners must submit a detailed informational report describing how the grid operator intends to ensure that adequate generation will be available to serve existing and new large loads.

**Building on a Track Record of Action**

Today's orders build on a series of Commission actions over the past year to address large load growth, including a December 2025 order directing PJM to adopt transparent tariff rules for loads co-located with generation, and the Commission's approval of SPP's High Impact Large Load initiative establishing new study processes for large loads and electrically proximate generation. Commission staff reviewed more than 3,500 pages of public comments submitted in the large load interconnection docket and engaged extensively with stakeholders and federal partners, in developing today's action.

**The Six Grid Operators**

The RTOs and ISOs include PJM, Interconnection, LLC (PJM); Midcontinent Independent System Operator, Inc. (MISO); Southwest Power Pool, Inc. (SPP); California Independent System Operator Corporation (CAISO); ISO New England Inc. (ISO-NE); and New York Independent System Operator, Inc. (NYISO).

***FERC***
***http://www.ferc.gov***

## 23 June 2026

## Near-term electricity supply outlook improves in Western Australia's main power system

The Australian Energy Market Operator (AEMO) has today published its latest electricity supply outlook for Western Australia's main power system, forecasting an improved outlook compared to the 2025 report.

Developed annually, the Wholesale Electricity Market (WEM) Electricity Statement of Opportunities (ESOO) forecasts electricity capacity and demand over a 10-year horizon for Western Australia's South West Interconnected System (SWIS).

The WEM ESOO supports government and industry planning and investment decisions and helps set targets for capacity required to maintain power system security and reliability. AEMO Executive General Manager Western Australia, Kirsten Rose, said the 2026 WEM ESOO shows sufficient capacity to meet demand to 2028-29.

"The near-term outlook for the SWIS has improved, and reliability targets are expected to be met over the next three years," Ms Rose said.

"This improved outlook has been largely driven by strong investment alongside government-led initiatives," she said.

More than 1,000 MW of new generation and storage is expected to be progressively delivered by 2030-31, with even more projects in the development pipeline.

The uptake of distributed energy resources including household batteries has also contributed to the positive near-term outlook driven, in part, by support from the Commonwealth and West Australian Governments.

"Consumer investment in rooftop solar and household batteries is playing an increasingly critical role in the power system," Ms Rose said.

"When coordinated to act as virtual power plants, household batteries provide material benefits by discharging into the grid over the evening peak – reducing peak demand by 200 MW in 2028-29."

Over the 10-year outlook, SWIS demand is expected to rise more than 50% as the population continues to expand, and homes and businesses increasingly electrify.

"While strong investment has been observed to-date, more investment will be needed over the second half of the outlook period to meet demand growth and replace ageing thermal generation, which is expected to progressively exit the SWIS over the remainder of the outlook," Ms Rose said.

"We continued to see high investment interest with more than 2,000 MW of potential projects submitting expressions of interest in the 2026 Reserve Capacity Cycle, which procures capacity for 2028-29.

"The project pipeline is clearly strong, but it remains critical new generation and storage capacity is delivered on time, alongside planned transmission network augmentations," she said.

***AEMO***
***https://www.aemo.com.au***

## 23 June 2026

### Record high power prices in Belgium, Netherlands and Germany

Belgium, the Netherlands, and Germany have reached record-high power prices due to the current heat wave in Europe and its implications, said energy market intelligence provider Montel, arguing that extremely high temperatures reduce the efficiency of solar panels and of CCGT power plants.

CCGT plants operate less efficiently at high temperatures, losing between 0.5% and 0.9% of their output for every additional degree Celsius.

The Norwegian company said that, according to exchange data, Belgium set a new all-time high for the quarter-hourly electricity price at €1,038.25 ($1,181.63)/MWh for the 15-minute time slot starting at 8:45 p.m. (CET).

"The Netherlands also reached a new quarter-hour record price of €902.47/MWh, while the Danish bidding zone DK1 rose to €786.83/MWh. In Germany, Europe's largest electricity market, quarter-hour prices also reached a record level of €747.10/MWh during the same evening period," said Montel.

Figures from the Montel EQ platform show that Germany's residual load rose to 51.5 GW. The portion of electricity demand not covered by wind and solar power was approximately 10.4 GW above the typical level for this time of day and year.

"As temperatures have risen, demand for air conditioning and cooling systems has increased significantly in parts of Europe. However, the sharpest price spikes occurred during the evening peak – at a time when solar power generation declines rapidly as sunlight fades, while temperatures and cooling demand remain high," said Montel. "This combination led to periods of increasing scarcity and forced markets to rely on increasingly expensive generation sources to maintain the balance between supply and demand."

According to the Swedish Meteorological and Hydrological Institute (SMHI), the current heat wave is expected to persist across large parts of Central and Western Europe into the first days of July.

***PV-magazine***
***https://www.pv-magazine.com/***

## 24 June 2026

### Terna, STEG and Hitachi Energy: €770 million contract for Elmed converter stations

The Elmed project will play a strategic role in increasing the security and reliability of the electricity system in the Euro-Mediterranean area; the converter stations will be built in Italy in Partanna, in the Sicilian province of Trapani, and in Tunisia in Mlaabi, on the Cape Bon peninsula. Terna, the company that manages the Italian national electricity transmission grid, led by Pasqualino Monti, and STEG, the Tunisian electricity and gas grid operator,

have awarded Hitachi Energy, a global leader in electrification, a contract worth approximately €770 million for the construction of the converter stations for the Elmed project, the first electricity interconnection between Italy and Tunisia. The awarding of the contract for the converter stations marks the completion of the procurement process for the first high-voltage direct current (HVDC) submarine link between Europe and North Africa.

The tender, published in 2023 jointly by Terna and STEG in the Official Journal of the European Union, concerned the design, supply, and construction of the converter stations for the interconnection, one of the infrastructural projects included in the Mattei Plan for Africa to strengthen economic, energy, and geopolitical partnerships between Europe and African countries.

The two infrastructures now awarded will be built respectively in Italy in Partanna, in the province of Trapani, and in Mlaabi, in the Menel Temime area, in Tunisia. The link, powered by advanced HVDC technology, will have a capacity of 600 MW and will extend for about 220 km, mostly via submarine cable, reaching a maximum depth of about 800 meters in the Strait of Sicily.

Hitachi Energy is responsible for providing the HVDC solution that combines world-leading expertise in HVDC converter valves; its MACH™ digital control platform, power transformers and high-voltage switchgear; as well as system studies, design and engineering, supply, installation supervision and commissioning. The project will leverage its expertise developed through the successful delivery of some of the world's largest and most significant interconnection projects.

Other companies in the consortium, including D'Agostino Costruzioni Generali S.p.A. for the Partanna station and Orascom Construction SAE for the Mlaabi station, will mainly carry out civil works as well as electromechanical installations and auxiliary systems.

Representing a significant step towards greater interoperability between Euro-Mediterranean electricity systems, Elmed fits into a context in which governments and transmission system operators worldwide are accelerating investments in transmission infrastructure, in preparation for a fully electrified system: a system capable of integrating renewable energy sources on a large scale, strengthening cross-border interconnections and increasing energy security.

Elmed is a major infrastructure project for strengthening energy security and integrating electricity systems between Europe and North Africa, in line with the objectives of the energy transition and market integration defined by th**e Integrated National Energy and Climate Plan (PNIEC).**

The project, which is strategically important for Tunisia, enjoys the full support of the Tunisian authorities and is part of the national vision aimed at strengthening energy security, promoting the regional integration of electricity markets and supporting the energy transition.

Elmed also strongly supports the dual objective of the European Commission's REPowerEU plan: ending the EU's dependence on fossil fuels and achieving decarbonisation targets, primarily through diversifying energy supplies and developing renewable energy.

Of the total investment for the electricity link, €1.420 million, €307 million has been allocated by the European Commission through the Connecting Europe Facility (CEF) grant program managed by CINEA. For the first time, the European Union has financed a project involving a non-member country, confirming the importance of the interconnection project.

The project is also supported, on the Tunisian side, by additional European and international financial institutions such as the World Bank, the European Investment Bank, the European Bank for Reconstruction and Development, and KfW.

***Terna***
***https://www.terna.it***

## 24 June 2026

### North American Bulk Power System Performed Reliably in 2025; Emerging Risks Reduce Margin for Error

The North American bulk power system (BPS) continued to perform reliably in 2025 even as the grid experienced increasing operational complexity. NERC's *2026 State of Reliability* (SOR) finds both measurable reliability improvements and emerging risks associated with the changing resource characteristics, growing demand, and more challenging operating conditions. New and emerging risks are evolving and reducing the margin for error, amplifying the potential for serious events on the bulk power system. Ongoing grid reliability will depend not only on maintaining and expanding infrastructure and resource adequacy, but also on improving industry's ability to anticipate, model, and mitigate these risks.

"Both system operators and generators are being asked to do things today that they were never originally designed to do at this scale and pace," said John Moura, director of Reliability Assessment and Performance Analysis. "What we found in this year's assessment is evidence of both resilience and adaptation, but also a clear signal to stay ahead of the emerging risks before they become operational challenges."

Attributed in part to industry's weatherization efforts, the operational performance of conventional generation improved during the most challenging winter weather week of 2025. However, overall, a reduction in availability occurred throughout the year, largely driven by a decline in the performance of coal and combined-cycle generation. The SOR identified a material increase to 9.2%, above historical norms of 7–8%, in conventional generator forced outage rates with coal and combined-cycle units experiencing a 39.8 TWh and 19.1 TWh increase in unavailable energy, respectively. This is driving a reduction in deployable reserves, which are shrinking as forced outage rates increase, creating potential for tight operating conditions that can lead to system events.

The surge in data center and computational loads remains a major reliability consideration owing to their scale, speed of development, and unique operational characteristics. During 2025, two instances of data center customer-initiated load reduction exceeded 1,000 MWs, with many more exceeding 100 MWs.

"Events like this emphasize the growing need for accurate load modeling and operational coordination. We are continuing our efforts with both the electric and data center industries to issue new alerts, host technical conferences, perform standards work, and offer large load guidance activities," said Jack Norris, manager of Performance Analysis. In addition, NERC proposes to identify a new functional entity type, called "Computational Load Entity," that will include certain large loads with a material impact on the BPS and develop mandatory Reliability Standards.

Rapid expansion in solar, wind, and battery energy storage systems (BESS), which are all inverter-based Resources (IBRs), continued in 2025. This continuing transformation of the resource mix is fundamentally changing system operations and reliability management. BESS, which grew at approximately the same rate as solar, continued to provide essential reliability services such as rapid frequency response, and offsetting wind and solar variability at this expanded scale.

The increase in IBRs creates more operational complexity, and, while the majority of NERC's IBR mitigation plan is complete, NERC continues monitoring and efforts including new technical requirements related to IBR performance, ride-through capability, and model validation.

NERC's recommendations, described fully in the SOR report, outline actions to help reduce reliability risks, including developing specific measurable reliability indicators for

generation performance, continuing the publication of incident analysis and lessons learned and sharing findings with industry, and monitoring BESS performance and major events around the world to identify risks. The recommendations also emphasize the need for continued coordination across industry, regulators, and policymakers.

The SOR reviews BPS performance in 2025, identifies trends and emerging reliability risks, reports on the relative health of the interconnected system, and measures the success of mitigation activities deployed. The *2026 SOR Overview* and the *2026 SOR Technical Assessment* provide concise information for policymakers and industry leaders on issues that affect the reliability and resilience of the North American BPS while providing strong technical support for those interested in the underlying data and detailed analytics.

***NERC***
***https://www.nerc.com***

## 24 June 2026

## 2026 World Hydropower Outlook

The World Hydropower Outlook, a flagship annual publication by IHA, tracks and directs the progress of hydropower development globally against net zero pathways. Drawing upon exclusive new development insights from IHA's global database, it provides in-depth analysis of hydropower's evolving role in the energy transition.

As electricity demand grows and power systems become increasingly dependent on variable renewables, hydropower is moving to the centre of energy security strategies worldwide. The report highlights how flexible hydropower and pumped storage are becoming essential for grid stability, resilience and long-duration energy storage, whilst examining the policy, financing and infrastructure challenges that continue to shape global deployment. Global hydropower capacity grew by 28 GW in 2025, including a record 11.7 GW of pumped storage. Pumped storage capacity surpassed 200 GW worldwide for the first time, cementing its position as the world's largest form of energy storage.

The global hydropower development pipeline now stands at 1,127 GW, including 621 GW of pumped storage projects across all stages of development. A further 243 GW of pumped storage is already under construction, reflecting growing demand for flexibility and long-duration storage. Governments are increasingly recognising hydropower as strategic infrastructure that strengthens energy independence, supports industrial growth and improves grid resilience. Rising electricity demand from electrification, industry, artificial intelligence and data centres is accelerating demand for firm, renewable power.

China remained the world's largest hydropower market in 2025, accounting for more than 40% of global capacity additions. The country has more than 300 GW of hydropower under construction, including 218 GW of pumped storage, as it accelerates hydro-wind-solar integration and grid flexibility.

South and Central Asia's development pipeline now exceeds 300 GW, led by rapid pumped storage growth in India. Africa delivered more than 4 GW of new conventional hydropower for a second consecutive year, while Europe is expanding pumped storage investment to address growing flexibility shortages in renewable-heavy power systems.

***IHA***
***http://www.hydropower.org/***

## 24 June 2026

## PJM Adds Emergency Procedures to Maintain Reliability

PJM Emergency Procedures will expand to augment coordination with Generation and Transmission Owners and potentially leverage backup generation serving data centers and other large loads amid shrinking supply margins and increasingly extreme weather.

The changes to PJM Manual 13 are aimed at maintaining reliability and were endorsed by stakeholders at the June 24 meeting of the Markets and Reliability Committee. They became effective immediately.

**Capacity Advisory**

A new Capacity Advisory adds an Emergency Procedure for times when projected grid operating conditions indicate an approaching capacity shortfall. PJM capacity emergencies have taken place historically in periods of systemwide Hot or Cold Weather Alerts. PJM is now seeing forecasted or actual capacity deficits outside of extreme hot or cold periods and expects these instances to increase as demand growth outpaces the addition of new power resources and the percentage of intermittent generation resources on the grid continues to increase.

A Capacity Advisory provides advance notice to PJM Members of times when available generation is forecasted to approach the demand requirement, which is the amount of electricity supply required to serve demand for each zone in PJM. This provides advanced communication about system conditions for increased coordination.

Like a Cold or Hot Weather Alert and issued up to five days in advance, a Capacity Advisory anticipates PJM actions such as:

- Recalling or rescheduling of generation and/or transmission maintenance outages
- Notifying neighboring grids to prepare for decreased imports from PJM
- Alerting PJM Members to update their information about generator availability, fuel supply concerns, environmental constraints and more

Multiple regions have similar capacity procedures in place.

**Emergency Use of Backup Generators**

When system conditions are extreme, PJM may request a U.S. Department of Energy Order to allow data centers or other large loads to turn on backup generation as a last resort to avoid power outages for residential and other retail customers.

PJM, in coordination with Transmission Owners and other stakeholders, has developed a separate new Emergency Procedure containing detailed steps for coordination among PJM, Transmission Owners, Electric Distribution Companies and Load Serving Entities and their large load customers with backup generation.

The “Emergency Use of Backup Generators Warning” directs coordination among the entities mentioned above, including PJM, to determine amounts of power that may be served by backup generation in each transmission zone.

Subsequent issuance of an “Emergency Use of Backup Generator Action” requires large loads to be prepared to move to backup generation within 15 minutes. The Backup Generator Action would only be called after all available generation resources and load management were exhausted and prior to a Voltage Reduction Action and/or Manual Load Dump Action.

Some Emergency Procedures may be issued simultaneously, according to system conditions.

***Inside Lines PJM***
***http://insidelines.pjm.com***

## 27 June 2026

### China's energy system will become significantly more secure, resilient, and structurally optimized over the next five years

China's energy system will become significantly more secure, resilient, and structurally optimized over the next five years, driven by over 20 trillion yuan ($3 trillion) in planned investments for key energy projects and emerging sectors, top authorities said. Wang Hongzhi, head of the National Energy Administration, stated that the nation's

comprehensive energy production capacity will reach 5.8 billion metric tons of standard coal by 2030. This will bolster self-reliance while ensuring that energy imports remain diversified and controllable.

China's installed power capacity, which recently surpassed 4 billion kilowatts, is projected to hit 5.4 billion kW by 2030, Wang said during a news conference held in Beijing on Friday. By then, new energy sources will account for over half of both the total installed capacity and power generation, solidifying their role as the primary power source as coal and oil consumption peak, he said.

This massive capacity expansion is designed not only to replace traditional fuels but also to accommodate the surging electricity demand driven by the rapidly growing artificial intelligence sector. "For example, generating a five-second high-definition video using artificial intelligence consumes as much electricity as charging 10 smartphones," Wang said. "In response to this explosive growth, we will coordinate the allocation of energy resources with the construction of computing infrastructure, and advancing the synergy between computing and power supply across multiple dimensions."

China will closely align national computing hubs with large renewable bases in the western regions, while simultaneously promoting distributed power, microgrids, and virtual power plants in the east to meet localized computing needs, he said.

Meeting these soaring digital and industrial demands will rely heavily on green power. According to the NEA, while non-fossil fuels accounted for 45 percent of the energy consumption increment during the 14th Five-Year Plan (2021-25) period, this proportion will further rise during the 15th Five-Year Plan (2026-30). The government aims to meet newly added electricity demand primarily through clean energy by developing a mix of wind, solar, hydropower, and nuclear power, it said.

"China's power supply during the 15th Five-Year Plan period will completely bid farewell to the fossil-fuel-dominated pattern, with renewable energy further accelerating its transition to become the primary energy source," said Yi Yuechun, general manager of the China Renewable Energy Engineering Institute.

"In terms of ensuring energy supply, renewable energy has already become the main contributor to the country's domestic energy increments," Yi added.

To support this transition, non-fossil capacity will exceed 3.5 billion kW by the end of the decade, a nearly 50 percent increase from 2025, according to NEA spokesperson Ren Yuzhi. Wind and solar power alone will account for over 2.8 billion kW. Traditional energy sectors will also undergo green transformations, including the implementation of next-generation coal power upgrades, he said.

According to the NEA, a modernized grid is the core pillar of this new energy architecture, particularly as the massive influx of renewables poses challenges to pricing mechanisms and cross-regional mutual assistance. During the next five-year period, national grid fixed asset investment is expected to exceed 5 trillion yuan, while the country will also add 15 new ultra-high-voltage (UHV) direct current corridors for green power, boosting the West-to-East transmission scale to over 420 million kW. Furthermore, sweeping upgrades to distribution networks and smart microgrids will support the charging needs of over 110 million electric vehicles, it said.

The continuous modernization of grid infrastructure is radically enhancing the nationwide allocation of renewable resources, noted Ye Xiaoning, a senior engineer at the State Grid Energy Research Institute. A sprawling UHV network, which efficiently dispatches power across vast distances, serves as the backbone of this transformation and is fundamentally reshaping China's energy landscape, Ye said.

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### PJM opposes waiver for $2B gas-fired plant in fast-track interconnection review

Gas turbine backlogs prompted Advanced Power Services to seek changes to its project in PJM's fast-track interconnection review, but the grid operator said granting a waiver would be unfair to others.

The PJM Interconnection has told federal regulators that it opposes granting a waiver to a roughly $2-billion, gas-fired project in order for it to stay in the grid operator's fast-track Reliability Resource Initiative interconnection review.

The issue centers on Advanced Power Services' Chestnut Run power project in Carroll County, Ohio. Earlier this month, the Boston-based independent power producer, owned by ArcLight Capital Partners, asked the Federal Energy Regulatory Commission for a waiver from the PJM's rules so it could reduce the project's maximum output to 1.45 GW from 1.3 GW and reduce its Capacity Interconnection Rights.

The RRI process, which initially drew 51 projects totaling about 11.8 GW, was designed for shovel-ready projects. It barred changes to a project's size and its Capacity Interconnection Rights. When Advanced Power applied to enter the RRI review process, it said it would use GE Vernova's HA.03 turbine model and that the project would be operating by May 2030. However, that model is in high demand, pushing out the project's inservice date by at least two years, according to the waiver application at FERC.

Now, Advanced Power plans to use the GE Vernova HA.02 model, which would reduce the power plant's maximum output by about 550 MW but allow it to come close to the originally planned online date. Also, without the waiver, the project could be ineligible for the PJM's upcoming reliability backstop auction, which will likely require projects to be online by June 1, 2032, according to the waiver application.

PJM contends Advanced Power's request to FERC fails to meet the agency's criteria for issuing waivers, including that it be limited in scope, resolves a concrete problem and wouldn't have undesirable consequences.

Granting the waiver request would give Advanced Power an unfair advantage over other project developers who are complying with PJM's tariff, and it would disrupt its interconnection review process, the grid operator said in a June 18 protest at FERC.

Also, there is no evidence that Advanced Power won't experience delays in acquiring the HA.02 turbines, according to PJM.

PJM contends that Advanced Power has options for its project, including by applying for interconnection approval through the Expedited Interconnection Track process, which FERC approved on June 9, the grid operator said.

In a response filed June 23, Advanced Power told FERC that PJM had failed to show the waiver request falls short of FERC standards and also that its protest ignores the practical implications of the situation.

"The PJM region currently faces well-documented and unprecedented resource adequacy challenges, and the Commission has recently instituted proceedings focused on ensuring … that PJM and other regional transmission organizations are procuring sufficient capacity to address anticipated load growth," Advanced Power said. "PJM asks the Commission to deny a narrowly tailored waiver request … delaying more than 1.2 GW of firm, dispatchable capacity from a highly efficient natural gas electric-generating facility, by approximately two years — thereby passing up a concrete opportunity to bring much-needed firm, dispatchable capacity online in an expedited manner," the company said.

Advanced Power asked FERC to issue a decision by July 1.

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